IDENTITY AND CAPITAL DURING TELECOLLABORATION IN THE GERMAN LANGUAGE CLASSROOM

By

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ABSTRACT

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This dissertation presents findings from a research project on a 7-week-long telecollaboration project between students at a US-American university and students at a Southern German university. This dissertation utilizes theories of identity and capital to analyze the experiences of two heritage language learners (HLLs) during telecollaborative exchanges, as well as in classroom discussion forum posts and in a follow up interview. Identity refers to a person's understanding of their place in a given context, as well as their understanding of their possibilities for the future (Darvin & Norton, 2015; Norton, 2013). Capital refers to the social goods one possesses, such as wealth, knowledge, networks, and language abilities (Darvin & Norton, 2015). While each of the two subjects came from different backgrounds and had different relationships to their German heritages, both negotiated their identities and their relationships to their capital during the telecollaboration. The results of this study support previous findings which suggest that telecollaboration can offer HLLs a place to negotiate their identities as members of target language-speaking communities (see Telles, 2015). While Kathy was able to negotiate a more stable identity and sharpen her focus on her imagined futures,

Lilly's experience was marked by a greater deal of ambiguity toward both her identities and her capital. This dissertation offers pedagogical, theoretical, and methodological implications, as well as directions for future research on HLLs' identities and capital during telecollaboration.

For Corey and Phineas.

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KEY TO ABBREVIATIONS

ACTFL American Council on the Teaching of Foreign Languages

CALL Computer Assisted Language Learning

CMC Computer-mediated communication

CMS Course management system

ELL English language learner

HLE Heritage Language Education

HLL Heritage Language Learner

ICC Intercultural communicative competence

L2 Second language

NNS Non-native speaker

NS Native speaker

OIE Online intercultural exchange

SLA Second Language Acquisition

TESOL Teaching English to Speakers of Other Languages

Chapter 1: Introduction

Background of the Study

As the world has become increasingly digitally-connected, the ways in which language learners interact with a target language and culture have continued to evolve (Thorne, Sauro, & Smith, 2015). Whereas in previous generations language learners needed to travel to a target language community to interact on an immersive level, digital immersion is now available inside and outside of world language classrooms. Websites, forums, social media, news outlets, podcasts, and more grant learners access to native speakers and other proficient language speakers, including heritage language learners (HLLs). In these contexts, learners can consume, interact with, and create target-language content, much like they engage in these activities in their native language(s).

With rapid technological innovations, including wider availability of the internet, so too came pedagogical innovations as teachers began adopting technology for teaching purposes. Early researchers began noting various affordances of computer-mediated communication (CMC) fairly quickly after it began to gain popularity in language classrooms (Thorne et al., 2015). Researchers and practitioners alike have long touted the affordances of CMC for language and intercultural competence development (Schenker, 2012a, 2012b). One such CMC practice, telecollaboration, has been part of the Computer Assisted Language Learning (CALL) instructor's toolkit for nearly 3 decades, although lower-tech versions have existed for over a century (for a historical overview, see O'Dowd, 2013).

Although early CALL focused on efficacy and effectiveness of given tools, researchers have increasingly examined the social practices of telecollaboration. Discussions of intercultural communicative competence (ICC) (see Helm 2009; Schenker 2012a, 2012b) and teacher identity

(see Abrahão, 2009, 2010; Belz & Müller-Hartmann, 2003; Chen, W., 2012; Dooly & Tudini, 2016; Hauck & Kurek, 2017; Helm, 2015) are common within CALL research focusing on telecollaborative environments. Identity is defined as the process of "how a person understands his or her relationship to the world, how that relationship is structured across time and space, and how the person understands possibilities for the future" (Norton, 2013, p. 45). While learning a language, learners seek to position themselves within the broader context of that language (Yang & Yi, 2017). The space that telecollaboration creates between the two (or more) cultures and languages may allow learners to negotiate their identities and their hopes for the future.

HLLs are a population of growing interested in SLA and CALL research (Ortega, 2017). The term HLL has posed a challenge as far as its definition is concerned and there is no easily agreed-upon definition (He, 2010; Leeman, 2015; Valdés & Kibler, 2012). In Chapter 2, the variety of definitions and criteria are further problematized. For the purposes of the current dissertation, I focus on commonalities between various definitions, including the importance of familial relevance and residence outside a location where the language is spoken by broader society. While some definitions tend to focus on language proficiency and cultural knowledge, I favored self-identification.

Within the field of Second Language Acquisition (SLA), research into HLL identity is relatively new and interest in heritage language education (HLE) is growing (Leeman, 2015). A great deal of current SLA literature on the experiences of HLLs focuses on HLE programs which are typically targeted specifically toward HLL maintenance (Leeman, 2015; see also Blackledge et al., 2008; Creese, Bhatt, Bhojani, & Martin, 2006). These programs are also generally separate from HLLs schooling, for example, weekend or evening programs offered by community organizations (see Blackledge et al., 2008). For HLLs without such HLE programs available to

them, integration into world language classrooms may be the only chance at developing or maintaining their heritage language abilities.

Much existing research on HLE and HLLs focuses on Hispanic HLLs of Spanish, while the current dissertation focuses on HLLs of German. Few programs are available to HLLs in college-level German courses in the US. There are heritage speakers in the programs at the study's US-based institution, and telecollaboration was considered a means to connect these speakers of German in the classroom with speakers of German in German-dominant communities.

The current chapter lays the foundations for this dissertation. Before outlining this chapter, it is useful to note that the present dissertation study took place in several phases. These are outlined in detail in the coming chapters. For this chapter, it is necessary to know that 2 case studies are discussed. They are labeled Study 1 and Study 2, respectively. Study 1 includes the participant Kathy and Study 2 includes the participant Lilly.

I begin this chapter by defining terms that are key to understanding the following chapters, including telecollaboration, identity, capital, and heritage language learners (HLLs). Following this, I present the purpose of the dissertation study at large. Then, I describe the importance and framework of the current study. To conclude this chapter, I outline the remaining chapters of the dissertation.

Definition of Terms

The current dissertation utilizes the constructs of identity and capital as they are construed in SLA research to analyze two case study subjects in telecollaborative settings, as well as in related documents and a follow-up interview. This section presents the definitions of the main terms utilized throughout this dissertation. To begin this section, I focus on defining

telecollaboration, the context from which the main data for this study were collected. I continue by briefly describing the considerations made when working to operationalize identity and capital for the purposes of the current study. To conclude this section, I explicate the working definition of HLL employed in this study, with the understanding that the term HLL has no agreed-upon definition within SLA, nor in other related fields utilizing the term (Leeman, 2015). A more thorough explanation of these and other terminologies are presented in Chapter 2, along with a review of relevant literature.

Telecollaboration

The data for both the Study 1 and Study 2 come primarily from interactions between case study participants and their partners during a telecollaboration exchange between students in a university German course beyond the basic level in the US and an English education classroom at a German applied teaching college. Telecollaboration, which is given other names such as teletandem and eTandem based on research context and focus (O'Dowd, 2013), has various definitions.

Typically within language education, telecollaboration involves communication between learners of different linguistic and cultural backgrounds, with the goals of improving language proficiency, intercultural competence or both (Schenker, 2015; Telles, 2015). Some researchers point out that broader definitions focus on the collaborative and digital aspects, rather than a cultural and linguistic focus (Dooly, 2017), which is the focus in the current project. Telecollaboration takes a variety of forms, with a great deal of variation in formats, group size, language use, and goals (Dooly, 2017; Goertler, Schenker, Lesoski, & Brunsmeier, 2018). Additionally, the language proficiencies of the partners may drive the decision as to which languages will be utilized during the interactions (Helm, 2015).

Telecollaboration has been widely researched and found to have a variety of positive effects on language learning. Studies have found equality between participants, reciprocity of interactions, and learner autonomy (Cardoso & Matos, 2012). Akiyama (2015) also noted reciprocity and minimal teacher involvement to be major benefits of telecollaboration. A variety of other benefits of telecollaboration have been widely discussed in CALL literature, including increased intercultural competence (Belz, 2002; Chun 2011; Helm, 2015; O'Dowd & Klippel, 2006; Schenker, 2012a, 2012b), increased oral proficiency (Akiyama & Saito, 2016; Canto, Jauregi, & van den Bergh, 2013), negotiation of meaning (Bower & Kawaguchi, 2015; Schenker, 2015), opportunities for incidental learning (Kabata & Edasawa, 2011), benefits of multilingual practices (Dooly, 2011), and increased writing accuracy (Stockwell & Levy, 2001). Telles (2015) found that telecollaboration gives learners a space to negotiate their identities. The current dissertation describes the ways two learners of German negotiated their identities and forms of capital during a telecollaborative exchange.

Identity and Capital

Identity encompasses the way people view their relationship to the world around them, how this relationship is structured based on context, as well as how one views their possibilities for the future (Norton, 2013). Capital relates to the social goods one possesses, such as cultural knowledge, education, or linguistic skills. Identity and capital are related, in that the ways one views their relationship to the world are constructed by the social goods one possesses. Possessing a great deal of social capital, which relates to the networks of people we are connected to, can help a learner gain access to target language-speaking communities, thus increasing their sense of belonging and identity as a part of that group.

The construct of identity is difficult to operationalize, as it attempts to encompass the changing characteristics of learners (Thorne et al., 2015), making it difficult to assess with simple measurements. Additionally, various fields utilize and understand identity in different ways. Further complicating the dissertation phase of the current study is that these characteristics were examined within the context of a telecollaborative exchange with a focus on the experiences of two German learners.

For the purposes of the current dissertation, I based my understanding of identity on the foundations created by Bonny Norton's various conceptions of identity (see Darvin & Norton, 2015; Norton, 2013), as they are the most widely accepted and used within SLA literature. Norton's work in many ways redefined and pioneered studies in identity and language learning. Identity, as conceptualized by Norton (2013), is multiple, changing, and a site of struggle.

Norton (2013) defines identity not as a fixed characteristic, but rather as the process of "how a person understands his or her relationship to the world, how that relationship is structured across time and space, and how the person understands possibilities for the future" (p. 45). Breaking down this definition provides us with more specific areas of focus for researching language learner identity. First, researchers must focus on the ways learners position themselves as members of various communities. Second, it is important to capture these memberships and positions over time. Third, to understand a learner's identity, one must understand how they view their future prospects. Additionally, researchers must carefully consider how the interlocutors with which participants are communicating may be affecting how a learner is positioning themselves. Identity development is socially constructed, context-dependent, and occurs in discourse communities (Douglas Fir Group, 2016; Fong, Lin & Engle, 2016; Sarah, 2018).

Capital and identity are two of the larger constructs within Darvin and Norton's (2015) foundational work on the concept of investment, along with ideologies. Investment demonstrates

"the socially and historically constructed relationship between language learner identity and learning commitment" (Darvin & Norton, 2015, p. 37). This relationship occurs at the intersection of capital, identity, and ideology. Capital is related to identity, as language is "intricately tied to social goods that are traded" (Fong et al., 2016, p. 145), the social goods being the capital itself. Capital itself is a broad concept which refers to the relationships, education, skills, and goods learners possess (see Darvin & Norton, 2015).

Due to its broadness, capital is often broken down into various types (Bourdieu, 1986). Social capital refers to a person's relationships or connections to networks of power (Darvin & Norton, 2015). Cultural capital includes the knowledge one has about a given culture, as well as one's education and appreciation for forms of art (Darvin & Norton, 2015). Linguistic capital refers to the various means that one possesses that can be used to understand others and be understood, such as written, verbal, or signed languages (Darvin & Norton, 2015). Economic capital encompasses the financial resources one has that give them power, such as money, property, and assets (Block, 2007).

It is important to note that, while both Study 1 and Study 2 each focus on an HLL, each study differs slightly in its theoretical approaches to the data. Study 2 focuses on the relationship between learners forms of capital and their identities, while Study 1 utilized the entire construct of investment as conceptualized by Darvin and Norton (2015) (see Chapter 4 for more information on this decision).

Heritage Language Learners

Kathy, the case study subject for Study 1, identified herself strongly as a heritage speaker of German, although she did not grow up in a German-speaking family. The case study subject for Study 2 of this research project, Lilly, was an HLL of German by her self-positioning,

although at times she identified herself also as a native speaker. Both participants found strong connections to their German heritage, despite having differing backgrounds.

Leeman (2015) emphasizes that there is not an agreed-upon definition of heritage language or a clear set of criteria for what constitutes a true HLL. Much like identity, researchers approach the topic of HLLs from various points of access and emphasize varying criteria depending on context and study focus. As Lilly did not specifically use the research terminology ‘HLL,' it is important to understand the various conceptions of HLLs in the research, in order to understand the decision to apply the label to her.

He (2010) emphasizes that the term HLL encompasses speakers with a broad range of language abilities and whose social status within their heritage communities is often tenuous and complicated. Definitions of HLL vary by field and the focus of the discussion at hand (see Leeman, 2015) and definitions encompass a variety of aspects surrounding the experiences and skills a given researcher deems necessary for one to be a true HLL (He, 2006, 2010). Most scholars researching HLLs seem to focus on the language abilities of the learner to determine their status, although there is a great deal of variation in expectations of HLL proficiency. Some researchers include any learner with any amount of knowledge of a familial language, such as those with limited comprehension (see He, 2010). He (2006) focuses on learners with limited reading proficiency who are "to some degree bilingual in Chinese and English" (p. 1), although the learners are English-dominant. In doing so, He (2006) makes the distinction between development and maintenance of the HL, stating that the participants were developing their HL skills.

While working to define HLLs, it is important to note that HLLs still exhibit agency regarding their experiences and identities, as many debates surrounding definitions neglect learners' own identities (Leeman, 2015). Miller and Kubota (2013) underscore that researchers

and practitioners should be cautious not to underestimate learner agency as it pertains to self-identification as an HLL. While HLLs inherit their heritage from some familial connection in a seemingly passive manner, they are simultaneously using their agency to create room for themselves and forging space for new opportunities with the language (He, 2006), especially in an increasingly digitally-mediated world.

Purpose of the Study

This section briefly outlines the motivations behind the current study. As the current project involves Study 1 and Study 2, each of which varies slightly in their focus and methods, the questions for each study are presented together in Table 1, with a short discussion of the reasons behind any differences. The goals of the current dissertation are twofold: (1) to document and analyze the identities and capital of German learners during a telecollaborative exchange; and (2) to gain a clearer picture of the ways that identity and capital exist in a reciprocal relationship with one another.

Study 1 focused on the construct of investment, which seeks to investigate the intersection of identity, capital, and ideology. Ideology proved to be challenging to operationalize for the current study, therefore the questions for Study 2 focus more specifically on the various pieces of identity and types of capital.

Table 1: Study 1 and Study 2 Research Questions	
Study 1 research questions	Study 2 research questions
1. What investments (i.e. identities, ideologies, and capital) are revealed by Kathy in her interactions with her telecollaboration partners or in the subsequent interview? 2. Is change in Kathy's investment in the telecollaboration or her language learning evident in her interactions throughout this telecollaboration project?	1. What identities does Lilly express or perform? How does she position herself (explicitly or by accepting her partner's positioning)? What imagined futures does Lilly express? 2. What capital does Lilly possess? What capital does Lilly need or perceive a lack of? How do the types of capital Lilly possess affect her access to the target language and/or her imagined futures? 3. How are Lilly's identities and various types of capital interrelated?

These questions were utilized to analyze the experiences of two HLLs, one in each study, during their experiences in a telecollaboration context.

As briefly discussed in the definition of terms above, the growing body of research on HLLs and their experiences in the classroom encompasses a broad array of topics, but as Leeman, Rabin, and Román-Mendoza (2011) point out, the topic of HLL identity has mainly been explored in education research, especially in K-12 environments. While education researchers have been focusing on the unique experiences of heritage language speakers for quite some time, researchers in the fields of SLA and CALL have only more recently been giving more attention to the experiences of HLLs in instructed language contexts, although studies within the US context tend to focus on HLLs of Spanish.

The concerns around best practices for integrating these students into monolingual, English-medium content classrooms has been on the minds of teachers and researchers for

decades, particularly as the demographics in the US and other Western countries shift. Despite this concern, a great deal of teaching methodology has utilized harmful approaches that devalue the HLLs' linguistic capital, especially if that capital is in the form of a non-standard variant of the target language (Ortega, 2017). By devaluing the capital learners have when they enter the classroom and their various identities, instructors do harm that can lead to loss of investment or the heritage language altogether (Ortega, 2017). The effects of this devaluation may be more challenging for learners of color (see Rosa & Burdick, 2016), unlike typically white German HLLs, although more research is needed on this topic.

HLL experiences are as diverse as the populations themselves (He, 2010). In many states, HLLs are exempt from language requirements after taking an approved standardized test. Perhaps as concerning are the experiences of HLLs who take part in traditional world language instruction with their L2 learner peers, only to find that their home variety is viewed as deficient or improper (Ortega, 2017). Although there may be equal access to language classes, HLLs typically do not receive equitable language education, which can lead to seismic and devastating shifts in students' identities, as a critical part thereof is rejected by an authority figure, the language teacher. This harsh reality and the resulting identity shifts combined can lead to language loss and various other negative consequences (Ortega, 2017).

By examining the ways HLLs identify themselves and negotiate their identities during telecollaborative exchanges, CALL researchers can determine the most effective ways to facilitate positive developments both for intercultural competence and language skills, as well as in the development of HLL and speaker identities. Researchers in the fields of SLA and CALL have begun to consider the importance of research on identity and underserved populations, yet there is room for growth (Ortega, 2017). Few studies have combined these concerns by examining HLL in telecollaborative contexts, and even fewer have utilized identities theories for

their analyses. Klimanova and Dembovskaya (2013) reported that telecollaboration with native Russian speakers was a "test of their heritage speaker privileges" (p. 82) and noted that speakers immediately positioned themselves as HLLs in their first interactions with their partners. This was framed as a way for the learners to legitimize their place in the Russian-speaking world.

Outline of the Dissertation

The current dissertation is comprised of 6 chapters, including the introduction. In Chapter 2, I present the literature that has built the foundation for the current dissertation study, including discussions of the various intersections of the concepts in focus in this dissertation in regards to the language learning process. This chapter especially focuses on the concepts of identity and capital in technology-mediated communication such as telecollaboration. Throughout this section, special attention will be given to CALL research based on identity theory. To conclude Chapter 2, I discuss the implications the previous literature has on the current study.

In Chapter 3, the general context and methods of the two iterations of the overarching study are discussed. In the subsequent chapters (4 and 5), more details on the specific methods are presented as they pertain to the differences in approach between Study 1 and Study 2. I discuss the various types of data and their purpose, including interaction data and interviews.

In Chapter 4 the Study 1 case, Kathy, is discussed. Although the methods in this chapter deviate slightly from those taken in Study 2 (see Chapter 5), this chapter serves to present my previous experiences working with this particular paradigm for analysis and to emphasize findings and considerations that influenced the design of the present dissertation. Special attention is given to the process of coding and the development of coding schemes, as well as the decision to analyze the data using the constructs of identity and capital.

To begin Chapter 5, I outline the methodological considerations for Study 2, notably including the addition of a researcher log as part of the research process. The process I undertook in creating a coding scheme for this iteration of the research project is outlined thoroughly, in order to provide enough detail for the credibility of the study to be established. Following the methods section, I present the relevant data from the case study subject's interactions with a preliminary discussion of the findings.

In Chapter 6, the results are discussed as they pertain to each of the research questions. In this section, I include relevant discussion of my positionality as a researcher, in keeping with best practices for ethical qualitative research, especially as my positionality relates to the decisions made throughout this research project and the findings of the project. To conclude this chapter, I connect the findings of the present case studies to existing literature and outline implications and limitations, as well as possibilities for future studies on the topic of HLLs, identity, and capital in telecollaborative exchanges. I place a heavy focus on the pedagogical and research-oriented implications of the findings.

The current dissertation seeks to examine and discuss the experiences of two HLLs. Each participant has a different connection to the language and culture, making for a particularly compelling discussion of the differing experiences of HLLs during the telecollaboration project. Additionally, Ortega asserts that it is the responsibility of CALL researchers to evaluate classroom practices and work with practitioners at all levels of education to ensure an equitable education for all learners, regardless of their background. The current dissertation argues that telecollaborative contexts can be suitable contexts for the negotiation of identities and the creation of capital for HLLs with differing backgrounds.

Chapter 2: Literature Review

Introduction

This chapter serves as a review of the relevant literature for the present dissertation. In the first portion of this chapter, I focus on the current scholarship related to CALL and telecollaboration. This section begins with a brief overview of telecollaboration research since its inception in research and practice nearly three decades ago. Next, I discuss the current state of scholarship on telecollaboration, especially relating to the social turn. This transitions into a discussion of current treatments of identity and capital in the CALL and telecollaboration literature in the second section. In the third section, a review of current and relevant studies on heritage language learner (HLL) identity is discussed, with a focus on CALL contexts and the implications of current scholarship for the social justice turn (see Ortega, 2017). The conclusion highlights areas within current research that are addressed in the present dissertation.

Over the last few decades, online technologies have come increasingly more social and interactive. While professional and personal communication is done more and more via online technologies (CMC), access to such technology is not equal (e.g., Belz, 2002; Norton, 2013; Ortega, 2017). In an increasingly digitally-mediated language learning landscape, connections and conversations are constructed through the affordances of technology that allow people globally to establish connections with one another. The internet has allowed new and exciting tools to come into the language classroom and has changed the way we conceptualize interaction and cultural exchange. Through the changing connections to international and intercultural communities, relationships are formed; the interactions in CMC environments allow for identities to be contested and negotiated in new ways.

Language is used to express ideas and represent ourselves and social lives (Darvin, 2016; Darvin & Norton, 2015) which means that shifts in language can change how people can co-construct their identities as they interact in an increasingly global and digital world (Darvin, 2016). Darvin (2016) emphasizes the impact that technology has had on the ways people use language, including our students and language learners. In light of the changing ways in which many language learners engage with the language and culture through technology and CMC such as telecollaboration, the continuous examination of the practices and interactions in these contexts is key for both research and practice, especially as we move toward creating more equitable learning experiences for ethnically, culturally, and linguistically diverse learners (Ortega, 2017).

CMC has revolutionized the way languages can be learned in a traditional classroom setting and has created new ways for connections between the learner and members of the target culture to be established. This exemplifies how the boundaries between the ‘real world' and ‘classroom' contexts are blurred by new technologies (Douglas Fir Group, 2016). In the US, face-to-face contact with target language speakers and target culture members is generally difficult to achieve for learners of German. For learners who do not possess the time or money to invest in a study abroad program, dependence on technology develops in order for learners to experience authentic language and intercultural exchange. Language instructors have adapted to the affordances of technology through a variety of technology-enhanced learning experiences, including telecollaboration.

CALL, Telecollaboration, and Social Theories of Language Learning

The field of CALL has undergone many changes in its history as researchers worked to keep up with the dynamic theoretical and technological landscape in which computer-mediated

language teaching practices are situated. Much of the early research in CALL focused on the effectiveness of specific tools for certain aspects of linguistic development (Stickler & Hampel, 2015). As time has progressed, the focus has widened from the efficacy of the tool to include the experience of the learner (Ortega, 2017; Stickler & Hampel, 2015). Telecollaboration has been a cornerstone of CALL research for nearly three decades (Dooly, 2017). Researchers have described a wide variety of affordances offered by telecollaborative exchanges, yet there is more room for further analyses.

This section begins by outlining key research in CALL, with a specific focus on the social turn. Following this, I delve deeper into research on telecollaboration. Then, I focus on how theories of identity have been used in CALL and SLA, specifically how they have been used to analyze learners' experiences and output during telecollaboration. Additionally, I work toward a definition of identity to be utilized in this study. To conclude this section, I define and describe the ways that capital has been used as a construct for researching SLA, CALL, and telecollaboration.

CALL and the Social Turn

Language itself is a social practice (Norton, 2016). The social turn in SLA marked the growing acceptance of research that focused on language acquisition not solely as a cognitive process, but rather as an inherently social practice, as well (Ortega, 2017). Social approaches toward language learner research brought researchers to look beyond dichotomies to examine the individual experiences of learners and teachers utilizing CALL, as well as the ways that social factors influence how learners are included in and excluded from discourses.

These paradigm shifts meant that learners were increasingly seen as agents within a social context (Belz, 2002; Ortega, 2017). The Douglas Fir Group (2016) noted an expansion of

epistemologies and an increase in interdisciplinary work in SLA. Cognitive research has continued to occupy an important place within the fields of SLA and CALL but is now complemented with qualitative studies of various social aspects of the language learning process, such as identity and investment (e.g., Darvin & Norton, 2015). This complementary relationship allows researchers to create a more nuanced picture of the learners in our classrooms.

Several researchers over the last two decades have described the need for a more qualitative, individualized approach to CALL research. In a review of telecollaboration research, Belz (2002) pointed to a focus on pedagogical and structural issues, rather than on learner's experiences within CALL research. A decade later, Steel and Levy (2013) noted a similar concern, highlighting that there was a gap between what learners are doing and where CALL research is going. Stickler and Hampel (2015) echoed this sentiment yet again in their call for more acceptance of qualitative research methods in CALL. Some of the common threads of telecollaboration research, such as research into intercultural competence, stem from the realization that CALL finds itself at the intersection of various disciplines, including SLA, social science, and education (Stickler & Hampel, 2015).

Telecollaboration

Telecollaboration involves communication between learners of different linguistic and cultural backgrounds, with the goal of improving language proficiency, intercultural competence or both (Schenker, 2015; Telles, 2015; O'Dowd, 2013). Broader definitions of telecollaboration do not include stipulations relating to language and culture learning; instead, they tend to focus on collaboration over distance to complete a task (Dooly, 2017). However, Helm (2015) defines telecollaboration as:

> *Internet-based intercultural exchange* between people of different cultural/national backgrounds, set up in an *institutional context* with the aim of *developing both language skills and intercultural communicative competence* [...] through structured *tasks* (p. 197, emphasis added).

This definition highlights several key components of a telecollaboration project. These projects are (1) internet-based, (2) intercultural exchanges, (3) within an institutional context, (4) with the goals of improving linguistic capital and intercultural communicative competence, (5) by using tasks.

Tasks have also been part of other researcher's definitions of telecollaboration. In their definition, Dooly (2017) emphasizes that in telecollaboration learners work together in digital communication to produce a combined work output. Within education, telecollaboration generally includes a focus on communication and intercultural exchange (Dooly, 2017), therefore this is the definition employed in the current dissertation.

Telecollaborative exchanges can take a variety of forms, with a great deal of variation in formats, group size, language use, and goals (Dooly, 2017; Goertler et al., 2018). The communications in a telecollaborative exchange can be synchronous, such as with Skype, or asynchronous, as is the case in email exchanges. Some exchanges may even be a combination of the two, such as Facebook chat, where participants can either actively participate in the discussion, or leave messages for the other to answer at their convenience. Tasks can be open-ended or have specific questions or goals. Language proficiency levels of students may vary, which can affect the language choices made in a given context (Helm, 2015), although there should be careful consideration made to avoid upholding the NS-NNS dichotomy often found in telecollaborative environments (see Chapter 6 for a deeper discussion). Modes of

communication, such as written, audio, or video communication, and group size are also factors to consider when planning a telecollaborative exchange, with each option presenting unique affordances and challenges (Helm, 2015).

In that time, research has uncovered a lot of affordances of telecollaboration as well as challenges. The structure of telecollaboration itself is often reported to be an affordance, although structures vary greatly between contexts. Cardoso and Matos (2012) reported affordances of telecollaboration such as equality between participants, reciprocity of interactions, and learner autonomy. Akiyama (2015) also noted reciprocity and minimal teacher involvement to be major benefits of telecollaboration. Schenker (2013) reported a high level of interest from students in regards to learning about culture in the telecollaboration project.

At a time when the social turn was only beginning to gain traction in CALL research, Belz (2002) highlights the social dimensions of telecollaboration. Following the traditions of Warschauer, Belz (2002) investigated the ecological context of telecollaboration. These exchanges inherently involve social interactions, which are often complex and fraught with language and culture gaps, as well as mismatches in proficiency and positioning (Belz, 2002). In their study, Belz (2002) discovered that the American students positioned themselves as less proficient and linguistically competent, and were then described as such by their German partners. This mismatch in proficiencies created negative effects on the telecollaborative exchange (Belz, 2002) that ecologically and socially informed research was able to capture by focusing on the exchange in a way that had not yet gained traction in CALL.

Additionally, researchers have found a variety of linguistic and cultural affordances to telecollaboration (Helm, 2015), such as increased intercultural competence (Belz, 2002; Chun 2011; O'Dowd & Klippel, 2006; Schenker, 2012a, 2012b); increased oral proficiency (Akiyama & Saito, 2016; Canto et al., 2013); negotiation of meaning (Bower & Kawaguchi, 2011;

Schenker, 2015); opportunities for incidental learning (Kabata & Edasawa, 2011); benefits of multilingual practices (Dooly, 2011); and increased writing accuracy (Stockwell & Levy, 2001) to name a few. Several researchers also suggest that telecollaboration can be effective for learners of all language levels (e.g., Akiyama & Saito, 2016), including by measures of success beyond proficiency (Schenker, 2017).

Darhower (2008) cautions researchers and practitioners not to assume that potential affordances are necessarily realized affordances. It should be noted that Darhower and other researchers have discussed various challenges to telecollaborative exchanges, including time, training, and lack of institutional support (e.g., Helm, 2015; O'Dowd, 2016; O'Dowd & Eberbach, 2004; O'Dowd & Waire, 2009). Castillo-Scott (2015) reported technical challenges, in addition to the difficulty of time differences, unequal participant numbers between groups, and a lack of interaction in some aspects of the project. O'Dowd (2016) outlined a variety of critiques of OIE, including a lack of authenticity. O'Dowd and Waire (2009) and O'Dowd (2016) each offer approaches to telecollaboration task design that may mitigate the challenges associated with successfully implementing this practice. Basharina, Guardado, and Morgan (2008) also noted challenges in working with the instructors of partner courses, including tensions on views of the project, balancing research and pedagogical agendas, securing the participation of "have-nots", and the appropriate level of instructor participation.

From the beginnings of telecollaboration research, reports have heavily focused on detailed reports of telecollaboration projects (O'Dowd, 2013). Although descriptions of telecollaboration contexts are abundant, they continue to be necessary as the field expands beyond its focus on North American-European exchanges. In their report, de Carvalho, Messias, and Días (2015) describe the unique challenges of facilitating a telecollaboration between learners of Spanish and Portuguese. They found that active participation of a mediator for

cultural and linguistic comparisons was necessary (de Carvalho et al., 2015). Castillo-Scott (2015) outlined a Pan-American teletandem project with a focus on the difficulties encountered, such as challenges with technology and time zone differences. Additionally, suggestions for future telecollaboration exchanges were offered, including creating meaningful activities and having backup plans for when the technology might fail.

Much of the recent reports on the structures of telecollaboration has focused on learner perceptions of the practices. El-Hariri (2016) outlined the perspectives of students in regards to task design and reported that students generally wanted topics that related to their lives and were utilitarian, that is, they can use the topics in everyday interactions. Several studies show that learners are in favor of synchronous video interactions (e.g., Akiyama, 2015; El-Hariri & Jung, 2015). In their study, Akiyama (2017) reported learner beliefs regarding corrective feedback which found that learners generally reported favoring recasts over explicit correction and learners were more likely to recognize corrective feedback in their preferred form. Learners' identities as tutors were key in their function as tutors, meaning that those students who did not view themselves as tutors for their partners were less likely to administer corrective feedback.

A rich subfield of CALL telecollaboration research focuses on intercultural communicative competence (ICC). In their study, Helm (2009) examined the efficacy of language learning diaries for the study of ICC in telecollaborative environments, finding them to be a valid complement to interaction data. Bohinski and Leventhal (2015) reported that telecollaboration made learners more aware of gaps in their cultural knowledge. In their report on assessing intercultural learning during telecollaboration projects, Goertler et al. (2018) noted that a key challenge to assessing and researching ICC and intercultural learning is developing appropriate tools and measures.

In her article, Schenker (2012a) uses Byram's model of intercultural competence to analyze university students' developments as a result of a 6-week email exchange with college preparatory (Gymnasium) students in Germany while enrolled in a second-semester German course at a US university. Due to the US students' low German language proficiency, and the ultimate goal of the telecollaboration project being the development of intercultural competence, the exchanges took place solely in English. Although Schenker (2012a) found that there was not a large change overall in students' intercultural competence during the short project, students reported having significantly higher cultural knowledge after the exchange. Schenker (2012a) reports in her results that most of Byram's objectives could be observed in the interactions, thus showing that these types of projects do possibly promote some type of development.

An increased focus on the effects of telecollaboration on language teacher identity is demonstrated in the literature, indicating a promising future for this branch of research on this particular language learning context. Noting a growth in interest, O'Dowd (2013) called for a further focus on teacher training and researchers have increasingly responded to this call. In recent years, teacher training has become popular as an avenue for research on telecollaboration (e.g., Abrahão, 2009, 2010; Belz & Müller-Hartmann, 2003; Chen, W., 2012; Dooly & Tudini, 2016; Hauck & Kurek, 2017; Helm, 2015). Telecollaboration in teacher training courses gives instructors first-hand experience in the learning environment, allowing them to gain insights into effective practices from the student perspective (Ernest et al., 2012) while also supporting their technical skills (Dooly, 2009), a sentiment also supported by Cavalari (2009). Dooly and Sadler (2013) found that student teachers were able to make more connections between theory and practice as a result of participation in a telecollaboration project geared toward pre-service teachers. Bueno-Alastuey and Kleban (2016) reported many benefits to the inclusion of telecollaboration in the context of English language teacher training but emphasized that the

benefits were not equitable among all participants. O'Dowd (2015) outlined ways that in-service teachers could be supported in learning the skills necessary to successfully facilitate telecollaborative exchanges.

With nearly 30 years of research dedicated to the topic, many aspects of telecollaboration have been thoroughly examined, including ICC and teaching training, as well as reports of telecollaboration project and task design. As is the case with research in ever-changing digital and theoretical landscapes, researchers continue to examine the telecollaborative context, including the previously mentioned topics, in new and engaging ways. The benefits and challenges of telecollaboration are both broad. Research on this language learning context has yet to create significant room for discussions on the role of and effects on identity and capital. The following section outlines the current research on identity in SLA and CALL, with a focus on the telecollaborative context.

Identity Theories in SLA, CALL, and Telecollaboration Research

In keeping with the social turn, identity research is more relevant and prominent in SLA research than ever before (Beinhof & Rasinger, 2016; Norton, 2013) and can be found in most handbooks and encyclopedias of language learning and teaching (Norton & Toohey, 2011). Identity as a term within SLA research paradigms typically indicates the process of "how a person understands his or her relationship to the world, how that relationship is structured across time and space, and how the person understands possibilities for the future" (Norton, 2013, p. 45). Yang and Yi (2017) describe the process of language learning as one in which the learner is inherently attempting to position their self within a larger context. Identity is something both personal and co-constructed, while also being wholly dependent on temporal and spatial factors,

as well as the way a person envisions their future prospects, regardless of how feasible those futures are for that person (e.g., Matsuda, 2015; Norton, 2013).

In contrast to earlier cognitive theories of language learning, theories of identity seek to situate learners within a social world (Norton, 2013), and more importantly to understand learners' experiences in "inequitable social contexts" (Norton & Toohey, 2011, p. 414). Identity researchers seek to question and move beyond traditional binary characterizations of language learners, such as motivated or unmotivated (Norton, 2013; Norton & McKinney, 2011), in order to create room for more nuanced studies of learners and the constraints placed upon them by the world around them.

Norton (2013) characterizes identity as "multiple, a site of struggle" (p. 376) and as such it is more appropriate that we speak of identities, in the plural sense than of identity as a single, stagnant inner being (Sarah, 2018). The identities available to each person are highly affected by ideologies and institutional factors. It is key to understand that identity development is socially constructed, context-dependent, and occurs in discourse communities (Douglas Fir Group, 2016; Fong et al., 2016; Sarah, 2018). This understanding of identity negotiation also places a heavier emphasis on "the ways in which language learners understand their relationship to the target language and to the social world" (Chen, H., 2013, p. 143).

Thorne, Sauro, and Smith (2015) point out that learning and identity are dialectically bound, concurrently informing and influencing their developments which leads to dynamic tension. Tension pushes learners to engage in sophisticated identity work (Thorne et al., 2015) that may lead them to participate in interactions from various identities and positions (Norton & Toohey, 2011). Lam (2006) refers to this as ‘identity plurality.' Depending on the context, this plurality allows learners to position themselves and to be positioned by others, although Baxter

(2016) notes that speakers have access to multiple but not limitless possibilities for their identities.

Identity in CALL Research

Research into language learner identities has been gaining popularity in the field of CALL, especially over the last decade (Beinhof & Rasinger, 2016). Prior to this, Hubbard (2008) reviewed the theories utilized in studies published in the CALICO Journal over a period of 25 years. Theories of identity were notably missing from this report (Hubbard, 2008). In its short history, the research on language learning and identity online has dealt with both different and new forms of representation, as online tools have provided access to larger communities and various means of creating and negotiating one's identities (Domingo, 2016). It is worth noting that identity research in CMC contexts has concerned itself more with adult immigrant learners than with learners in world language contexts (Aliakbari & Amiri, 2018).

An exception to this trend is Pasfield-Neofitou's (2011) study of Japanese learners' experiences using CMC within what the author described as a "*virtual immersion"* (p. 104, emphasis in original). The learners communicated with Japanese NSs and reported noticing situations in which NNSs were part of negative interactions because of their status as NNSs. Students reported that they often felt they were trespassing on the native Japanese speakers' space which led them to quickly identify themselves as Japanese learners during their interactions, although it is important to note that the identity position of learner was not necessarily characterized as a negative one to inhabit (Pasfield-Neofitou, 2011). This study highlights the inherently socially-situated nature of online spaces. The author noted that despite being outside of the target community physically, the learners in this study still identified the

space as being Japanese and belonging to members of the Japanese culture (Pasfield-Neofitou, 2011).

The results of Yang and Yi's (2017) study supports Darhower's (2002) suggestion that among the interactional features of synchronous CMC are opportunities for learners to experiment with their identities. They found that eTandem allows learners to negotiate and perform a variety of identities (Yang & Yi, 2017). Yet, Yang and Yi (2017) point out that there is still a need within CALL research to focus on the efficacy of telecollaboration as a pedagogical practice for encouraging the negotiation of identities. Further, they point out that the very nature of eTandem, or telecollaboration, necessitates that participants play roles as both the expert and novice, which may affect how learners view themselves as part of the target language-speaking world. Within identity are a learner's imagined futures and positions, both of which are described in detail in the following subsections.

Imagined futures. These views of current positions within the target communities are bound to the imagined futures of the learners, that is what learners see as potentially possible for the future. Imagined futures encompasses the ideas of imagined communities and imagined identities. Norton (2013) connects these concepts by noting that an imagined community assumes an imagined identity, that is a future membership in the imagined community.

Norton and Toohey (2011) argued that hopes for the future are integral to the individual language learning experience and learners' identities. For learners, future prospects play as much of a part in identity formation as current situations, as these prospects give learners a sense of community with those whom they have never met (Norton & McKinney, 2011). Imagined identities are the possibilities a learner can conceive for themselves as a result of their growing language proficiency (Norton & Toohey, 2011). Imagined identities allow learners to express

their desires (Norton, 2013). Imagined futures and communities are related to how learners can position themselves as potential members of target-language communities.

Imagined communities are those which the learner hopes or expects to join because of potential enhanced opportunities and better social experiences for themselves or their children (Douglas Fir Group, 2016). Imagined communities imply imagined identities; yet, the use of ‘imagined' in the terms is not to downplay the importance of these identities. Darvin and Norton (2015) highlighted that it is "through desire that learners are compelled to act and exercise their agency" (p. 45). Potential futures can and do have an impact on learners' language learning experiences. The Douglas Fir Group (2016) emphasizes that

> Learners' imagined identities can have a significant impact on their investment in language learning, in that these identities can compel them to seek out and pursue L2 learning opportunities that might not otherwise be available to them (p. 32).

This assertion is supported by researchers such as Aliakbari and Amiri (2018), who found that learners' strong positive imagined selves and imagined futures had a positive effect on academic achievement.

Although imagined futures and communities are important for language learners, Darvin and Norton (2015) emphasize that what is imaginable for learners may not necessarily be attainable. Learners are and should be seen as agents within their contexts, yet there are constraints on their experiences and possibilities for the future, including the ideologies at play within the classroom and general social context in which the learner resides (Darvin & Norton, 2015).

Positioning. As a way of gaining access to imagined communities, learners may perform certain identities (Telles, 2015) and may participate from various positions. Additionally, learners

may position themselves in more socially-favorable ways (Norton & McKinney, 2011; Norton & Toohey, 2011). Identity research in SLA is predicated upon the notion that language acquisition is a sociocultural practice in which learners may engage in participation or non-participation in groups to which they may or may not have membership (Norton & McKinney, 2011). Positioning is "the discursive process whereby identities or ‘selves' are located in conversations as observably and subjectively coherent participants in ‘jointly produced storylines'" (Davies & Harré, 1990 in Baxter, 2016). This is to say, positioning is the way speakers can successfully convey their identities to their interlocutors during an interaction.

Just as identity is structured through interactions and is a site of struggle, so is positioning. Davies and Harré's (1990) concept of positioning is used within identity research (see Darvin and Norton, 2015), as it is discursively constructed and co-constructed. As Davies and Harré (1990) explain "positioning… is the discursive process whereby selves are located in conversations as observably and subjectively coherent participants in jointly produced story lines" (48). This is to say, that learners create and are given spaces for themselves within the context of the interactions they have. The process of positioning can take place as reflexive, or self-positioning, or interactive, or other positioning (Baxter, 2016). Baxter (2016) describes "interactive positioning, in which the utterances of one person position their interlocutor through the process of turn-taking, and reflexive positioning, in which one has some agency to position oneself" (pp. 41-42) and notes that positioning is an incidental process that occurs during interactions.

Positioning may either grant a speaker power or rob them of it. Through self-positioning speakers can ascribe themselves identities and membershipr to gain favor with their interlocutors (Norton & McKinney, 2011; Norton & Toohey, 2011). A speaker may claim power by shifting to a more powerful identity position, again exhibiting the plurality of identity. The identity position

from which one is speaking must be valued by the interlocutor for this switch to be a viable option (Duff & Talmy, 2011; Norton & Toohey, 2011). One may be robbed of power by an interlocutor who is unwilling to acknowledge or value the position from which a speaker is attempting to participate A more socially powerful interlocutor may also position the speaker into a weaker or less socially powerful role, robbing them of power in that way (Duff & Talmy, 2011; Norton & McKinney, 2011; Norton & Toohey, 2011). The complex reality of positioning emphasizes the discursive natures of both language learning and identity formation.

In the case of telecollaboration, and CMC in general, learners may find themselves being positioned as peers, experts, novices, or collaborators to name just a few possibilities (Thorne et al., 2015). These situated identities, or the expected roles and behaviors within a context (Thorne et al., 2015), come naturally to a context that requires learners to simultaneously play the roles of language and culture experts and novices (Yang & Yi, 2017). When considering situated identities, or identities in general, it is important to be cognizant to allow for learner agency (Norton & McKinney, 2011; Pellerin, 2017), as learners maintain the ability to choose their position and to speak from more or less powerful identities, regardless of whether this position is accepted by their interlocutors.

Baxter (2016) highlights the importance of the ways speakers use stories to portray their lives during interactions as mechanisms of positioning. Stories are not written fictional narratives in this context but rather they are the ways we share our experiencer to construct a more stable identity. Baxter (2016) describes this process as such:

> ...in order to produce some form of consistency and coherence between our multiple subject positions, we tell ourselves and others stories about how we have lived and how we intend to live our lives. This need to develop storylines involving events, characters

> and moral dilemmas is an attempt to resolve the ways in which we are continuously positioned by discursive practices in contradictory ways that disrupt the sense of sustaining a coherent identity (p. 42).

This passage serves to highlight the ways speakers construct their sense of self by telling stories, which implicitly position them based on the content speakers choose to include and exclude. By portraying their lives and futures in certain ways, speakercento create narratives in which they have the identities that they find preferable or ideal.

Telles (2012) emphasized the role of telecollaboration as a way of promoting the exercise of identities. In this short description of a video-mediated telecollaboration project, Telles noted that their students focused mainly on identities stemming from contrasts from their partners. While other scholars focus on identities that enable learners to claim membership in a particular group (e.g., Norton, 2013), Telles (2012) found that students in their context marked their identities in an effort to uniquely identify themselves.

Learners share, construct, and perform their identities during interactions with others. Identities are socially ongoing performances, in which language plays a central role (Telles, 2015). In their later study, Telles (2015) analyzed the way students perform their national identities during a telecollaborative exchange between a Brazilian student and an American student. The author describes teletandem interactions as being "characterized by performances of differences" (p. 5) and emphasizes that identities represented in these exchanges are discursive and constituted. Moreover, Telles (2015) explains that:

> …foreign language students' ideologies about language as autonomous and homogeneous systems, about national identities, as well as about social lives in different countries, are

performatively produced and not merely represented in their (intercultural) discursive practices of teletandem interaction (p. 7).

Here Telles asserts that learners do not accidentally represent their beliefs and practices in a telecollaborative exchange, rather they perform them for their telecollaboration partner, whether implicitly or explicitly. These exchanges include a certain amount of spectacle and spotlight surrounding each learner engaged in the interaction, which inevitably leads some posturing, positioning, and performance. Telles concludes that telecollaboration serves more functions than just as a language learning tool but also as a "virtual and active locus of negotiation of identities" (2015, p. 23).

In their study, Fong et al. (2016) focused on positioning and identity in CMC discourse among English language learners (ELLs). Using chat transcripts to identify and analyze identity positionality, they describe 5 ways in which speakers typically position themselves: (1) positively, (2) self-deprecatingly, (3) using personal qualities or abilities, (4) mentioning community membership, and (5) implicitly, such as through mentioning what they can do or are learning to do. By examining naturally-occurring chat speech, Fong et al. concdedon that "CMC fosters identity development for language learners" (p. 155).

Although not explicitly stated, common threads throughout the identity research presented here include the various types of capital possessed by the learners, including their linguistic abilities and cultural knowledge. These forms of capital allowed the learners to engage in specific ways to make places for themselves in their imagined communities, to gain further forms of capital, and ultimately to continue the reconstruction of their identities. This reciprocal relationship requires the trading of capital among learners and speakers (Fong et al., 2016). Darvin and Norton (2015) note several factors in positioning: "Governed by different ideologies

and possessing varying levels of capital, learners position themselves and are positioned by others in different contexts" (p. 45).

Capital in CALL and Telecollaboration Research

The concept of capital comes from the field of sociology but has been shown to be fruitful for the discussion of factors that influence language learning success and learners' access to target language communities (e.g., Darvin & Norton, 2015; Norton & Toohey, 2011). Current conceptualizations of capital within SLA research stem mainly from Bourdieu's work (De Costa & Norton, 2016). Bourdieu (1986) claimed that it is "impossible to account for the structure and functioning of the social world" without considering capital (p. 241). Although this review and the subsequent chapters of this dissertation delineate between the types of capital, Bourdieu (1986) emphasized the close relationship between the types of capital, including the fact that one type of capital can be exchanged for another.

Darvin and Norton (2015) include capital as part of their foundational construct of investment and much of their discussion is related to cultural capital their participants do and do not possess. Matsuda (2015) encourages researchers to pay attention to non-discursive features in written texts, such as the participant's knowledge and relationships, both of which fall under the umbrella of capital. These types of capital are described as being key considerations for research on identity in written discourse (Matsuda, 2015), yet can be useful for studies with various data types, such as the current dissertation. Although capital has a large body of sociological research supporting its importance and efficacy for explaining human experiences, here I will focus on studies related to language learning, especially in CMC and telecollaborative contexts.

With a dramatic increase in spaces for language learning in a digital age, learners' capital can allow them to gain entrance to, navigate, and transform these spaces (Darvin & Norton,

2015). The internet allowed for the creation of a vast network of spaces that take the language learning experience beyond the physical to digitally-mediated spaces. Although this large network exists, the different types of resources a learner possesses or does not possess can create or constrain opportunities to access the communities in these spaces. Economic, linguistic, cultural, and social capital each play a role in creating access to imagined communities and creating opportunities for identity negotiation.

Fong et al. (2016) connect identity and capital in that "language as intricately tied to social goods that are traded" (p. 145). They characterize the co-constructed nature of identity as being the trading of one's identity and the distribution of identity by participants in CMC, which is to say that a speaker's social goods are their identities. Digital interactions allow learners to develop functional selves (Thorne, Sauro & Smith, 2015) and negotiate a broad range of identities (De Costa & Norton, 2016), precisely because of the accumulation and trading of capital, the types of which are briefly explained next.

Economic capital. Darvin and Norton (2015) define economic capital as "wealth, property, and income" (p. 44). Block (2007) also interpreted Bourdieu's conceptualizations of economic capital to include "plainly and simply the financial wealth and income of an individual, as well as his or her acquired property and assets" (p. 866). Bourdieu (1986) put a special emphasis on the importance of economic capital. The author went so far as to claim that economic capital is the root of all other types of capital, showing the interconnectedness of these sub-constructs.

For this study, economic capital centers on students' access to finances, including cash, grants, and student loans (Darvin & Norton, 2015). Naturally, this access also has effects on the cultural and social opportunities each learner has (see Bourdieu, 1986). Students' access to economic capital or lack thereof plays an important role in the types of language learning

opportunities the learner can access (see Darvin & Norton, 2015; Norton, 2013). Economic capital is an important consideration even within the typically more privileged US university context. Financial resources (or the lack thereof) may determine the amount of time a student can commit to language learning (i.e. the number of credits they can afford), the types of technology they possess, and potential opportunities for sojourns in the target language and target culture communities. Additionally, a university student who is lacking financial resources may need to work part- or full-time which would decrease the amount of time they would have to devote to their coursework.

Linguistic capital. The concept of linguistic capital encompasses the various means that one possesses that they can use to understand others and be understood, such as written, verbal, or signed language (Darvin & Norton, 2015). The Douglas Fir Group (2016) states "the totality of a speaker's semiotic resources must be considered her or his communicative and interactional competence" (p. 26). They go on to explain that learners or speakers can deploy these resources by choosing which language and register to use in a given context. For this dissertation, the case study subjects' semiotic resources will be referred to as their linguistic capital (Darvin & Norton, 2015). Although differences between the two concepts can certainly be delineated, that is outside the scope of the present dissertation.

Simply possessing linguistic capital it is not enough to be able to speak, sign, or write. A speaker must be able to use a valued form of the language in their given context for their skills to be acknowledged and accepted (e.g., De Costa, 2015b; Leeman et al., 2011). For example, ELLs may speak with an accent or speakers may use a non-standard dialect that is viewed as less legitimate than the dominating variants of British or American standard English (e.g., Douglas Fir Group, 2016; Leeman et al., 2011). This may be perceived in many ways by their interlocutors, at times negatively, which may lead to the devaluing of their capital. Devaluation

of a speaker's capital may lead to increased learner anxiety, fewer opportunities to engage with native speakers, and difficulties in negotiating speaker identity. Yilmaz (2018) reminds us that how a language variety is characterized corresponds to the ways the speakers of that variety are characterized. For example, HLLs may be viewed as linguistically deficient because of their language variety which, in turn, may affect their speaker identities (Leeman et al., 2011).

As Ortega (2017) asserts, "the learning benefits are great when the bilingualism of exchange partners is acknowledged as a resource" (p. 293). For the present dissertation, both languages the case study subjects actively used and noted knowing or wanting to know were coded in as linguistic capital; depending on the context the utterances were coded into either ‘needing' or ‘possessing' linguistic capital (see Chapter 3, 4, and 5) for a more thorough explanation). This choice was related to the design of the telecollaborative exchange, which allowed the learners to choose between the German and English for each exchange and which prompted students to reflect on their language learning experiences and future goals regarding the target language. I also took into account that each language a speaker knows plays a role in how they perceive themselves and how they accumulate further capital (e.g., Douglas Fir Group, 2016).

Cultural capital. Norton and McKinney (2011) define cultural capital as "the knowledge and modes of thought that characterize different classes in groups in respect to specific sets of social forms, with different exchange values" (p. 75). As described by Darvin and Norton (2015), cultural capital encompasses the resources one possesses that help them to understand their own cultures and other cultures, including knowledge, education, and appreciation of cultural forms. Cultural capital plays an important role in the identity negotiations undertaken by learners. Norton (2013) highlights that "as the value of their cultural capital increases, so learners' sense of themselves and their desires for the future are reassessed" (p. 6). By gaining further cultural

capital, learners can rethink what imagined futures are possible for them and to reconstruct their identities (Norton & Toohey, 2011).

Cultural capital affects not only the internal processes of identity negotiation but also the way learners interact with the target language communities. Learners' access to culturally valuable knowledge determines the way they are positioned by the members of the communities to which they are seeking membership. The changes in a learner's cultural capital affect learners' access to social capital, as cultural and social networks are inextricably bound. In their seminal article on the topic, Darvin and Norton (2015) detail two exemplary case studies, including the case of Ayrnton, a privileged immigrant in Canada. As part of the investor class, Ayrnton's family has a great deal of economic capital, including access to various technology tools and the finances to enroll Ayrnton in an online course in currency trading. Ayrnton uses his electronic devices skillfully and shares his currency trading knowledge to position himself as one of the "knowledgeable people" (Darvin & Norton, 2015, p. 50). By utilizing this position, he could connect to his imagined communities and gain further social capital.

Social capital. Social capital, or simply put, a speaker's connections to "networks of power" (Darvin & Norton, 2015, p. 44), describes the access a learner has to a given community of target language users and target culture members. As we know from the interactionist perspective of language learning, it is key for learners to use their growing language resources to communicate, which makes these networks a crucial part of successful language development. Social capital is also important because it allows learners to reassess their imagined communities and to gain cultural capital, while increasing intercultural competence, one of the main goals of telecollaboration.

Used in the context of language learning, these networks can describe a variety of resources, such as target-language speakers, including native-speakers, teachers and fellow

learners, as well as online target-language communities. In this study, I include any references to target-language speakers with whom the speaker communicates, because they offer a potentially powerful network for the acquisition of further linguistic and cultural capital, as well as connections to further social capital. This includes groups of non-native speakers, as they are still a source of language exposure and they expand the German-speaking world for the learner. HLLs have unique access to various social networks, often including friends, family, and acquaintances in target-language speaking communities. The ways HLLs navigate communities in CMC contexts is an underexplored and fruitful topic within the interface of SLA and CALL research.

Heritage Language Learners in CMC contexts

HLL is generally understood as language learners who speak their target language at home or have a familial connection to the language, although the term HLL encompasses speakers with a broad range of language abilities (Valdés & Kibler, 2012) and whose social status within their heritage communities is often tenuous and complicated (He, 2010). Leeman (2015) emphasizes that there is not an agreed-upon definition of heritage language or a clear set of criteria for what constitutes an HLL (see also He, 2010; Valdés & Kibler, 2012). Definitions vary by field and the focus of the discussion at hand (Leeman, 2015) and definitions encompass a variety of aspects surround their experiences and skills (He, 2006, 2010). Some researchers have even proposed the idea of a continuum to encompass the broad array of HLL experiences (Valdés & Kibler, 2012). He (2010) noted that the current variety of definitions of HLL reflected the linguistic and cultural diversity of HLLs themselves.

He (2010) emphasized the importance of a familial connection to the language and a high level of proficiency in the dominant language within the community and the HL. Similarly, in

Guardado's (2018) book on discourse, ideology, and heritage language socialization, they note the consensus among researchers about the importance of familial connections for HLLs. Additionally, Miller and Kubota (2013) emphasize that researchers and practitioners cannot underestimate learner agency as it pertains to self-identification as an HLL.

Within the field of HLE, there are a variety of important considerations beyond defining HLL. For example, Blackledge et al. (2008) outline the various components of heritage as being shared values and collective memories which are constructed as a ‘birthright' (pp. 536). Heritage is naturally altered as it is passed on and is, in and of itself, a process not a product (Blackledge et al., 2008). Chowdhury (2016) describes a heritage language as a non-societal, non-majority language spoken by linguistic minorities or immigrants. German as a heritage language, unlike many other heritage languages in the US, is not tied to race. This may positively influence the status of German, as it is a white European language (see Rosa & Burdick, 2016 for a discussion of ideology, race, and language).

While working to define what an HLL is, it is important to note that HLLs still exhibit agency regarding their experiences and identities, as many debates surrounding definitions neglect learners' own identities (Leeman, 2015). HLLs inherit their heritage while also creating room for themselves and a space to forge new opportunities with the language (He, 2006). Leeman (2015) notes that future research should avoid the assumption that HLLs seek to "(re)claim an ethnonational identity embodied in the heritage language" (p. 114).

Ortega (2017) describes the current situation of CALL and SLA interfaces, with a focus on the ways research can promote what she calls equitable multilingualism. With the changing demographics and linguistic landscapes in the US, it is important to examine how HLLs experience multilingualism and language learning contexts. Until the early 2000s, little applied linguistics research had been conducted on HLL experiences (Leeman et al., 2011), although

interest is growing (Darvin & Norton, 2017; De Costa & Norton, 2016) with a conference being dedicated to the topic of HLL research. Yet, there are more insights to be gleaned from research on this population (Darvin & Norton, 2015). Before exploring CMC-specific issues, it is important to briefly explain the complexities and challenges of heritage language education (HLE), especially HLLs in the world language classroom, and the identity negotiations that are made possible by effective pedagogical practices.

Although interest in HLL has more recently begun to grow in the field of applied linguistics, the topic of HL speakers has enjoyed a great deal of attention in the field of education over the last several decades with conferences and journals dedicated the subject. Identity has found itself at the core of that research; in fact, the understanding that identity is inextricably bound to language learning comes from HLE research (Leeman et al., 2011). As evidence for the highly interdisciplinary nature of social theories of SLA (Ortega, 2017), this knowledge has become part of the theoretical canon that informs research on HLLs who are becoming a more prominent focus population in applied linguistics research (De Costa & Norton, 2016; Leeman et al., 2011).

Adding to the complexities within world language education is the reality of mixed L2 and HLL classrooms, although Carreira and Kagan (2017) point out that HLLs and L2 learners have complementary skills that can be harnessed within the classroom setting. He (2010) notes that there are varying ideologies regarding adequate learning and proficiency for HLLs. It is not uncommon for heritage language speakers to be placed in world language courses among non-native speakers in the US context. This is especially true HLLs of languages other than Spanish and those in locations where there are smaller populations of speakers of languages other than English. Unlike their peers, whose language learning He (2006) describes as "horizontal", heritage language learning is "vertical" in that it occurs across generations and locations. HLLs

inherit their heritage while also creating room for themselves and a space to forge new opportunities with the language (He, 2006).

Like He, Blackledge et al. (2008) also emphasize that the relationship between language and heritage is especially complex in classroom interactions. The policies within school systems place HLLs in language courses with their monolingual peers can - and often do - have detrimental effects on the learning and identity negotiation of HLLs (Baxter, 2016). As Leeman et al. (2011) explain, the placement of students in world language classes along with their monolingual peers can lead to the devaluation of students' linguistic capital. This is typically the case because HLLs speak a non-standard variant of the language, which may include a dialect or utilize colloquialisms that are not valued in an academic context (e.g., Baxter, 2016; De Costa, 2015b).

As Baxter (2016) notes, through discourse institutions dictate acceptable ways of being, including the ways people communicate, behave and experience relationships with one another. Leeman et al. (2011) note that within these institutions, HLLs may be viewed as linguistically deficient if they speak a non-standard variant of the language, especially in their world language courses.

> ...even when HL or bilingual speakers do have the opportunity to study their home language(s) in "foreign language" courses (which are normally offered only at the secondary and post-secondary levels), the dominant monolingual ideologies often lead to marginalization and devaluing of students' language varieties and practices as well as erasure of their multilingual identities and experiences (Leeman et al., 2011, p. 482).

The unique needs of HLLs are not simply linguistic but also focus heavily on the speakers' identities. Valdés and Kibler (2012) note that world language teachers often know little

about HLLs and language variation, which may lead to negative valuations of the HLLs speaking in comparison to a monolingual, native-speaker standard.

According to Leeman et al. (2011), "institutional denigration of learners' sense of self" (p. 482) can lead to psychological damage and ultimately the loss of their heritage language and their valuable ties to that culture. This denigration comes about following the reinforcement of language hierarchies and the subordination of learners' identities and language practices (Leeman et al., 2011). Additionally, a loss of sense of self can result in discrimination from both of the groups to which the HLLs belong (i.e. their heritage language community and the society in which they live), disempowerment and in some cases, reduced educational and societal success (Leeman et al., 2011).

Creese et al. (2006) note that the Gujarati schools in their study focused on learners' heritage community identities and learner identities, while simply tolerating the students' multicultural identities. These three types of identities are the main focus of the study, as they are grouped around what Creese et al. (2006) describe as ‘flexible bilingualism' (25). The authors claim that complementary schools "allowed a space for the students to negotiate a combination of ambiguity and sophistication around their ethnic and linguistic diversity" (Creese et al., 2006, p. 27). The complementary schools profiled in this research showed that teachers, parents, and students had a "desire to be affiliated to a heritage/community identity" (Creese et al., 2006, p. 32). In fact, the parents desired that their "cultural and linguistic links to historic heritages" (33) were passed on to their children. Learners in this environment were able to challenge common ideologies surrounding bilingualism and to explore and negotiate their identities in new bilingual contexts.

In their report on a related study of HLLs, Blackledge et al. (2008) laid out the complexities of relationships between language, heritage, and the negotiation of identities in the

context of a Bengali complementary school in the UK. Although this study focused on face-to-face learning experiences, the authors' findings are relevant for this dissertation. The data they gathered shows that heritage is valued differently by those passing it on than by those receiving it. The misalignment of the teacher and learner perspectives highlighted resistance to the notion of a one-to-one relationship between culture and language. While teachers focused on passing on a pure and proper version of Bengali, the learners pushed for Anglicized pronunciations and showed a growing preference for American styles of music over Bengali ones (Blackledge et al. 2008). Despite teachers stated objectives of cultivating skills solely in proper Bengali, they slipped into the lesser-valued dialect during their lessons.

Klimanova and Dembovskaya (2013) report findings from their research on L2 identities during a telecollaborative exchange on a Russian social networking site. Their findings highlight the unique experiences of HLLs in the world language classroom. For the HLLs, telecollaboration with native Russian speakers was a "test of their heritage speaker privileges" (Klimanova & Dembovskaya, 2013, p. 82). Helm (2015) describes an ideology of native-speakerism that is common in telecollaboration practices and research, as well as in general SLA research (Douglas Fir Group, 2016). Native-speakerism refers to the ideology that places the native speaker as the ideal interlocutor and as the ideal end-goal for language learning proficiency (Douglas Fir Group, 2016). This ideology can be particularly difficult for HLLs to navigate and overcome.

In Klimanova and Dembovskaya's (2013) study, each of the HLLs in the project was sure to share their heritage in the first interaction as a way to identify themselves as legitimate speakers and to put themselves on an even playing field with their Russian native-speaker partners. The HLLs were able to "rework their identities as American students and intersubjectively reconstruct their Russian speaker identities" (Klimanova & Dembovskaya,

2013, p. 82). By engaging in this identity negotiation the HLLs were able to contest the conceptualizations of what it means to be a true native speaker while negotiating their American and Russian identities.

In their article, Yang and Yi (2017) explore identity negotiation within an adult eTandem project context. Although this particular telecollaboration project was extracurricular, the findings are particularly interesting and informative for the present dissertation. One of the focal participants, Kristine, was an HLL of Korean. Kristine began the project with limited Korean language exposure and thus a very low language proficiency. She initially positioned herself as a poor speaker of Korean, but through teaching English to her partner, she was able to realize that grammatical perfection is not necessary for successful communication. This realization gave her the confidence necessary to practice her language skills and to attempt to connect to her Korean heritage. Although she came to realize that the Korean traits she felt she was lacking were based on stereotypical views, she still felt that she was not "fully Korean" (Yang & Yi, 2017, p. 110), yet she also did not consider herself to be truly American, either.

Through her eTandem partnership, Kristine was able to connect with her Korean heritage and work on her language proficiency, which allowed her to develop the skills and confidence to communicate with her parents in Korean, as well. Yang and Yi (2017) concluded that the partnership and membership in the community provided by the eTandem project created a "safe space where they were able to negotiate, perform, or contest multiple identities" (p. 111). However, this is not to say that Kristine's negotiation of her various identities resulted in clear-cut, simple answers, either.

By engaging directly with target-language speakers and target-culture members, telecollaborative exchanges give learners a glimpse into a potential imagined community. Yet, HLLs may have a complex and ambiguous relationship with the target language and related

communities. Norton and Toohey (2011) describe the concept of hybrid identity as the state of considering oneself as ‘half', which is a common sentiment among HLLs (e.g., Blackledge et al. 2008; Creese et al., 2006; Yang & Yi, 2017). This reality combined with the complexities of bilingual and bicultural experiences of HLLs makes the telecollaborative environment particularly interesting for identity-related analyses.

Conclusions

In their publication, Steel & Levy (2013) point out that there is a gap between what learners are doing and where CALL is going, a sentiment which is echoed by others in this field. As Stickler and Hampel (2015) noted in their article, CALL research is largely dominated by studies focusing on effectiveness, often using quantitative approaches to data. This type of research serves a specific purpose, yet has the drawback of neglecting the individual experiences of learners in a given context; examining these experiences can allow researchers to mind the gap between research and learner-centered practice. Although HLLs have received a great deal of attention within applied linguistics research (Duff, 2014), there is work to do within CALL to be sure that we are serving this particular population within CALL and CMC contexts. When describing the marginalized language learners whose experiences warrant further attention from CALL and SLA researchers, Ortega (2017) includes HLLs as a community underserved by current research.

Ortega (2017) rightfully reminds CALL researchers that we cannot serve language learners whose experiences we do not study. There is still much work to be done to move toward what Ortega (2017) calls "equitable multilingualism." In striving to create more equitable learning environments for marginalized learners, SLA and CALL researchers can move simultaneously toward multilingual and socially just practices. Researchers can address these

challenges, in part, by researching marginalized communities, such as HLLs; in doing so, they must pay attention to the experiences of these learners as individuals, including their identities.

In the interrogation of SLA and CALL research, Ortega (2017) reports that at the time of the literature review, there were no studies in CALL that contained the terms "bilingual" or "multilingual" in the title. To date, SLA and CALL interfaces "have concentrated to date almost exclusively on forms, and specifically on linguistic benefits related to vocabulary, grammar, and negotiation for meaning" (Ortega, 2017, p. 306). Although grammatical form is certainly an important part of the language learning process, focusing solely on this as a measure of language learning success neglects the challenges marginalized language learners and speakers face. Ortega (2017) proposes the following question for CALL and SLA researchers to consider:

> What technologies, teaching paradigms, views of language, and principal uses of computers can nurture multilingualism and digital literacies for all, not just for the privileged? (p. 307)

Although Ortega (2017) asserts that all multilinguals "will experience injustice, discrimination, and oppression" (p. 286), they also highlight the importance of distinguishing between elite and marginalized bilingualism.

With a major goal of language learning being that our students gain the linguistic abilities and cultural competence necessary to successfully interact with other target language speakers, the perceived relationship to the target language and culture is one of utmost importance. By neglecting the experiences of the marginalized, we fail to acknowledge their complex identities. Norton and McKinney (2011) emphasize that failure to have their identities recognized may result in a blow to learners' investment, motivation, and thus to their language learning.

It is important to interrogate the nuanced social and cultural factors that lead to the distinctions between elite bilinguals and marginalized bilinguals (Ortega, 2017). Ortega (2017) urges researchers to consider fostering the beginning of the multilingual and social justice turns in CALL and SLA research, both of which have the potential to garner results with direct implications for education policy. By creating and researching learning environments that avoid casting monolingual students as the norm and creating spaces where HLLs can learn their home language with HLL peers, both HLLs and monolingual students prosper (Leeman et al., 2011).

In the present dissertation, I investigate the experiences of two German learners, both of whom fall under broader definitions of HLL, during a 7-week-long telecollaborative exchange, especially as it pertains to her identity negotiation and the development of her various types of capital throughout the project. In the seminal text on identity, Norton (2013) explained that when learners exchange information they also reorganize ‘a sense of who they are and how they relate to the world' (p. 4). As pointed out by various scholars, influenced by Norton, identity negotiation is a contentious part of the language learning journey for any learner (Sarah, 2018). HLLs are certainly no exception. Navigating the often rough waters of living between two cultures and languages can lead to especially complex identity work, in which HLLs seek a sense of belonging in multiple communities and control over their speaker identities.

Capital plays a key role in the formation of identity through its power over how one can position and be positioned. The types of capital possessed or not possessed by a learner serve to support or negate attempts to position oneself as a particular type of speaker. For example, possessing linguistic capital may mean that a learner can position themselves as a capable speaker while needing linguistic capital may lead the learner to position themselves as a poor language learner.

Much of what multilingual learners living in monolingual-dominant societies deal with in their identity struggles is the expectation that they are two monolinguals in one (Ortega, 2017), while the reality is far more complex than this. This ideology relating to their identities can lead to difficulties and tensions in the formation of stable multilingual identities. Using the constructs of identity and capital, I examine the telecollaboration experiences of 2 HLLs to map the identity negotiation allowed by this specific medium. As Yang and Yi (2017) showed in their research, the experience of connecting with the heritage language and culture through telecollaboration had a meaningful impact on the identities of Kristine, a Korean HLL.

The current bodies of literature on telecollaboration and identity rarely intersect, leaving an unfilled area of potential insights and knowledge to be addressed. This is especially crucial when examining the unique experiences of HLLs. As CALL continues moving in the era of the social justice turn (e.g., Ortega, 2017), these types of analyses allow for a deeper understanding of the experience of HLLs, which opens up doors for more suitable language learning experiences for HLLs. Building the literature on HLLs in CALL environments is necessary for creating equitable learning environments for HLLs, which in itself is a form of social justice (Ortega, 2017). The current study seeks to contribute to current CALL literature by employing a qualitative approach to case studies on 2 HLLs' capital and multiple identities during a telecollaborative exchange.

Chapter 3: Methods

Introduction

The present dissertation takes a qualitative approach to the analysis of case study subjects' identity and capital during a 7-week-long telecollaboration, with a single follow-up interview 1 year after the conclusion of the project. The participants in this project were students in a German course beyond the basic level at a large Midwestern university in the US. The students in the American context communicated with students from a partner teacher training course at a university in Germany. The current chapter presents the general methods employed, along with ethical considerations taken throughout all phases of the research project. Data were collected in two different iterations of the telecollaboration project. Additionally, I outline the types of data that were collected and the analysis procedures.

Chapter Outline

Before more thoroughly outlining the chapter, it is important to note that the current dissertation report includes two case studies. Study 1 is detailed in Chapter 4 and Study 2 in Chapter 5. The following table breaks down the distinct phases, the names I have given to each stage of the research project, the semester from which the data were used, and the names of focal participants. The pilot study took a comparative approach and was grounded theoretically in identity. The pilot phase of this project included two case study subjects, Kathy and Christine. During the analysis, I found Kathy's case to be particularly salient, for the reasons detailed in Chapter 4. In Study 1, I continued utilizing data from semester 1 but narrowed my focus to Kathy's data in particular. Study 1 utilized the concept of investment, specifically Darvin and Norton's (2015) conception thereof. In Study 2, detailed in Chapter 5, I used theories of identity and capital for the analysis of Lilly's interactions with her partner. Table 1 below summarizes this information.

Table 2: Research Project Stages with Semester and Participant Names

Stage	Data used	Participant names
Pilot	Semester 1	Christine and Kathy
Study 1	Semester 1	Kathy
Study 2	Semester 2	Lilly

Each of the two studies, excluding the pilot study in this discussion, differs in key ways from the other, therefore each of the subsequent chapters includes a brief section on methods that are specific to that phase of the project. The methods sections in Chapter 4 and Chapter 5 include:

- research questions for each phase of the project.
- specific details about the case study subject and the process of choosing them.
- coding schemes.

Due to this, the current chapter outlines general information regarding the methods for the two studies, with further details in the respective chapters.

In the current chapter, I begin by describing the ethical considerations made during each phase of this research project. Then, I give general information regarding the context and participants. As is becoming more widely accepted as a necessary part of quality qualitative research, I discuss my position as a researcher. This includes my relationships to the study, the university, and the participants. Following this, I describe the types of data that were collected and the related collection procedures. The study design is then outlined generally, including descriptions of transcription and coding processes.

The Current Study

This section of the chapter begins with a description of case study research, including credibility and trustworthiness in qualitative case study research. Following this discussion, I describe the ethical considerations made for the phases of this study. Following this, I describe the context and participants in general, while specifics about the focal participants are available in their respective chapters (Chapter 4 and Chapter 5). The data types and collection procedures are outlined, followed by the analysis procedures.

Case Studies

A case study within language learning research typically describes an individual or a classroom (Duff, 2014). In particular, qualitative case studies typically describe in great detail the

participant(s) and the environment to gain a "thorough understanding of the phenomenon being studied for which the case is an exemplar" (Duff, 2014, p. 237; see also Saldaña, 2011). Case studies are valued in identity research, and many other disciplines, for the in-depth analyses they allow researchers to undertake with individuals in a given population. Duff (2014) emphasizes that "The case offers both the researcher and reader a window into another person's experiences with language" (p. 237). H. Chen (2013) highlights that case studies allow researchers to gain a deeper understanding of a given context over time. These affordances make case studies well-suited for the present dissertation, as it utilizes the concept of identity for its analysis. The goal of this dissertation is to document and analyze the identity and capital-related social practices occurring between individual learners and their partners during a seven-week telecollaboration in an upper-level German course.

Case studies are common in identity research, yet I chose this approach not only because of its prevalence in the field but also because of the opportunity to become intimately familiar with the data and to develop "cognitive ownership" thereof (Saldaña, 2011, p. 90). My familiarity with the participants' data allowed me to more deeply analyze the data and, most importantly, to understand the findings in their specific context. Deeper insights can come from this type of familiarity with the data, although there are some limitations to this type of closeness to the participants. De Costa (2015a) emphasizes the importance of taking time and making space between the researcher and participants while acknowledging the importance of relationship-building for the outcomes of interviews. De Costa (2015a) cautions that remaining too close to participants can increase the likelihood that the researcher will begin to sympathize with participants which can affect the analysis and results. The limitations of this study are discussed further in Chapter 6.

Credibility and trustworthiness in case study research. Credibility and trustworthiness are the qualitative complements to reliability and validity, popular in quantitative or positivist research. "Credibility, in literary terms, might be called the unity of the work" (Saldaña, 2011, p. 135). Saldaña (2011) suggests various approaches to ensuring credibility in qualitative studies,

1. cite the key writers in the appropriate field(s)
2. specify analytic methods
3. corroborate findings with the participants
4. describe data triangulation

Trustworthiness is providing credibility within the research report by explaining research processes (Saldaña, 2011). Baxter and Jack (2008) outline a variety of measures of trustworthiness of case study research. First and foremost is providing clearly written and detailed reports of the study design "so that readers can assess the validity or credibility of the work" (Baxter & Jack, 2008, p. 556; see also Friedman, 2012; Hultgren, Erling, & Chowdhury, 2016; Saldaña, 2011; Tracy, 2010). Matching the study design to the question being asked and purposeful sampling of focal participants also play important roles in establishing the trustworthiness of case studies (Baxter & Jack, 2008). Additionally, Saldaña (2011) notes that authors should describe the analytic or ethical dilemmas encountered during the research project, underscoring the importance of transparency over shame relating to mistakes or missteps.

Systematic data collection and proper data analysis are the final general pieces suggested by Baxter and Jack (2008). Qualitative researchers strongly recommend triangulation of various data sources as a key element of establishing credibility and validity of a case study (Baxter & Jack, 2008; Saldaña, 2011). Saldaña (2011) suggests using at least 3 different viewpoints to add additional information and dimension to the study. Additionally, prolonged exposure, member

checks, and double coding are suggested by Baxter and Jack (2008), although these are not employed in this study. Due to various factors, prolonged exposure to the participants was not possible during semester 2 (see Table 1 below for an explanation of research phases). Member checks were not included due to time constraints on the current dissertation, while they would make an excellent addition to future research in this context. Saldaña (2011) writes, "The bottom line is that credibility and trustworthiness are matters of research *honesty* and *integrity*" (p. 136; emphasis in original).

While credibility and trustworthiness are important to qualitative studies, they do not necessarily guarantee the generalizability of findings. Tracy (2010) points out that the aim of qualitative inquiries, including case studies, tends not to focus on generating significance or generalizations. Rather, qualitative researchers focus on transferability and naturalistic generalization (Tracy, 2010). Tracy (2010) describes transferability as the study's power to create relatability for the readers. Naturalistic generalizability provides readers with a vicarious experience within a specific context (Tracy, 2010).

Case studies in identity research. Saldaña (2011) noted that the methods employed in a study are closely related to the chosen methodologies. Case studies are widely employed in identity research (Duff, 2014; e.g., Chen, H., 2013; Norton, 2013; Yang & Yi, 2017) and have contributed substantially to the construction of identity theories (Duff, 2014). Case studies are particularly powerful in answering questions regarding identity in that they allow researchers to focus deeply on one or a few specific cases. Researchers employing a methodological or theoretical lens rooted in theories of identity typically employ case study designs in their research (Duff, 2014), as identity is inherently personal and individual.

Ethical Considerations

The utilization of ethical research practices is one of the main goals and duties of qualitative research (Tracy, 2010), yet this can pose challenges to the analysis and presentation of findings. There are a variety of considerations researchers must make to ensure ethical research practices. To begin, university IRB protocols must be followed (De Costa, 2015a). For the current study, the participants were presented with informed consent documents before the telecollaboration and the subsequent interview. Conducting pilot studies to ensure the validity of instruments support ethical practices (De Costa, 2015a). Utilizing data already provided within a course context decreased the amount of time the participants spent actively participating in my study, thus respecting their time which De Costa (2015a) lists as part of key ethical considerations to be made by applied linguistics researchers. The interviews conducted in this study were also fairly short, again respecting participants' time.

The protection of participants' confidentiality is a key consideration in case study research, especially when the information they provide may be used to identify them and may lead to personal or professional consequences (De Costa, 2015a). While ethics are naturally of utmost importance in any type of research involving human subjects, each project has unique concerns and constraints. Researchers must pay careful attention to privacy in case study research, where specific participants' data are disclosed in rich and potentially revealing detail (De Costa, 2015a). The limited number of subjects may make it more likely that participants can be identified if research reports are not carefully handled.

Some researchers question the ethics of assigning pseudonyms to the people and places in qualitative studies (see Guenther, 2009; Lahman et al., 2015; Nespor, 2000). Guenther (2009) cautions that utilizing pseudonyms may lead to recklessness in reporting and the subsequent

identification of places and people, while also denying participants the right to be heard if they so choose. Despite these concerns, I chose to omit place names and give participants pseudonyms. Guenther (2009) described her considerations for her research, which echo mine. Namely, she was concerned that participants would come to regret the decision to speak on the record and be unable to contact her or change the fact that their statements were publishing with their real names. As the data utilized in the current report have been used in other reports (e.g., Goertler et al., 2018), these pseudonyms are unique to this dissertation. Using unique pseudonyms for this study allowed me to create a greater cognitive distance between the current analysis and other analyses that utilized this same telecollaboration data. This was an important step as I worked to be aware of my positionality as a researcher.

As mentioned in the ethics section, some details were edited slightly to make them more general. Such information includes the names of specific student groups, clubs, etc. that may have been unique to a given student in a course with a relatively small number of students. Guenther (2009) noted that it is important to be sure that the decision to change names would not significantly affect the accuracy of the study. By changing these to less specific, but nonetheless related descriptors, the information could remain part of the analysis without compromising the privacy of the participants.

Several steps were taken during the process of the present study to ensure anonymity and safety of all participants from any repercussions for statements made during the interactions. All participants were assigned pseudonyms and transcripts were anonymized immediately upon collection and transcription. As the data utilized in this study have been used in other publications (e.g., Goertler et al., 2018), the pseudonyms for the participants and the partners in this study are unique to this analysis. With the relatively small class sizes that are common in

upper-level language courses, some activities or identities may be unique to a specific person, despite the pseudonyms created for each student and their partner.

Researcher log. In the interest of reflexivity which is key conducting high-quality qualitative analysis (Duff, 2014), I kept a researcher log as I worked through the various phases of this project. Researcher logs are highly recommended by many researchers whose focus is on qualitative methods (e.g., Baralt, 2012; De Costa, 2015a; Duff, 2014; Giampapa, 2016; Saldaña, 2011). Such logs are valued for their ability to guide researchers in reflection on their own biases and preconceived notions about the subjects or topics encountered in the stages of a given project (Duff, 2014). The awareness of the researcher of their own biases makes room for a more careful, yet thorough analysis of the data. Baralt (2012) recommends keeping what they call a "project journal" (p. 229) which includes decisions made, questions, and reflections.

In contrast to traditional approaches that view the researcher as an objective observer, Giampapa (2016) emphasizes that researchers are social beings with multiple identities. Duff (2014) describes the researcher as "a kind of research instrument, that is, a mediating coparticipant or actor in the research process with a certain amount of power" (p. 239). Saldaña (2011) and Tracy (2010) also describe the researcher as a human instrument. The data collection and analysis carried out cannot be fully understood without an understanding of the researcher(s) involved in the process. Although the reality of the researcher as a research instrument cannot be fully removed from any aspect of a research project, this type of reflection allows for that reality to be shared in detail in the resulting report, thus adding transparency and rigor to the study (Baralt, 2012; De Costa, 2015a).

The log I kept throughout this study was useful in a variety of ways while also exhibiting various weaknesses. The researcher log was only kept during Study 2 (see Chapter 5). My research log took various forms, a reality that proved to be a limitation. In the transcription and

initial stages of reading the data, I made comments in the margins of the Google Docs in which my data was transcribed. These notes related to potentially interesting areas in the data, as well as my assumptions coming into the analysis. Additionally, I noted particular sections where a deeper examination was possibly necessary. During the subsequent analysis and write-up of the findings, I kept a physical researcher log notebook with notes from my work sessions. Taking the time to reflect on my thoughts on the data allowed me to confront various expectations I had of Lilly and her data, although future research would benefit from keeping the researcher log within NVivo (Baralt, 2012).

Context and Participants

A thorough description of the study's context is a vital hallmark of quality qualitative inquiry (Friedman, 2012). To begin this section, the contexts of the university at which the focal participants studied and the partner university will be described. This discussion includes a general explanation of the process for choosing participants, while specifics for each case study subject are outlined in their respective chapters. I finish this section by detailing my positionality in relation to the university setting, the course, and the participants.

Context. The telecollaborative project examined in this report was conducted in an upper-level German language course at a large, Midwestern US university. Two iterations of this study were conducted, one in each of two subsequent semesters. The first iteration served as Study 1 and is discussed in chapter 4, thus warranting description here. The general context of the courses will be detailed, followed by relevant semester-related differences in the case study participants' respective chapters (Chapter 4 for Study 1 and Chapter 5 for Study 2).

My co-researchers were lead instructors of the respective courses involved in this telecollaboration project. The professor and the instructor at the partner institution had more

sustained contact with the students than I did. The US-based instructor will be referred to as the professor throughout the present dissertation to decrease the likelihood of participants' identities being discovered. The professor and instructor were present for the respective course meetings, office hours, and one-on-one meetings. Ultimately, the decisions regarding pedagogy, including the structure and tasks for the telecollaboration, were made by the lead instructors, as they were the instructors of record for the courses.

The main foci for the US-based course were applied German linguistics and language learning, as well as academic skills, such as scientific reasoning and writing. Under those categories, the objectives focused on developing a variety of abilities, including linguistic, cultural, professional, and personal skills. As the aim of the German curriculum overall sought to facilitate students' achievement of Advanced Low speaking proficiency, ACTFL standards were also taken into great consideration while developing these objectives, as well as the assignments and telecollaboration tasks.

Participants. The US-based participants in this study were undergraduate students in a German course beyond the basic curriculum at a large Midwestern university. The participants in the telecollaboration project described here were in their late teens to mid-twenties and ranged from freshman to seniors at the university. The students met face-to-face with the instructor of the German course twice per week. The partner students were enrolled in an advanced English course at an applied teaching college in Germany.

The project spanned 7 weeks of the course, a decision made based on the window of time during which the university semesters in the US and German contexts overlapped. The students were assigned 1 interaction-based task weekly, for a total of 7 tasks, with a range of topics related to what students were covering in their courses. Prior to the course, the instructors attempted to make all prompts as relevant to students in both courses by coordinating syllabi to

the greatest extent possible. Not only were the US students required to complete these tasks, but they were also assigned periodic guided reflections on the course blog relating to their experiences. This allowed them to ‘unpack' their often complex interactions and developments.

The case study participants in both Study 1 and Study 2 were completing majors in German, albeit with very different backgrounds and language proficiencies, as well as different goals for their education and futures. Although the specific steps taken to choose these participants are discussed in detail in their respective chapters, the following section gives a brief outline of steps taken to narrow down the pool of potential case study subjects.

Choosing case study subjects. My pool of possible case study subjects was a convenience sample, based on the students enrolled in a specific German course beyond the basic curriculum. This course was the one in which I was placed for a shadowing and research assistantship experience. Although convenience was a deciding factor in my decision to begin researching this particular subset of students, choosing which particular participant or participants will be analyzed in case studies requires careful consideration.

The decision on the type of representation one wants is always an important one, regardless of study size or type; for example, choosing extreme cases, choosing a sample of ‘typical' college-aged students, or even choosing male or female participants can have implications on ones' findings (see Duff, 2012). My preliminary work with the data for this project included listening to a subset of the data from each semester, that is the first 10 minutes of each of the 7 tasks; during this process, I noted possible themes and relevant details to each participant. From there I narrowed the case studies down to those which seemed to have the most identity-relevant occurrences in the data, based on my informal note-taking.

Students were instructed to complete approximately half of their interactions in German, and half in English. As my focus was initially on German learners' identities as speakers and

learners, I eliminated any groups in which a large majority of the tasks were completed in English and those without a German-speaking partner from consideration for my research. Due to issues in participation, some groups did begin with a German-speaking partner and ended without one. Eliminating these cases allowed me to eliminate some variables from the analysis.

As previously mentioned, each student was assigned a partner at the German teaching university. Due to unequal enrollment numbers in each context, some groups of 3 needed to be formed. For the current dissertation, I found it important that each group studied consisted of 1 student from the US context and 1 from the German context, in order to avoid a variety of difficulties my PI and I observed. Additionally, choosing 1-on-1 groups made the case studies more comparable. By keeping this consistency, it eliminated any variation caused by differences in interaction with the groups comprised of 2 American students and 1 German student.

Situating the researcher in the university setting. When the researcher is present in the context of the study, it is key that their presence is examined. Even when the case study subject is separated and studied in isolation, one cannot ignore the importance of interactions with other humans, including the researcher. Duff (2014) explains this necessary consideration by noting that interactional data are co-constructed, which is to say that the participant does not create their utterances independently. The other participants in the treatment group influence the focal participant; even the researcher acts as a "mediated co-participant" or research instrument (Duff, 2014, p. 239). Due to this, it is key to situate the researcher, me, within the course and university context.

The decision to include a description of my position as a researcher within the university setting is predicated on the understanding that the entire process of research, from planning to reporting, is inherently a subjective and interpretive process (Duff, 2014). The researcher cannot completely prevent themselves nor their prior experiences from shaping the study design,

process or analysis (Duff, 2014). A thorough description of the positionality of the researcher reveals this truth to the reader but also adds to the rigor of the study by acknowledging the limitations the researcher's presence may impose (Duff, 2014; De Costa, 2015).

At the time of the first iteration of this project, I was a Ph.D. student studying at a large US university. Data collection for the pilot study and Study 1 happened during the semester in which I was an assistant for the German course beyond the basic curriculum. During my first few weeks as a course assistant, I observed the professor's lectures and assisted students with concerns during group work. I was also tasked with monitoring the course discussion forum and communicating with students there, as necessary. Later in the semester, I planned and taught my lessons in consultation with the professor. In addition, I acted as a substitute for the professor, as needed. My duties also required that I hold weekly office hours, assist in grading, and answer emails from students. My active role in the course meant that I had contact with the students and their work regularly. Following the end of this course, my duties included gathering, anonymizing, transcribing, coding, and analyzing data.

During semester 2, I was unable to be in the classroom context for a variety of reasons. This meant that I was not able to create a rapport with the participants, nor was I able to add other potentially useful datasets, such as classroom observations. This meant that a corpus-like approach was taken with the data utilized in Study 2. As I was acquaintances with the case study subject, this allowed me to keep a distance from her. De Costa (2015a) recommends time and distance as ways to reducing empathy with participants, especially ones with whom the researcher may have a relationship of some kind.

Data Types and Collection

In keeping with qualitative research precedent, the present dissertation utilizes a variety of data sources to allow for triangulation. As Friedman (2012) notes, the utilization of multiple sources of data increases the legitimacy of findings, by allowing the researcher to ascertain whether patterns and similarities in coding occur across data types. Triangulation of data sources is key to increasing the credibility of the study as it allows one to provide more thorough evidence for patterns occurring in a variety of contexts, rather than as anomalies in a certain context (Duff, 2014). As identity is context-dependent and co-constructed with the interlocutor (Norton, 2013), triangulation is an important step in building credibility, as it allows the researcher to verify commonalities between the data elicited in various contexts.

The data collected for this study can be considered naturalistic. As described by Friedman (2012), naturalistic data collection is a hallmark of qualitative research. Naturalistic data collection elicits data that are not intended to test a hypothesis. Although the data were elicited for a separate research project, the tasks were assignments specifically formulated to reach the pedagogical and language learning goals of the course. These assignments were not intended to be treatments to test a specific hypothesis, thus qualifying them as data that would naturally occur in a language course beyond the basic curriculum.

For the present study, I utilized 3 main types of data: 1) telecollaboration interactions 2) discussion forum (blog) posts, and 3) a follow-up interview. The fourth element listed below and previously, the researcher log, is not included in the analysis. Nonetheless, researcher logs are an important piece for rigorous and ethical qualitative research, therefore it is important to include this as a type of data collected. Each of the first 3 types of data is outlined individually in this section, including its importance to the study, collection procedures, and collection time frames,

as well as transcription and coding procedures (Table 2). As the researcher log was only employed during the dissertation case study, it is described in greater detail in Chapter 5.

Table 3: Data Types and Collection Timeframes for Study 1 and Study 2

Data name	Data Types	Collection timeframe
Interactions	Audio recordings, video recordings, emails, chat logs, posts on telecollaboration discussion forum	Semesters 1 and 2
Reflections	Posts on the course discussion forum (blog)	Semesters 1 and 2
Semi-structured interviews	Audio recordings of interviews with focal participants	Semesters 1 and 2
Stimulated recall	Audio recording of focal participant reflecting on 2 clips from telecollaboration interactions	Semester 2
Researcher log	Written reflections during coding and analysis (per Duff, 2014 recommendation)	Throughout coding and analysis of data for semester 2.

Interactions. The telecollaborative interactions between the students in the US-American context and students in the German context are the main source of data for this study. Although the interaction data includes both the American- and German-context students' utterances, it is important to note that this study focuses solely on the US-American students' data. These interactions were part of a 7-week-long telecollaboration project between the two courses. For each of the 7 weeks of the project, students were assigned a task to complete with their partner. The tasks were designed to fit into the syllabi of both courses and to elicit negotiation of intercultural topics. Tasks included subjects such as language learning experiences, time spent abroad, and cultural stereotypes. Following semester 1, the tasks were revised and another iteration of the course was taught during semester 2. Briefly, the tasks were as follows (the general topics are listed here by task number):

1. Introduction: Who am I?
2. Stereotypes and Cultural Diversity
3. Teaching and Learning Other Languages
4. Technology-mediated Communication and Learning
5. US vs. Germany
6. Reflection
7. My Future and My Language of Study

Students in both courses were required to document their interactions with audio recordings of synchronous video chats or transcripts of emails or text chat. Submission of interaction data was a required part of the students' grades for both courses. Although each task had a due date, these were generally flexible because of the challenges many students faced in regularly communicating with their telecollaboration partners.

During semester 1, the interactions took a variety of forms, the most common of which were transcripts of written communication, such as emails or Facebook chats and audio recordings of video chat conversations, for which students mainly utilized Skype. At the end of each semester, the professor and I gathered the data from the course management system (CMS) and organized the data by semester and then further by task number in a shared drive. Following these steps, we anonymized the written transcripts by assigning pseudonyms for the US students and their partners and removing identifiers from the data.

These steps were taken after the semester ended, in order to separate the pedagogical and research purposes of the data to decrease bias as much as possible. A provision stating that research would commence after the semester had concluded was included in the informed

consent materials given to students to ensure students that their participation or withdrawal from the study would not affect their standing in the course. Additionally, all follow-up interviews were scheduled and conducted after the academic year had concluded.

Reflections. In addition to the interactions with their partners, the students in the US classroom were required to complete weekly reflective blog posts and assignments, some of which elicited information related to their experience with the telecollaboration. These discussion forum posts were written for a peer and teacher audience, meaning that the telecollaboration partners did not have access to this information.

Although not all of the blog posts included information related directly to the telecollaboration project, nor did all class assignments, it is important to include these data. By including various data points, I am able to complete a more thorough analysis and triangulation of the students' views of their own identities, as well as their views of the telecollaborative interactions outside of the interactions themselves. In the course discussion forum, also called the course blog, the students in the US context were able to openly reflect on difficulties and struggles without the affective influence of fear of judgment or retaliation from their telecollaboration partners. This reflection also allowed students to compare their experiences to those of their peers and to parse which interactions showed cultural traits and which were individual differences.

Semi-structured interviews. Interviews are a very typical type of data collected in qualitative studies because they allow the researcher to expand upon existing data and triangulate findings (see Saldaña, 2011). Interviews also add an emic, or insider perspective (Saldaña, 2011). A semi-structured interview format was chosen for this study because it allows for the collection of relevant data but also for spontaneous exploration of topics that are introduced during the

discussion (see Saldaña, 2011). I also found this type of interview to be most appealing because of my personal and professional relationships to the participants.

My familiarity with my participants outside of the research context meant that a structured, more formal discussion was a less authentic way to interact with them. In addition, I made this decision because the complex and evolving nature of identity makes writing strict, rigid questions for a structured interview impractical. I did, however, prepare an interview guide with general questions (Appendix A) to guide our conversation toward specific aspects I had noticed in the data while reading, listening, transcribing, and coding. As Friedman (2012) recommends, this guide served as a guide but not a set plan for the interview. The interview for Study 2 included a short stimulated recall activity. I played 2 short sections of the participant's interactions with their partner and asked general questions, such as those suggested by Friedman (2012) "What is happening here?" (p. 189) to prompt the participant's reflection. I chose these sections as a result of the pre-coding steps I had taken. These selections were made based on my decision to focus on Lilly's identities, especially as a heritage language learner.

De Costa (2015a) emphasizes the discursive nature of interviews, wherein both the interviewer and interviewee structure the interview and position one another throughout the process (see also Duff, 2014). This co-construction is a reality of all human interaction that may affect the quality of data one receives, as well as the interpretation and results thereof. This requires careful wording of questions and statements during the interview interaction to avoid such pitfalls as leading questions and interpreting during the interview. To safeguard against this, I created an interview guide with questions to keep the semi-structured interview focused. This, along with careful documentation of the researcher's positionality, is key to quality qualitative research.

During Study 1, I added the interview step while working on the analysis of the case study subject, Kathy's interactions. At that stage, the interview was mainly conceptualized as an avenue for exploring Kathy's developing social capital and to ascertain whether that capital continued to grow and increase her access to linguistic resources beyond her time in the course and the telecollaboration project. The interviews for this study were conducted with case study participants approximately one calendar year following the completion of the telecollaboration project.

This approach was chosen because longitudinal data collection is important and often expected for case studies (Duff, 2014), although there are varying definitions of what constitutes longitudinal data (Ortega & Iberri-Shea, 2005). In addition, this gives the participants some temporal distance from their interactions with their partners. While tracking the participant over a long period to a rather limited extent, several improvements to the design could have been made, including more frequent data collection in the timespan covered (Ortega & Iberri-Shea, 2005). Additionally, the time following the end of each telecollaboration project was needed to gather, transcribe, and begin the analysis of the dataset. This allowed me to preliminarily analyze the data and create specific questions to guide the interviews.

In the case of Study 2, I included a short stimulated recall. A stimulated recall typically occurs when the interviewer has the participant listen to or read a portion of the data. Following this, the researcher asks general questions to prompt the participant to reflect on their feelings and thoughts regarding this interaction (see Saldaña, 2011). The time following the end of semester 2 was needed not only to transcribe and begin the analysis of the data but also to choose appropriate sections for the stimulated recall. I chose 2 sections for this activity. The first clip was a conversation in which case study subject Lilly was disagreeing with her German partner Claudia about aspects of the German culture. This was interesting from a cultural capital and

identity perspective. The second clip related to Lilly's feelings of not truly fitting into either US-American or German culture.

The choice to conduct interviews approximately one year after the project's completion meant that some of the participants were no longer on the university's campus for various reasons. This hurdle to completing face-to-face interviews was mitigated by the use of technology. Each participant was allowed to choose their desired method for the interview, such as phone, Skype or in-person, to accommodate distance and time constraints. This also allowed participants to choose the mode of communication that made them most comfortable while interacting with me.

My interview with Kathy for Study 1 was conducted over the phone and recorded using the microphone on a laptop; this was necessary due to time constraints and the participant's geographic location. The interview with Lilly took place face-to-face on the university's campus and was recorded using my laptop. All interviews were stored securely with the data being used for the current dissertation. The details of these two specific interviews are given in their respective case study chapters.

Analysis Procedures

Once data were collected and organized, the process of data analysis began in earnest, although Friedman (2012) reminds us that the analysis of qualitative data begins as soon as researchers collect the data. The observations made during the collection may shape further data collection and the resulting analysis. The analysis began with the transcription of audio files. I include this in the analysis section, as my process of transcribing audio files allowed me to work very closely with the data and to make notes on salient portions of the data. Transcription was in a way a pre-coding step. Following transcription, I anonymized all files. To conclude, I coded the

data. In the section addressing coding, I present key features of NVivo, the coding software utilized in this dissertation.

Transcription. The students in semester 1 submitted mainly text chats and emails, making transcription less necessary, especially as my case study subjects from semester 1 communicated via email with their partners. During semester 2, students submitted audio recordings of their interactions with their partners. This is likely due to strong recommendations made to the students by the instructors to communicate synchronously, ideally via video chat. This recommendation was made following the perceived higher success of the few students who engaged in spoken interactions during semester 1, as well as the results of other studies that showed various affordances of synchronous communication in telecollaboration (e.g., Barron & Black, 2015; Darhower, 2002, 2008). The case study subject from the semester 2 data, Lilly, communicated with her partner via video chat and submitted records of her interactions as audio recordings of those chats.

To familiarize myself with Lilly's data, I transcribed the 7 tasks and 1 interview myself. Saldaña (2011) highly recommends that authors transcribe at least the interviews themselves, as this creates an "opportunity to become intimately familiar with literally every word" (p. 44) uttered by the participant. In addition, transcription itself is a form of analysis or at least a "warm-up for more in-depth analytic work" (Saldaña, 2011, p. 44). I used a word processor and my computer's media player to complete this task. The media player allowed me to play the recordings at slower speeds which supported the process. In some cases the audio quality in the recordings was poor. In these instances, I left the note ‘unintelligible' in the transcript. This generally happened with Lilly's partner's data, which is not analyzed in the current dissertation. I provided time stamps approximately every 3-5 minutes. I followed a literary transcription-like process which means that non-standard pronunciation and grammatical features were part of the

transcriptions (Kowal & O'Connell, 2014). I omitted filler words, such as ‘uh' and ‘um', as suggested by (Saldaña, 2011), although Kowal and O'Connell (2014) caution against omitting these portions of utterances. These were left out of my transcriptions as they seemed to be distractions from the utterances. In future versions of this study, I would include these in the transcriptions for a more accurate representation of the interactions.

Once each transcript was complete, I reviewed the transcript while listening to the recording again, making edits for accuracy. Transcription and the subsequent review process allowed me to do a close reading of the data before the more formal coding process. At this time, I made notes regarding interesting and salient portions of the data using the word processor commenting feature.

Anonymizing the data. Information regarding the steps taken to anonymize the data, including various concerns raised by scholars are also described in the section on ethics, yet it is key to mention aspects of this process that may have had effects on the data analysis. Creating and storing files in a manner that ensures the privacy and anonymity of research participants is a vital part of quality qualitative research. This may mean that certain information is omitted for participant safety. Following the collection of data and transcription of files, I anonymized and removed any personal or identifying information for ethical and privacy reasons. This process included giving the participants and their partners pseudonyms, as well as removing place names. By removing the participants' real names, I was able to create some distance between them and myself, as well as to protect their identities.

During the analysis and write-up stage of the project, I made the names of certain clubs and organizations to which the participants belonged more general. As mentioned in the ethics section, this is because this membership may have been unique to one or a few of the students in the course, making identification of the subjects more likely. For example, if a participant

mentioned being on a university club soccer team, I might generalize this to say that the participant played organized sports on campus. Although this omits part of their campus-related identities, it protects the confidentiality of the participant, by shielding a piece of information that was potentially unique to them.

Coding. Baralt (2012) describes coding as the "process of organizing raw data into themes that assist in interpreting the data" (p. 222). In this section, I outline the development of the themes, or codes, utilized in Study 1 and Study 2, as well as the general coding processes. Although the coding schemes for each chapter differed slightly, the coding process for both chapters was the same. In this section, I include a discussion of the qualitative coding software, NVivo, and its relevant features. Although Baralt (2012) points out that qualitative coding is inherently more interpretive than quantitative coding, the use of a rubric helped to guide the coding process.

To begin the process of coding, I followed Baralt's (2012) suggestion to listen to or read the entire dataset as a preliminary step. Saldaña (2011) emphasizes the importance of rereading and rereading the data, noting that it allows the researcher to gain intimate familiarity with its contents and begin to notice significant details as well as make new insights about their meanings. Patterns, categories, and their interrelationships become more evident the more you know the subtleties of the database (p. 95).

While working through this step, researchers can develop emergent codes (Baralt, 2012). While reading through the data, I made notes on sections that were of particular interest, as suggested by Saldaña (2011). Once I was done reading through the data, I began coding using the preliminary coding scheme. Following this initial coding in each phase of the project, I reevaluated and reflected upon the codes, again per Baralt's (2012) suggested best practices.

After 2 iterations of this partial coding and reevaluation of the coding scheme, I coded the entire dataset for each participant.

During the pilot phase of this research project, all data were coded by hand and manually compared for the analysis. Duff (2012) asserts that hand-coding may serve pilot studies well, while the software is more appropriate for larger projects. This allowed me to gain the skills necessary for creating a coding scheme and utilizing the scheme for the coding process. The choice to utilize NVivo, a qualitative coding software program, was made for various reasons. NVivo is commonly used in qualitative research within SLA (Baralt, 2012; Duff, 2012). Baralt (2012) highlighted the reasons why researchers typically utilize technologies like NVivo, those being the affordances of qualitative data analysis software can offer:

1. organize a plethora of data types
2. interact with all data types in one place
3. search data and codes
4. improve credibility of findings (p. 228)

Additionally, I learned to use NVivo as part of my graduate coursework which created a convenience factor. I found that the ability to code and visualize my data allowed me to develop a more thorough, nuanced picture of what occurred during the interactions, as well as any developments over time. I was also able to visualize the co-occurrences of nodes, which made the intersections of identity and capital more salient, an affordance of NVivo noted by Baralt (2012).

Qualitative researchers fall on varying points of a spectrum regarding the necessity of interrater reliability and second-raters or coders. Baxter and Jack (2008) recommend the process as a way to bolster credibility. Friedman (2012) notes that in lieu of interrater reliability which is

common in quantitative studies, many qualitative studies "aim for dependability by documenting methodology in rich detail and providing multiple examples of the phenomena being analyzed" (p. 194). Some qualitative researchers go as far as to criticize the reliance on interrater reliability as a "superficial marker of positivist scientism" (St. Pierre & Jackson, 2014, p. 715) in which coders may have limited or no knowledge of the study's participants or theoretical context. Qualitative research relies on the familiarity of the research with the context and participants.

For this dissertation, I followed the recommendations of Friedman, opting for rich documentation of methods and decisions. This chapter serves to document the methodology of the current study while the phenomena are described in richer detail in the subsequent chapters. To continue presenting the methods with rigor, it is important to briefly clarify some of the details of NVivo in the interest transparent and rich descriptions of the methods.

An overview of NVivo. Before describing the features of NVivo, it is important to clarify the relevant terminology relating to the software. Within NVivo researchers can create cases. A case can be a particular participant, context, etc. This is useful when multiple participants are included in a given study. The main codes are called nodes within NVivo. These are the larger buckets into which pieces of data are sorted. Sub-codes, are referred to as subnodes within NVivo. These include codes that are a specific subset of the main code, such as is the case with linguistic capital and social capital (subnodes) and capital (node) in Figure 1 below. Sources refer to the individual documents uploaded within a given project and references are the number of individual times each node or subnode is assigned to a piece of data. For example, in Figure 1 the code identity was utilized in 16 unique instances in 9 documents.

As can be seen in Figure 1 below, a variety of nodes emerged during Study 1 coding process. This screenshot is from the nodes coding section in NVivo. The left-hand column includes the nodes and any subnodes. Nodes are the larger, overarching codes and subnodes are

smaller constructs contained within the main codes. For example, identity included the subnode of heritage. The middle column shows the number of sources, or documents, in which a given code is found. Each task is its source. The column on the right side shows the number of references made to each code, that is the number of times a given code was applied overall. As can be seen here, capital was referenced in 46 separate instances throughout the dataset, with linguistic capital accounting for 20 of those.

While coding for Study 1, it became increasingly apparent how broad the term capital was. Therefore, I decided that it would be most informative not to just code all data only under the large umbrella of capital, but rather to also code the nodes as the specific types of capital being examined. In addition, it seemed to me that the possession or lack of different types of capital had different effects on the process of identity development. Therefore, I decided to further differentiate between possessing and needing different types of capital. These nodes can be seen in Figure 1.

Name	Sources	Refere...	Created On	Created By	Modified On
Capital	16	46	Jan 26, 2017, 10:47	CL	Jan 26, 2017, 11:05
Cultural Capital	5	8	Jan 17, 2017, 13:34	CL	Feb 6, 2017, 10:55
Linguistic Capital	12	20	Jan 17, 2017, 13:28	CL	Feb 12, 2017, 21:56
Social Capital	10	18	Jan 17, 2017, 13:30	CL	Feb 12, 2017, 22:03
Identity	9	16	Jan 26, 2017, 10:46	CL	Feb 12, 2017, 21:55
Heritage	2	3	Feb 6, 2017, 21:39	CL	Feb 12, 2017, 21:53
Ideology	1	1	Jan 17, 2017, 13:29	CL	Jan 26, 2017, 11:05
Misc. interesting	3	4	Jan 26, 2017, 10:47	CL	Feb 6, 2017, 10:58

Figure 1: Nodes for coding Kathy's data (NVivo version 12).

NVivo allows the researcher to readily visualize the density of the various codes in a dataset. As can be seen in Figure 2 below, the ‘all nodes coding' option for the coding stripes provides a visual that allows researchers to view areas in which there is an overlap of different codes. The task text is shown on the left-hand side. The codes are listed vertically on the right side, each with its color. A gray bar separates the text and the nodes. This shows the coding density which visualizes the areas of the data that were coded the most. As the present Study 2 focuses on the intersection of capital and identity, this feature proved to be particularly useful in the process of analyzing Lilly's data (see Chapter 5). As Figure 2 shows, I allowed multiple codes to be applied to data sections, as the constructs of identity and capital are closely related.

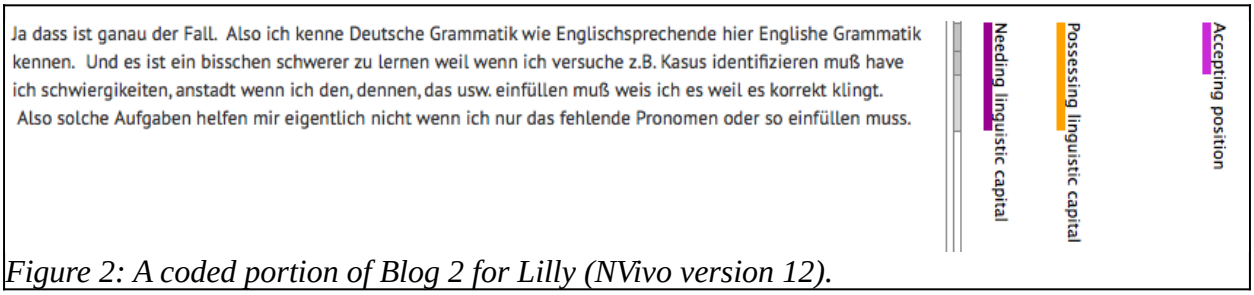

Figure 2: A coded portion of Blog 2 for Lilly (NVivo version 12).

NVivo also allows the researcher to click on a given code and see the places within the dataset where the given node was coded, as well as to see the coding coverage for each text. This gives the researcher the ability to see which pieces of the data include the most references to a given node. This also gave me the chance to verify that I was applying my codes properly by gathering them in a central location where I could check them against the description in the coding scheme. I was able to recheck each reference against my coding scheme. This feature was heavily utilized during the creation of the final iteration of the dissertation coding scheme.

NVivo allows researchers to view all the references made to a given node by the documents in which they appear (see Figure 3 below). The screenshot below shows an example

of the output for choosing to view the node *identity.* Each document is listed with all instances of the chosen code listed under the larger sub-heading. This view within the software is particularly useful for discerning patterns over time within and between the tasks.

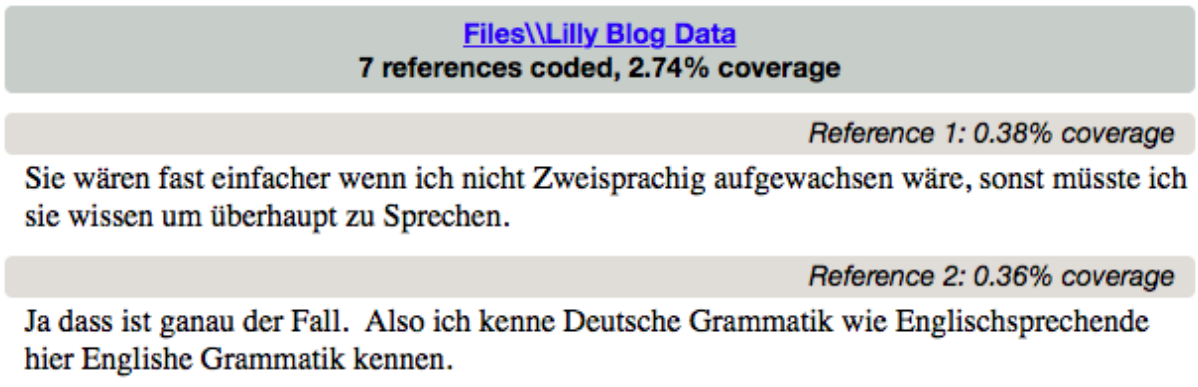

Figure 3: Coverage and number of references coded for 'identity' in Lilly's blog data (NVivo version 12).

As can be seen in Figure 3, 7 references were made to identity in Lilly's blog data, totaling 2.74% of the data in that given file. Although purely qualitative data analysis does not employ statistical analyses, comparing the coverage in each document, as well as the number of references, helped me to see how she described her identity throughout the telecollaboration project. Comparing these coded segments is easier when they can be isolated and visualized within context using one program (Baralt, 2012). In this process, I read over the data in this output view and compared each section to the coding scheme definition for that given node or subnode. Through this process, I was able to refine codes and to discern patterns in the data.

Conclusions

Now that the participants, context, data sources, and analysis procedures have been generally outlined, the following chapters more specifically detail the process of researching Kathy and Lilly's identities (see Chapter 4 and Chapter 5, respectively). The methods outlined in this chapter, as well as in the subsequent chapters, were specifically chosen to match the types of data and questions being asked. Case study research is rather valuable when researching individualized concepts, such as identity (Duff, 2014). By examining specific cases in isolation, researchers can test and build upon existing theories, while describing specific situations and circumstances (Chen, H., 2013). Even the decision to personally transcribe Lilly's spoken data by hand was made with best practices for qualitative research in mind (Saldaña, 2011). The process of transcription allowed for careful, close reading of the data before coding (Saldaña, 2011).

The following chapters outline Study 1 (Chapter 4) and Study 2 (Chapter 5). Chapter 4 focuses on the experiences of Kathy, a student in semester 1. Chapter 5 focuses on Lilly, a heritage speaker of German in semester 2. Both of these chapters are included to create a clear picture of how the study changed throughout its main iterations. As previously mentioned, each chapter has a short section on methods that outlines details relating to the selection of participants and the coding scheme.

Chapter 4: Study 1

Introduction

This chapter analyzes the experiences of the Study 1 subject and the development of her investment during a 7-week-long telecollaborative exchange. For Study 1, I examined the telecollaborative interactions of Kathy, a female US-American student in a German course beyond the basic language program at a large Midwestern university. She took part in the first iteration of the telecollaboration project which took place in semester 1.

Throughout this chapter, I make references to decisions that lead to the design of Study 1 as it is currently presented. For that reason, it is important to note that this study took place in three stages. Table 3 presents the various stages of the current project, along with the semester during which the data was collected, the names of participants for each stage, and the theoretical framework.

Table 4: Project Stages with Semester, Participant Names, and Theoretical Framework

Project Stage	Data used	Participant names	Theoretical Framework
Pilot study	Semester 1	Christine and Kathy	Identity
Study 1	Semester 1	Kathy	Investment
Study 2	Semester 2	Lilly	Identity

As shown in this table, Kathy was one of two case study subjects in the pilot study. Her data was then utilized for Study 1. The reasons for choosing Kathy are outlined further later in this chapter.

For the purposes of Study 1, I focus on Kathy's investment, which consists of the intersections between her multiple identities, the various types of capital she possessed, and any ideologies affecting her learning experience. I utilized Norton's (2013) conceptualization of identity as the process of "how a person understands his or her relationship to the world, how that relationship is structured across time and space, and how the person understands possibilities for the future" (p. 45). Capital stems from Bourdieu's (1986) work; in said work, the author divides capital into various types, including linguistic and cultural capital, which are described thoroughly in Chapter 2. Capital is, generally speaking, the types of goods a learner has that give them power. Identity and capital are part of Darvin and Norton's (2015) concept of investment, along with ideology. As Study 2 no longer concerns itself with investment, the construct is not explained in the literature review presented in Chapter 2, therefore descriptions of both investment and ideology are included in this chapter.

Following this, I briefly outline the stages of the study, including the pre-pilot phase that took place before my analysis of Kathy's data. Then, I introduce Kathy and her roles as student and language learner, as well as relevant personal information while making appropriate efforts to follow ethical practices to protect her identity. The methodological decisions are outlined thoroughly, expanding upon the general methods described in Chapter 3. This is followed by the original research questions and the steps of coding scheme development. In the final section of this chapter, I present my findings and, more importantly their implications for Study 2. In the concluding remarks of this chapter, I present the changes to my research design that took place as a result of Study 1.

Background

In order to evaluate the types of ideologies that may affect a learner, and thus to analyze their investment, it is important to have a thorough understanding of the learner's background and identities. In this section, I begin by describing the construct of investment, as it is a broader concept than was described in the literature review. Following this, I explain the decision to focus on Kathy for Study 1, including relevant information about the pilot study. This is followed by Kathy's background information, including relevant language learning experiences. To conclude the background section of this chapter, I describe the context of Study 1.

Investment

In this section, the framework of investment is defined. Following the definition of investment, I describe several studies that specifically utilized investment and share the methods the researchers used, including the types of data collected and analysis procedures employed. Investment is considered an identity approach to language learning, meaning that researchers typically employ the same methods for researching identity and investment.

Bonny Norton's work has been pivotal in reframing identity work in SLA and applied linguistics (see Norton & Toohey, 2011). Most notable for the current pilot study is her construct of investment, a sociologically-informed framework of identity, which was originally conceptualized by Norton in the mid-1990s (Peirce[1], 1995; see also De Costa & Norton, 2016) and later expanded by Darvin and Norton (2015). Investment demonstrates the inherently social and historical relationship between language learner identity and learning commitment (Darvin & Norton, 2015). In addition to this multifaceted approach, investment attempts to eschew traditional, dichotomous learner characterizations, such as 'good' vs. 'bad' and 'motivated' vs.

1 Bonny Norton previously published as Peirce.

'unmotivated' (Darvin & Norton, 2015) by accounting for multiple influences and aspects of the learner and the world around the learner, a task which is especially complex in the context of an increasingly digitally interconnected world.

In the afterword to Norton's (2013) revised volume on the topic of identity, Kramsch (2013) describes the construct of investment and highlights its strength in accounting for both external factors, such as the ideologies prevalent within institutions, and internal factors, such as the learner's agency and own internalized ideologies. Taking into account the changing global context and the understanding that learners are dynamic beings, Darvin and Norton (2015) developed an expanded model of investment. In a later article, Darvin and Norton (2018) succinctly describe investment as "the commitment to the goals, practices, and identities that constitute the learning process and that are continually negotiated in different social relationships and structures of power." This passage highlights key aspects of Darvin and Norton's (2015) theory of investment, namely that investment itself lies at the intersection of three rather large concepts: identity, capital, and ideology. These constructs each encompass their own complex subconstructs. By mapping these constructs and their manifestations in interactions, researchers seek to track power, inclusion, and exclusion within a given context.

Investment captures the intersection of three main constructs: identity, capital, and ideology. Identity and capital were defined in detail in Chapter 2, but it is useful to restate the main points regarding these crucial pieces of investment. Identity is how a person views their relationship to the world over time and space, as well as how they imagine their possibilities for the future (Norton, 2013; Darvin & Norton, 2015). Capital refers to the social goods a person owns, including linguistic, social, cultural, and economic goods (Bourdieu, 1986; Darvin & Norton, 2015). Linguistic capital encompasses the semiotic or meaning-making resources a person possesses, including spoken and signed languages (Bourdieu, 1986; Darvin & Norton,

2015). Social capital refers to a person's connections to networks of power (Darvin & Norton, 2015) which may include other speakers of the target language.

In their article, Darvin and Norton (2015) define ideology as "a normative set of ideas" (p. 43) and "dominant ways of thinking that organize and stabilize societies while simultaneously determining modes of inclusion and exclusion" (p. 72). The authors emphasize that ideologies are constructed and imposed by structures of power and reproduced through hegemonic practices and consent (Darvin & Norton, 2015). This is to say that societal beliefs are products of power structures and they dictate the access of certain groups to capital, such as money or knowledge.

Much like identity, Darvin and Norton (2015) emphasize that ideology does not exist in a static state, but rather that it is "a complex, layered space where ideational, behavioral, and institutional aspects interact and sometimes contradict one another" (pp. 43-44). Each ideology is a site where marginal and dominant ideas compete with one another. Marginalized ideas and states of being are broad categories that include factors such as race, ethnicity, sexuality, gender identity, language background, etc. (Norton, 2013). The norms within a society or institution affect how these marginalized ideas are received and either legitimized or delegitimized within a given context. Norton and McKinney (2011) stress that the importance of examining power is to determine how these structures might constrain or enable human action. Perceived racism, homophobia, or sexism in a learning environment, as well as discrepancies between learner and teacher expectations, may lead to a decrease in investment (Darvin & Norton, 2015).

De Costa and Norton (2016) break down Darvin and Norton's (2015) model of investment into its various interconnected pieces. These shares of the larger construct each act as moving targets within identity research, in that they are constantly in flux, changing and adapting based on the context, the interlocutor(s), the learner's experiences, and myriad other factors. In Norton's seminal article (Peirce, 1995), she argued that when learners choose to invest in

learning a language, they do so with the expectation that they will gain certain capital which will, in turn, create opportunities for access to their imagined communities. Norton and Williams (2012) highlight that learners chose to invest themselves in particular contexts "because they believe that they will acquire a wider range of symbolic and material resources which will increase the value of their cultural capital and social power." (Norton & Williams, 2012, p. 317). This assertion focuses on the agency of the learner to decide whether or not to invest in a given language learning context.

By understanding the types of capital a learner possesses, we may more readily be able to identify a learners' reasonings for investing in a given learning context. For example, a learner may be looking to gain further linguistic capital that may give them a competitive edge on the job market. Although the learner is ready to invest in the process of learning a language, they may not be willing to invest in a given language learning context. If the environment is unwelcoming to a learner's various identities or the learner's language variant is delegitimized as non-standard (Norton, 2013; Norton & Toohey, 2011), they may choose not to invest in the learning context. The result of the loss of investment may cause a loss of access to communities of speakers or even career opportunities. Darvin and Norton's (2015) model of investment highlights the complex and delicate balance between inside and outside influences on the relative success of language learning from an identity perspective.

Research on Investment. Investment, introduced by Peirce (1995), has been part of SLA research for nearly three decades. In that time, many researchers have utilized the construct to analyze language learner experiences in a variety of contexts. It is key, however, to understand that investment is part of what Norton and Toohey (2011) called identity approaches to language learning, which "often draw on critical ethnography, feminist poststructuralist theory, sociolinguistics, and linguistic anthropology" (426). Methodologically, identity research has a

strong focus on narratives, such as learners' own accounts of their learning (Norton & McKinney, 2011). Self-reported and reflective data are considered particularly useful for identity research, as they offer an emic, or insider perspective (Norton & McKinney, 2011). In this section, I focus on a key study specifically utilizing investment, with a focus on the types of data and research methods they employed (see Darvin & Norton, 2015, 2018 for more in-depth reviews of investment research). For further discussion of identity approaches to language learning research, see Chapter 2.

Norton and William's (2012) examined investment in their study of Ugandan users of the digital portable library eGranary, what they called 'Internet in a box' (p. 318). This program allowed participants to search a database of articles and archived websites, such as Wikipedia, without access to the internet. Williams collected the data as part of doctoral research, utilizing a series of questionnaires, along with observations as the dataset (Norton & Williams, 2012). Norton and Williams used the concept of scale combined with investment as the foundations for their data analysis, yet, the specific methods of analysis are not explicitly described in this article.

The results did show that the introduction of eGranary into a community with otherwise little contact with the internet or technology did expand the participants' imagined futures and increase their capital. At the end of the study, the participants' imagined futures included study abroad, travel, and higher education, although Norton and Williams (2012) note that the socially imaginable does not necessarily mean these imagined futures are socially available. Along with this expansion of imagined futures came an expansion of the participants' sense of community and place in the world. Prior to the study, the participants viewed their world as their village, with all other places being 'far away' (Norton & Williams, 2012, p. 328). Additionally, the participants transitioned from being unfamiliar with technology to possessing the capital

necessary to teach others in their community how to engage with eGranary, showing a growth in their cultural and social capital. Their experience with eGranary spurred interest in reshaping those boundaries through learning more about Uganda, Africa, and the rest of the world. By gaining valuable capital and reshaping their relationship to the world, the participants also reshaped their identities (Norton & Williams, 2012).

Study 1 and Choosing Kathy

For the purpose of Study 1, I chose one female case study subject from the US-American context. Kathy was chosen as a case study subject for various reasons. In the pilot study, I compared the negotiation of her multiple identities to that of a more proficient German speaker in her course, Christine. I chose these two subjects, because of their different language proficiencies and study abroad experiences. Additionally, both had reported high levels of perceived success in the telecollaborative environment. Christine had one of the higher German proficiencies in the course and Kathy was on the lower end of German proficiency compared to her peers in the course. It should be noted that no official proficiency tests or measures were included in this study, and therefore these assessments of proficiency are based on self-assessment and informal assessment by myself and the professor of the course. Norton and Toohey (2011) emphasize the theory-building potential of examining the outliers in qualitative research, such as those with lower proficiency.

Table 3 visualized the phases of the current research project, including the semester during which the projects took place, names of focal participants, and the frameworks used to analyze the datasets. The current chapter includes 1 participant, Kathy, and the theory of investment is used for data analysis. The results of Study 2, which focus on the case study

subject Lilly, are presented in Chapter 5. I analyzed Lilly's data with the frameworks of identity and capital.

Both Christine and Kathy were females communicating with one female-identifying partner which made their cases more comparable than if one had communicated with a male-identifying partner, mainly due to issues of gender and power dynamics (see Norton, 2013; Saldaña, 2011). In addition, they both claimed to have had successful interactions throughout the telecollaboration project, despite differences in proficiency and experiences within the target language culture.

The purpose of the pilot phase was exploratory with the goal of assessing the viability of further study to determine whether telecollaboration allowed for the negotiation of learners' multiple identities. In the pilot study, I used general codes, such as identity and imagined futures. I coded the data by hand and analyzed the data by comparing the results that fit into the codes for each participant. Ultimately, I found that both Christine and Kathy negotiated their identities in multiple and unique ways.

Kathy's development was rather compelling to me, particularly because her proficiency was lower than her peers' proficiencies, based on informal assessments. Her interactions with and reflections on the project were especially interesting to me, as she seemed to develop a more confident, asset-based identity as a German speaker. With the term asset-based, I mean that she focused on the skills she possessed, rather than the deficit-based approach she started with, which concentrated on what she could not do in the German language. This is not to say that her proficiency greatly improved, as it likely did not over such a short period of time. Rather, this is to say that she was able to view her language skills as both sufficient for interaction and as an area for continued improvement. During the process of analysis for the pilot iteration, I found

that the construct investment may actually explain her developments more thoroughly than identity itself. This led to the decision to utilize the framework in Study 1.

The choice to focus on one case study subject during Study 1 is due to my interest in working carefully to create a viable coding scheme, along with the opportunity to work with one participant's data in a detailed and rigorous manner. This approach had the advantage of making several challenges clearer, and in doing so, it brought my attention to ways in which the coding scheme and overall study could be improved.

About Kathy

Kathy was a pre-professional student of average college age. At the time of the data collection, she intended to enlist in the armed services upon her graduation, like several other students in the course. Prior to the telecollaboration project, Kathy had spent a portion of the summer semester in Germany as a participant on a study abroad program through her university. For the majority of her time abroad she lived with a German host family and another student from her university. During that time, she attended 3 courses designed to improve cultural and linguistic knowledge. The rest of her time in the program consisted of faculty-led travel through major cities in Germany with her study abroad peers, in order to see important historical and cultural sites.

Kathy was a native speaker of English and was learning German as a second language. Unlike many of her peers who had experience learning German in high school, she first began learning German in college. In addition to German, Kathy had learned a language (Language 1) during high school and she studied another language (Language 2) as part of her degree program. The specific languages are obscured to prevent providing potentially identifiable information about Kathy. Kathy had a variety of language learning experiences, including chances to learn

German in several contexts. Despite this, during the telecollaboration, she often expressed frustration with the difficulties she had encountered while speaking and learning German, especially in her courses. Within the course context, I observed that Kathy was quiet and shy, speaking very little with her peers. She tended to avoid opportunities to speak in front of the entire class unless necessary.

Hilde, a female German native-speaker and English learner, was Kathy's partner for the duration of the telecollaboration project. She was a student at a higher education institution in Germany and was approximately the same age as Kathy. They were able to communicate one-on-one and did so via email for the purposes of this project, although Kathy did reveal during the interview that they had communicated using Facebook and the text-messaging application WhatsApp for more informal conversations; however, the professor and I do not have access to any of this data for research purposes.

During the analysis of Kathy's data, I decided to include an interview with her, in order to allow for triangulation of the data points of interest, and in an effort to gain a deeper insight into the longer-term effects of the telecollaboration project by answering questions that had arisen during analysis. In using "longer-term" here, I mean the potential effects beyond the semester during which the project was completed. Following the first complete analysis of the telecollaboration data, I conducted a semi-structured interview with Kathy over the phone, due to time and distance constraints. This interview took place approximately one calendar year following the telecollaboration.

Context

For Study 1, I utilized data collected during semester 1. The telecollaboration project was implemented in a German course beyond the basic curriculum at a large Midwestern university

taught by the professor. I was the assistant for this semester of the course, as well as a research assistant to the professor in the following semester; my positionality in relation to the participants, in general, was addressed in Chapter 3, although it is important to explain the nature of my relationship to my participants in the interests of conducting an ethical and transparent research study.

I knew many of the students in the semester 1 course from short, informal interactions at various German program events. As a long-time student at this particular institution, I was acquaintances with the Study 1 subject, Kathy, from German-related activities outside the formal university course setting, such as the weekly German coffee hour and movie night, which were hosted by the German club and German program at the university. My interactions with Kathy during semester 1 occurred within the weekly course meetings, via emails pertaining to the course, and during my office hours, in which we discussed the course material. These interactions were no different from any other students enrolled in the course.

As the course assistant during semester 1, I was a regular part of the course context for the students. I contributed to the creation of the syllabus, observed the course meetings, and graded students' assignments, including their participation in the telecollaboration project. In addition to these tasks, I designed and taught lessons under the supervision of the professor, held office hours, and arranged meetings with individual students on an as-needed basis. This level of interaction with the students during semester 1 meant that I developed a professional student-teacher relationship with the students. This relationship can influence the study in a variety of ways, which is outlined in the ethics section of Chapter 3.

My position also included research-related duties, such as data collection, transcription, and coding, which allowed for a level of familiarity with the participants and cognitive ownership of the data. Saldaña (2011) describes cognitive ownership as gaining intimate

familiarity with the data by intensively working with the dataset. Familiarity with the data is key as qualitative researchers work to "notice significant details as well as make new insights about their meaning" (Saldaña, 2011, p. 95).

Methods

Although the general methods utilized throughout the study are explained in detail in Chapter 3, it is important to give due attention to the methods specific to Study 1, as there are some key differences between Study 1 and Study 2. In this section, I present the research questions, followed by the types of data and the development of the coding scheme. To conclude this section, I present the coding and analysis procedures.

The changes I made to the study design following Study 1, including the coding scheme and research questions, are discussed in the concluding remarks of this chapter, as they affected the design of Study 2. Presenting the development of this study in this manner allows for meaningful reflection on methods and provides the background knowledge necessary to understand the coding scheme and analysis in Study 2 (presented in Chapter 5).

Research Questions

The research questions that guided the initial pilot study focused on the development of students' multiple identities during the telecollaboration project. The construct of investment seemed to have the potential to be a more fitting theory of identity for this particular data. For the purposes of Study 1, the following research questions were developed following a preliminary literature review and previous work with the data. These questions were meant to guide an exploratory analysis of the data with the goal of developing a coding scheme for Study 2.

1. What investments (i.e. identities, ideologies, and capital) are revealed by Kathy in her interactions with her telecollaboration partner or in the subsequent interview?
2. Is change in Kathy's investment in the telecollaboration or her language learning evident in her interactions throughout this telecollaboration project?

Within these broadly-focused questions are the specific concepts that formed my initial codes (i.e. identity, ideology, and capital). Identity is how a person views their relationship to the world through space and time, as well as how they view their possibilities for the future (Norton, 2013). Capital includes the resources a person has that give them power, including languages, cultural knowledge, education, and money (Bourdieu, 1986; Darvin & Norton, 2015). Ideology describes the social norms within a given context (Darvin & Norton, 2015, 2017). In the next section, I detail how these codes took form and changed to better explain the phenomena in the data.

Data Types

The types of data included in the current study are discussed at length in Chapter 3, yet it is important to reiterate the types of data before discussing the coding scheme and procedures. The main source of data for Study 1 are:

- Email interactions between Kathy and her telecollaboration partner.
- Kathy's discussion forum posts from the course discussion board.
- A follow-up interview that occurred one calendar year after the telecollaboration ended.

The first two types of data, emails, and discussion forum (blog) posts were submitted by Kathy as part of her grade for her German course. The data were not collected for research purposes until after the end of the semester. I conducted a follow-up interview with Kathy over

the phone, asking her several questions that were relevant to the preliminary findings of the project. The follow-up interview is described in greater detail in the findings section.

Development of the Coding Scheme

Prior to the pilot phase of this study, my initial experience working with the dataset was part of my assistantship with the professor. The nature of the telecollaboration project meant that the professor and I completed our work with a co-researcher who was the instructor of the partner course in Germany. The research I completed in this team took different theoretical and methodological approaches to the data than this current study. While completing my work during my research assistantship, I began to notice what appeared to be the negotiation of multiple identities during some of the interactions. While working through coding the data for the research assistantship project, I took handwritten notes of instances where participants seemed to be engaging in identity negotiation, which then spurred my first solo research project on telecollaboration. These handwritten notes served as a guide for the beginnings of the pilot phase.

In the pilot study, smaller subsets of the data were coded by hand. I chose to code the data this way in order to become more familiar with the data and the process of coding, without simultaneously having to work through the challenges of the learning curve associated with using new software. Once I became more comfortable coding, I decided a more comprehensive analysis may require a more powerful coding procedure and tool. For Study 1 and Study 2 the complete dataset for the respective participants was coded using NVivo, a coding software discussed more thoroughly in Chapter 3.

In Study 1, presented in this chapter, the coding scheme followed closely with the research questions and the framework of investment. As this phase deviated slightly from the

pilot in the theoretical framework, the coding scheme was general and unrefined to allow for an exploratory use of the construct of investment. The coding scheme initially consisted of 3 broad categories: identity, capital, and ideology. During my first round of coding, I found other areas of interest that I decided to add as sub-nodes or codes nested within the larger codes. Table 4 shows the original coding scheme utilized for the pilot study, including the definitions for each of the main codes utilized.

Table 5: Pilot Study Coding Scheme

Code	Definition
Identity	The way a person views their relationship to the world through space and time, and their potential for the future
Capital	The linguistic, cultural, economic, and social goods a person possesses
Ideology	Social norm or behavior; way of thinking or worldview

Identity contained one subcategory, heritage, to allow me to separate instances in which Kathy discussed her familial connections to German. Capital contained the sub-nodes of linguistic, cultural, and social; these are specific types of capital (see Bourdieu, 1986) and separating them allowed me to conduct a more fine-grained analysis. This loose coding scheme came with challenges, which are discussed in detail in further sections.

Coding and Analysis Procedures

For Study 1, I coded the data using the qualitative analysis software, NVivo. To begin this process, I read over the entirety of Kathy's dataset. This allowed me to make notes on interesting sections and to informally and preliminarily assess the fit of the data within the coding scheme. After reading the data completely, I coded the dataset using NVivo. This process includes selecting the sections of interest and choosing the appropriate codes (called nodes within the software).

During the second round of coding within NVivo, I added sub-codes (sub-nodes) to the existing codes to create a more fine-grained tool. I allowed multiple codes to be applied to a given piece of data, as investment is the relationships or intersections between the concepts of identity, capital, and ideology. Once the coding was completed for the entire dataset, I read through the data within each of the codes and sub-codes to be sure the selections fit within the scope of the given category. For the process of analyzing the data, I examined the coded sections for each of the codes and sub-codes, noting patterns and changes. Once I was done with this process, I began the process of writing up the findings as they pertained to each of the research questions.

Findings

In this section, I discuss the extent to which each of the sub-constructs of Darvin and Norton's (2015) construct of investment are present in Kathy's data and whether these change over time in the data collected from Kathy's telecollaborative exchanges with her partner, her assignments, and her interview. The findings are presented in the order of the tasks. Each of the sections begins with a short description of the task and the interaction, including the number of emails sent by each of the partners. The tasks are interspersed with the course discussion forum posts based on the date of completion and the interview is presented last so that all data is presented chronologically. It is important to note that not all discussion forum tasks are included in this chapter, as not all yielded results that fit into the coding scheme.

The data are presented chronologically in order to paint a clearer picture of the interactions and developments over the course of the telecollaboration project. As not all of the discussion forum posts were relevant or provided relevant information for the purposes of the present study, the blogs are integrated throughout this section, based on the task to which they

best align. The blogs are described briefly and clearly marked for clarity as they are included in this section. The interview is presented as the last piece of data.

Task 1

Task 1 was the initial task of the telecollaboration. This task took place several weeks into the US semester and toward the beginning of the German semester, due to differences in semester schedules between the US and Germany. Kathy's partner, Hilde, reached out via email to Kathy first, introducing herself and sharing basic information about herself and her life. Kathy responded, sharing a variety of information about herself, including descriptions of her language abilities and her time spent in Germany.

Kathy began the telecollaboration project with Hilde by describing herself as being capable of speaking "ein bisschen Deutsch, Language 2, und Language 1*"* ["a bit of German, Language 2, and Language 1"] (Task 1, Email 3, Line 10). Although she studied German as her major, she placed her German proficiency in the same category as Language 2, her minor at her university, and Language 1, a language she briefly learned in high school. By listing her language abilities in such a manner, she implied that her proficiencies in these languages were the same or very similar, which is to say she characterized them all as being very low. Additionally, she used the diminutive phrase 'ein bisschen,' thus characterizing her proficiency in German as very low. This insecure portrayal of her own linguistic abilities manifests itself throughout the earlier telecollaboration tasks.

Kathy very briefly described her time spent on a 6-week-long study abroad program through her university, including that she took 3 courses during her time in Germany. She claimed that since returning from her sojourn she missed Germany every day. Additionally, she explained that she had visited Switzerland and Austria on long weekends, and she had noticed

and was astounded by the different German dialects spoken in the various locations she had visited. This note shows that she possessed important linguistic capital that allowed her to notice the differences between the dialects.

Task 2

The tasks created for this telecollaboration project were specifically designed by the professor and the partner instructor to increase the learners' intercultural communicative competence (ICC), while also giving them access to a native speaker of their target language. Task 2 was particularly designed to have students address stereotypes about their own culture(s) and their partners' culture(s). Learners were then asked to speculate the potential origins of the stereotypes. Additionally, learners discussed subcultures in their city and the role language plays in intercultural communication.

In her email, Kathy mentioned the stereotype that Germans are not humorous and supported this claim by asserting that they are very serious and orderly, "Meine Deutsche Freunden mein Sarkasmus verstehen nicht. Ich finde dass sehr interessant und auch warum Amerikanerin finden Deutsche Witzen gemein oder nicht so lustig" ["My German friends don't understand my sarcasm. I find that really interesting and why Americans find German jokes to be mean or not very funny"] (Task 2, Email 2, Lines 11-13). She attributed her German friends' inability to understand her jokes to be caused by what she perceived to be a fact about the German culture. She viewed it as an aversion to jokes, not as potential intercultural or linguistic problems, although one can only speculate about the actual cause of these misunderstandings.

Although her humor was not always understood by her German friends, Kathy placed a great deal of value on her social capital. Even early in her telecollaborative interactions with Hilde, Kathy discussed the importance of other people to her language learning experience. In

her email, Kathy reported spending a short period of time in Germany prior to taking this particular German course. When describing her time abroad Kathy wrote, “I think I had anticipated people to ignore me since my speaking ability in German was pretty rough!” (Task 2, Email 2, Line 6). Her perceptions of her own language skills led to her to position herself as an interlocutor unworthy of communication with native speakers. This revealed her belief that her perceived low proficiency, that is a lack of linguistic capital, would cause others to reject her attempts to communicate in German.

Although she had initially worried about how Germans would perceive her and her language abilities, she wrote “I miss Germany mostly because of the people I met there. Everyone I met while In Germany was nice and very helpful with teaching me better German” (Task 2, Email 2, Lines 4-5). This statement showed Kathy’s eagerness to connect with members of German-speaking communities and the way she valued those connections. This statement also emphasizes her view of her social capital as a means to greater linguistic capital. Despite her fears of rejection by the Germans, her account of interactions with native speakers showed that they may not have viewed her language abilities in such a negative light. She reported that the Germans in the village where she was staying did speak with her and that they took the time to help her further develop her language skills.

Task 3

The third task required the students to discuss their memories of language learning, especially any particularly salient memories, as well as to share their beliefs about the process of language learning. Learners were also asked to explain their education system to their partner. Hilde emailed Kathy first regarding her answers to the prompt. Kathy began her interaction by explaining the details of a recent accident, then provided her answers to each of the questions.

The first question asked learners to recount any particularly salient memories of their own language learning journey. In response to Hilde's comment about the stress she felt when her teacher first began exclusively speaking in the target language, Kathy recounted her own experiences. She agreed that the shift to hearing a greater amount of the target language was significant, writing, "I felt like a failure" (Task 3, Email 2, Lines 8-9), due to her difficulties with comprehension. However, she also noted that speaking or practicing German outside the course helped her to see that she did, in fact, know more than she realized. This statement illustrates her own conflicting experiences with language learning.

In her answer to a question about language learning beliefs, Kathy explained that she believed childhood was the best time to begin learning a language. She stated,

> I wish my parents had been able to bring in a German tutor or sit down and practice the languages they knew with me. I know I plan on doing that with my children because I think it will help better their future (Task 3, Email 2, Lines 23-25).

In this passage, Kathy indicated an imagined future in which she would pass on her German skills to her children, which in turn would improve her children's future prospects. This indicates that she placed great value in the linguistic capital one gains by learning a world language, especially from a very young age.

In a course discussion forum post from the same timeframe in the course as Task 3, Kathy described her German output as childlike or as that of a kindergartener, instead of at a *"College-Ebene"* ["college-level"] (Blog 9, Lines 4-6), because she used simpler words and often misused other words. This characterization of her own abilities shows that she did not view herself as a fully capable German speaker, despite years of college-level German instruction. This is not to

assert that her abilities were higher or lower than what she claimed but rather to emphasize her views of her own linguistic capital.

Task 4

Learners discussed their experiences of using technology in their language courses, including the impact that different modes and technologies can have on the process of communication. The groups also discussed the effect that different types of technology can have on communication. Kathy's email for this particular task did not include any information pertinent to the codes used for Study 1.

Task 5

One of the 7 telecollaboration tasks prompted students to answer questions from the World Values Survey (Institute for Comparative Survey Research, n.d.). These questions were regarding cultural values and were selected by the instructors of the US classroom. The students took an online quiz through the learning management system and subsequently discussed similarities and differences between the courses' results with their partner, including any predictable or unexpected outcomes they noticed. One question on the survey asked students to rank the importance of certain values as they pertained to raising children. Kathy's responses to Task 5 and Task 6 were sent in the same email, although they were kept somewhat separated by paragraphs. In the discussion of Tasks 5 and 6, I attempt to separate the responses based on the task to which they best align.

Kathy wrote a short response to Hilde's initial email regarding the World Values Survey sample. She agreed with Hilde's assessment that the results of the survey were fairly similar between the two groups, although she provided no further detail about this assessment. Yet, in

her answers to the Task 6 questions, Kathy noted, “The survey results also showed a little bit of a difference between what Germans find important and what Americans find important” (Task 6, Email 1, Lines 19-20) without any supporting information for this discussion. Kathy also used her perceived cultural knowledge in order to hint at a compliment for her partner and build a personal relationship with her, writing,

> I was surprised to see that Hard work wasn't chosen by any of your classmates since all of the Germans I have had the pleasure of meeting are always hard workers and I can definitely say Germans are VERY respectable people (Task 6, Email 1, Lines 4-6).

In her attempt at flattery, she hedged her statement by saying that all the Germans she had met were hard workers, as opposed to Germans as a whole. Yet, following this, she claimed that Germans are definitely respectable people, using her perceived cultural capital to positively stereotype Germans in an apparent effort to flatter her partner.

Task 6

Task 6 was a reflective task, in which the groups of learners discussed their learning outcomes and experiences. Learners were prompted to discuss what they had learned about their own and their partner’s culture(s), as well as the influence the telecollaboration would have on the learners in the future. For students who were planning on teaching in the future, there were questions about the effects the telecollaboration had on their views on language learning and teaching. Additionally, students were asked to discuss their feelings on teaching ICC. As previously mentioned, Kathy emailed her responses to Task 5 and Task 6 in one email to Hilde, although the responses were separated into different paragraphs.

Kathy insisted that Germans are committed to language learning. Likely, her perception that Germans are avid language learners came from the fact that most German students are

required to learn a world language in school (Hoffman & Malecki, 2018). This requirement does not necessarily mean that Germans all enjoy language learning, but it does underline the importance placed on world language competency by German society at large. She contrasts this with education policy in the US, which does not typically require students to learn languages at younger ages.

In her reflection on the telecollaboration project itself, Kathy noted wishing that she had been able to practice speaking and listening during her interactions with her partner, as opposed to reading and writing through the medium of email. She claimed that the emails brought her attention to grammar and sentence structures. The only difficulty she noted was that she occasionally missed the emails from Hilde. She also noted that she did not feel there were any misunderstandings between her and her partner.

Task 7

The final task of the telecollaboration, Task 7, involved a discussion of future plans, especially those relating to the language and intercultural skills developed over the course of the telecollaboration project. Kathy began her final email to Hilde by answering questions from the previous task regarding her familiarity with a German Bundesliga soccer team. She also replied to her partner regarding personal topics, such as her relationship status. Before answering the task prompts, Kathy also asked her partner to stay in contact beyond the end of the project.

In the final telecollaboration task, a shift in Kathy's discussions of her language ability became more evident. While she remained persistent about her need to continue with her language learning, she began to express her belief that her proficiency in German was also an asset rather than simply an area in need of significant improvement, or worse, something of which to be ashamed. In answering the question about her future plans, Kathy wrote,

> Ich wurde beauftragt, ein [Spezifische Position im Militär] und ich hoffe, in Deutschland stationiert werden. Ich hoffe, dass meine Fähigkeit zu sprechen und/oder verstehen Deutsch wird mit ihrer Entscheidung, mich nach Deutschland zu schicken helfen... auf diese Weise kann ich meine Sprachkenntnisse zu verbessern und weiter zu lernen Sprachen wie Ich wollte schon immer. [I have been commissioned to be in a [specific position in the armed forces], and I hope to be stationed in Germany. I hope that my ability to speak and/or understand German will help their decision to send me to Germany… this way I can improve my German proficiency and continue to learn languages as I've always wanted.] (Task 7, Email 1, Lines 16-19).

Here we see that Kathy viewed her German proficiency as a skill to be both improved upon and simultaneously to be utilized in her future career. She also recognized the potential advantage that her language skills may have given her in the selection of where she would be stationed, what type of future career she would be able to have, and this would potentially provide her with access to the opportunity to continue learning languages. Not only did she herself begin to see the value in her language abilities, she also believed that others would view her German skills as assets.

Kathy's imagined futures extended beyond the utilitarian purpose of using her proficiency and capability as a German speaker to increase her chances of being stationed in her preferred job location. Kathy grew stronger in her determination that her children would be raised bilingually. In the final of the seven tasks, she declared, "Eine Sache, die ich sicher weiß ist, dass ich meine Kinder unterrichten Deutsch. Selbst wenn es bedeutet, dass ich am Ende lernen mit ihnen" ["One thing I know for sure is that I will teach my children German, even if it means, that I learn with them in the end"] (Task 7, Email 1, Lines 26-27). Her opening phrase

portrays confidence, yet not overconfidence. She acknowledged that she might have needed to continue to improve her German skills while teaching her future children, yet she stated with some level of determination that she personally planned to teach her children German or at least to learn with them. Her willingness to continue her learning journey shows the importance she places on language learning for her own fulfillment. She developed a clearer picture of her imagined futures, in which she was a competent speaker capable of raising a German-speaking family.

Although the nature of identity research makes it impossible to pinpoint the telecollaboration project as the sole cause of this shift in her German speaker identity, there were changes in her characterization of herself and her capital during the 7 weeks. Kathy's post-project reflection on the telecollaboration indicated that she attributed her growth in confidence in her abilities and the solidification of her German-speaking imagined future to this project. In the final task, she reported that the project had encouraged her to be more active in class discussions.

> Dieses Projekt hat mir geholfen, zu realisieren, dass zu schüchtern oder versteckt in den Schatten wirklich niemanden etwas Gutes tun. Es ist immer wichtig zu jedermanns Gedanken und Meinungen zu hören. Dieses Projekt hat mich beeinflusst zu sein, ausgehende und zu versuchen und härter arbeiten, um zu einem Großteil der Klassenzimmer Diskussionen. [This project helped me to realize that being shy or hiding in the shadows doesn't do anyone any good. It is always import to hear everyone's thoughts and opinions. This project influenced me to be more outgoing and to try and work harder to be part of a large part of the class discussions] (Task 7, Email 1, Lines 36-40).

In this particular reflection, Kathy described the influence she perceived the project having on her participation in her German course. She described an increase in her interest in participation in her course and an increased understanding of the importance of participation in classroom discussions, stating her newfound belief that it doesn't help anyone to hide in the shadows. By highlighting this piece, she expressed the importance of her growing willingness to express herself in the target language in order to be part of conversations in her course.

Interview

My interview with Kathy took place approximately 1 calendar year after the completion of the telecollaboration project. As previously discussed, this decision was made for several reasons. This approach allowed me time to gather, anonymize, code, and begin an analysis of the data. This pre-analysis allowed me to create questions specifically relating to Kathy's dataset, in order to gain deeper insights into the data and to triangulate findings. The interview took place over the phone, as Kathy was no longer on campus at the time, and I recorded the interview using the speaker on my laptop.

During the follow-up interview, I asked Kathy what role the German language played in her current life. She responded that she practiced the language with her German and German-speaking friends, positioning them as language exchange partners as much as friends, stating that since the telecollaboration,

> I've made more and more friends that had the tiniest of ties between other friends that I have. And one girl she's actually in the German club in my first year at college and I joined and since then her and I have started talking again. And a few of her friends and I have been talking again and it sounds like after I move they're hoping to make some time to come out and visit… It's something that that confidence has made it so that I'm not

> nervous to write and actually talk to strangers about their lives, because they actually love to share the fact that they're German and proud of it (Interview, Lines 175-182).

In this part of our interview, Kathy detailed the connections she had made prior to the beginning of this course and rekindled since the end of the telecollaboration project. As Kathy described in her answer above, she branched out and was growing her German-speaking network via her various contacts. Kathy excitedly explained that she had cultivated relationships with other German-speakers some of whom were considering visiting her, crediting her increase of confidence following the telecollaboration for this development. Kathy's experience with the telecollaboration project gave her the affirmation of her linguistic and cultural capital that she needed in order to continue increasing her social capital even further.

Kathy's social connections were presented not only as a venue to increasing her linguistic and cultural capital, but also as a way of gaining a sense of closeness to Germany and her German heritage. Although her friends played a large role in her German learning experience, Kathy's social capital extended into and really began with her family. Her mother and grandmother were directly connected to her strong identity as a German-American. Kathy mentioned in the interview that she attempted to speak German to her grandmother after years of learning. Unfortunately, her grandma only replied to her in English. Although Kathy associated her grandmother and mother with her German heritage, her mother had never learned to speak German. During the interview, she said of her mother,

> She's just over half German and she used to talk about how she's sad she never learned it so I kind of had it set in my head since middle school that I wanted to learn German so I could teach her some (Interview, Lines 51-53).

According to Kathy, her mother's admitted regret over never having learned the language of her parents and ancestors initially spurred her interest in learning German. To Kathy, the language gave her potential access to social capital; not only would she gain the ability to speak to her grandmother in German and to teach her mother German, but also a deeper connection to her own family's history.

When asked during the interview to characterize her interactions with her partner, Hilde, Kathy said they rather quickly switched from superficial topics to discussions of more personal topics and sharing opinions. Based on her own reflections on the telecollaboration project, the practice of sharing her opinions with her partner increased her linguistic capital, in that she had the confidence, at the very least, to attempt to be part of larger class discussions. As we progressed through the interview, I asked Kathy what she thought she had learned or gained from her exchanges with Hilde, as well as from the project as a whole. She responded that her tandem partnership between with Hilde was

> …definitely not something that I would have done if it weren't for the class setting it up, but I'm glad they have, because since then I've made more and more friends that had the tiniest of ties between other friends that I have… It's something that *that confidence has made it so that I'm not nervous to write and actually talk to strangers about their lives*, because they actually love to share the fact that they're German and proud of it. (Interview, Lines 174-182; emphasis added)

Kathy claimed that her success in the telecollaboration project influenced her to speak in the target language more often, in order to share her thoughts and opinions inside and outside of class. Her linguistic, social, and cultural capital had made it possible for her to create a connection with Hilde, and thus with other Germans and German speakers, which facilitated the

growth of her social capital. In turn, this gave her chances to gain more cultural and linguistic capital. This is indicative of the inherent interconnectedness of the various types of capital and the cyclical nature of the relationship between identity formation and the development of capital (see Darvin & Norton, 2015).

The ability to speak German could potentially grant her access to her grandparents' cultural history and thus their cultural capital. Even from the outset of the telecollaboration project, Kathy's cultural capital led to a certain level of understanding between herself and Hilde by creating a sense of shared background. They both had experiences traveling to the others' homeland. They were able to share and compare their experiences in the telecollaboration exchanges. Kathy credited their shared cultural capital, which related to both American and German cultures, to deepening their interactions beyond the superficial conversations she had expected. Kathy described her interactions with Hilde, "She'd actually been to America as well, so I don't know if we traded so much of like what did your country do and this type of thing and more so we were more personal." (Interview, Lines 105-107).

Despite this report, Kathy claimed that she and Hilde sent one another videos of themselves at clubs and compared the experiences, allowing Kathy to examine the individual and cultural differences in their experiences. She explained how these videos supported her perceived notions of cultural differences between Germans and Americans.

> ...she sent me a few videos of what clubbing is like there and I did the same for her. She thought it was hilarious how different it was… German clubs, at least the few, I guess I can't say all but the few that I've been to play just techno. It will be every song you can imagine, but there's a techno beat added to it. And for the most part they don't dance like Americans do. They just stand there and barely move at all, and every once in a while

> you'll see one that goes crazy but so when my friend and I were in Hamburg and we were dancing everyone thought we were crazy and when we told them that we were American they totally understood…they don't I guess they don't dance. They don't open up like Americans do. They're definitely more… I guess closed off would be a good way to put it when it comes to not wanting to embarrass themselves, whereas most Americans I know just don't care (Interview, Lines 132-145)

Kathy explained what she believed to be the differences between acceptable behavior in German and American clubs. Kathy positioned herself as possessing cultural knowledge about Germans based on her previous experiences, yet she hedged some of her statements. By using phrases like, "I can't say *all* but *the few that I've been to*" (emphasis added), she highlighted the limited nature of her knowledge about this certain aspect of German culture, emphasizing that her knowledge was based solely on her own experiences. Then she utilized some generalizations, claiming that Germans do not open up like Americans do, describing in detail her experiences in German clubs, and explained that Americans are not afraid to embarrass themselves.

Finally, she hedged yet again, saying most Americans she knew did not care about embarrassing themselves. This reflection on her interactions with Hilde outside the telecollaborative exchange showed Kathy's genuine interest in the German culture, in that she shared having discussed culture outside of the classroom context. It is important to note that this particular interaction is not part of the dataset, which means I can only analyze Kathy's report of the interaction, not the interaction itself. Despite this, her recounting of the occurrence is still useful, in that she described a moment when she and Hilde were exchanging genuine and personal cultural information, which served to increase their cultural capital.

The interview contained the only instance of ideology coded in the dataset. Kathy described her desire to learn German and enlist in the armed forces, although she noted that the military was "looking for more foreign language speakers but unfortunately German is not a critical language" (Interview, Lines 37-38). In this statement she was referring to the list of critical languages, which is created by the National Security Education Program (NSEP) and includes languages determined to be the important for US national security and defense purposes (Critical languages, n.d.). Yet, she hoped that her German knowledge would influence the decision to station her in Germany eventually.

Conclusions

The findings reveal much about Kathy's development of her identities, the types of capital she possessed and, to a lesser extent, the ideologies in her language learning experience. In this section, I begin by summarizing the answers to the research questions. Following this, I present more detailed discussions of the constructs within investment (i.e. identity, capital, ideology). To conclude this chapter, I present the limitations and implications of Study 1, including changes made to the research questions and coding scheme for implementation in the final phase of the project.

Summary of Study 1 Results

In Table 5 below, the answers to the research questions are summarized, yet the answer to the first question regarding the ways in which her investment in the telecollaborative environment developed remains elusive. The development of investment becomes clearer only once the separate constructs within the investment framework are considered in relation to one another, that is to say that their intersections are truly where investment can be found (see also

Darvin & Norton, 2015). Unfortunately, the coding scheme and research questions, do not properly address the construct of investment, nor do they lead to a fruitful discussion thereof.

Table 6: Results and Findings by RQ

Results	Findings
RQ 1a: Identities revealed	German-American and member of German-American family; Weak vs. capable German speaker; Future mother of bilingual children with an armed forces career in Germany
RQ 1b: Ideologies revealed	German as non-critical language (see Critical languages, n.d.)
RQ 1c: Capital revealed	Language skills; Personal experience with German culture; Generalizations about German culture
RQ 2: Change over time	Language deficit vs. asset; increase in social capital; growing confidence in linguistic capital

In the current study, the most salient intersections of the constructs within investment are those between Kathy's multiple identities and her various types of capital. Her identity as an American of German heritage influenced her decision to begin and continue learning German. Her access to German language courses and the economic capital to pay for these allowed her to use her agency and make the decision to pursue language learning in a formal context, including majoring in the language. These circumstances then allowed her to accumulate linguistic and cultural capital, and the possession of these forms of capital allowed her to first develop her identities, not only as a German-American but also as a German language learner. These opportunities also led to further chances for her to create connections with German-speaking peers, such as her telecollaboration partner and other German speakers from the US and Germany.

Kathy focused greatly on her identity as a member of a family of German heritage, especially during the interview. She reported initially learning the language to teach her mother

and to communicate with her grandmother. Not only was her identity hinged on her current status as a member of a German-American family she also focused greatly on her imagined futures of raising German-speaking children and of working and living in Germany as a member of the armed forces. These identities drove her to seek to gain further capital, especially linguistic capital so that she was able to communicate with others.

As her cultural and linguistic capital expanded, so did her sense of identification as a capable German speaker versus that of a low-level German learner; this showed her transition from a deficit-based to an asset-based view of her own linguistic capital. However, this did not mean that she felt her learning process was complete, nor is this to say that Kathy's language skills improved in the course of the telecollaboration project either, as this was not measured. Rather this is to show that she recognized the abilities she already possessed and had clear imagined futures for both utilizing those skills and improving upon them.

The experience of communicating with Hilde allowed Kathy to negotiate her identities and helped her increase her capital which gave her the confidence and skills to seize her right to speak. This newfound confidence gave her the courage she needed to create and take part in a community of German speakers. Not only is it important for students to speak within the classroom context but Peirce (1995) also asserts that it is the job of the language teacher to aid students in gaining the right to speak outside the classroom. This result of the study implies that telecollaboration may be a way to allow for learners to gain their right to speak.

Although the ideology imposed by the federal government declared German non-critical to defense and national security at the time (Critical languages, n.d.), Kathy's identity as a German-American, as well as her imagined futures of a career utilizing her German skills and parenting German-speaking children were enough for her to invest in the practices of the telecollaboration. The possibility of being stationed at one of the several American bases in

Germany was enough to disregard this ideology in favor of an imagined future at one of the bases. Although there are many other ideologies that could be associated with the choice to join the armed forces and be stationed overseas, these ideologies simply were not present in the data. By disregarding the ideology that regarded German as non-critical (Critical languages, n.d.), Kathy took part in language learning experiences that allowed her to gain confidence in her linguistic capital and was able to invest more deeply in her classroom experience and communicate with German speakers outside of the classroom or course setting, thus allowing her to build social capital and cultural capital in a long-lasting way.

Identity

Kathy revealed several of her identities during her interactions with Hilde. The most salient identities presented in Kathy's dataset related to being a German learner and speaker, although this may be due to the telecollaboration project's inherent focus on language learning experiences and the focus of the course on the German language. Kathy presented various and ambiguous identities relating to herself as a German speaker and a German learner. One key identity for Kathy was that of HLL; this was particularly salient in the interview. Although she did not grow up speaking German in her home, the language played particular importance to her perceptions of her membership in her own family and her access to her family history.

Viewing the often ambiguous ways Kathy identified herself throughout the interactions picture of her perceptions of her place in the German-speaking world, especially as a non-native speaker. In earlier tasks, Kathy identified herself as being a poor speaker of German and an unworthy conversation partner, although in the latter case, she noted that this belief was refuted by Germans being willing to converse with her. In growing opposition to her conflicted and

deficit-based identity, she worked to solidify her imagined future as a capable German-speaking professional.

In her response to the final task of the project, Kathy discussed her future career as an armed services officer, as well as her imagined future of being stationed in Germany as part of her service. Her assertion that her German skills would potentially help her to be stationed in Germany, her ideal location, show that she viewed her skills as something to be valued by others. Although in this instance, she believed non-native speakers would value her skills, she believed they would trust in her ability to use her language skills to communicate with native speakers and to interpret their communications. This shows a shift from her earlier belief her skills would be ignored, as was her concern at the beginning of her time in Germany. In discussing her skills this way, she positions herself as a capable German speaker.

Kathy also indicated that she had begun to see that all contributions were important, including her own, which shows a positive shift from her previous comments about feeling like an unworthy discussion partner while on her study abroad. She noted repeatedly that she would likely need to continue learning German to reach her future goals, but she more often characterized her skills positively and as an asset.

Part of Kathy's identity as a German speaker stemmed from her family history. Kathy reported that her grandmother spoke German and noted learning German in order to be able to speak the language with her grandmother. Although her grandmother answered her attempts at speaking German in English, her unfulfilled hopes of utilizing her language skills in conversation with her grandmother did not stifle her deep interest in German culture and language. At the time of this study, her grandmother was still alive, meaning the goal of speaking to her in German was still one Kathy could maintain as an imagined future.

Kathy also revealed that an early goal of hers was to teach her mother some German, as her mother regretted not having learned German while growing up. In this statement, Kathy positions herself as a relative expert in the language, capable of one day teaching the language to her mother. Along with her many statements about teaching her children German in the future, this statement shows that Kathy sees herself as part of a German-speaking family currently and especially in the future. Yet, she did note that her desire to raise German-speaking children may require her to hire a tutor and to learn with them, something which she said she would gladly do.

Kathy's identification with being a member of a German-speaking family meets some definitions of the term heritage language learner (HLL), especially those that value self-identification (Miller & Kubota, 2014). In their study, He (2006) focuses on learners who are learning a language of familial relevance and who have low proficiency in reading and writing, focusing on the development of HL skills rather than maintenance. Although scholars place varying levels of importance on high proficiency in the language based on the given context of the learning experience (see He, 2006, 2010; Leeman, 2015; Valdés & Kibler, 2012). However, there does tend to be a consensus about the familial importance of the language being a key part of the definition of HLLs (Guardado, 2018; He, 2010). Kathy seeks to learn the language to gain access to her grandmother's history and to make connections with her and her cultural history, meaning that she meets the criteria set forward for HLLs by many researchers.

Kathy's changing identities and imagined futures serve as evidence for what she described as coming out of the shadows in both her life as a student and choosing to stay out in the open while she moved toward her imagined futures. She solidified her investment in her imagined futures of being a German-speaking professional and German-speaking mother. While she acknowledged the need to increase her German skills, she also positioned herself as already being a speaker capable of using her skills in a variety of contexts. These identities and imagined

futures hinged on the types of capital she perceived herself possessing. Kathy planned to use her German skills as leverage for obtaining her desired career and to give her potential future children valuable linguistic capital.

Capital

In this section, I address the various types of capital that Kathy possessed and gained as she progressed through the telecollaboration project. Although I attempt to address the types of capital separately for the purpose of clarity in this section, it is important to recall that the types of capital are inherently intertwined (Bourdieu, 1986). Capital was defined as linguistic, cultural, economic, and social goods a person possesses (Bourdieu, 1986). The sub-code of linguistic capital was applied to sections in which Kathy described the languages she knew and the skills she possessed and needed in those languages. Cultural capital was coded when Kathy shared cultural knowledge, education, or appreciation of cultural products (Darvin & Norton, 2015). Economic capital was coded when Kathy described the financial resources she had. Social capital was coded when Kathy referenced networks of power to which she had connections (Darvin & Norton, 2015), including German-speaking friends and family members.

In the discussion on linguistic capital, I focus on Kathy's confidence in her abilities, her language skills, and her perceptions thereof. In the second subsection, I highlight the types of social capital Kathy possessed and discuss the value those may have had for her as a German learner, especially her familial connections to the language. In the final subsection, I focus on the cultural capital Kathy possessed, much of which she had gained because of her social capital.

Linguistic capital. A large focus of the telecollaboration project, by its nature, was on linguistic capital. During the 7 weeks of the telecollaboration project, Kathy transitioned from discussing her German proficiency as a skill in desperate need of improvement to seeing the

possibilities her current language abilities might offer her in the future. She transitioned from perspective of deficit in regards to her proficiency to a more asset-based view; this means that she viewed her German skills as an asset just as they were, regardless of any room for improvement. She pictured her future in which she would hold a position where she could utilize her German skills, as well as her future as a mother who speaks German with her children. She continued to recognize her potential need for linguistic improvement, but her abilities at the time of the project became viewed as useful and sufficient for many purposes.

Kathy tended to hedge her statements regarding her German language abilities. In the case of a previous German class in which the instructor only spoke German, she initially claimed to have felt like a failure. She did go on to say that she later realized she was capable of more in the target language than she had initially thought after having time to utilize the language outside the course context. This characterization of her own abilities showed a lack of confidence, while highlighting the hope she had for her linguistic improvement. Her ambiguous attitude toward her speaking abilities continued when she discussed her current performance in German.

In the final task of the telecollaboration project, Kathy spoke of her German language speaking abilities as potential assets for her bid to be stationed in Germany in the future. Although she believed non-native speakers would value her abilities here, this is still an important shift from her previous belief that the Germans would ignore her during her study abroad. By stating that she viewed her skills as a potential asset, she believed that her superiors would also view them this way, allowing her to interpret important information for the armed forces.

Social capital. Throughout Kathy's interactions and blog posts, she made it clear that she valued and relied heavily upon her social capital. Her current connections play an important role in creating a community in which Kathy could practice and utilize her German skills. Kathy's

hopes for building personal and professional connections using the German language are key parts of her identity and the social capital she possesses and wishes to possess.

Despite her grandmother's refusal to speak German with her, Kathy still viewed this relationship as important to her identity as a German speaker. She focused heavily on her HLL identity and the connections within this relationship that were key to her growth as a German speaker. In one task, Kathy mentioned that her sisters were also learning German and that they would occasionally speak German with one another.

During the interview, Kathy discussed the friendships with German-speakers that her newfound confidence in her language abilities had allowed her to form. Kathy also said she had reconnected with other students whom she had met as a college first-year student in the German Club at her university. These friends then helped her establish contact with other Germans and German-speakers, thus growing her network. Although she does not specifically note speaking German or English with these connections, she does emphasize their importance as connections to the German-speaking world. Notable for telecollaboration research, Kathy reported speaking at least weekly with her telecollaboration partner, even a year after the end of the project.

Cultural capital. Kathy shared her cultural capital which had mainly resulted from her time spent in Germany on a university study abroad program. Kathy was occasionally able to go beyond superficial cultural tropes to discuss more nuanced portrayals of individual lives and experiences within the various German and American cultures. Even with these moments, it is important to take into account that she resorted to more stereotypical descriptions of the respective cultures on several occasions. As previously described, I simply coded for the instances in which the participants shared what they perceived to cultural knowledge as cultural capital, as opposed to attempting to assess whether the assertion was (in)correct.

Kathy used her interactions with Hilde not only to share her own cultural capital relating to the German and US-American cultures but also as an avenue to grow her cultural capital. During the interview, Kathy shared that she had been communicating with Hilde via WhatsApp during the time of the telecollaboration and after. Although Kathy's communication with Hilde outside of the course is not included in the dataset, her description of one particular instance of these outside interactions exhibited Kathy gaining cultural capital through interactions with her partner, as well as her desire to accumulate even more. Kathy shared that she and Hilde had shared videos of themselves at clubs in their respective locations and had compared the experiences. Kathy was also able to reflect on her previous experiences in German and in German clubs through this exercise as well.

In her answers to the prompts for Task 2, Kathy reported on her stereotypical views of Germans. She claimed that Germans did not understand her sense of humor and that they told jokes that Americans consider mean or unfunny. She perceived the Germans' lack of understanding of her jokes as evidence that Germans do not like sarcasm. Although this interaction is not part of the dataset, it seems plausible that this shows evidence for linguistic or cultural misunderstandings, instead of an inherent German dislike of sarcastic humor.

Kathy also utilized her perceived cultural capital as a way to connect with her partner. As both had visited the other's home country, they used this as a jumping-off point for their connection with one another. They were able to relate more based on these similar experiences, and Kathy reported that they were able to skip superficial topics and move to deeper topics because of their shared experiences. Kathy also utilized her beliefs that Germans were hardworking and respectable to both answer questions about the World Values Survey results and to attempt to flatter her partner by complimenting her through complimenting the culture to which she belonged.

Ideology

Ideology describes the "dominant ways of thinking that organize and stabilize societies while simultaneously determining modes of inclusion and exclusion" (Darvin & Norton, 2015, p. 72). Simply put, ideologies are social norms (Darvin & Norton, 2015). Ideologies compete and shape the learner's access to opportunities to communicate in the target language (Darvin & Norton, 2018). Ideology is more thoroughly defined earlier in this chapter. For the purposes of Study 1, I coded ideology as "social norm or behavior; way of thinking or view" (see Table 4).

There was very little explicit discussion in the data of the ideologies surrounding Kathy's language learning experience, which is in line with the fact that ideologies tend to operate invisibly and unconsciously (Darvin & Norton, 2017). Kathy initially decided to learn German because her grandparents were from Germany, although she never knew her grandfather. She wanted to connect with her grandmother by speaking German and to teach her mother to speak some German, as well. Beyond her family history, Kathy was planning on enlisting in the armed services but pointed out during the interview that German was not included in the list of critical languages for national security. This governmental ideology lowers the importance of German for armed services members, yet Kathy's familial connections were more important to her than this list of languages.

There were no further explicit references to the critical languages list in the data nor to other ideologies for that matter. This is likely because Kathy possessed so much capital that she was able to circumvent any ideologies that may have otherwise hindered her. She was a white female from the United States, who had possessed enough economic capital to have had the ability to spend time abroad in the target language and culture community. In addition to this capital, Kathy had access to technology, which allowed her to further build her social network

and thus increase her social capital. One may be able to infer many of the ideologies surrounding her experience as a language learner and especially as an HLL with lower proficiency, but these were not made readily apparent in the data, and thus will not be discussed here.

Implications for the Next Phase of Research

The conclusions of Study 1 naturally led me to further and deeper question the negotiation of identities and increase in capital during telecollaboration. The process of completing this project brought to light some methodological challenges that needed to be addressed for Study 2 of this project, presented in Chapter 5. The biggest issue that became clear during the coding process, and especially during the analysis, was that the coding scheme was not fine-grained enough. For example, the code identity lacked sub-codes to mark the various aspects of identity, such as positioning and imagined futures. The codes oversimplified the very complex constructs that work together to create the larger concept of investment. Most glaringly, the coding scheme failed to fully capture the ways in which the concepts overlapped to reveal Kathy's investment (see Darvin & Norton, 2015).

Before editing the coding scheme for Study 2, it was integral that the research questions be changed in order to reflect the focus of the study. Table 6 below shows the research questions for Study 1 and Study 2. In Study 1, the constructs within investment (identities, ideologies, and capital) were part of a single research question. In Study 2, identity and capital each have their own separate research questions that address specific parts of the construct. Identity is captured in questions 1 and 2, which focus on performance and positioning, and imagined futures, respectively (see Norton, 2013; Darvin & Norton, 2015, 2018). The fourth question was added to address the interrelated nature of the concepts which was implied but not explicitly mentioned in the pilot study questions.

Table 7: Study 1 and Study 2 Research Questions	
Study 1 research questions 1. What investments (i.e. identities, ideologies, and capital) are revealed by Kathy in her interactions with her telecollaboration partners or in the subsequent interview? 2. Is change in Kathy's investment in the telecollaboration or her language learning evident in her interactions throughout this telecollaboration project?	Study 2 research questions 1. What identities does Lilly express or perform? How does she position herself (explicitly or by accepting her partner's positioning)? What imagined futures does Lilly express? 2. What capital does Lilly possess? What capital does Lilly need or perceive a lack of? How do the types of capital Lilly possess affect her access to the target language and/or her imagined futures? 3. How are Lilly's identities and various types of capital interrelated?

The questions for Study 2 are far more detailed than those of Study 1, in that they specifically address the various constructs within identity and capital. They reflect the results of Study 1 and are influenced by the limitations imposed by broad research questions. The initial non-descriptive research questions in Study 1 led to codes that were too broad and undefined to be useful in analyzing the data set.

Identity negotiation is not as simple as positioning oneself explicitly and verbally. In fact, a variety of factors influence how a speaker expresses their multiple identities (see Norton, 2013), therefore a more nuanced set of codes was needed in order to capture the work being done. This includes 'describing identity' which refers to self-positioning. Learners position themselves as they would prefer to be perceived by others, although this does not guarantee that they will be perceived as such (see Norton, 2013). The revised coding scheme also includes accepting or rejecting a position being imposed on the speaker by their partner, in an effort to capture learner agency (see Norton & McKinney, 2011; Norton & Toohey, 2011). As Norton (2013) notes, the ways in which learners are positioned by their interlocutors may help or hinder their ability to gain access to their imagined communities.

Further issues with the coding scheme included that the codes within the node of capital were too broad, in that they were insufficient to describe the specific processes at play. Bourdieu (1986) asserts that there are various types of capital. Even with the addition of linguistic, cultural, and social capital as separate sub-codes for Study 1, an additional type of capital remained unaccounted for, yet seemed vital to students' success in the telecollaboration project. In Study 2, I include social, cultural, and linguistic capital, as well as economic capital (see Bourdieu, 1986). This was added, in order to account for certain privileges students in the US-American university context may have and which may positively affect their accumulation of further forms of capital.

Although previous scholars have focused on capital as something a learner or person possesses (see Bourdieu, 1986; Darvin & Norton, 2015), my Study 1 data hinted at a more complex reality. In analyzing the data, I noticed it seemed that having a form of capital is powerful in facilitating interactions, but lacking a certain type of capital may be equally hindering to the learner's access to a community or resource. In order to examine the potential existence of this dichotomy, I altered my codes to delineate between students 'possessing' and 'needing' each type of capital, such as 'possessing linguistic capital' or 'needing economic capital' (see Table 7).

When coding Kathy's data, I noted that she seemed unaware of the ideologies that influenced her (in)ability to access certain resources and communities, outside of the NSEP decision that German was not currently a critical language for national security (Critical languages, n.d.). Kathy's apparent lack of awareness of the ideologies at play in her experience did not mean that she had a perfectly ideology-free language learning journey (see Darvin & Norton, 2015, 2017). This is also not to say that she was completely unaware of certain ideologies surrounding her experience, but naturally, it is impossible to code phenomena that are

not presented in the dataset, therefore this piece of the construct of investment was severely lacking. Darvin and Norton (2017) note that ideologies "operate invisibly and that people subscribe to ideologies both consciously and unconsciously" (p. 8), making them particularly challenging to operationalize.

The absence of the consideration of ideologies in the data may also stem from the reality that white university students in the US-American context typically have fewer ideological boundaries to accessing resources for their learning than do other demographics, such as minority students or those in more impoverished cities and nations (Ortega, 2017). Kathy's apparent access to economic capital allowed her to study abroad and possess a smartphone that she used to communicate with her friends in Germany, whereas other learners have much more restricted access to technology (see Norton & Williams; Ortega, 2017).

To reiterate, these realities of Kathy's context do not mean that certain ideologies were not at play in her experience, they simply appeared to be less inhibiting to her accumulation of different types of capital than they may have been to others. This apparent lack of awareness of the ideologies affecting her ability to learn German and her access to German-speaking communities was apparent in much of the data. This contributed to the challenge of coding the data to reveal investment, as opposed to the three sub-constructs as separate entities. Future research beyond the current dissertation could work to find ways to research ideologies, as well as work to operationalize the construct of investment.

As far as Study 2 is concerned, I focus on identity and capital, as well as the ways in which these two constructs affect and influence one another in the telecollaborative environment. I made this choice primarily because coding the intersections of the constructs of identity, capital, and ideology proved to be both essential and particularly challenging. Study 1 showed that a broader dataset would be necessary to properly account for ideologies the learners may not

themselves be aware of. By narrowing my focus to the two constructs of identity and capital, I am also able to broaden my analysis by creating a more comprehensive coding scheme. This allows me to place emphasis on the various intersections of identity negotiation and the accumulation of many types of capital.

Table 7 shows a side-by-side comparison of the coding schemes used in Study 1 and Study 2. As described previously, the Study 1 coding scheme contained 3 nodes: identity, capital, and ideology. Identity and capital each had several sub-nodes, which are in bulleted lists below the main nodes in this table. For Study 2, several nodes were added to reflect coding focused on processes, marked by gerunds. Study 1 data were not coded using the new scheme, in order to show the development of the coding scheme over time and to highlight difficulties encountered when attempting to operationalize the construct of investment. I intend on coding this data using the revised scheme in future iterations.

Table 8: Codes Comparison Between Study 1 and Study 2

Study 1 Codes	Study 2 Codes
Identity	Describing identity
● Heritage	Accepting position
	Rejecting position
	Imagining communities/future
Capital	Possessing economic capital
● Linguistic Capital	Needing economic capital
● Cultural Capital	Possessing cultural capital
● Social Capital	Needing cultural capital
	Possessing linguistic capital
	Needing linguistic capital
	Possessing social capital
	Needing social capital
Ideology	

As Table 7 demonstrates, the revised coding scheme is both more focused on identity and capital, and more granular in its approach. By dividing each of the main constructs into key pieces, I am able to further dissect the phenomena occurring in the participants' data. For example, identity is

broken down into “describing identity”, “imagining communities/future”, and either rejecting or accepting a position. By coding this way, I am able to gain a clearer picture of the ways that identities are negotiated and performed in the data. Future directions for this particular project could include coding Kathy’s data with the revised coding scheme. The conclusions of Study 1 and Study 2 will be discussed together and more thoroughly in Chapter 6.

Chapter 5: Study 2

Introduction

This chapter presents the findings of Study 2, the final phase of this research project. Much like Chapter 4 which outlined Study 1, this chapter begins its discussion of the case study subject by introducing Lilly and giving basic background information, in order to situate her telecollaboration exchanges within her broader personal contexts. Additionally, the criteria used to choose Lilly as the case study subject are described. The methods as they are specific to this phase of the study are discussed and I present the revised research questions and resulting coding scheme. For the overall methods for the current studies, see Chapter 3. The current chapter concludes with a presentation of the findings of this phase of the research project.

Background

In this section, I present the basis for Study 2, including the reasons for choosing Lilly as the case study subject. I also share pertinent background information about Lilly. Following this, I present the context of Study 2, with a focus on my relationship to the participant, as it differs slightly from Study 1.

Study 2 and Choosing Lilly

Lilly was an HLL of German who was enrolled in a German course beyond the basic language curriculum at a large Midwestern university. She took part in the second iteration of the telecollaboration project which was completed in semester 2. At the time of the telecollaboration, Lilly was studying multiple languages with the intent of becoming a high school teacher. In her follow-up interview, she disclosed that she was planning on teaching English as a second language, as well as German in the future. She noted that she did not yet feel comfortable

teaching the other language she was learning. She claimed her proficiency in that language was too low for her to feel prepared to teach it. Lilly's partner for the telecollaboration project was Claudia. Like Kathy's partner, Claudia was studying at an applied teaching college, with the hopes of being an elementary school teacher. English was not her major but was required in her course of study.

Lilly is the oldest of 2 daughters. Lilly's father was the only proficient German-speaker of her two parents, as he was a native speaker. Lilly's mother was born and raised in the US. Lilly claimed her mother spoke German poorly. Her father was born and raised in Germany until he was 10 when he immigrated to the US, then he was raised in the US by a German-speaking mother. Lilly's parents both enlisted in the US armed forces and met while stationed in Germany. Lilly was born in Germany and was raised there until she was 16 years old, although she only attended a German-language medium school until the 4th grade. At this time, Lilly's father was in the US military, which meant that he was often stationed away from their home on base in Germany.

The decision to switch to an English-language medium school was spurred by Lilly's struggles with her classwork. Her mother wanted to be able to help her with her classwork and was unable due to her limited German proficiency. As a result of this decision, Lilly and her sister attended an English-medium school on the military base where their father was stationed. When describing this experience, she claimed she nearly quit speaking German as a result of switching schools. Although Lilly did not speak as much German at school as she had previously, she did take German classes at her new school, beginning in the higher-level classes due to her prior experience with the language.

At the time of the telecollaboration, she spoke German with her father at home but admitted that she had started speaking more English with him since she began her university

studies. She mentioned speaking the most English when discussing her experiences at her university and with service professionals, such as mechanics, where most of the interactions had happened in English for her. As was the case in her childhood, she spoke nearly exclusively English with her mother. She explained to her telecollaboration partner, Claudia, that her mother was a US-American who spoke German poorly which made interacting with her in German difficult. When speaking to her younger sister, Anke, Lilly claimed she attempted to speak as much German as possible but admitted that despite their efforts to speak only German, they often switched to English when difficulties arose.

Context

During semester 2 of telecollaboration data collection, I was not an assistant in the German course, due to various circumstances. Lilly was never a student of mine, nor did I know her well personally. We had encountered one another at several German events, including a small meet-and-greet for incoming first-year students German majors, as well as a couple of times at the weekly German-language coffee hour. The fact that I was not present in the classroom during the telecollaboration project in semester 2 may be considered either a strength or a limitation and is discussed thoroughly in the limitations section of Chapter 6. This distance from the participants made it easier to approach Lilly and ask her to answer questions about something as intimate as her identity, while also limiting the effect of my preconceptions of her or bias in her favor on the data analysis, such as can be the case when teachers research their students.

Methods

As the methods employed for Study 1 and Study 2 differ slightly, this chapter includes an explanation of the specific details of the methods undertaken in Study 2. I begin by outlining the

research questions for Study 2. Then, I describe key details regarding the data types including the addition of the researcher log. Following this, I explain the transcription procedures in detail. The development of the coding scheme and the scheme itself are presented, followed by a discussion of the data collection and analysis procedures.

Research Questions

The questions guiding Study 2 were derived from those utilized in Study 1 of this project. In Study 1, I examined Kathy's experiences in her telecollaborative exchange but found that the construct of investment, or the intersection of identity, capital, and ideology, did not work for my particular dataset. The coding scheme was too broad to properly encompass the sub-constructs of investment. To reiterate, identity describes how a person perceives their relationship to the world, situated within time and space, as well as how they view their possibilities for the future (Norton, 2013). Capital describes the various types of social goods, including cultural knowledge and access to networks of power, a person may possess. Ideology, or the norms within a given context, was very rarely found within the data. While the coding scheme was able to capture instances of identity negotiation and discussions of capital, very few explicit discussions of ideology were found within the dataset.

The constructs of identity and capital remained useful for the coding of the Study 1 data, in that they were operationalizable and the relationship between the two could be more readily visualized, in that several items were coded for both identity and capital. In contrast, the relationships between the 3 constructs of investment remained unclear within the Study 1 analysis, thus yielding no clear results on Kathy's investment in the telecollaborative environment. The decision to focus mainly on identity and capital as the theoretical basis for Study 2 is discussed in deeper detail in the conclusion of Chapter 4.

For the purposes of Study 2, I chose to delve deeper into the constructs of identity and capital, as well as the relationship between the two, in order to explore the various ways these shape and are shaped by the telecollaborative interactions the case study subject had with her partner. After the pilot study and Study 1 iterations of this study were completed, the following research questions were developed as I developed the Study 2 coding scheme:

1. What identities does Lilly express or perform? How does she position herself (explicitly or by accepting her partner's positioning)?
2. What imagined futures does Lilly express?
3. What capital does Lilly possess? What capital does Lilly need or perceive a lack of? How do the types of capital Lilly possess affect her access to the target language and/or her imagined futures?
4. How are Lilly's identities and various types of capital interrelated?

Before the analysis begins, I outline the reasoning behind and execution of the coding process, mentioned in the third point, in detail in the coming sections.

Data Types

The dataset included (1) recordings of 7 interactions between Lilly and her telecollaboration partner, Claudia, (2) Lilly's course discussion forum (blog) posts and associated comments, (3) one follow-up interview, which included a short stimulated recall. The recordings and blog posts were submitted by Lilly as part of her grade for the German course in which the telecollaboration project took place. The follow-up interview was done approximately one calendar year after the end of the telecollaboration project. This was done at that time in order to

give me time to gather, transcribe, and preliminarily analyze the data. Additionally, the follow-up interview included a short stimulated recall, in which I played sections of Lilly and Claudia's interactions and asked Lilly to reflect on the interactions (see Saldaña, 2011). The time lag between the interactions and follow-up interview allowed me to identify sections of the interactions that were particularly interesting in relation to the interview questions.

Table 9: Data Types and Collection Timeframes

Data name	Data Types	Collection timeframe
Interactions	Audio recordings, video recordings, emails, chat logs, posts on telecollaboration discussion forum	Semester 2
Reflections	Posts on the course discussion forum (blog)	Semester 2
Semi-structured interviews	Audio recordings of interviews with focal participants	One year after semester 2
Stimulated recall	Audio recording of focal participant reflecting on 2 clips from telecollaboration interactions	One year after semester 2
Researcher log	Written reflections during coding and analysis (per Duff, 2014 recommendation)	Throughout coding and analysis of data for semester 2

Researcher Log. One vital addition made to the present study was the use of a researcher log. A recurring theme throughout qualitative research articles is the inherently interpretive nature of each stage of qualitative inquiry; the researcher cannot conceivably separate their own perspectives and experiences from their investigations. In addition to heeding the recommendations of researchers, such as Duff (2014) and Saldaña (2011), recognition of the increasing emphasis put upon reporting researcher reflexivity within the literature (see De Costa & Norton, 2016; Tracy, 2010) fueled the decision to include the researcher log.

Perhaps the most important advantage of the researcher log is that it captures the process of conducting the research and requires the researcher to examine their own viewpoints throughout the project. De Costa (2015a) highlights the potential for the reflexivity allowed by

researcher logs to support ethical qualitative research. By keeping a detailed log of the research process, the researcher can better present the challenges that arose during the study, as well as the researchers' own thoughts, feelings, and reactions to those issues.

According to Duff (2014), a common weakness in qualitative research is an incomplete explanation of the researcher's data collection, engagement with the data, and analysis procedures. A researcher log has the affordance of allowing for a detailed explanation of the study. I used the researcher log to document the development of codes used, as well as to facilitate the transparency necessary for quality quantitative inquiry, as outlined in Tracy's (2010) criteria for qualitative research. In the log, I documented "the research process, decisions made, issues or questions that arise, and potential follow-up" (Duff, 2014, pp. 239-240).

To begin, I used the comment feature on Google Docs to leave notes during the transcription stage and while reading the data prior to coding. These notes pertained to potentially interesting areas in the data, regardless of whether those supported or refuted my presuppositions about the data. Additionally, I noted particular sections where a deeper examination was potentially necessary. During the subsequent analysis and write-up of the findings, I kept a physical researcher log notebook with notes from my work sessions. Taking the time to reflect on my own thoughts on the data allowed me to confront various expectations I had of Lilly and her data. For example, I found myself placing positive and negative worth on Lilly's decisions and statements based on my own similar experiences. The use of the researcher log allowed me to recognize these preconceived notions and their role in the data analysis. Additionally, the use of a coding scheme helped me to curb these concerns, as it pushed me to justify the choice to code each section based on the definition of the given code.

Transcription

Friedman (2012) notes that a thorough description of transcription processes, including the reasoning behind the transcription conventions utilized in the study, is key to maintaining what Lazaraton (2003) refers to as dependability and credibility within qualitative inquiry. The researcher log, described above, allowed for rigorous documentation of the transcription process. In this section, I describe the process of transcription, as well as the transcripts themselves.

I transcribed the recordings using the audio player on my laptop and a Google Doc for each of the tasks and the interview. I chose to transcribe the recordings myself for several reasons. The participants' code-switching throughout the data made the use of automatic transcription software impractical, as most readily available software of this type is only able to transcribe one language at a time, often with limited accuracy. The process of transcription added a quasi-pre-analysis step to the study (see Saldaña, 2011). During this step, I commented on the data and made notes while hearing the interactions unfold. This led to a greater sense of cognitive ownership, an intimate familiarity with the data that allows for a deeper understanding of the phenomena at play (Saldaña, 2011).

The transcripts I created are simple, in that they only include the words spoken verbatim in the conversation and regular timestamps (approximately every 5 minutes) as guideposts. This stands in contrast to more detailed transcripts that are necessary for certain SLA researchers, such as those utilizing conversational analysis. My analysis focuses mainly on the way the case study subjects express their identity through their use of the English and German languages, which means that a verbatim transcript would suffice. Non-standard variants and errors were left in the transcript, as the ways we use language are connected to our identities, such as may be the

case with HLLs who may speak a variant of the language (see Baxter, 2016; De Costa, 2015b; Douglas Fir Group, 2016; Leeman et al., 2011).

Filler sounds, such as 'umm' or 'uhh' were generally omitted from the transcripts unless they were the only response given by either interlocutor, which was the case in several instances (see Saldaña, 2011). However, the word *like*, often used as a filler word, was included because of its potential to have multiple meanings. An example of Lilly's output from the transcripts for Task 3 is below; although this example is not necessarily related to Lilly's identities, it illustrates the plain, straightforward approach I took to my transcriptions.

> Which, I mean, it's going to be fine anyway because we only have 1 semester left, because he was here over the summer. He just moved to New Jersey. Then, I'll be in Germany so we'll be doing long distance anyway. So, I'm like, stay in New Jersey if that's where the jobs are (Task 3, Lines 61-63).

I used standard punctuation and capitalization while simply recording exactly what the speaker said word-for-word without making any judgment calls on their apparent tone or mood, which is particularly difficult to assess accurately when one cannot see the interaction taking place. Any other sounds, such as laughs, were left out of the transcripts. Additionally, errors in grammar or structure were left in the transcripts and written discussion forum posts. Where statements were made in German and are quoted throughout this dissertation, I offer English translations. These translations are written in standard US-American English, as the errors made in German were not always analogous to errors in English and for the purposes of clarity.

As for Lilly's partner, Claudia, I worked to transcribe her data as close to verbatim as possible, but her audio was not always clear. This was due to the recording method the team used which appeared to be a built-in recording application on Lilly's computer. When both

interlocutors were speaking simultaneously, it was common that the conversation was inaudible. At times, this obscured Lilly's utterances as well, albeit less often. As I was not analyzing Claudia's data, I made the decision that I would mark sections that were difficult to understand as inaudible and move forward, especially if the topics were not apparently germane to Lilly's identities or capital. The focus of my study is Lilly's output, although having a transcript of her partner's statements does help me to keep my data in context and to be aware of any positioning taking place. With this in mind, I worked to make Claudia's transcripts as complete as possible, except for the few inaudible sections that cropped up in her recordings, as well.

Development of the Coding Scheme

The coding scheme for Study 2 was developed in response to the challenges and successes found during Study 1. The previous coding scheme was simple, containing only 4 codes, with few sub-codes. This instrument was not fine-tuned enough to allow for a robust analysis of the Study 1 data. Further reasons for the changes made to the coding scheme were also explicated further in the conclusions of Chapter 4.

I took the time to read through the transcripts and Lilly's course discussion forum posts and I made notes germane to the coding scheme, notes relating to relevant information to provide in my description of Lilly and her partner, as well as notes on points of potential interest. The choice to undertake this pre-coding step was mainly to allow me to become more acquainted with the data and to gain a preliminary sense of whether or not it would fit within the proposed coding scheme. Following this, I coded the data using the qualitative coding software NVivo (see Chapter 3 for further details).

During the first examination of the data, it seemed that Lilly was engaging in identity negotiation and that she experienced a lot of ambiguity in terms of her bicultural and bilingual

identities. Even at this step, I recognized my biases coming out in the reading of Lilly's data, especially my hope that Lilly would be successful in finding a comfortable position as a member of both the US-American and German cultures. I noted this in my researcher log. When this concern came up during the coding process, I was sure to recognize this perception and to check my coding with the definitions in the coding scheme.

Thorne, Sauro, and Smith (2015) noted that identity and its related constructs are complex and difficult to operationalize, even within qualitative research. Study 2 seeks to mitigate this challenge by using gerunds (i.e. ing-words) as codes as a way of keeping within view the reality of identity and capital as changing and non-static. This frames the data as a process, rather than as a fixed end result (see Saldaña, 2011), thus aiding in the operationalization of a variety of complex, abstract constructs. For example, in Study 1, I coded simply for 'linguistic capital' and in Study 2, I coded for 'needing linguistic capital' and 'possessing linguistic capital.' This reframed capital as being something that one actively needs or possesses, in contrast to a fixed or permanent possession.

As identity is constantly in flux and changing, thus a methodological approach utilizing gerunds stays true to the theoretical underpinnings of the present study. In order to begin to conceptualize a way to operationalize the multiple facets of identity, I examined Norton's (2013) definition thereof:

> the way a person understands his or her relationship to the world, how that relationship is structured across time and space, and how the person understands possibilities for the future (p. 4).

This definition points us to many coexisting factors within identity: relationships, time, space, and understanding of future possibilities. This is made yet more complicated when one

considers the multiple identities a single person can and does espouse. Identity categories, such as race, gender identity, and sexuality, are complex *socially and historically constructed processes* that occur within larger power structures. This reality means that they cannot be understood by simply examining a single fixed point in time, but rather must be analyzed over time (Norton & Toohey, 2011). By analyzing interactions collected over the process of a 7-week-long telecollaboration project, course discussion forum posts from an entire semester, and including an interview a year after the project ended, I am able to take a more long-term view of the participants' development, although it falls short of being truly longitudinal. Additionally, each form of data is from a different context, allowing researchers to triangulate the phenomena over the boundaries of time and space (i.e. in various contexts) (Saldaña, 2011).

Four main types of capital are analyzed in this case study: linguistic, cultural, social, and economic capital (see Bourdieu, 1986). Linguistic capital encompasses the means that one possesses that helps them to understand and be understood, such as verbal, written, or signed language (Darvin & Norton, 2015). As Darvin and Norton (2015) describe it, cultural capital encompasses the resources one possesses that help them to understand their cultures and other cultures, including knowledge, education, and appreciation of cultural forms. Social capital describes a speaker's connections to "networks of power" (Darvin & Norton, 2015, p. 44). Economic capital was defined as money or financial affordances one has or had (Bourdieu, 1986). This code was utilized for situations when financial resources were discussed or implied, such as in the case of discussions on utilizing student loans and concerns regarding study abroad costs.

Indexing both the capital students *do* and *do not* possess in one overarching category of capital was too narrow to capture the intricate experiences of language learners. To allow for differentiation between capital the participant needed and possessed, each type of capital is

broken up into ‘possessing’ and ‘needing’ said capital. For example, Lilly expressed possessing a great deal of linguistic capital, although she noted needing linguistic capital, much of which being related to her vocabulary. In addition, she both needed and possessed various cultural capital depending on the situation.

It should be noted that the gerunds *needing* and *possessing* are meant to be taken as neutral; that is *needing* is not necessarily meant to signify a negative situation, while *possessing* is not inherently positive. *Possessing* was coded when the speaker implied having certain knowledge; I made the decision to code this way, to avoid making judgment calls regarding the perceived correctness of the speaker’s assertions about cultural or linguistic knowledge. By simply coding the data based on the speaker’s perceptions of their own knowledge or lack thereof, I am able to capture the way they understand their identity and capital. This is useful, as identity is inherently deeply intimate and personal (Norton, 2013). The focus of this study is not on grammatical or cultural correctness but rather the ways Lilly expressed her own understanding of her identities and capital.

Data Collection and Analysis Procedures

As Saldaña (2011) notes, the process of analysis begins at the time of data collection and includes time taken to transcribe data, as the researcher then starts to build an understanding of the dataset and the participant(s). To begin, I gathered the telecollaboration and discussion forum data from the course management system. The audio files from the telecollaborative exchanges were downloaded and organized in a drive shared with the other researchers. The discussion forum posts and comments were copied and pasted into a document. I changed all participant names to their pseudonyms to avoid any chance of revealing participants’ real names (see Chapter 3 for more discussions of ethical considerations made). I transcribed the

telecollaboration interaction and interview recordings myself, according to best practices suggested by Saldaña (2011). I transcribed the data verbatim, including any language errors or variations, in order to present the output as the learners created it.

During transcription, I made short notes to myself using the comment feature to note instances of particular interest. This included utterances that related to Lilly's background, as well as those relating to the coding scheme I developed. Once the data were fully transcribed, I listened to the data while reading the transcripts to ensure the accuracy of my own transcriptions and made further notes in the margin. This also served as an opportunity to become more familiar with Lilly's interactions with Claudia.

I coded the data formally using the qualitative coding software, NVivo. I read through each transcript individual and applied the codes to various sections of the data. I allowed for double coding of data sections, as the constructs of identity and capital are closely related. This allowed me to later analyze whether a relationship between the two constructs could be ascertained (i.e., to answer research question three). Once the dataset was completely coded, I read over the results for each code to assess whether they fit within the definitions of that category according to the coding scheme. This step also served as a form of checks and balances against my own biases and preconceived notions as a researcher, teacher, and German learner. The transcription practices, analysis procedures, and ethical considerations made in this study are described more thoroughly in Chapter 3.

Findings

In this section, the findings of the present study are outlined in chronological order based on the time when the assignment occurred in the class. When possible, the course discussion forum posts (blogs) are included with the relevant telecollaboration task. As the German and

American semesters do not align perfectly, some of the blog tasks occurred prior to the beginning of the telecollaboration exchange. As such, this section presents information from 2 discussion forum assignments before the tasks, those being Blog 2 and Blog 8. Only the relevant blog tasks will be described here but all telecollaboration tasks will be described, regardless of whether the task garnered any information relevant to the current analysis. This choice was made as there were many blog posts and the analysis focuses on the telecollaboration project. Each task is described as it is presented, in order to situate the responses in the context of the prompt.

Blog 2

In the second discussion forum post assignment in the course, learners were prompted to write their own definition of language, then to gather laypeople's definitions of language and to share them. Additionally, students were asked to consider their own motivation for learning the language and to share their ideas for increasing their learning during the course.

In her post for Blog 2, Lilly focused on her perceived lack of grammatical competence in the language and wrote in the class blog that she had to ask her classmates for help with grammar. She attributed this difficulty to her bilingual upbringing, as she said she did not have to learn grammatical concepts as non-native speakers do.

> Meine größte Schwierigkeit ist die Regeln der Grammatik. Sie wären fast einfacher wenn ich nicht Zweisprachig aufgewachsen wäre, sonst müsste ich sie wissen um überhaupt zu Sprechen. Ich muss die Regeln einfach lernen um Memorieren, wie jeder anderer nicht Deutscher Deutschlerner. Ich frage oft meine Klassenkameraden was eine bestimmte Regel ist und warum, dass so ist, weil sie es normalerweise besser wissen.

> [My biggest difficulty is the grammar rules. They would almost be simpler if I hadn't been raised bilingually, otherwise, I would have had to know them to even be able to speak. I need to simply learn the rules by memorization, like every other non-German German learner. I often ask my classmates what a certain rule is and why, because they normally know better] (Blog 2, Lines 17-21).

In this passage, Lilly presents herself as a bilingual, but also as lacking in linguistic ability. Much like her experience with her partner, she consulted her peers for help with grammar and positioned them as being more informed on such matters. Here her linguistic capital is viewed as a potentially negative element because it impacted the way she learned German in courses with her monolingual English-speaking peers. Additionally, Lilly positions herself as a native speaker by contrasting her German abilities to her peers who were not raised in a bilingual household.

In response to a classmate's comment on Lilly's discussion forum post, Lilly wrote, "ich kenne Deutsche Grammatik wie Englischsprechende hier Englishe Grammatik kennen" [I know German grammar like English speakers here know English grammar] (Blog 2, Comment 1, Lines 1-2). By comparing her knowledge of German grammar to native English speakers' knowledge of English grammar, Lilly implicitly claimed a German native speaker identity.

Blog 8

Discussion forum prompt 8 focused on sequential and simultaneous bilingualism. This assignment included speaking with a German native or heritage speaker and gathering their experiences of learning. Students were also prompted to note variations in their language usage. The learners then wrote a comparison of their language learning experiences and the experiences of their interviewees. The prompt asked learners to discuss the process of raising children

bilingually, as well. In her post, Lilly acknowledged her social capital as being important to her success in German learning and gaining linguistic capital.

> Ich musste auch nichst auserhalb *[sic]* der Schule machen um mein Deutsch zu verbessern weil meine Familie Deutsch spricht und ich in einer Deutschen Umgebung aufgezogen worden bin [I didn't need to do anything outside of school to improve my German because my family speaks German and I was raised in a German environment] (Blog 8, Lines 16-18).

Her family and previous experiences were valuable resources for her learning and growth as a German HLL. Here she framed her upbringing and family as large sources of linguistic capital.

Task 1

Task 1 was the initial task of the telecollaboration. This task took place several weeks into the US semester and toward the beginning of the German semester, due to differences in semester schedules between the US and Germany. This task asked the learners to introduce themselves to their partners, including their language learning history and any previous experiences abroad. The learners answered questions from the book from an orientation resource for study abroad students and were prompted to share their answers, as well as to attempt to understand differences and similarities between their answers and those of their peers.

Claudia asked Lilly why her Skype location was set to a location in Germany and Lilly replied that she used to live there. Claudia then asked if Lilly was German, and Lilly answered using the phrase "sort of, yeah" (Task 1, Line 27), accepting the positioning cautiously. She used this to springboard a discussion on her German proficiency, noting that she believed her German

ability was not as strong as her English ability because she had switched from the German-medium school to the English-medium school after 4th grade. She explained that after she made the transition to the English-medium school, or the American school, as she termed it, "I stopped speaking German. So like, my my German ability kind of came to a halt and, I mean, it is still good but it's not nearly as good as my English. My English is much better" (Task 1, Lines 38-40). Here she claimed that her German proficiency was negatively affected by the transition to the English-medium school, describing English as her dominant language.

Later in the interaction, Lilly explained the structure of her planned year-long study abroad trip to Germany. One option available to Lilly was to take courses at the university with German students. Lilly claimed she might need to take easier German classes with her study abroad peers, revealing some insecurity regarding her speaking ability, despite her strong self-identification as a proficient heritage speaker in other parts of the interactions. When discussing taking courses at the German university, she said:

> My fear with that though is that German my my German is not as good as my English. I can speak pretty well, and my writing is ok, but my reading and listening comprehension, especially like when I listen to news, is hard for me. I don't understand all of what they're saying. And then, my writing is is ok. So, I don't know if I'll be able to take like all of the German classes. I might have to take some of the easier ones. We'll see (Task 1, Lines 208-212).

Not only did she share her insecurities with her partner, but she also labeled her feelings using a fairly strong term, fear, to emphasize the worries surrounding her perceived shortcomings in her German proficiency.

Lilly's concerns about her study abroad in Germany extended beyond language abilities to encompass concerns about her social connections in her host city – or lack thereof. A major concern for her was that her family would not be with her, to which her partner reminded her that her sister would be with her.

> I'm nervous actually to come back which is bad, because I've wanted to come back to Germany for a long time now because I miss it. But I'm scared to go back without my parents, because I was only there with my family, and now I'm going to go there all alone (Task 1, Lines 338-341).

By describing her sojourn as coming back, she framed it as a homecoming. Although Lilly claimed she was concerned about returning without family, Claudia reminded her that her sister would be going on the same program she was planning on taking part in. Yet, Germany is portrayed more has her childhood home than a current home which is supported by her fear of returning without her parents. In this passage, she positioned herself as a reluctant returnee to a former home, rather than a nervous traveler.

Lilly described the importance of her family relationships to her language learning and cultural experiences in many cases. In particular, she emphasized that her relationship with her sister was a unique relationship in her life. Anke, Lilly's sister, also had the experience of growing up biculturally, meaning that they could connect on a different level, unlike Lilly's relationships with her peers. Anke attended a different US-American university, although she and Lilly had initially planned on going on the same year-long study abroad program together.

Task 2

Task 2 prompted the pairs to discuss cultural stereotypes and differences, as well as to hypothesize the origin of these differences. The prompt also asked the students to discuss the role language plays in these differences. Learners were asked to share one challenging aspect and one aspect they appreciated about their partner's culture. The task included sharing views about other cultures, such as Spanish culture, and discussing how these cultures would be viewed by members of German and American culture.

When discussing stereotypes, Lilly claimed that "...auf jeden Fall die Deutschen und die Amerikaner würden sagen dass ist Spanier und Italiener sind entspannt" [of course, Germans and Americans would say that is Spaniards and Italians are relaxed] (Task 2, Line 271-272). By using the phrase "auf jeden Fall" and making claims for members of both cultures, Lilly claimed her identity as both German and American and used the associated cultural capital to draw a conclusion on how people in both cultures would view Spanish and Italian culture.

Task 3

For Task 3, learners took a language learning values survey and then discussed the results with their partners. They were asked to hypothesize the origin of any differences between their answers. Following this, learners discussed their language learning experiences, with a focus on particular incidents that positively or negatively influenced their experiences. The partners then explained their educational system. To conclude, they discussed their motivations for learning their target language and how the partners may have been able to help one another.

Lilly discussed her experiences learning English and German as a child on a US military base in Germany. Prior to switching to the English-medium school, she primarily spoke German

in school and at home, except with her mother, who spoke German poorly. Her childhood language use saw a massive shift when she moved from her German elementary school to the English-medium school on the base. Lilly claimed that she did not have a recollection of learning German, but she did recount what she felt to be a particularly embarrassing and frustrating moment early in her time at the English-medium school.

> Ok, also da war ich und das war ich glaub in der vierten Klasse. Und sie wollten, dass ich *Ice Cream* buchstabiere. Und dann habe ich dann habe ich gedacht, "Ok wie hört sich das in meinem Kopf an?" weil ich muss das schreiben. Das E-I-S und dann und dann C-R-E-M-E. Und dann haben sie die Lehrerinnen haben sich so angeschaut. Und… das war nur bedeutsam, weil es mein erstes Amerikanisches Wort war, das ich gelernt habe, zu buchstabieren.
>
> [Ok well, there I was and it was I think 4th grade and she wanted me to spell ice cream. And then I and then I thought 'Ok how does that sound in my head' because I need to write that. That E-I-S and then and then C-R-E-M-E. And then they the teachers looked at each other. And… that was only meaningful because that was my first American word that I learned to spell.] (Task 3, Lines 473-477)

In this particular story, Lilly focused on her inability to spell in English when she was a young child. Lilly highlights this example as being a particularly salient language learning memory. This recollection serves to identify Lilly more strongly as a German native speaker by distancing her from the typical US-American experience of having learned English as a child.

Task 4

Task 4 prompted the telecollaboration groups to discuss technology and technology-mediated communication, as well as the effects of these on language and communication. Then, learners were asked to share the ways they use technology and CMC to learn their target language, including other possibilities and the potential affordances and challenges of each. Lilly claimed that she used very little technology to learn German and explained several types of resources to learn her other world language, such as online dictionaries and language forums. She also stated that she preferred to listen to music in English or her language, as she thought that "German just doesn't sound very pretty when it's sung" (Task 4, Line 133).

Lilly described the role her father played in maintaining her identity as a German speaker. During an interaction, Lilly and Claudia were discussing ways to stay connected to the language using technology when Lilly said "I do watch some German cooking shows with my dad… That's our German bonding time" (Task 4, Lines 167-170). She went on to report that she and her father would occasionally cook together after watching these shows. She viewed this time with her father as an opportunity to connect both with her father and with their shared German language and culture.

Although she engaged with German media with her father, she discussed her difficulties with comprehension, especially of news in German. She claimed that while she understood the general context, she did not "understand a lot of the words that they're using" (Task 4, Lines 194-195). While she stated she watched these videos to keep up with German current events, she found that she lacked the vocabulary and listening comprehension she needed to fully understand and engage with the media. Following this, she and Claudia discussed blogs. Lilly reported that she did not visit blogs that were written in German.

> I think the reason why I wouldn't do it in German is because I wouldn't understand the vocabulary they're using, because they're some vocabulary specific to fitness that I wouldn't know, that I do know in English. Like metabolism. I don't know what metabolism is in German (Task 4, Lines 207-209).

Yet again, Lilly highlighted a deficit in her vocabulary knowledge. Later in the discussion, Lilly and Claudia discuss different technologies they use for language learning. Lilly stated,

> Ich weiß nicht, ob ich was benutze, weil ich kann ja schon Deutsch… meistens. Ich meine ich ich kann ich bin nicht perfekt, aber ich kann schon sprechen. Ich muss nicht alles nachschlagen, oder nachschlagen, aber wenn ich was benutzen muss, ist es normalerweise so… Ich trage kein Wörterbuch mit mir. Ich tue das so in mein Handy eintippen.
>
> [I don't know if I use anything, because I can speak German already… mostly. I mean, I I can, I am not perfect, but I can speak. I don't need to look up everything, or look it up, when I need to use it. That's how it usually is… I don't carry a dictionary with me. I just type in into my cell phone.] (Task 4, Lines 310-313).

In this statement, Lilly hedged her claims about her German speaking ability. She says she can mostly speak German and acknowledges that, while she doesn't speak German perfectly, she can speak German without looking up every word in a dictionary.

Later, Lilly asked Claudia what kind of German she spoke. Although her partner did not initially understand the question, she persisted, saying, "Also, weil ich weiß, es ich nicht, dass

ich richtig einen Bayerischen Akzent hab. Vielleicht das R ein bisschen, aber sonst ich weiß nicht was ich rede, weil das ist so ein Mischmasch" [Well, because I know, it's not like I have a true Bavarian accent. Maybe the R a little, but other I'm not sure what I speak, because it's a hodgepodge] (Task 4, Lines 641-643). In this part of the conversation, she looks to her partner's language expertise to help her position her manner of speech within the larger community of German speakers by giving it a dialectal label.

Claudia is unable to place her accent, claiming that she struggles with dialects. She then reassured Lilly that once she was in Germany for a while, she would begin to speak German more fluently. Lilly followed this by stating,

> Ja ich weiß auch, dass ich ein kleines Problem hab, dass ich nicht immer sagen kann, was ich denke. Und das hört sich, also ich weiß das es schlechtes Deutsch ist, was ich spreche, aber ich weiß nicht wie ich das dann richtig sagen würde oder wie ich es dann sagen würde, damit es mehr Sinn macht. Ge? Mindestens hab ich jetzt keinen richtigen Bayerischen Akzent hab, weil das kann ich selbst nicht verstehen, wann wir dahin gehen. Und meine Mama, meine arme Mama. Sie kann kein Deutsch.
>
> [Yeah, I also know, that I have a small problem, that I can't always say what I think. And that sounds, well I know that what I speak is bad German, but I don't know how I would correctly say it or how I would say it so that it makes sense. Right? At least I don't have a real Bavarian accent, because I can't understand that myself when we go there. And my mom, my poor mom. She can't speak any German.] (Task 4, Lines 669-674).

This particular statement exhibits Lilly's insecurities and ambiguity regarding her language abilities. She admitted feeling that she spoke German poorly because she cannot always

say what she is thinking in a logical way. She then reframed her lack of Bavarian accent as a positive, as she found that particular accent to be difficult to understand. To conclude, Lilly stated that her "poor mom" spoke no German, implicitly comparing her proficiency to her mother's lack thereof.

Task 5

Task 5 prompted learners to read information about differences between the US and Germany, then to compare and contrast their reactions with their partners. They were asked to summarize their countries' core values and to assign 3 words to their country. Lilly and Claudia begin their interaction with a brief discussion of Thanksgiving and Claudia's upcoming ski trip. While discussing skiing and snowboarding, Lilly looked up the history of Thanksgiving to share with Claudia.

The words Lilly ascribed to the US were "big, fast, and cheap" (Task 5, Line 101). Claudia misheard fast as fat, and Lilly claimed that this word would also be fitting for the US. Lilly used the example of fast production housing in the US to exemplify the US-American penchant for big, fast, and cheap items. She also highlighted big box stores such as Sam's Club and Costco as examples of her 3 words to describe the US. Later, Lilly noted her grandmother's assertion that US-Americans drink their coffee weak. She accepted her grandmother's experience living in other countries as evidence of her authority on the comparison of coffee preferences. Following other discussions, Lilly added superficial as a word to describe US-Americans.

The coffee conversation transitioned to a conversation about living in other countries. Lilly claimed she would like to move abroad, because "America is a great place, but I don't like everything about the culture necessarily. Ideally, I would like to go back to Germany, but I don't

know. We'll see" (Task 5, Lines 177-179). Here she characterized moving to Germany as going "back," signaling a type of homecoming, just as she had in Task 1.

This is not to say that she had a perfectly positive view of the German culture, either. Lilly described the US-American culture as being very individualistic. She described her experience with what she perceived to be a similar value within German culture.

> I wasn't as much in the German culture as you were, because I spent only 3 years like 3 full years in German school and going home to speak English with my mom and I would only speak German on the weekends or something. But… I think it's probably the same in Germany, like especially the school system, in my opinion, was either sink or swim (Task 5, Lines 230-234).

Based on her experiences in the German school system, she felt that German culture valued individualism. This view of the German culture may be related to her struggles in her German-medium elementary school, as she mentioned feeling like it was "sink or swim"; her struggles eventually triggered the switch to the English-medium school. Later she prompted Claudia to describe the school system, as she had little personal experience in the system. She claimed she would have not been given the opportunity to attend *Gymnasium*, the university preparatory high school in Germany, as she performed poorly in her elementary school classes, a determining factor for future school placement in Germany.

Task 6

The sixth task asked learners to reflect on their experience with the telecollaboration. They discussed the affordances and challenges they faced over the duration of the project, including any misunderstandings and the potential reasons therefor. One of the questions in the

prompt asked the learners to discuss any particularly meaningful discussions they had during the telecollaboration. Lilly said, “I feel like every time we’ve had a conversation we’ve discussed something meaningful” (Task 6, Lines 92-93).

Another question in the prompt asked the learners to reflect on what they had learned about themselves. Lilly addressed her biculturality, saying,

> I guess through all of this, I guess I knew I was part German, part American, but I think I have more American qualities, like stereotypical qualities than a German, but also I am not… I don’t feel like it’s foreign to me or difference. I just gravitate more towards parts of American culture. Like I guess I guess, not my beliefs necessary, but the stuff like eye contact, my gestures, and stuff like that. Does that make sense? (Task 6, 109-13).

In this statement, Lilly articulated that she had recognized her tendency toward American cultural norms. She denied that she leaned toward typical US-American beliefs but she noted that she engaged in some of the more subconscious behaviors. Despite this realization, she later claimed that she had not learned anything new about Germans, because she had previously lived in Germany. She neglected to note that while she lived in Germany, she lived on an American military base which likely affected her experiences.

Task 7

The final task asked students to discuss different models of culture, as well as to think about their futures, especially as they related to utilizing the target language and culture. Learners were again asked to reflect on their experiences with the telecollaboration project. The partners then discussed the future of their friendship or partnership before ending their telecollaborative exchanges.

Lilly shared with Claudia that she had experienced culture shock both upon switching to her US-American school on the base in Germany and upon moving to the US when she was in high school. She claimed that things like food and the size of the homes were points of cultural struggle for her which caused a sense of alienation from the American culture. Lilly described her early and current reactions to parts of American culture:

> My experience when I came to America was, "this place is really gross." I don't know I always thought it was gross. And the streets looked weird. I remember every time I would get on the highway in America I felt so out of place. It was like a dream… I would look at the houses and I thought they were so cool. Because in Germany the houses are smaller and they're not as like grandiose, you know? The reason that American houses are bigger and more grandiose is because they're cheaper and not as good quality. So, that was one thing I really liked. And then like the food, I never really, I just thought the food was gross. And this sounds so typical, but I always thought there were so many fat people in America when I first came here and I was kind of disgusted by that. I was like how the heck are people so fat? (Task 7, Lines 276-292)

Lilly describes various reactions she had to American culture when she first moved to the US. She associated being American with being fat, which she acknowledged is a stereotype. She characterized American homes with both being grandiose, which she admired, although she claimed that they were of relatively poor quality compared to German homes. The statement that she felt out of place shows that she began her time in the US feeling very disconnected from the culture and country.

In later discussions of culture, as in Task 6, Lilly repeated her assertion that she had not learned anything about the German culture, although she did describe the value she found in the

various ways the students had learned to engage with other cultures. Later in the task, she described learning more about the German education system in a previous discussion with Claudia. She took this as an opportunity to ask for clarifications regarding the particulars of the education system.

When discussing their futures, Lilly spoke of her desire to become a German teacher and her interest in teaching in Germany. She also claimed she would definitely teach her future children German and repeated her desire to live in Germany. Additionally, she described her goal of reaching superior on the ACTFL proficiency scale. She emphasized several times that speakers are often not able to reach superior in their native language. At one point, she read the descriptors of the kinds of tasks a superior-level speaker can engage in. Although she had already reached the minimum proficiency level for her teaching certification, she felt the need to continue learning to reach this particularly high level of proficiency.

Although unrelated to language and culture, an interesting part of this particular interaction was that Lilly and Claudia discussed their age for the first time. Neither of them had realized there was an age gap between them, and both were shocked to learn of the other's age. Following this, they discussed plans for Lilly's planned time in Germany. Lilly asked if Claudia would be interested in meeting her sister, Anke, as they were planning on living together during their time in Germany.

Interview

Lilly and I met on the campus of the university she attended for the interview. The interview took approximately 15 minutes total, including typical questions and a short stimulated recall portion. The interview questions asked about Lilly's language learning history, her future plans with her German skills, and her experiences with telecollaboration. During the stimulated

recall, I played 2 short excerpts from the recordings of Lilly's interactions with Claudia and asked her to reflect on them.

The warmup questions of the interview asked Lilly about her course of study at the time of the interview. Lilly described studying German, TESOL, and another language, saying, "I guess it's something that I continue to pursue because I loved growing up up in an environment where there were a lot of languages being spoken in Europe" (Interview, Lines 10-12). Following this question, I asked Lilly what role German played in her daily life. She stated,

> Well, it plays a daily role. Like, I speak German every day almost with my dad, some days more than other days. My family is from Germany, so sometimes when I speak to them I'll have to speak German to them, obviously. My sister is over there right now, so when I talk to her I'll talk in German. What else? I listen to music, a lot of TV that I watch is in German. a lot of the cookbooks that I use are in German (Interview, Lines 16-20).

In this answer, Lilly described the social networks in which she used the language to mainly include her family. Additionally, she connected to German in various other ways, such as through media and cookbooks.

One of the stimulated recall excerpts came from Task 6, specifically the portion in which Lilly discussed her realization that she was more American than she had initially believed. Lilly was able to recognize and articulate the complexity of her situation as a bicultural and bilingual person. During the stimulated recall, I played a section of a telecollaborative interaction in which Claudia asked Lilly if it was difficult to feel like she did not belong in either culture. I asked her to reflect on this interaction and to explain her current feelings on the topic.

> Sometimes it's difficult in Germany. Sometimes it's difficult here. Because here I'm German and there I'm American you know? And even growing up that's how it was at school. Like I went to an American school and we became the German girls and when in a German school we became the American girls, the *Amis*, you know? So... I don't know what else to say to that. Sometimes it's difficult. It just depends on the I guess the context and when you start talking about "we" versus "them", you know? … Like I say we for both, but then I'll say them for both as well, depending on like what I'm talking about (Interview, Lines 148-153).

In this passage, Lilly highlights two important factors that contribute to the complexity of her identities: how others perceive her and her difficulty in separating the two identities for herself. For Lilly, being perceived as an 'other' or outsider in both situations contributed to the confusion of being able to pin down her identity. While she would like to claim identities as both an American and a German, by virtue of being positioned this way by others, she was unable to situate herself as a full member of either community.

We discussed Lilly's future plans which still included becoming a high school and middle school German teacher. The topic of study abroad came up as well, as Lilly had not attended her planned year-long program. Lilly cited financial concerns as the cause for her ultimate decision not to take part in the program, although the discussions regarding her fears of returning may mean that other considerations were part of that decision. Her sister still took part in the program they had planned on completing together.

During the interview, Lilly mentioned her experiences in switching schools and the effect this had on her identities. Her description of the event showed that this change had caused a monumental shift in the way she was positioned by others which in turn affected the way she

perceived herself. She said, “I went to an American school and we became the German girls and when in a German school we became the American girls, the Amis, you know?” (Interview, Lines 150-151). This contributed to her sense of ambiguity toward her identities as both an American and a German, as she was assigned seemingly opposing positions by her peers. These positions tended to exclude her by positioning her as an ‘other.’ She also engaged in identifying and othering herself, depending on the situation, in that she interchangeably used the words ‘we’ and ‘us’ to refer to either Germans or Americans. Lilly viewed herself as both German and American, while her peers reportedly positioned her as simultaneously both and neither.

Conclusions

In this section of the chapter, I detail the answers to each of the research questions by focusing on identity, the various types of capital, and the intersections between those. In summary, Lilly’s identities were mainly focused on being German-American, including both as a bicultural and bilingual individual, as well as her identity of being a German learner. These identities were, however, complex and conflicted. At the end of the telecollaboration project, she noted that she had realized she related more to her American heritage than she originally anticipated. Lilly’s imagined futures focused greatly on the possibilities her linguistic, social, and cultural capital would provide her.

The ambiguous and complex relationship she had with her identities is present in the data on her linguistic and cultural capital. Lilly focused greatly on the capital she felt she was lacking, while simultaneously working to position herself as a legitimate member of a German-speaking community. She leveraged her social capital, which came in the form of her connections to her immediate family members, as a way to bolstering this identity.

Identities and Positioning

Lilly's main identity was that of a heritage speaker of German. This identity is presented through her discussions of her German-speaking family, as well as the fact that she considered herself to be a native speaker of German and considered German to be one of her home languages, along with English. Much of her self-positioning focused on her own experiences as a bilingual and bicultural individual, including her experiences within a German-American family. The ways she positioned herself seemed to depend on several factors.

In many cases, she portrayed herself as being confident in her abilities as a German speaker, which she often related to her background as an HLL. In these instances, including her very first interaction with Claudia, she identified herself as somewhat German and indicated that speaking German would be easy for her. Several times during her interactions with Claudia, Lilly described her planned study abroad as being a return to Germany, implicitly describing German as her home, although she voiced various concerns about "going back." She repeatedly discussed her insecurities regarding returning to Germany without her parents, as well as worries she had about her linguistic abilities.

Lilly's identities were entwined with her own understanding of her linguistic abilities. While she considered herself to be more linguistically capable than her classmates, she also noted that there were times when she relied on them for help with grammar topics. Additionally, she described instances when she perceived how she learned German differently than her peers, such as her relative lack of explicit grammar knowledge. Although she often voiced concerns about her grammatical competence, she used this perceived lack of capital to position herself as a native speaker. At various times, including in a blog post and the interview, she claimed that she knew German grammar like native English speakers know English grammar. This comparison

positioned her as a native German speaker, instead of focusing on her lack of grammatical competence.

At times, Lilly even explicitly discussed her position between the two cultures. As part of the short stimulated-recall activity discussed above, I played the recording of the interaction in which she described her ambiguity toward her bilingual and bicultural upbringing. Although she did not specifically recall this part of the interactions, she said her feelings were still the same. Lilly mentioned at the end of this clip that she had difficulties discerning between "we" and "they" when discussing Germans and Americans, saying that her decision to use either pronoun is based on the topic of discussion. Although she did not provide specific examples as to when she would employ each pronoun, within the dataset, the use of "we" vs "they" seemed at times to depend on her cultural or linguistic capital, as well as whether or not she herself identified with the topic being discussed, such as in the case of the discussion of Spanish and Italian culture above. Further analysis of this language choice could prove fruitful for understanding the connection between her identity and language use.

While she began the course and the telecollaboration identifying herself strongly with her German heritage, Lilly ultimately concluded in a discussion with Claudia that she identified more with her American heritage and upbringing than she had initially anticipated. Lilly described metaphorically residing in a third space between being what she called "fully American" and "fully German." Her experiences as the American child in a German school and the German student in an American high school contributed to this sense of being permanently between two cultures. Some of this feeling seemed to come from salient childhood experiences Lilly had described. During the interview, Lilly reported that when she attended the German-medium school, her peers positioned her and Anke as the Americans or *Amis.* When she switched to the English-medium school, she and Anke were each positioned as the German girls. These

identities were inextricably linked to the ways she envisioned her future, especially as it related to using the German language.

Imagined Futures. Lilly had several imagined futures related to her German speaker and HLL identities. In her academic life, she planned on spending time abroad in Germany as a student at a German university. Her original year-long plan did not come to fruition, but upon our last communication, she had planned a semester-long sojourn through her university and located at a different German university than the year-long program. She expressed a sense of anxiety about what she described as 'returning' to Germany without her family. She acknowledged that her experiences in Germany were mainly familial. She conveyed a sense of nervousness around the concept of returning to a place to which she was not entirely sure she truly belonged, especially without her parents. Lilly revealed in this that her identity as a German was strongly connected to her familial heritage.

Professionally, she envisioned herself as a high school German teacher in the US or Germany. At some points, she described an imagined future as a German teacher at a school on a military base. Her economic capital allowed her to work toward a degree in teacher education, which brought her closer to realizing this imagined future. Her degree program included a series of teaching internships, one of which she described during an interaction with Claudia. In this interaction, she described her mentor teacher's language skills as lacking and critiqued the language the teacher used. In doing so, Lilly positioned herself as a competent speaker who was able to recognize errors in other proficient speakers' output. During her follow-up interview, Lilly explained her confidence that her German skills were sufficient for her future teaching duties. This stood in contrast to her feelings about her abilities in the other language she was learning at university. She told me she was not planning on taking the oral proficiency exam in

this other language because she was not confident that she could effectively teach with her current language abilities.

Lilly explained her choice to add a minor in Teaching English to Speakers of Other Languages to her degree plan, as she felt she could sympathize with the experience of learning English. This prior experience and her future degree in teaching and German were both pieces of cultural capital possessed by Lilly that influenced her imagined futures. During her interview, she also mentioned the potential imagined future of living in another country and teaching English, while also improving her proficiency in the local language. As previously mentioned, Lilly mentioned the possibility of teaching German on a military base during an interaction with Claudia. This was a special connection for her, as she had attended elementary school through the beginning of high school on an American military base in Germany.

Tied closely to her professional imagined futures are Lilly's personal imagined futures. Lilly pictured herself living outside of the US, although not specifically in a German-speaking region, while she did mention Germany as a possibility. She repeatedly discussed her desire to leave the US, describing her love of travel and a disconnect she felt with the American culture. During an interaction with Claudia, Lilly claimed that she did love the US, but she did not necessarily like the culture. Additionally, she made mention of continuing to speak German in her family, saying that she would definitely teach her future children German. Lilly also set a personal goal of reaching Superior proficiency in German on the ACTFL scale and acknowledged that this was beyond what was required for her to teach German. This goal was purely important to her as a way of bolstering her German speaker identity.

Capital

Lilly's unique position as an HLL of German meant that she came into the course with a unique set of experiences and skills (see He, 2006, 2010). Each of these experiences and skills brings, too, various types of capital. Much like Lilly's identities, the capital she possessed was in flux and valued differently depending on her context and interlocutor. Lilly often highlighted the fact that she possessed the invaluable social capital of having German and German-speaking family members, linking this to both linguistic and cultural capital.

While Lilly grew up bilingual and bicultural, having lived in both Germany and the US, she often found gaps in her linguistic and cultural capital that she hoped to fill by continuing learning German formally in the classroom setting. This is what Ortega (2017) refers to as 'conflictive bilingualism,' in which learners, especially HLLs, are uncertain about their status as bilinguals. I utilized codes phrased using gerunds to highlight the process of possessing and needing different types of capital. Due to this decision, I was able to capture a nuanced picture of the capital Lilly possessed or lacked throughout her language learning experiences.

Cultural capital was coded to sections in which Lilly describes resources she needed or possessed that helped her to understand her cultures and other cultures. Linguistic capital referred to verbal and written language skills Lilly referenced either possessing or needing. As was the case with her identities, the types of capital were marked with a great deal of ambiguity. Additionally, social capital in the form of familial connections was shown to have been important for Lilly. Lilly vacillated between claims of possessing and needing them, as well as between confidence and insecurity in her capital. This is not to evaluate her claims as contradictory or false, but rather it serves to highlight the fraught and complex process of negotiating bilingual and bicultural identities.

Cultural capital. Lilly positioned herself as possessing a large amount of cultural capital in regards to both US-American and German culture. During the interaction for the sixth task, which required students to reflect on the telecollaborative exchange, Lilly claimed that she had not learned much about German culture, because she had lived there for an extended period of time. With this statement, she presented herself to be knowledgeable about German culture. Although, it is worth noting that she lived on a military base, thus separate from general German society. In contrast to this, during the discussion on school systems, Lilly noted that she had very little experience with the German school system, as she had transferred to a US-American school on the military base at a young age. In this instance, she used the rapport she had built with Claudia to jumpstart a conversation on the school system in Germany, asking questions to gain better clarity into the subject.

Lilly was able to identify components of each culture in her own biculturality during her interactions with Claudia. Lilly's bicultural and bilingual upbringing, along with her relationship with her sister, showed an interesting interplay between possessing great amounts of cultural capital on two different fronts, yet needing more cultural capital in relation to general German culture. In the 5th task, she admitted that she did not have the cultural knowledge to understand the German primary and secondary education system, despite her experience in German school as a young child and having grown up in Germany until she was a teenager. Lilly also asserts that she did not have the academic capabilities necessary to have made it into *Gymnasium* if she had stayed in the German school system past the 4th grade. This lack of experience and poor academic record in Germany decreased her confidence in her ability to become part of what she sees as more elite students in Germany.

Linguistic capital. Lilly was particularly ambivalent in regards to her linguistic capital. At times she boasted her high proficiency and pride in her skills, yet at other times she spoke

negatively of her abilities and described a variety of errors she found herself making fairly regularly. In her very first interaction with Claudia, Lilly mentioned her German heritage and resulting language skills within the first minutes of their conversation. When the discussion revolved around grammatical correctness, Lilly positioned herself as being less skilled than many of her peers and came across as being insecure. She mentioned asking her classroom peers for help with grammar rules, despite the fact that she had learned German throughout her life. On the other hand, she used her limited grammatical understanding as a sign of her native speaker-like skills. Lilly positioned herself as native speaker-like, describing her understanding of German grammar as being like English speakers' understanding of English grammar. Lilly connected the linguistic capital she portrayed herself as lacking to her identities as a German-English bilingual and German native speaker.

Lilly's linguistic capital was especially fraught with ambiguity. In the first task, Claudia positioned Lilly as a capable German speaker, although they had only spoken English to one another during the interaction. This is not to say that there were no interactions in German prior to completing the first task. Yet, this is still noteworthy because the positioning by Claudia came about after Lilly described her German lineage and her time living in Germany as a child and during her early teenage years. Lilly gladly accepted this position by affirming that her German skills were not a problem for the interactions, although she admitted that her English skills were better. Later in the same task, she talked about being able to teach a Spanish friend to speak German, this time positioning herself as a very capable speaker who is able to use her capital to teach others.

Social capital. Lilly's social capital helped her to maintain her identity as a heritage speaker of German. Despite her conflicted relationship with her cultural and linguistic capital, her familial connections to the culture and language remained. Her father and sister served as her

largest source of social capital. She reported speaking German with them yet she did acknowledge that she was not speaking as much German with them as she would have liked. In addition, she mentioned other German family members she visited and with whom she would communicate. Lilly's sister, Anke, was a particularly important part of her social capital. This relationship relates deeply to her identities, therefore it is discussed more deeply in the next subsection.

During an interaction with Claudia, Lilly described her sister as her best friend, and characterized speaking with her father as being "like talking to a friend." Claudia asked which language Lilly and Anke spoke together. This had changed over time depending on their context. During their time at the German school, they spoke mainly German, then the language switched to English when they transferred schools. Lilly said they generally made an effort to speak as much German as possible but admitted that they often switched to English when they encounter difficulties.

Additionally, Lilly possessed some social capital in the form of her peers in her German course, yet she mentioned these relationships rather infrequently. Lilly often mentioned her family as her main source of social capital in the German-speaking world. Her focus as far as social capital is concerned was primarily on her sister and father. During her interactions with Claudia and in the course discussion forum, Lilly made little mention of German-speaking friends or the possibility of meeting new German speakers while on her planned study abroad program.

Economic capital. Linguistic and cultural capital were by far the most commonly present types of capital in Lilly's data. The only time Lilly mentioned economic capital was during her interview with me when I prompted her to elaborate on her decision to change the study abroad program from the year-long option to the semester option. She explained that she would not go

on the program due to financial constraints. She was unable to fit the year-long program into her class schedule without having to delay graduation, which would translate to extra costs for her education. Despite this, she was able to find a semester-long program in Germany through her university that fit into her course schedule and budget, although no data was collected after this scheduled sojourn to corroborate whether or not she participated in this program.

Intersections of Identity and Capital

As could already be seen in the previous subsections, Lilly's complex relationship to her German heritage led to tension between her identities and the capital she possessed. She believed her own capital to be greater than that of other German learners but less than that of her NS friends and family. Although she was a proficient German speaker, her perceived shortcomings in grammatical and lexical competence created ambiguity about her position within the German-speaking world. The knowledge she possessed about the German-speaking world allowed her to situate herself as a competent member of the community, yet there were times when shortcomings in her knowledge became apparent. These shortcomings affected the way she identified herself.

The ambiguity toward her own identities spread to her understanding of the capital she possessed. Lilly showed a level of uncertainty toward her linguistic capital. In some portions of her interactions, she showed a great deal of confidence in her language abilities, citing her near native-speaker-like language skills. At the beginning of their first interaction, Lilly positioned herself as "sort of" (Task 1, Line 27) a German, claiming that this was the reason it "wasn't a big deal" (Task 1, Line 36) if she and Claudia began their first interaction in German. In several of her discussion board posts for the course, she referenced her Advanced language proficiency,

referring to the ACTFL proficiency scale, and her extensive experience with German language and culture in her personal life.

At other times Lilly hedged statements regarding her abilities, repeatedly claiming that her German skills were not as refined as she felt they should be. Negative self-assessment of language proficiency is not uncommon among American learners of German who are engaging in telecollaborative exchanges (see Belz, 2002) and conflicted bilingualism is well-documented (Ortega, 2017). Yet, Lilly showed herself as being conflicted as to whether she considered herself to be a native speaker, a learner, or something in between. In their first interaction, her partner, Claudia, noticed that Lilly's Skype location was in Germany and asked her about this. Lilly replied, informing Claudia that she used to live in Germany. When her partner asked if Lilly was German, she replied "sort of, yeah" (Task 1, Line 27). Even this short answer revealed Lilly's ambiguity about claiming a German identity, in that she hedged her statement by prefacing her acceptance of the position with 'sort of.'

A particularly salient example of the overlap between identity and capital that Lilly possessed was her relationship with her sister. She described in several instances how close she was to her sister, Anke. They were close in age and were both university students, although at different universities. In one interaction, Lilly recalled how important this relationship was to her because Anke had grown up in the same bilingual and bicultural environment. Her sister served as a key part of her social capital and supported her development of a strong heritage language speaker identity, although they did not always speak German with one another. At the time of the telecollaboration, Lilly and Anke were both planning on taking part in the same year-long study abroad program, although this did not come to fruition. Anke was also learning German at her university. Lilly noted that she and Anke often agreed to focus on speaking more German with one another, in order to maintain and improve their German skills. In this sense, Anke was a

connection between Lilly's learner and heritage speaker identities, as well as between her identities and the capital she felt she needed to maintain.

In a discussion board comment made as part of assignments for her German course, Lilly contrasted herself with English speakers, aligning herself with German NSs, because she had learned German growing up and therefore had not explicitly learned the grammar rules. She claimed to know German like English speakers know English in the US, meaning in a native speaker-like way. Lilly positions herself somewhere between German and American, somewhere between a native and non-native speaker of German, a feeling she described explicitly in her interactions with Claudia. This positioning occurs because of ways the interplay between the capital that she possessed and that which she still needed affected her identity negotiation.

Lilly engaged in the negotiation of her various identities as she worked through the telecollaboration with her German partner, Claudia. Although she spent a great deal of time negotiating her belonging to either German or American culture, she positioned herself as a member of a community exclusive to herself, her father, and her sister. She focused particularly strongly on her relationships with her father and sister both when discussing her language use and her cultural knowledge. Throughout the course Lilly related her lack of grammatical knowledge to her experiences as a native German speaker. Her statements about her linguistic and cultural capital were often contradictory or hedged.

Despite her determination to spend a year on a study abroad program in Germany, she eventually decided against this. She cited familial and financial reasons, yet her sister was still able to take part in this program. While she was determined to live in Germany for a year, she repeatedly noted her own fears of returning to Germany without her family (i.e. her parents, especially her father) and fears of taking courses with Germans.

In Chapter 6, the results from Study 1 and Study 2 are discussed in relation to one another, as well as to current related research. I do not compare the two case study subjects. Rather, I use the experiences of the two case study subjects and my analyses thereof to draw conclusions and to give directions for future research on telecollaboration, identity, and capital Additionally, I describe the limitations of these studies, including issues with study design.

Chapter 6: Discussion

Introduction

Heritage language learners (HLLs) have unique, complex, and ambiguous experiences in the world language classroom (Leeman et al., 2011). HLLs are defined in this dissertation as learners who have familial relevance to a language they are learning that is not a societal language. The use of Computer-mediated Communication (CMC) by learners complicates the process of negotiating identities (Darvin, 2016; Domingo, 2016) and He (2006) asserts that identity negotiation is the centerpiece of the HLL experience. These realities mean that it is necessary for CALL researchers to pay due attention to the experiences of HLLs and other marginalized learners (Ortega, 2017). Telecollaborative exchanges are a common CMC approach known to have many affordances (see O'Dowd, 2013), including that they allow for the performance of multiple identities (Telles, 2015). Lam (2004) claimed that the internet is a safe space for identity negotiation, yet little empirical work has been carried out to give us a better picture of HLL identity experiences in CALL contexts.

It is our responsibility as researchers and educators to more thoroughly examine our practices to be sure that they are creating equitable environments for all learners (Ortega, 2017). To emphasize Ortega's (2017) critical assertion, we cannot serve learners whose experiences we have not studied. The current dissertation seeks to add to a growing body of literature examining two HLLs and their identities by analyzing their respective interactions with their German partners during a telecollaborative exchange. Based on the existing research in the field, telecollaboration may allow for HLLs to carve out space for themselves in the target-language speaking world and culture (Klimanova & Dembovskaya, 2013; Yang and Yi, 2017).

The case study subjects for this dissertation, Kathy and Lilly, each identified as HLLs of German, although their circumstances and language learning biographies differed greatly. They were each enrolled in different semesters of the same German course beyond the basic curriculum at a large US-American university. For the purposes of this study, HLL was defined as a student learning a familial language that was not a dominant language in their current community of residence. Emphasis was put on the learners' self-identification as people of German heritage, as Miller and Kubota (2013) noted the importance of HLL autonomy in choosing their identities.

In this chapter, I begin by focusing on the answers to the research questions posed in Chapter 4 (Kathy) and Chapter 5 (Lilly). Following this, I delve deep into each of the types of significance qualitative studies should encompass, which were outlined by Tracy (2010): practical, theoretical, methodological, and heuristic significance. These are related to the cumulative results of this project. I begin with discussions of the significance of the current study for praxis, theory, and methodology. Then, I briefly outline the limitations of the present study, including a short discussion on the challenges and affordances of my own positionality as a researcher, as the limitations feed directly into the final section. To conclude this chapter, I address the heuristic significance of the current study by proposing directions for valuable future research, especially relating to HLLs' identity and capital in telecollaborative and CMC contexts.

Research Questions and Conclusions

To begin my discussion of the findings of this dissertation, I return to the research questions set forth in Study 1 (Chapter 4) and Study 2 (Chapter 5), respectively. These questions guided the analysis of the case study subjects' datasets and were the foundation of the

development of the rubrics used for coding each subject's data. Before presenting the findings a short review of the working definitions of each construct is key.

Identity was defined as the ways a learner views their relationship to the world, including how this relationship is situated in space and time and the ways the learner views their possibilities for the future (see Norton, 2013; Darvin & Norton, 2015, 2018). Positioning described the identities the learner ascribed to themselves, as well as those ascribed to the learner by others, especially as it relates to membership within communities (see Baxter, 2016; Davies & Harré, 1990). Imagined futures or communities are the ways a learner views their possibilities for the future, including careers and community memberships (see Norton & Toohey, 2011).

Capital describes the types of social resources a learner possesses (Bourdieu, 1986). Bourdieu (1986) separated capital into several main types. Cultural capital describes the resources a learner has to aid them in understanding other cultures and their own, including knowledge, education, and appreciation of art forms (Bourdieu, 1986; Darvin & Norton, 2015). Social capital describes a learners connections to networks of power (Darvin & Norton, 2015), which I interpreted to include both native and non-native speakers of the target language. Economic capital referred to financial resources the participants had access to (Bourdieu, 1986). Finally, linguistic capital included the semiotic resources a learner could utilize to communicate, such as spoken, written, or signed language (Darvin & Norton, 2015). These terms are explicated in further detail in Chapter 2.

For Study 1, the construct of ideology was also utilized in an attempt to examine Kathy's investment in her German learning. Although this was ultimately unsuccessful, it is important to define and describe the construct here. Ideology refers to social norms and ways of thinking (Darvin & Norton, 2015). The intersection of identity, capital, and ideology is referred to as a learner's investment (Darvin & Norton, 2015). Investment seeks eschew traditional dichotomies

assigned to language learners, such as motivated and unmotivated, as well as to make more visible the socially- and historically-constructed nature of the relationship between language learner identity and learning commitment (Darvin & Norton, 2015). For further information on investment and ideology, see Chapter 4.

Summary of Study 1: Kathy

Kathy initially began learning German with the goal of being able to speak German with her grandmother, a native speaker who was born in Germany. She viewed her German learning experience as a way to connect to her heritage as a German-American, as well as a way to connect to her family members on a deeper level. Although her grandmother continued to answer her in English, despite her attempts at speaking German, she continued her language learning journey. Kathy also noted her previous goal of being able to teach her mother German, as she did not speak any and had reportedly confided in Kathy that she had regrets about not learning the language of her ancestors.

Her identity as an HLL led her to have the imagined future of teaching her children German, even if it meant she would continue learning with them. Her social capital, in the form of her German-speaking grandmother and her German heritage family members, was a driving force behind her decision to learn German and motivator to continue learning. She lamented in several interactions about never having learned German as a child, noting that she would give her own children this opportunity.

Although Kathy focused on her own German heritage, she was often unable to identify herself as a strong or confident German speaker. Kathy began the telecollaboration project focused on her language learning deficits, describing a deficit-based identity. She often discussed her insecurities about her German language skills with her German partner, Hilde. During one

interaction, Kathy described the expectations she had prior to her study abroad, namely that Germans would reject her attempts to communicate during her study abroad, due to her lower proficiency. Her experiences to the contrary supported her growing belief that she had German skills that were valuable while also recognizing that she had room to grow. This experience happened prior to the telecollaboration, but nonetheless shaped Kathy's experience with the telecollaboration. Her prior experiences with patient Germans who helped her to learn German gave her a starting point for connecting with Hilde.

Additionally this time abroad meant that she had accumulated first-hand experience with the German culture, and she was able to bring her intercultural experience and the resulting cultural capital into her discussions with Hilde. Within the telecollaborative context, Kathy and Hilde discussed a variety of cultural topics, including daily activities such meals and education. Kathy noted that she felt her prior experience with the German culture, combined with Hilde's experiences in the US, meant that they were able to skip over superficial comparisons and delve into deeper, more personal topics. This level of comfort allowed Kathy to become more comfortable using her linguistic capital both in and outside of the classroom.

While it is unlikely that Kathy made major gains in her proficiency over the short duration of the telecollaboration project (i.e. 7 weeks), her description of her own language abilities showed an increase in her confidence in her linguistic capital; she reported that this shift in her confidence led to her greater willingness to participate in classroom discussions, stating that she felt she had something to contribute to discussions. This stood in direct contrast to her reported feelings about being an unworthy interlocutor when first arriving in Germany for her summer study abroad.

Additionally, this increase in confidence resulted in her stating that she believed her future employer would see her skills as an asset, thus choosing to station her in Germany.

Although she focused on non-native speakers valuing her linguistic capital, her statement shows that she herself felt strongly enough about her ability to use her German skills to interpret German-language communications for a government entity. She also recognized the affordance of this career choice as an avenue to continue learning languages.

Ideologies were rarely explicitly discussed, with the only example being Kathy's discussion of the fact that German was not listed as a critical language for homeland security at the time of the telecollaboration (see Critical languages, n.d.). Despite this reality, Kathy continued to learn German, as she noted valuing her heritage as a German-American more highly than the perceived lower status of German on this given measure. The following table presents the research questions for Study 1 and summarizes the main findings for each.

Table 10: Study 1 Research Questions and Findings

Results	Findings
RQ 1: What investments (i.e. identities, ideologies, and capital) are revealed by Kathy in her interactions with her telecollaboration partner or in the subsequent interview?	Identities: German-American and member of German-American family; Weak vs. capable German speaker; Future mother of bilingual children with an armed forces career in Germany Ideologies: German as non-critical language Capital: Language skills; Personal experience with German culture; Generalizations about German culture
RQ 2: Is change in Kathy's investment in the telecollaboration or her language learning evident in her interactions throughout this telecollaboration project?	Language deficit vs. asset; increase in social capital; growing confidence in linguistic capital

Summary of Study 2: Lilly

Lilly's complex and contradictory identities are evident in her interactions with her telecollaboration partner and in the discussion board posts that she wrote for the course. The way she positioned herself tended to depend on a variety of factors, including her confidence in the capital she possessed, her perceived lack of certain types of capital, and comfort with a given subject. Her statements claiming certain identities were often hedged, showing her ambiguity toward these very identities. Even far after the telecollaboration project had ended, in the follow-up interview, Lilly recognized the challenges she had faced and continued to face in developing strong cultural and linguistic identities.

At its core, the contradictory nature of her identities was linked to her own perceived possession or lack of valued forms of capital. These were often as simple as lacking the language necessary to fully express her meaning in a given language or as complex as feeling her experiences were inadequate to allow her to claim membership to certain communities within German or US-American culture. Lilly often perceived shortcomings in her repertoire of capital that stemmed from her complex relationships to the language and culture. Her experiences living on an American military base in Germany gave her a sense of belonging within the German community, yet also meant that she was neither fully part of US-American culture nor fully part of German society. Lilly seemed to acknowledged her lack of full membership to the communities, yet never in the relationship to her experiences living on base.

Lilly attributed her conflicted feelings toward returning to German to the fact that her connections to Germany were largely familial and less about her own experiences in the country. At the same time, she described the prospect of living in Germany during her study abroad as a

type of homecoming, despite the fact that she had lived on base and had mainly attended an American school on the base. The following table presents the research questions and summarizes the main findings for each.

Table 11: Study 2 Research Questions and Findings

Results	Findings
RQ 1: What identities does Lilly express or perform? How does she position herself (explicitly or by accepting her partner's positioning)?	German heritage speaker; bilingual and bicultural Accepts positive positions regarding her German ability Positions herself negatively based on her lack of capital
RQ 2: What imagined futures does Lilly express?	Study abroad student German teacher German speaker Expatriate
RQ 3: What capital does Lilly possess? What capital does Lilly need or perceive a lack of? How do the types of capital Lilly possess affect her access to the target language and/or her imagined futures?	Possessed: social capital (family); linguistic capital (years spent learning); cultural capital (time at German school; knowledge of German culture) Needed: linguistic capital (grammar knowledge); cultural capital (experience in German school/situations); economic capital (money and time for a longer study abroad)
RQ 4: How are Lilly's identities and various types of capital interrelated?	Reciprocal relationship Identities linked to capital needed or possessed Capital accumulated based on identities or positions

Implications

Although qualitative research cannot fulfill qualitative notions of generalizability, due to a lack of statistical evidence, they meet a separate set of criteria (Saldaña, 2011; Tracy, 2010). Naturalistic generalizations serve as vicarious experience for readers, who unconsciously internalize the lessons from the findings, much in the vein of learning from others' mistakes

(Tracy, 2010). Tracy (2010) contrasts this form of generalizability with transferability, which focuses on the reader's ability to relate the study to their own contexts. Similarly, Duff (2014) writes that qualitative researchers should focus on analytic generalizability, the lessons one learns from the analysis undertaken in a given study. Tracy (2010) offers guidance on a meaningful way of breaking down these lessons learned and describing the analytic and naturalistic generalizations that can be drawn from a qualitative study. They list 4 main areas to which qualitative research can make a contribution: practical, theoretical, methodological, and heuristic significance (Tracy, 2010).

I begin this section with practical significance, which refers to the potential usefulness of the findings (Tracy, 2010). In the case of the present dissertation, this significance mainly relates to pedagogical applications, although the implications for education and policy are briefly outlined. It is key for learners and advocates alike that the ways our work impacts current education and policy be clearly articulated (Tracy, 2010). Following this discussion, I outline the theoretical significance and then methodological significance. Before continuing with the discussion of significance for future research, I briefly outline the limitations of the current dissertation, as the limitations of the current study heavily inform the directions for future research. To conclude this chapter, I outline the potential heuristic significance of this study, which refers to the implications for future research (Tracy, 2010).

Practical Implications

Tracy (2010) refers to practical significance as the ability of research to enable the creation of space for transformation. While Tracy (2010) focuses mainly on the policy side of practical applications, I argue that it is relevant for the current dissertation to highlight both praxis and policy-related implications. Although the current study does relatively little to

explicitly address educational policies, there are many ways in which praxis is addressed. It is worth noting that policy and praxis are dialectically bound, in that they reciprocally affect the creation and implementation of the other. This section mainly outlines the ways in which the current case study affects classroom practices. At the end of this section, the potential implications for education policy are discussed.

The present dissertation shows the possibilities of telecollaboration as an avenue for HLLs to perform and negotiate their complex linguistic and cultural identities. The experience of living within and between two cultures and languages is the reality for HLLs, even those with high proficiencies in both languages and perceived strong connections to the heritage communities (see He, 2006, 2010). While Kathy and Lilly had differing experiences of being HLLs, their unique connections to the language and culture affected their experiences with the telecollaboration.

One-on-one telecollaboration projects may be particularly useful for upper-level language courses because they are fairly scalable based on the learners' language proficiency, although Schenker (2017) notes that there is potential in lower-level courses as well. Kathy had relatively low proficiency compared to her peers, and Lilly had relatively high proficiency. Despite this difference, both learners were able to negotiate their identities, as well as to create further capital. It is important to note that negotiation of an identity does not imply simplicity or singularity in the results of said negotiation. Lilly's case is a particularly salient example of this, as her ambiguous position between cultures and languages seemed to be solidified during the telecollaboration.

The results of this study show that successful negotiation of identity and accumulation of capital can occur both asynchronously and synchronously. Kathy and Hilde were able to establish common ground based on previous international experiences and utilized the medium

of email to communicate effectively. Their interactions included both on-task and off-task (personal) information. Kathy reported feeling that she and Hilde had engaged in discussions on deeper topics, which included their personal relationships and future goals.

As has been noted as an affordance in previous studies on telecollaboration (see Wang, 2006), synchronous interaction allowed Lilly and her partner to speak for long periods of time. Lilly noted in her interview that she and her partner were able to quickly establish a lack of language boundary which allowed them to find a common ground which formed the foundation for their interactions. They spoke to one another regarding deeper topics, such as Lilly's ambiguity toward her bilingual and bicultural status, and engaged in long conversations both related and unrelated to the task topics.

While Kathy accepted the position of learner readily, Lilly struggled with being positioned as a learner within the classroom and the telecollaboration contexts, as evidenced by her immediate and repeated assertion that she was bilingual. The positioning of participants as learners and therefore novices tends to be inherent in both classroom and telecollaborative settings (Yang & Yi, 2017). Lilly was not fully able to visualize herself as a learner of German nor as an expert member of the German-speaking world. Her accumulated social, cultural, and linguistic capital allowed her to create a native speaker-like identity, although this identity was often in flux and in conflict with her language learner identity. This conflict may stem from the NS vs. NNS ideology common in US language programs that are designed for monolingual students who are viewed as the norm (see Ortega, 2017). Kathy did not grow up speaking German, so while she identified as a German-American and person of German heritage, she reported fewer expectations of her own language abilities. She viewed herself as a learner and increasingly as a speaker who could benefit from further learning.

Some of the prompts were framed in ways that positioned the participants as learners of German as a second language, and at times Lilly rejected this position. One such prompt asked students to reflect on moments that were particularly important in their language learning journeys. Lilly claimed that she did not recall learning German. Instead, she chose instead to speak about a time when she was asked to spell 'ice cream' when she first began attending the American school on her family's military base in Germany. She recalled spelling the word incorrectly because she was learning English at the time.

As is noted by several researchers (see Chen, H. 2013; Thorne, Sauro & Smith, 2015; Ushioda, 2011), it is imperative that world language instructors avoid positioning their students solely as learners. Ushioda (2011) urges educators to engage the *person,* not the *language learner*, meaning that instructors must engage students' multiple identities in the world language classroom. This allows learners the space to negotiate their own identities and imagined futures without expectations and ideologies placed upon them by their instructor (Ushioda, 2011). The above prompt was received in a potentially unexpected way by Lilly, as she did not view herself as someone who had learned German in an L2 sense but rather as someone who grew up speaking it. Her experience with English was, in her mind, her real language learning experience, despite the fact that she also claimed her mother spoke very little to no German, which means that she likely only spoke English to Lilly and Anke.

In contrast to Lilly's reaction to the prompt on language learning experiences, Kathy accepted the position of learner readily. She did, however, begin developing a German speaker identity which she believed would allow her to leverage her German speaking ability to create a successful career for herself, ideally stationed in Germany.

Lilly rejected learner positions readily, even claiming that she understood little about German grammar precisely because she had grown up learning German at home. She described

in several interactions the difficulties she had experienced while learning German alongside her monolingual English-speaker peers in high school and college. These difficulties mainly involved grammatical competence and her related insecurities which affected her relationship to the language as an HLL. During the follow-up interview and in the course discussion forum, Lilly described her previous German learning as mainly implicit not explicit as is the case in many world language classrooms.

The focus on grammatical correctness in Lilly's courses at times delegitimized her linguistic capital by labeling it as deficient and incorrect, rather than as a legitimate, albeit a non-standard form of communication, based on her ability to communicate effectively (see also Norton, 2013; Norton & Toohey, 2011). Lilly's continual focus on mistakes and gaps in her grammatical competence highlight her sense of this grammar-focused culture; on several occasions she mentioned needing her peers' assistance with grammar concepts, as well. This is not to evoke the controversial topic of explicit grammar instruction, but rather to highlight that the discussions around this topic often assume monolingual English speakers as the norm in the world language classroom, which can come at a cost to HLLs' identities (see Ortega, 2017) and may decrease learner investment (Darvin & Norton, 2015).

By favoring prestige variants of the language and devaluing the HLLs' own linguistic or cultural capital, classroom practices might cause learners to lose their interest in learning the language (Norton, 2013; Norton & Toohey, 2011) or they may lose their home language altogether. This was certainly not the case for Lilly, nor was it a deterrent for Kathy. It is still important to note that loss of heritage language has been shown to lead to lower academic performance and achievement (Ortega, 2017). Current telecollaborative practices could potentially benefit from a reconsideration of the ways learners are positioned (Yang & Yi, 2017). This may be as simple as carefully crafting tasks to avoid the expert-novice dichotomy as an

inherent expectation, one that is often untrue for students with diverse and complex backgrounds outside of the expectation that learners in our courses are monolinguals (see Appendix C for an example). In addition to supporting more inclusive and equitable pedagogies (see Ortega, 2017), this understanding takes us beyond the language to learn more about the ways learners seek to gain entrance into imagined target language and culture communities (see Darvin & Norton, 2015).

Students engage in more than merely linguistic and cultural activities when communicating with their interlocutors; in fact, they are using their linguistic capital while simultaneously working to learn the norms and gain access to imagined communities (Darvin & Norton, 2015). This interplay between possessing and needing capital is evidenced in many of Kathy's and Lilly's interactions with their partners. Kathy hedged statements regarding her abilities, casting doubt on her capital, yet she found that she was able to communicate with a native speaker and be understood. Although Lilly switched between occupying expert and novice positions, she did present herself as a learner in many situations. For example, she frequently prompted her partner to provide the vocabulary she needed in order to fully express herself. While this may seem like it is simply a lexical issue, there is a deep relationship between her linguistic capital and her attempts to perform a native speaker-like identity.

Language instructors should view students' various identities and capital as valuable potential resources for meaning making and identity negotiation within the classroom, meaning that learning activities should not force learners into specific identities, such as learner or expert positions (Ushioda, 2011). Such positioning by the instructor or interlocutor underscores the NS vs. NNS dichotomy, a prevalent ideology in language classrooms in the US (Ortega, 2017). Rather, learners should be allowed to negotiate their own identities and determine which of their identities affords them the most social engagement opportunities (see Norton, 2013). The

telecollaborative exchanges with her partner allowed Lilly to perform her learner, bilingual, native-speaker, and HLL identities interchangeably, while also developing her understanding of the possibilities for her future. The opportunity for learners to try on a variety of identities is an affordance of telecollaboration has been noted by other researchers (see Telles, 2012). This study highlights the ways that telecollaboration can allow HLLs to experiment with and develop an understanding of their multiple identities.

Leeman et al. (2011) claim that critical pedagogy serves to "promote students' agency in language issues *outside* the classroom" (p. 482) and to promote learner agency inside and outside of the classroom. Critical pedagogy is that which supports the various identities and realities our students are facing and examines the structural barriers some students may face based on their identities (Leeman et al., 2011). Both Kathy and Lilly's experiences with telecollaboration empowered them by affirming their identities as a capable speakers and learners of German and by recognizing the importance and function of the capital they possessed. In Kathy's case, this empowerment lead to continue her relationship with Hilde, as well as to build further social capital by connecting with German speakers in her free time.

By giving HLLs the opportunity to work one-on-one with a native speaker of the target language, the present study suggests that instructors may also be giving HLLs space to negotiate their multiple identities and to find their place within the target language-speaking world outside of the typical NS vs. NNS designations created by the ideologies surrounding the goal of 'native-like proficiency' (see Ortega, 2017). Klimanova and Dembovskaya (2013) noted that while telecollaboration seemed to be a test of the HLLs' speaker privileges, they were able to "rework their identities as American students and intersubjectively reconstruct their Russian speaker identities" (p. 82). Supporting these findings, the present study highlights the possibility for

HLLs to engage in the complex process of negotiating identities, imagined futures, and capital in a telecollaborative environment.

Although there are few implications for education and policy stemming from this particular study, there are some takeaways that could lead to further research which might in turn influence education and policy. The largest potential implication in this area is that there seemed to be positive benefits of the telecollaboration for both Kathy and Lilly, despite the range in their experiences and capital. Future studies should pay attention to the potential benefits of telecollaborative exchanges for marginalized HLLs. If there is, indeed, a positive link as is suggested in this study, education and policy advocates might consider working toward further supports for telecollaboration. To be clear, this kind of integration would require increases in funding for education, including funding for technical support, and support in creating and maintaining telecollaborative partnerships.

Theoretical Significance

Research that is theoretically significant fulfills the task of "building, extending, and critiquing disciplinary knowledge" (Tracy, 2010, p. 846). The most basic way of fulfilling these tasks is to apply theories in new contexts, although Tracy (2010) points out that the ideal function of a piece of qualitative research is to extend or problematize assumptions made by the theory itself. The current study accomplishes both of these goals, by applying theories of identity and capital in SLA to the case of an HLL, an underserved community within SLA and CALL research (Ortega, 2017). Flyvbjerg (2011, cited in Duff, 2014) discusses the context-dependency of knowledge and experience, claiming that, "formal generalization is overvalued as a source of scientific development, whereas 'the force of example [i.e., cases]' and transferability are

underestimated" (p. 305). This portion of the chapter highlights the force of example made by the present dissertation as far as theory is concerned.

The current study employed rubrics to highlight the ways that the capital HLLs possessed or needed intersect with their negotiation of various identities during a telecollaborative project. By combining identity and capital, such as is part of the larger construct of investment (Darvin & Norton, 2015), researchers may be able to create a more holistic picture of HLLs. Not only would researchers be examining the ways learners create and negotiate their identities, but researchers would also be taking into consideration the tools learners possess (i.e. capital) that allow them to successfully assume a certain position. On the other hand, researchers are also able to see more clearly what tools learners are lacking and how this need may lead to the delegitimization of learners' identities and a rejection of their positions. In both Kathy's and Lilly's cases, their perceptions of their linguistic capital and cultural capital each affected the ways they positioned themselves.

Conversely, Lilly's strong identities as a bilingual and HLL gave her the confidence she needed to work toward gaining further capital and for utilizing the capital she already possessed. Her identities and capital seemed to be inextricably linked to one another. Kathy's imagined futures were enough of a pull, combined with her dedication to connecting with her heritage, to motivate her to continue learning German. Further research on the interconnectedness of these two constructs could shed further light into this relationship.

The current study employed a novel way of analyzing the ways that the capital learners do or do not possess may affect the identities they are able to construct for themselves, specifically in the cases of two HLLs. Simply by separating the capital a learner possesses and needs within the rubric and analysis, the current dissertation expands upon current notions of capital within SLA literature, which tends to focus on the capital a learner possesses (see

Bourdieu, 1986; Darvin & Norton, 2015). As has been shown in the current study, by separating these researchers are able to better understand the effects that capital has on learners' identities.

Although researchers often seek to understand the average experiences of a particular group of learners in a given context, it may be more informative for theory to examine the outliers. Norton and Toohey (2011) point out that it may be advantageous to examine the cases that are outliers from established coding schemes in order to advance the theory-building potential of qualitative research. HLLs are certainly handled as outliers in the US world language learning context and within the field of CALL (Ortega, 2017). Additionally, Lilly and Kathy's language proficiencies represented outliers in their given courses, making them particularly valuable participants to examine.

Lilly's case challenges the binary of NS vs. NNS that is often conveyed as the distinction between proficient and poor speakers (see Ortega, 2017). While Kathy's proficiency was somewhat lower, she began to see the value in her ability to community, regardless of grammatical correctness. By allowing learners to build and inhabit third spaces where their status as an NS or NNS is not as relevant as the ability to communicate with peers, practitioners give language learners the room to negotiate their identities and to create a space for themselves within the target language-speaking community (Ortega, 2017). As researchers, it is key to examine how notions of capital as a means for establishing legitimacy are played out in telecollaboration exchanges.

Methodological Significance

Methodological significance refers to the originality of the processes of the research presented, such as data collection, coding, and organization. The current study follows typical qualitative case study processes while also employing rubrics for data analysis. The Study 2

rubric in particular is potentially useful for future studies of language learner identity and capital, as it improved upon the Study 1 rubric. The use of a researcher log also informed various parts of the methodology undertaken in Study 2.

According to Norton (2013), there is a need to expand the tools used to analyze identity and investment in language learning contexts. While other qualitative studies use in vivo coding to extract categories from the data themselves (Saldaña, 2011), the current dissertation shows how a rubric can be used to locate sites of identity negotiation, positioning, and discussions of capital. The rubric utilized in the final round of coding had been created and recreated over the course of several iterations of this study, taking into account current literature on identity and capital, as well as the types of data in this study.

While further studies are warranted to evaluate the efficacy of such a rubric in researching telecollaboration and HLL identity negotiation, the rubric was important to the methodological significance of this study for a variety of reasons. Mainly, it separated the codes within capital into 'needing' and 'possessing' which allowed for a more differentiated analysis of Lilly's data. Additionally, by utilizing process coding, the rubric highlights the fact that the constructs being studied are not fixed, rather they are changing constantly. The use of a rubric also allowed me, as a researcher, to reduce the influence my positionality had on the results of the study.

Researcher positionality. As Tracy (2010) explains, it is both expected and important in qualitative research that the researcher's positionality is also reflected upon (see also De Costa, 2015a; Saldaña, 2011). In order to address the positionality of the author, a researcher log was kept throughout the process of transcription and data analysis. I made notes using the comment function in the margin of the transcripts and as I transcribed and worked through the process of coding and re-coding the data. I also kept a physical journal for my researcher log. These notes

pertained to my own thoughts, feelings, and preconceptions about the case study subject and her data. For more details, see Chapter 3 and Chapter 5.

A common thread throughout the various parts of the log was my own wishes for Lilly to identify herself as closer to native-speaker like, because of my own positive view of her proficiency, as well as my own implicitly higher valuation of native speakers vs. non-native speakers. This ideology is one that I needed to consciously be aware of, especially during coding and analysis. The native-speaker vs. non-native speaker dichotomy is an ideology that can be dangerous to language learner's identity and investment (Ortega, 2017) and can also have a negative impact on the results of qualitative studies if a researcher is not reflecting upon their own biases.

I also needed to be consciously aware of my own imagined futures for Lilly. As a past participant in a year-long study abroad program much like Lilly was planning on taking part in and as a researcher familiar with the myriad benefits of long-term study abroad programs, I found myself putting more positive weight upon her statements of interest in this program, rather than seeing them as neutral expressions of imagined futures. The coding scheme, as it was based in theories of identity and capital, restricted me and forced me to quell these gut reactions by requiring that I place an utterance within one of the codes, rather than assign it a value or place judgment merely based on my experiences. In future studies, a more unified and organized researcher log may be useful (see also De Costa, 2015a; Duff, 2014; Saldaña, 2011), as my notes were divided in different formats.

Limitations

Before moving on to the fourth area of significance highlighted by Tracy (2010), heuristic significance, I find it necessary to pause and consider the limitations of the current study, as they

directly inform the future directions of research on HLL identity and capital within a telecollaborative context. Addressing limitations is particularly important for qualitative research, as the researcher's own positionality can be a limitation when not managed effectively (see De Costa, 2015a).

While I was present in the course for data collection for Study 1, I was not the assistant for the course in which Study 2 took place, due to funding availability and other factors. These realities hindered my ability to build a rapport with the students in the course. My absence meant that I was unable to take field notes, which removes an important source of data from this particular study (see Saldaña, 2011). Field notes were a missing component from Study 1, as well. This limits my understanding of the subjects' relationships to their classroom peers, which may have helped to contextualize to the data in the discussion forum and interactions. Instead of taking an ethnographic approach to the data, this reality of my research means that I was forced to take a more corpus-like approach for Study 2, which has affordances and limitations. My approach was corpus-like in that it utilized a set of pre-collected data, the collection of which I was not part of. This may mean that my analysis is a more decontextualized picture of Lilly's identities and capital.

Conversely, being within the classroom setting can create some limitations, as well. Despite my previous contact with Lilly, my absence from the classroom created a much-needed distance between myself and the data she provided in the course. De Costa (2015a) highlights the importance of taking timeouts from working closely with the dataset to create distance from the participants and to lower the risk of empathizing with the subjects, which could affect the analysis and results. As mentioned in the previous section, keeping a researcher log allowed me to notice recurring areas where my own biases were affecting the research process and to take action and recognize and reduce this risk (see Baralt, 2012; De Costa, 2015a; Duff, 2014;

Giampapa, 2016; Saldaña, 2011), although keeping the log within NVivo would have benefitted this study greatly (Baralt, 2012). The utilization of a coding scheme mitigated the biases noted within the researcher log by leaving less room for my own opinions and feelings to influence coding, as each code was defined using established definitions supported by research.

A shortfall of the current study which also presents itself as a relevant consideration for future research is that the data gathered for this study only included classroom blog posts, audio from synchronous telecollaborative video interactions, and a single interview. In addition to the importance of field notes (see Saldaña, 2011), HLLs' experiences naturally connect to other aspects of their lives, including their interactions with their heritage language-speaking family and community members both in person and online. A more nuanced analysis would collect data in the telecollaborative and classroom contexts, as well as from the personal lives of the HLLs, potentially including social media activity and further interviews. However, this necessitates deep consideration of ethical issues in data collection and reporting, especially as it pertains to anonymity.

Additionally, the lack of video of the interactions leaves a large part of the interlocutors' identities invisible to the researcher. Due to the number of files collected and the sheer size of the videos files, it was not feasible to collect video recordings of the telecollaborative interactions. As Domingo (2016) points out, all online communication is inherently multimodal and constrained by the tool. Speakers identities are indexed in their linguistic choices, but also construct their identities through semiotic resources, including clothing, gestures and facial expressions (Block, 2010). The lack of video to accompany the audio for the interactions may mean that there were parts of Lilly's representations, and thus her identity, that was I unable to take into account for the purposes of this dissertation.

Interviews and the interactions participants had with their partners have several inherent limitations. De Costa (2015a) emphasizes the importance of being aware that interviews are shaped both by the interviewer and interviewee. De Costa (2015a) goes on to characterize interviews as

> a form of a social practice where both the interviewer and the interviewee engage in acts of discursive positioning as each evaluates the other during the interview process, thereby mutually shaping the type of information that is yielded during the interview (p. 249).

This is to say that the ways in which the interviewer and interviewee position and interact with each other can affect the data elicited from an interview. In addition, I was unable to build a relationship with Lilly within this context; yet, we were acquaintances prior to the project from German program events. This less formal prior relationship may affect the way Lilly's answers to the interview questions were co-constructed with me (see De Costa, 2015a). This difference may be part of the reason why Kathy's interview (16 minutes 11 seconds) was more detailed and slightly longer than the interview with Lilly (15 minutes), as I had built a rapport with Kathy within the classroom and throughout her experience with the telecollaboration. This is especially salient once one considers that I had added in 2 stimulated recalls to a very similar list of questions for Lilly's interview (see Appendix A and Appendix B for interview guides).

A challenge to the data analysis was the creation of codes that were specific enough to be meaningful, while also open enough to fit the dynamic and complex nature of the interactions being examined. As Leung, Harris, and Rampton (1997) point out, qualitative data is more often than not quite ambiguous and rarely elegant, leading to difficulties in analysis and presentation. One such inelegance of the data in this study is that the particular node 'needing linguistic capital' was at times difficult to distinguish from typical code-switching. To mediate this

difficulty, I only utilized this node when Lilly was describing her perceived linguistic needs or when it was clear that she was looking for a specific German word but was unable to think of it herself. Below are two examples of situations in which this code was used. The first example is from a post on the course discussion forum and the second is an example from an interaction with her telecollaboration partner.

> Deswegen, wenn ich zum Beispiel etwas in der Klasse falsch sage oder eine schlechte Note bekomme, ist es natürlich kein gutes Gefühl, aber ich kenne dann meine Fehler und kann sie verbessern. Da ist nur Raum um besser zu werden. Meine größte Schwierigkeit ist die Regeln der Grammatik. [That's why, for example when I say something incorrectly or get a bad grade, it isn't a good feeling, but then I know my mistakes and can fix them. There is only room for improvement. My biggest difficulty is the grammar rules.] (Blog 2, Lines 17-21).

> Vielleicht ist das ein Sign, dass das Essen besonders gut ist. *Wie sagt man a sign of?* Ein Zeichen von? [Maybe that is a sign, that the food is particularly good. How do you say a sign of? A sign of?] (Task 2, Lines 144-145, emphasis added).

In the first example, Lilly described specific challenges she perceived having during her German learning experience. In the second example, Lilly asked her partner how to say a specific phrase in German. She ended by translating it directly. Following this, her partner provided a correction of the preposition she had chosen, and she used this correction as an example of the difficulties she faced while learning German.

Coding using her explicit acknowledgment of a lack of vocabulary is neither a perfect nor elegant solution for several reasons, including the potential that she may use words incorrectly or

inappropriately without explicitly recognizing and mentioning it in the interaction. Yet, this way of coding does avoid oversaturation of this particular code based on assumptions made from my etic (outsider) position as a researcher. Developing a better approach to differentiating between code-switching and a lack of linguistic capital may be a challenging yet fruitful task for future researchers.

Heuristic Significance and Future Directions

To round out the discussion of Tracy's (2010) 4 areas to which qualitative studies can contribute, I end with a description of the heuristic significance of the current dissertation. Studies with heuristic significance encourage further research on the topic, explicitly provide some of these directions, and influence a variety of audiences (Tracy, 2010). This particular study offers a great number of future directions for future research on language learner identity in telecollaborative contexts.

Many areas for future research on identity and CALL have been previously noted by scholars. As De Costa and Norton (2016) explain, fruitful future research avenues may include case studies of HLLs and study abroad subjects, both of whom are important parts of many university contexts. Duff (2014) also highlights the possibility of case study research to be fruitful for the study of HLLs. Although I did not specifically set out to study HLLs, Kathy and Lilly's cases were part of the convenience sample available to me. In the future, more targeted research on HLL identity, capital, and telecollaboration experiences needs to be done in order to build a large body of knowledge and to aid practitioners in serving this population (see Ortega, 2017). This study serves as a beginning exploratory examination of HLL identity negotiation in telecollaborative contexts.

Identity research in the field of CALL is still an emerging, growing trend (Norton & McKinney, 2011; Ortega, 2017) and further research into a broader community of HLLs in telecollaborative environments is necessary, especially learners whose heritage languages have greater burdens of negative ideologies placed on them. As Duff (2014) notes, by undertaking many of these case studies in similar contexts an accumulation of knowledge can occur. Indeed it is also important to gather knowledge from contexts outside of Western Europe and North America in order to build our knowledge and establish a case for the affordances of telecollaboration in broader contexts (see De Costa & Norton, 2016; Ortega, 2017). The relative lack of telecollaboration research in Asia and especially in the global south is a glaring hole in the generalizations often made about telecollaboration.

As is the case with the field of CALL in general, more research is needed in economically disadvantaged areas, where technology may be less widely available than in North America and Western Europe (see De Costa & Norton, 2016; Ortega, 2017). Access to technology should be investigated and discussed carefully both in research and practice (Ortega, 2017; Winke & Goertler, 2008); this is particularly important as wealth gaps continue to grow and technology evolves at a rapid pace.

Similarly, research on telecollaboration and CALL in areas where multilingualism is a norm, or post-colonial sites as Norton and McKinney (2011) label them, is much needed in the field as well. CALL research has tended to take a monolingual-as-norm stance, wherein learners are assumed to be monolinguals until proven otherwise (Ortega, 2017). This ideology permeates CALL scholarship and consequently affects practice as well, as described by Ortega (2017). HLL identity research can open doors for CALL researchers and practitioners to examine and serve as-of-yet underserved communities within the field (Ortega, 2017). Duff (2014) calls on the field of applied linguistics as a whole to continue increasing its focus on learners of languages other

than English. In addition, Ortega (2017) points out that linguistic minorities, such as HLLs, generation 1.5 speakers, and indigenous language learners should be a greater focus in future literature.

This research can help both to examine and reshape the assumptions world language instructors are making about their students' language abilities and identities. Monolingual ideologies lead to monolingual-focused practices that assume all students are coming to the table with equal proficiency in the dominant language and no others (Ortega, 2017). This attitude is prevalent in the US and other Western countries and is damaging for a growing number of our world language students, as they are neglected by research and pedagogical practices (Ortega, 2017).

A reevaluation of pedagogical practices, when carefully undertaken and informed by research, can allow practitioners to create more equitable language learning environments. As articulated by Darvin and Norton (2015), the goal of researching questions of investment and identity in language learning is to

> create a space in which learners are not by default marginalized or resistant, but where they have an agentive capacity to evaluate and negotiate the constraints and opportunities of their social location (p. 47).

The case studies presented in this dissertation show the potential for telecollaboration to offer HLLs a chance to negotiate their places within their various cultures and social locations. Telecollaboration allowed Kathy to gain confidence and to reassess her understandings of her identity and capital to better support her persuit of her imagined futures as a bilingual professional and mother. Telecollaboration allowed Lilly to personalize her learning and to determine more closely what her space within the German-speaking world is, including the role

German was to play in her future. Through their communication with their partners, they were each able to express and gain various types of capital while negotiating their multiple and conflicting identities.

APPENDICES

APPENDIX A: Interview Question Guide: Kathy

1. Tell me about yourself.
    a. Are you still attending [university name redacted]? If not, what are you doing?
2. What role does German play in your life today, if any?
3. Why did you choose to begin learning German?
    a. Why did you choose to continue with German at an advanced level?
4. Tell me about any experience you've had abroad, especially in Germany.
5. How do you think the telecollaboration helped or didn't help you to expand upon your time abroad?
6. Why did you choose to take [course name redacted]?
7. Tell me about your telecollaboration partner.
8. How would you describe communicating with your partner?
9. Did you stay in contact with you partner?
    a. Are you still in contact?
10. What do you think you learned or gained from the telecollaboration project experience?

APPENDIX B: Interview Question Guide: Lilly

1. Tell me about yourself. What are you studying, etc.?
2. What role does German play in your life today?
3. Why did you choose to begin learning German?
4. Do you know where your language skills were scored in the placement tests you took?
5. Tell me about any experience you've had abroad, especially in Germany.
6. In your telecollaboration data you mention [German city name redacted]. Can you tell me about your study abroad plans?
7. Did your sister go abroad?
8. How do you think the telecollaboration helped or didn't prepare you for your time in Germany?
9. Why did you choose to take [redacted course name]?
10. Tell me about your partner for the telecollaboration project.
11. How would you describe your experience communicating with your partner?
12. Did you stay in contact with your partner? Are you still in contact?
13. What do you think you learned or gained from the telecollaboration project experience?
14. In this portion of the interview, I'm going to play short sections of recordings from your telecollaboration exchanges. Please listen and reflect on the interactions.

APPENDIX C: Sample Task

Original Task 1

1. Who am I?
2. Introduce yourselves. (e.g. What is your name? What are you studying? What are your hobbies? Etc.)
3. Share your language learning biographies. (e.g. Which languages do you speak? When did you feel most motivated to learn a foreign language and why? What language learning experiences have you had (e.g. in school/ in university)?)
4. Talk about stay(s) abroad. (e.g. Have you been abroad? Where? What was the purpose of your stay abroad? What was your most influential experience (positive and negative)?))

Rewritten Task 1

1. Who am I?
2. Introduce yourselves. (e.g. What is your name? What are you studying? What are your hobbies? What languages do you speak at home or with your family? Etc.)
3. Share your language learning biographies. (e.g. Which language(s) are you learning? When did you feel most motivated to learn a world language and why? What language learning experiences have you had (e.g. at home/in community programs/in school/ in university/etc.)?)
4. Talk about stay(s) abroad. (e.g. Have you been abroad? Where? What was the purpose of your stay abroad? What was your most influential experience (positive and negative)?))

5. Explain if and how you use the language you're learning in this course in your everyday life. (Who do you communicate with and how (in person, on the phone, video chat, etc.)? Do you watch or listen to any media in the language you're learning? How often do you engage in these activities?)

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