Role of CMC-Embedded Webquests in Enhancement of Online Students' Knowledge and Understanding of German Culture - A Case Study

Radhika Lothe

University of South Florida, lothe@mail.usf.edu

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Role of CMC-Embedded Webquests in Enhancement of Online Students’ Knowledge and Understanding of German Culture – A Case Study

by

Radhika Lothe

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy
Department of World Languages
College of Arts and Sciences

and

Department of Secondary Education
College of Education
University of South Florida

Major Professor: Wei Zhu, Ph.D.
Roger Brindley, Ph. D.
Margit Grieb, Ph.D.
Camilla Vasquez, Ph.D.

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Keywords: Distance foreign language instruction, Teaching Culture, CALL tools, online peer interaction, Sociocultural Theory, mediating strategies

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DEDICATION

To my parents Archana and Dilip Lothe
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As with any endeavor to pursue higher studies, my doctoral journey too came with its own share of challenges. Although there are many people in my life that I want to thank, for the purpose of this section, I will have to restrict myself to few names that have been especially instrumental in helping me reach this academic milestone.

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ABSTRACT

Existing approaches to teaching ‘culture’ in the realm of Distance foreign language (FL) instruction and gaps within; under-researched Computer Assisted Language Learning (CALL) tool of webquests; and Mediation in Sociocultural Theory (SCT) have all led to the following case study. This study was guided by the constructs of ‘culture’ in FL instruction, Sociocultural Theory, and literature in CALL and Computer-Mediated Communication (CMC).

This study examines how CMC-embedded webquests (asynchronous and synchronous CMC components built into webquests) developed online students’ knowledge and understanding of German culture. Additionally, this study examines what mediating strategies (Lidz, 2002) were used by the online students of German in their asynchronous and synchronous online discussions of German culture, that were part of their CMC-embedded webquests’ tasks.

A web-based survey was administered to all students in an online German II course to elicit information about each student’s past travels to Germany or other German-speaking countries and comfort level with various technologies. Based on their participation levels and the information elicited from this web-based survey, the online class was divided into groups of four, such that maximum variation was achieved in each group. Five such groups were formed with four students in each group. Two content-based CMC-embedded webquests were developed and created for this purpose and were administered over a period of four weeks, with two weeks for each content based CMC-
embedded webquest. The first CMC-embedded webquest revolved around ‘Our Environment’ or Umwelt, and the second was called ‘Germany, before and after the wall.’ For each CMC-embedded webquests, the tasks included pre- and post CMC-embedded webquest essays, participation in discussion forums over a period of one week, and online chats. The guiding questions developed for each CMC component were separate. Based on the word count generated by each group, two groups (one with less than optimal and one with more than optimal levels of interaction) were chosen iteratively. In other words, pre- and post essays written by these eight participants, transcripts of asynchronous and synchronous online discussions with respective group members, transcripts of their online interviews, and field notes journal became the data sources for this multiple embedded qualitative case study (Yin, 2003).

Findings emerging from a constant comparison method analysis indicate that the CMC-embedded webquests played a significant role in advancing the online students’ knowledge and understanding of German culture. Apart from the cognitive benefits of this dynamic CALL tool, affective benefits included that students appreciated and enjoyed learning about the target culture in way that they retained the information even two months after they were completed, and particularly found the web resources useful and videos engaging. More importantly, since all participants were distant learners of German, they valued the opportunities provided by the two CMC-embedded webquests to interact with their respective group members in asynchronous and synchronous modes of communication.

Results of collapsing all asynchronous and synchronous ‘e-turns’ into Lidz’ (2002) mediating strategies indicate that mediating strategies of ‘Sharing of Experiences,’
‘Affective Involvement,’ and ‘Joint Regard’ were higher for synchronous ‘e-turns.’ This confirms that synchronous online discussions evoke a higher ‘sense of community’ and ‘groups’, ‘sense of purpose’ for online learners (Carabajal, LaPointe, and Gunawardena, 2007). On the other hand, higher frequencies of ‘Praise/ Encouragement,’ ‘Task Regulation,’ and ‘Challenge,’ in asynchronous ‘e-turns’ demonstrates that distance learners are able to produce more cohesive and detailed responses in asynchronous online discussions.

These results highlight the dynamic nature and potentiality of CMC-embedded webquests that can be especially useful to teach culture, an often neglected aspect of FL instruction, and the importance of creating groups and peer interaction in distance FL instruction. Additionally, findings of this study have implications on the purpose of the synchronous and asynchronous online discussions, culture model in FL instruction and design of CMC-embedded webquests.
CHAPTER ONE: INTRODUCTION

Overview

Being born and raised in India, and learning German as a foreign language in Mumbai almost twenty years ago, I had virtually no access and exposure to German culture other than watching video tapes on the classroom television, and observing the sporadic appearances and interaction among few Germans at the Max Mueller Bhavan, a branch of the Goethe-Institut. Ever since, I have been intrigued by the way in which Foreign Language (FL) learners learn about the target culture. Clearly, methods and tools to deliver foreign language (FL) instruction and to bring FL learners closer to the target culture have evolved significantly.

In the last few years, the widespread use of the Internet for instruction and learning in the area of foreign or second language learning and its massive potential to provide a shared space for students to learn individually at their own pace, and collaboratively in groups have been explored with great enthusiasm (Warschauer, 1998; Kern, 1995; Beauvois, 1992). It appears that this capacity has been tapped for all, distance and hybrid courses as well as instructional supplements and resources in face-to-face classroom settings. In fact there has been a growing trend in German as Foreign Language (FL) textbook publications such as ‘Kontakte’ (Terrell et al, 2006), Treffpunkt Deutsch (Widmaier et al, 2007), and ‘Stationen’ (Augustyn and Euba, 2008) that
textbook packages include technological components such as links to specific websites to provide more information on certain cultural topics, virtual tours of famous cities, places of historical interest, grammar drills, vocabulary building games, or even accompanying websites. Furthermore, a basic Internet search can yield any novice language teacher a large number of websites, which could be used as instructional aides in any FL classroom setting – real or virtual.

Studies that have aimed to examine the usefulness of the Internet in teaching and learning of the target culture in FL classrooms reveal that the opportunities to watch virtual tours; read and watch authentic and updated realia; watch and/or listen to audio and video streaming clips are abundant (Dubreil et al, 2004; Lee 1998; Levy & O’Brien, 2008; Liaw, 2006; Osuna & Meskill, 1998; Furstenburg et al, 2001). This opportunity to catch a glimpse into the target culture, without actually traveling to the country (ies) where the target language is spoken, is unmatched by any other classroom tool. In addition, the Internet allows learners to observe tangible cultural products (food, clothes, towns, etc.), as well as non tangible cultural products (non verbal cues, body language, etc.), and listen to authentic second language (L2) discourse in movies, interviews, and news clips – experiences unique and life-like that are unparalleled. However, there is still plenty of potential that the Internet holds and remains unexplored in the realm of FL teaching and learning. One such underexplored feature of the Internet is a webquest, an ‘enquiry-oriented’ web-document where all resources that learners use to gather information or gain understanding come from the Internet.

While the Internet is a storehouse of information, authentic texts and realia among other resources to impart knowledge and information about the target culture, it
also allows people to connect with each other in real time via chats and instant messaging tools, and in delayed time via emails, discussion boards, blogs, wikis, etc., all of which provide instructors and learners ample opportunities for interaction and collaboration.

The value of collaborative learning, peer and instructor feedback, group projects, and pair work, especially in online or blended courses, is indisputable.

Collaborative learning and peer interaction points us to a very important theory, namely the Sociocultural Theory (SCT), which is based on the underlying principle that learning occurs in interaction (Lantolf & Thorne, 2006; Vygotsky, 1978). In recent years, the SCT and research surrounding its relevance in the field of foreign language pedagogy has gained significant attention and recognition in the field of Second Language Acquisition (Anton & DiCamilla, 1999; Guerrero & Villamil, 2000; Lantolf & Thorne, 2006; Lantolf, 2007) and has only recently begun to focus on Computer-mediated communication (CMC) as a powerful and real tool for peer interaction and mediation (Guitierrez, 2006; Thorne, 2003; Wildner-Bassett, 2005). As a researcher and FL instructor, I believe that the need to examine learner mediation via CMC tools from the Sociocultural Theory perspective and the impact of Computer Assisted Language Learning (CALL) tools, especially webquests when used with the goal to facilitate the development of learners’ knowledge and understanding of the target culture, is more urgent in today’s ‘shrinking world’ than ever before.

Purpose of the Study

In the academic world, where Computer based teaching (CBT) or computer based learning is becoming ubiquitous, and web based instruction is more common, especially
in the USA, it is no wonder that these technologies have reached FL classrooms as well. Digital technologies, especially the Internet, allow FL instructors as well as FL learners to go beyond the confines of a traditional classroom setting (real or distance), and make access and exposure to authentic cultural information in almost any language only a few finger clicks away. This is a special boon to the field of FL instruction, more specifically in the realm of teaching culture (O’Brien & Levy, 2008; Osuna & Meskill, 1998; Walz, 1998; Warschauer & Healy, 1998), which will all be discussed in detail in Chapter 2. In spite of regular access to a wide variety of CALL tools, FL teachers are still faced with valid and pressing questions about our adherence to the five Cs (Communication, Cultures, Connections, Comparisons, and Communities) developed by ACTFL (1996), all of which necessitate teaching of and about the target culture, in our FL classrooms. Sadly, integrating ‘culture teaching’ effectively in our FL classrooms (both face-to-face and web-based) remains to be a challenge still faced by FL academicians everywhere (Atkinson, 1999; Byrnes, 2007; Byrnes, 2008; Kramsch, 2007; Schulz, 2007).

CALL technologies offer a vast array of tools that can be effectively implemented into FL teaching. Especially pressing in the realm of FL teaching is the need to implement technological tools that bring FL learners closer to the target culture. Within the domain of Internet-assisted technologies that aide the instruction and learning of the target culture is a dynamic tool called ‘webquest’ whose potential in bringing the students closer to the ‘target culture’ is still largely untapped. The webquest is an ‘inquiry-oriented activity in which some or all of the information that learners interact with comes from resources on the Internet (Bernie Dodge, 1995). Webquests have the ability to introduce FL learners to level-appropriate, purposeful, and sequentially-organized websites that
provide them a brief overview of the cultural topic at hand, and illustrate what practices, products, and perspectives are shared by the people of that culture, thus allowing students to integrate what they have learned in a way that is significant in the real world. A webquest thus goes far beyond what the textbook, an auxiliary CD Rom, or what a mere list of relevant websites can do for the learners’ knowledge and understanding of the target culture. Yet there appears to be no research conducted that determines the efficacy or value of webquests in the realm of FL learning.

However, the benefits of integrating the Internet into FL instruction are not restricted to providing information about the target culture, but also extend themselves to Computer- Mediated Communication (CMC). More specifically, CMC has established itself as a powerful vehicle in FL teaching and learning venues, especially in distance FL courses. Research indicated that CMC encourages learner participation in L2 (Kern, 1995; Beauvois, 1992; Chun, 1994), allows learners to comprehend, think coherently and produce cohesive output in the L2 at their own pace without feeling pressured (Chun, 1994; Kern, 1995), and demonstrated higher discourse competence levels than in face-to-face discourse. CMC also significantly enhanced learner interaction (Kern, 1995; Salaberry, 1996).

An important gap within a CALL environment that still needs to be addressed is the ‘virtual gap’ between learners and learners, and between learners and instructors. Be it face-to-face or online courses at universities and colleges, or language institutions such as Actilingua, Berlitz, learners often feel isolated and rarely have a platform or a venue to discuss aspects of the target culture they are confronted with in their textbooks / online materials. In such cases, asynchronous CMC tools such as discussion boards, emails, and
synchronous CMC softwares such as Elluminate and chats afford opportunities for learners to ‘interact’ or ‘talk.’ Interacting with online peers generates a sense of belonging for these ‘distant’ learners and offer these distant learners a sense of community within which they can discuss, ask, respond, create, perceive, exchange information and engage in group activities (Carabajal, LaPointe & Gunawardena, 2007). Furthermore, these CMC tools reinforce the socio-psychological component - the group’s purpose and needs (Kim, 2000, as cited in Moore, 2007). Clearly, online interaction with peers and reinforcement and development of a sense of the group’s purpose and needs are both immensely valuable in distance FL course settings.

What Computer-mediated Communication (CMC) also does, as the name suggests, is to allow learner-learner and learner-teacher interaction via technological tools such as chats, emails, discussion boards, or even video-conferences. CMC interactions provide learners opportunities to engage in dialogues or discussions with their peers, experts or teachers, all of which result in mediating the learner(s)’ knowledge or understanding of a given topic. This construct of ‘mediation’ is fundamentally central to the Sociocultural Theory (SCT) (Vygotsky, 1978). While there is a significant body of research generated in recent years that looks at linguistic growth owing to face-to-face mediation from a sociocultural theory perspective (Adair-Hauck, B. & Donato, R., 1994; Anton, M. & DiCamilla, F., 1999; Appel, G. & Lantolf, J.P., 1994), there are relatively much fewer studies (Kinginger & Belz, 2005; Thorne, 2003, Wildner-Bassett, 2006) that investigate how students mediate their knowledge of the target culture in distance learning settings.
Most studies within the SCT framework that employ CMC tools to foster ‘culture learning’ in the FL classroom have mainly focused on development of learners’ pragmatic competency (Chung, 2006; Kinginger & Belz, 2005; Thorne, 2003) such as address forms (such as *tu/vous* in French and *du/Sie* in German), appropriate greeting, leave taking, and welcoming and politeness, such as patterns of social engagement in the target culture (Byrnes, 2008). Other than a study conducted by Wildner-Bassett (2005) that uses CMC tools to further ‘culture learning’ where special attention is given to the learners themselves, specifically their perceptions of self and ‘other’ (the German women around the fall of the Berlin wall), there appear to be very few studies that examine students’, more specifically, foreign language learners’ understanding of ‘people,’ and ‘communities’ in the target culture within the SCT context.

In the study conducted by Thorne (2003) he examines how CMC tools (such as Emails and chats) mediate ‘intercultural learning’ in three different cases, where in one case, learners’ pragmatic development has been discussed. One of the cases in this study discusses the use and choice of informal vs. formal address forms in French resulting from the CMC interactions between an American learner of French and a French native, and the intercultural pragmatics or practices. In the second case in the same study, ‘intercultural learning’ assumes the form of learning and commenting about a French film and developing questions surrounding that film, with students’ French counterparts. There appear to be, however, few to no studies that aim to further FL learners’ knowledge and understanding of the target culture in a way that takes them beyond the confines of the textbook, and affords them a glimpse into the target culture, by letting learners ‘semi-immerse’ themselves in the target culture. More importantly, it is clear
from the studies mentioned above that past research has focused on FL learners’ development of pragmatics or practices (Kinginger & Belz, 2005, Thorne, 2003), or has focused on their understanding of literary works such as films or stories and allowed learners to compare and contrast the target culture with that of their own (Thorne, 2003; Wildner-Bassett, 2005). However, very few studies document attempts to provide online FL learners with an overview of the target culture that encompasses practices, products, perspectives, people, and subcultures or communities in that target culture.

Evidently there is still scanty research that examines the efficacy and impact of CALL tools to develop FL learners’ knowledge and understanding of the target culture, and investigate what mediating strategies are used by online foreign language learners in the online discussions of the target culture. To bridge this gap and address the concerns stated above, the proposed exploratory study aims to examine the role and impact of CMC-embedded webquests (CMC components built into webquests) in particular, in developing students’ knowledge and understanding of German culture1. Additionally, this study attempts to investigate what mediating strategies (Lidz, 2002) are used by online students in their computer-mediated discussions (synchronous and asynchronous) of target culture.

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1 For the purpose of this study, the term ‘German culture’ refers to the cultures within Germany, but is not restricted to them. In other words, the term ‘German culture’ may also include culture in other German-speaking countries such as Austria, Switzerland, and Liechtenstein.
Research Questions

Following are the research questions that guide the study:

1) What role do the CMC embedded webquests play in developing online students’ knowledge and understanding of German culture?

2) From a Sociocultural Theory point of view, what mediating strategies are used by online students in their computer-mediated discussions of German culture?

2a) What mediating strategies are used by online students of German II in their synchronous computer-mediated discussions of German culture?

2b) What mediating strategies are used by online students of German II in their asynchronous computer-mediated discussions of German culture?

Question one aims to examine the overall effectiveness of the interactive webquests (webquests with CMC components embedded in them) in the development of students’ knowledge and understanding of German culture. The overarching goal of the second research question is to investigate what mediating strategies (Lidz, 2002) are used by online students in their online discussions of German culture. Research question 2a specifically aims to examine which mediating strategies are used by the online students of German II in their synchronous online discussions of German culture, while research question 2b attempts to study the same for their asynchronous online discussions of German culture. The Sociocultural Theory framework guides the overall study, but for question 2 specifically, the analysis is guided by pre-established ‘mediating strategies’ (Lidz, 2002) in the SCT context.
Significance of the Study

It is anticipated that the findings from the proposed study will shed light on the role of webquests, an underutilized tool within CALL in advancing students’ knowledge and understanding of the target culture. Although webquests are created for and used as group projects by students and learners of a wide range of fields ranging from Mathematics to Political Sciences, this study will specifically examine their importance in light of FL instruction with a focus on teaching culture, i.e., investigate how well developed CMC-embedded webquests can potentially aide in developing online FL learners’ knowledge and understanding of the target culture. It is hence hoped that findings of this study will not only inform both FL instructors and instructional technologists’ knowledge about creating and using webquests for the purpose of FL instruction and culture learning, but will also impact their design, purpose, and distance courses in the future with a focus enhancing learner’s understanding of the target culture. All in all, I hope that this study sheds light on the role of webquests with a focus to teaching about the target culture.

It is also hoped that the ‘culture’ model I adopt for this study will lead my readers to rethink the current models used for teaching culture. It is also my hope that these findings might inform ‘teaching culture’ in ways that can be employed in traditional classroom FL instruction, hybrid (or blended), as well as distance learning environments. This might enable researchers to further research this complex construct and find innovative means and ways to address it in distance FL instructional and learning contexts, in particular instructional technologists and curriculum designers can implement these new findings into effective CALL tools.
Additionally, it is also anticipated that results emanating from this study will further our understanding of the ways in which Lidz’ (2002) mediating strategies are used by online FL learners in their synchronous and asynchronous online discussions. More specifically, it is hoped that the findings will provide insight into online mediating strategies – for instance, which mediating strategies do the students employ? Which mediating strategies are more frequent than others? Are the mediating strategies and their frequencies different for synchronous and asynchronous online discussions?

I hope that the proposed exploratory study will shed light on the types of mediating strategies (Lidz, 2002) used by distance FL learners, and allow us to speculate the reasons for the discrepancy if any observed. Also, results of this study will also reveal if CMC tasks embedded in webquests provide a satisfactory platform for FL learners to collaborate on tasks, and help them develop their knowledge and understanding of the target culture. This study will also show what kind of future research may be appropriate and how technologies may have the potential to generate dynamic interactions among FL learners, especially distant learners, so as to further their knowledge and understanding of the target culture.

Moreover, it is anticipated that the findings of this research study will further provide insight on the importance of building learner-centered groups or communities especially for online learners, an issue that needs to be carefully but surely addressed in online FL courses. It is hoped that the discussions emerging from this study will aide both educators and instructional designers to then make necessary improvizations in addressing issues in CALL that relate to the instructional practices and careful assessment of the target culture in the FL classroom, real or virtual.
Definition of Key Terms

Following are the definitions of terms and constructs that are important to the proposed study:

1) Culture – While culture is a complex term that has been defined in several ways in different fields such as Anthropology, Sociology, Sociolinguistics, Ethnic Studies, and many others, for the purpose of this study, I will adhere to the definitions and approaches to ‘culture’ and ‘teaching culture’ as they are understood and practiced in the area of Foreign Language Teaching. That is, to teach ‘culture’ in a way that foreign language learners demonstrate understanding of the relationship between products and perspectives, and practices and perspectives (ACTFL, 1996). However, as pointed out by Moran (2001), it is important to note that culture is “an evolving way of life”, which is fluid and transient. I will discuss this construct in the realm of FL teaching and learning in Chapter II.

2) Sociocultural Theory – The Sociocultural Theory (SCT) is essentially a constructivist theory laid down chiefly by the Russian psychologist, Lev Vygotsky (1978). The SCT believes that learning occurs in interaction, and that the functioning of the human mind is essentially a mediated process, as Vygotsky explains in his book *Mind in Society* (1986). The chief constructs of the SCT, namely, mediation, internalization and the ‘zone of proximal development’ will be discussed in detail in Chapter II.

3) Computer Assisted Language Learning (CALL) – CALL is an umbrella term for all computer-assisted technologies that aide and enhance FL learning and teaching
ranging from Internet, CD-Roms, FL Softwares such as Hot Potatoes, Course Management Software, Interactive Power-Point, Video Clips in Real Player or Windows Media Player, to emails and chats.

4) Computer Mediated Communication (CMC) - Commonly addressed as CMC, this is generally a subset of CALL that specifically refers to computer-associated technologies that allow for communication between learners, between learner and instructor, and between instructors or in the general sense. CMC can be classified into the following two types:

a) Asynchronous CMC, where there is a time-lag in the interactions. Common examples of asynchronous CMC are emails and discussion boards

b) Synchronous CMC, where there is no time-lag and the interaction is in real time. Common examples of synchronous CMC are chats such as Yahoo instant messenger, Skype, or even Softwares such as ‘Elluminate Live!’

5) Webquest – As the founder and creator of Webquests, Bernie Dodge (1995) defines a webquest as “an inquiry-oriented activity in which some or all of the information that learners interact with comes from resources on the internet, optionally supplemented with videoconferencing”. The nature, purpose and types of webquests will be discussed in detail in Chapter II.

In the following chapter, I will discuss theories, research studies and their findings in the realms of Culture, Sociocultural Theory, and CALL, especially CMC in FL instruction and learning as they relate to the research questions guiding the proposed study.
CHAPTER TWO: LITERATURE REVIEW

Overview

In this chapter, I will provide a brief overview of the chief constructs that guide my study, namely, Culture in FL Instruction and Learning, Sociocultural Theory, and Computer Assisted Language Learning. Within each section, I will document underlying theories and approaches, present research findings, and explain their relevance to the proposed study.

Culture in the Foreign Language Classroom

Introduction

The word culture, as we know, and as Seelye (1997) described in his foreword in *Pathways To Culture*, is a broadly defined construct that “encompasses almost everything humans have learned” (p. 2). The spectrum of culture ranges from values (e.g., the Japanese lay a heavy emphasis on politeness and harmony, as opposed to directedness) to patterns and norms in daily life (such as the art of making *sushi*, or the custom of tea making and serving in Japan). In other words, culture is a multifold construct of the society, region, or the country that is referred to, offering each time a different understanding of the term, depending upon the lens used to view it. Although the term ‘Culture’ lies at the crossroads of fields such as anthropology, sociology, sociolinguistics, multicultural education, gender studies, and ethnic studies to name a few, this research study will specifically focus on the term ‘culture’, as is understood in the domain of
foreign language teaching. In this section of the Literature Review, I will explain constructs and models of culture that are significant and pertinent to the field of FL instruction, provide an overview of the history of teaching culture in the FL classroom, discuss and analyze research related to teaching and learning culture; as well as current methods in teaching culture in the realm of FL instruction.

Overview of the Term ‘Culture’ in FL Instruction

Generally speaking, culture encompasses almost everything that is seen, heard, touched, felt, tasted, smelt, and even said in a certain region or a country. For instance, the notion of ‘Indian culture’ ranges from the intricate architectural detail seen on temples and buildings across the nation, the variety of textures and colors in the fabrics, the spicy food and the aroma it emits, the brightly colored sarees, and ‘salwaar kameez’, the British-English spoken with a heavy Indian accent, body language (such as nodding of the head to indicate agreement), to the song-and-dance sequences in Indian movies. In other words, ‘culture’, also viewed as civilization, represents the canonical achievements of the people reflected in the history, literature, music, and folklore, among others in that target population. This is commonly referred to as the ‘big C’ culture. The ‘small c’, culture, on the other hand, comprises of daily practices, customs, traditions, and norms (Brooks, 1968), as most FL instructors know it. This notion of culture, however, adopts the nation as a frame of reference.

From a critical pedagogy (Giroux, 1988, as cited in Moran) and multicultural educational perspective, culture is also regarded as a space where groups or communities interact, striving for power, influence, authority, and dominance. From a linguistic standpoint, however, the Sapir-Whorf hypothesis states that there is a causal effect
between language categories and their forms, and cultural items and their meanings. In sum, this contributes to a unique worldview or system of cultural meanings and theories (Damen, 1987).

Byram (1991) explains that from an ethnographic standpoint, a learner is urged to learn a language for cultural understanding, the purpose of which is twofold – for reading and for touring. Byram (1997) introduced the ‘Intercultural Communicative Competence’ (ICC) to the construct of culture, which became both relevant and practical for the modern businessman or traveler. He explains ICC as being a strong link between cultural competence and ‘communicative language teaching’, which has gained significant attention in recent years, and stems from his much cited model of FL education (Please see Fig. 1).

![Figure 1. Byram: Model of foreign language education (Risager, K, 2007, p. 97)](image-url)
The need for individuals to learn a foreign language, not just to earn course credits at a college or university, but with the aim to use that language purposefully and appropriately in meaningful conversations with native speakers of the target language has become more strongly felt. This meant that the need to understand the target culture was immediate as well. Shortly before Byram (1997) introduced and coined the ‘Intercultural Communicative Competence’ (as explained above), and at the turn of the century, the quest to formulate standards for teaching foreign languages, along with a comprehensive model for teaching culture in the FL classroom, became a growing necessity among all FL instructors, administrators, and researchers alike. With the assistance of a three year grant from the US Department of Education and the National Endowment for the Humanities, an eleven-member ACTFL task force, representing a variety of languages, levels of instruction, program models, and geographic regions, undertook the task of defining content standards -- what students should know and be able to do, in foreign language education. The Philosophy Statement of the ACTFL Standards (1996) that clearly states the goal of FL learning as “how, when, and why to say what to whom” which reinforces the criticality of successful intercultural communication, especially in the 21st century, where the need to successfully communicate with people across borders and continents, whether real or virtual, is pressing.

The final document that was the outcome of this hard work and visionary thinking, called the Standards for Foreign Language Learning: Preparing for the 21st Century, was first published in 1996. This document represents an unmatched consensus among teachers, academicians, government, and the community on the definition and role of foreign language instruction in the American education system. This visionary
document has been used by teachers, administrators, and curriculum developers all across the board in an effort to improve FL teaching. This document that is now commonly referred to as ‘National Standards’ (2006) states and explains the objectives of the five Cs of FL teaching, namely, Communication, Connections, Cultures, Comparisons, and Communities (Please see Fig 2).

![Diagram of National Standards for Foreign Language Instruction](http://www.actfl.org/files/public/StandardsforFLLexecsumm_rev.pdf)

*Figure 2. National Standards for Foreign Language Instruction*(http://www.actfl.org/files/public/StandardsforFLLexecsumm_rev.pdf)

As indicated in the above diagram, Communication, Communities, Cultures, Connections, and Comparisons are all intricately interdependent phenomena. It is however indisputable that ‘Culture’ and ‘Language’ (which is also a product of culture) are central to these phenomena. The ACTFL document (1996) specifically defines the Culture Standard as follows:

*Gain knowledge and understanding of other cultures.*

- **Standard 2.1:** Students demonstrate an understanding of the relationship between the *practices* and *perspectives* of the culture studied
• **Standard 2.2:** Students demonstrate an understanding of the relationship between the *products* and *perspectives* of the culture studied


As we can see, the ACTFL document (1996) describes ‘Culture’ as an equilateral triangle, where each pole represents *perspectives* (meanings, attitudes, values, and ideas); *products* (books, tools, food, laws, music, games); and *practices* (patterns of social interaction) (Please see Fig. 3). To provide an analogy, in the case of the Indian culture, the red dot (*bindi*) worn by an Indian woman is a product of the Indian culture, the practice of wearing it on the forehead (for married women) and not wearing it (for widows) comes from the traditional Indian perspective that onlookers know that a woman is taken, if she is wearing it, and is a widow if she is not. This, in my opinion, was a comprehensive and feasible model of culture in the realm of teaching culture in the FL classroom at the time of its inception.

![Figure 3. ACTFL model for Teaching Culture](image-url)
In an attempt to shed more light on teaching the products, practices, and perspectives of the target culture in the FL classroom, an interesting video by Annenberg Media (2009) called ‘Rooted in Culture’ captures a discussion between Richard Di Donato and instructors of Italian, Japanese, and Spanish. In this interesting and very engaging video, they discuss the challenges and dilemmas in teaching culture that FL instructors in K-12 settings are faced with, and ways to address them. All FL instructors in the video talk about how they showcase ‘products’ (by bringing in realia, using the Internet to show pictures, etc.) and introduce ‘practices’ by bringing cultural informants, showing videos, or demonstrating the practices themselves. Most products are tangible and practices can be observed. However, the common thread that emerges from the discussions here is the challenge of teaching perspectives. How can I make students connect the dots between products and perspectives? How do I make them see the relation between the practices and perspectives in the target culture? In this video, Donato emphasizes that to address this partly, FL instructors need to provide learners with tools so that they can become ‘cultural investigators’ to better understand the perspectives.

As the discussions indicate, a few of the reasons that make teaching ‘perspectives’ challenging are that ‘perspectives’ cannot be observed, touched, held or seen. In other words, they are not tangible. Also, as one instructor of Spanish explains, perspectives stem from personal views and usually touch upon sensitive topics such as death, religion, justice, and fundamental belief systems that differ from person to person even in the same culture. Another interesting cause for FL instructors to struggle with ‘perspectives’ in the target culture is that the FL instructor teaching the target language may not be a native
speaker of the target language and may have anxieties in addressing this ‘p’ in the FL classroom. To this, the instructor of Japanese clarifies that in such instances, it might be alright for the instructors to admit that they do not know ‘everything’ about the target culture, and that they will participate in being a ‘co-investigator’ along with the students.

An important aspect of culture that Alvino Fantini, one of the participants in the above-mentioned video (http://www.learner.org/workshops/tfl/session_05/analyze.html) talks about is that perspectives come from ‘people’ and that it is important for FL students to be cognizant of the fact that different people have different perspectives. An illustrative example of Fantini’s point is ‘Halloween in the USA’. In this case, the costumes, candy, and spooky Halloween decorations are the products; buying costumes and candy, ‘trick or treat’ rounds in the neighborhood sometimes followed by elaborate Halloween parties can be viewed as practices, while ‘warding off the evil’ is the idea or belief (perspective) behind Halloween. However, one must also note that not every single American as a rule obeys and follows every piece of this tradition, which means that every individual in America has his or her own unique experiences that result in his/her own values, ideologies, faith. These are also dictated by every individual’s own background, family, education, race and ethnicity, to name a few. We can thus perhaps infer that culture is also individual.

This claim is also made in an article by Dwight Atkinson (1999) that discusses the ways in which culture is addressed (or the lack of it) in the realm of TESOL (Teaching English To Speakers of Other Languages) culture, which is also a FL culture in its own right. Upon carefully and critically teasing apart 15 TESOL articles that dealt with culture from 1985-1998, Atkinson concluded that for the most part, the instruction of culture in a
TESOL classroom can be classified into three categories – a) Teachers that accept a given or prescribed notion of culture with no personal comments, b) Teachers that have reservations about the notion of culture, but choose not to express it, and finally, c) Teachers that question the basic concept of culture, or find it too cumbersome to deal with it, and hence avoid it altogether.

In this breakthrough article Atkinson acknowledges the sociocognitive perspective of culture in accounting for the fact that culture is represented partly in people’s minds as it does in everyday social practices, social tools and social products. Gidden’s (1979, as cited in Atkinson, 1990) theory of *Structuration* explains that it is only when the ‘culture in one’s mind’ interacts with the ‘culture in the world’, that cultures ‘truly come into existence’. In Atkinson’s middle ground approach to culture, he acknowledges the role of shared perspectives and shared social practices in the lives of human beings. To sum up, he postulates six principles of culture, namely - all humans are individuals; individuality is also cultural; social group membership are multiple, contradictory, and dynamic; social group membership is consequential; methods of studying cultural knowledge are unlikely to fit a positivist paradigm; and that teaching and learning of language, and culture are mutually interwoven, but culture is more multiple and complex.

Also within the realm of ESL, Kubota (1999) argues against the stereotypes that are attributed to certain social groups, ethnicities, or nationalities. As an ESL and Japanese instructor, she finds it especially frustrating when students are viewed as either ‘Western’ or ‘Oriental’. Kubota argues that there is a certain amount of heterogeneity and homogeneity in all social groups, where a set of shared values, tools, products and
practices are common for all individuals belonging to that group, while some products and practices might be different, owing to different perspectives of the individuals belonging to that same group. In essence, culture is not static, it is transient and fluid. In this article, she demonstrates how Japanese students in an ESL setting exhibit writing that is vague, indirect, polite, and lacking critical thinking, mainly due to the values of respect for elders, professionals, and academicians, and high regard for discipline underlying these practices. On the other hand, the West demonstrates and expects writing that exhibits self-expressionism, creativity, critical and analytical skills, and individualism owing to the values of liberty and democracy underpinning them. Clearly, there is a strong demarcation that separates academic writing in the Orient from that of the West, owing to the different set of perspectives in each of those cultures.

Kubota suggests three models to deal with this – the Acculturation model in which the students are first informed of the discourse and culture of the target community, and then trained accordingly; the Pluralist model that embraces cultural differences and allows students to express in ways that are suitable and acceptable in their own cultures; and the Critical Multiculturalism model that not only recognizes and respects cultural diversity, but also demands that students critique and examine their heritage culture. In a nutshell, as Atkinson (1999) and Kubato (1999) argue, it is crucial to take the people of the target culture into account as well, since culture is not monolithic and is constantly evolving due to changes in the target population.

Moran (2001) also asserts the significance and undisputable value of ‘people’ in the target culture and defines culture somewhat differently. He defines it as “the evolving way of life of a group of persons, consisting of a shared set of practices associated with a
shared set of products, based upon a shared set of perspectives of the world, and set within specific social contexts” (p.24). This model, as we can see (Please see Fig. 4) mirrors the general way of life over time in a target culture, or sub-culture, in that because people change with time (owing to several factors such as exposure to media, new technologies, world-views, world-politics, work-related factors, illnesses), so do the perspectives, products and practices within that culture (or sub-culture).

![Figure 4. Moran’s Model of Culture (Moran, 2001, p.24)](image)

As a researcher and a FL instructor, I believe the ACTFL model encapsulates the crux of ‘culture’, namely the products, perspectives, and practices for the purpose of teaching culture in a FL classroom. I do, however, believe that it overlooks the essence of the target culture (or a specific sub-culture within the target culture) that gives birth to the products, perspectives, and practices, namely, the ‘people’, and hence use Moran’s (2001) model of culture which weaves in ‘people’ and ‘communities’ in addition to the three ‘p’s stated by the ACTFL (1996). To illuminate my point further, I revert back to
the analogy provided for the explanation of the ACTFL model of culture – the usage of
*bindi* (commonly viewed as the dot on an Indian woman’s forehead) in the Indian culture.
When teaching ‘Hindi’ as foreign language, or about the Indian culture, it is important
that the students understand that not all married women wear the *bindi*, and not all
widows leave the house without the *bindi*. This is especially true for women residing in
metropolises such as Mumbai, New Delhi, Bangalore, and more progressive sub-
communities and societies, as is also the case with young women in and outside of these
metropolises across the Indian sub-continent. Both groups of Indian women (those living
in progressive cities, or towns, and those belonging to a younger generation) represent a
stratus of women that have departed from the traditional notion of the usage of ‘*bindi*’. Although this segment of women is relatively small to the number of women that follow
the traditional practice of wearing or not wearing the *bindi*, it is important that we do not
overlook such segments of the target population, as they continue to grow over time.
Hence it might be safe to infer that the people, perspectives, products, and practices can
be specific to a community or a sub-culture, and there are several of these intricately
interwoven within any target culture. It is therefore crucial that as FL instructors, just like
the practices, products, and perspectives, we portray the ‘people’ and the community (ies)
addressed in the target culture as they too change and evolve with time.

*Pedagogical Approaches to Culture in FL Instruction in the USA*

Culture, a much disputed (Risager, 2006, pp.1-2; Schulz, 2007) and a relatively
neglected aspect in the area of FL teaching (Byrnes, 2006), has fortunately begun to gain
its due recognition and place in the FL classroom only recently. This section essays the
pedagogical approaches to culture in the Fl classroom in a chronological fashion, so as to
illustrate the change in perspectives, educational goals and practices that occurred with changing times, beginning with the 1960s leading up to the present.

1960s - The history of teaching culture in the foreign language classrooms can be traced back to the 1960s, when the intensification of globalization took an upward swing in the U.S.A. (Risager, 2007). The need for the work force to become mobile and flexible translated into the pedagogical aim of intercultural communication. Howard Lee Nostrand and Nelson Brooks, also protagonists of the culture pedagogy, published articles in 1966 and 1968 respectively, which have contributed significantly to the shaping of the instruction of culture in the FL classroom.

Brooks (1968) divided his construct of culture into five categories – first being the biological growth, second being personal refinement, third being literature and the fine arts, fourth being patterns of living, and the fifth being the sum total of a way of life. For the purpose of teaching culture in the realm of FL instruction, he advocated focusing on the fourth category of culture, i.e., the patterns of living in the target culture. Clearly, Brooks had an everyday-oriented and individual-centered approach to culture teaching. The pedagogical approach during this period started to see an increasing shift from the Grammar Translation Method to the Audiolingual Method. This occurred as the focus shifted from perfect written translation and reading comprehension to grammatically correct speech. The only cultural exposure FL learners had was controlled interaction with native speakers.

1970s – This period saw an increased orientation to culture and society. In the FL classrooms, this translated into increased use of realia, such as menus, tickets, newspapers, magazines, etc. As Risager (2003) explains, the employment of these
auxiliary materials to understand the target culture better was also termed as ‘the expanded text concept’. Concurrently, theme based language teaching began to emerge, where the content revolved around a certain theme and was further aided by *realia*.

Specifically in the U.S.A., an interest in the anthropological understanding of the culture also aroused interest in teaching everyday culture in FL instruction, and the notions of the ‘big C’ and ‘small c’ emerged. Savignon’s (1972) study on communicative competence highlighted the importance of communicative training from the onset of FL learning. In keeping with the communicative approach for pedagogical purposes and the awareness among teachers that languages were learned for intercultural communication, practical methods were adapted to teach the target cultures in the FL classroom. Some of these were as follows:

*Culture capsule* – a short talk about a small cultural difference between the target culture and the learners’ own culture that is illustrated by *realia*.

*Culture cluster* – a series of culture capsules (e.g., clothing, trends, clothing sizes, currency, etc.) that are interconnected and lead to the understanding of certain bigger aspect (e.g., shopping) in the target culture.

*Mini-drama* – Some learners in the FL classroom enact a certain situation, in which people from two cultures (usually the target culture and learners’ own culture) enact and they see how faux-pas can arise, or how conflicts (misunderstandings) can take place. The instructor then discusses the issue at hand to come to a reasonable solution.

*Culture assimilator* – A kind of test for self-study and self-reflection, this presents a description of an intercultural encounter that creates animosity or biases between the involved parties. The student then has to choose between four plausible explanations for
reasons that caused this. Following this, the instructor or the target culture informant reveals the correct choice along with an explanation.

Micrologue – The FL instructor reads aloud a culturally valid text. The learners listen, discuss and retell it, and finally make it a dictation exercise.

1980s - The invention and widespread use of videos in the 1980s strengthened the visual aspect of culture pedagogy. Viewing relevant videos lent a more realistic and detailed mediation of the situational context for target language communication. Learners were now able to see tangible products of the target culture (clothing, streets, towns, markets, food, restaurants, native speakers, flora, and fauna among many others). This new technology also allowed learners to observe non-verbal communication cues in videos.

It is interesting to note that, it was in West Germany (Europe) that for the first time, culture pedagogy was given its own place on the agenda at a national language teacher association conference. In fact, a Dutchman van Ek (1986, 1987, as cited in Risager) developed a model for communicative competence, and described it as a sum total of six components: linguistic competence, sociolinguistic competence, discourse competence, strategic competence, sociocultural competence, and social competence. Yet another champion for culture pedagogy, Michael Byram (1989) in his book ‘Cultural Studies in Foreign Language Education’ confronted the neglected dimension of FL teaching – the cultural aspect, and its significance in general education, while Seelye (1988), Damen (1987), and Valdes (1986) discussed and suggested ways and means to integrate culture in the FL classroom.
1990s – Globalization and internationalization being the driving factors of this period, it was not hard to understand why a heavy emphasis started to be laid upon ‘Intercultural competence’ and ‘Communicative competence’. Culture pedagogy naturally leaned towards experienced culture and personal cultural encounters. This was a clear indicator that ‘Teaching Culture’ had now acquired its own status in the body of FL teaching and that institutions and organizations saw the need to clarify and regulate its content. Omaggio (1993) argued for practical implications of theories relating to the teaching of culture and urged FL instructors to experiment with new approaches to teaching the target culture. She enlisted four additional approaches to do the same – a) the Frankenstein approach – throwing in popular stereotypical elements of the target culture. For example, in a German language lesson, Lederhosen, Weisswurst (white sausage), a picture or video of the famous Neuschwanstein castle, and a piece composed by Bach could be discussed or brought in and played; b) the 4-F approach – Folkdances, festivals, food and folklore are played, or discussed in the FL classroom; c) the tour guide approach – identification of significant monuments, cities, towns, and rivers, and d) the By-The-Way approach – periodic lectures or explanations to demarcate sharp differences between the learners’ own culture and the target culture.

It was also only in the 1990s that rapid advancements in the field of technology (especially computer technologies) gave rise to the Computer-Assisted Language Learning (CALL) in FL teaching. Instructors began to expose their students to the Internet (Furstenberg et al, 2001; Lee, 1998:Levy, 2007) (video files, newspapers, film clippings, virtual tours of cities, among several others) for a virtual cultural experience along with emails and instant messaging tools to virtually connect and communicate with
native speakers of the target language and culture (Belz, 2003; Kramsch et al, 2000; Thorne, 2003). For instance, in the case of teaching German as a foreign language, textbook editors and publishers began to recognize and cater to an increasing demand to publish CD-ROMs and websites to accompany their textbooks such as Kontakte: A Communicative Approach (2005), and Deutsch: Na Klar! (2004). This exponentially growing usage of several technologies that enabled language learners to ‘connect’ with native speakers and the target culture, at their fingertips, so to say, also gave rise to the need for ‘language labs’ and ‘smart classrooms’ in the U.S.A. and Europe. Alongside, researchers and practitioners started investigating the effectiveness and worthiness of the technologies to further improvise language and culture teaching methods, and informing the CALL curriculum (Chapelle, 1998; Warschauer & Healy, 1998).

As we step into the 21st century, and the ‘world is shrinking’ in a metaphoric sense, educators, researchers and FL instructors are becoming more cognizant that the need to gain intercultural communicative competence from our FL instruction is far more than ever before. This paradigm shift leads us to rethink our FL teaching goals and makes us reconsider our instructional practices and emphasizing the Culture quotient in the FL classroom high on our agenda.

**Challenges in Teaching Culture in the FL Classroom**

Heidi Byrnes (2008) voices her concern about ‘culture teaching’ in FL classrooms, in that she believes that we still have a lot to achieve in terms of striking the right chord with teaching culture in the FL classroom. She believes that a model of FL learning outcome which is illustrated in the five interlocking circles – Comparisons, Connections, Communities, Communications and Culture is not adequate to inform FL
teachers about teaching culture. Byrnes recommends that we think about comprehensive ways to link culture or content of the target language while keeping in mind that that approach is amenable within educational settings for different language learners and applicable to different levels of progression with the FL learning. She further emphasizes that the approach adopted should be transparent for both teachers and learners, such that they are able to actively participate in making meaning in the target language. More importantly, with reference to the proposed study, Byrnes advocates an approach to teaching culture in context that facilitates engaged, attentive, conscious learning, and the kind of meta-awareness among learners that is rapidly gaining attention as a central aspect of language development leading to higher forms of cognition (Lantolf & Thorne, 2006). Most importantly, Byrnes recognizes that ‘culture teaching’ in the FL domain has still much scope to evolve and fine-tune, mainly owing to the complex nature of ‘culture’.

Levy ‘s (2007) two-part study that sought to improve approaches to teaching and learning of culture using new technologies by relating key concepts of culture to elements in pedagogical framework also echoes the complexities of culture and the challenges FL instructors face in teaching it. He suggested a five-fold framework in which culture is viewed as elemental, relative, group-membership, contested, and individual (variable and multiple). Levy explained that the purpose of doing this is to provide a different departing point when thinking about culture and how it may be taught or learned with different technologies. However, for the purpose of this discussion and to substantiate the Literature Review for my study, I shall focus on his innovative approaches to the teaching and learning of culture.
He explained that when we say that culture is elemental, it means that we are culturally wired for the culture we are born in from the time of birth. The second dimension – culture is group membership indicates that it is a ‘speech community’, or a group of people you associate with due to commonalities in language, dialect, beliefs and customs. The third approach to culture is that of culture being contested, i.e. when there is a clash of cultures, or when an individual experiences a ‘culture shock’. The fourth angle - culture is relative, and the fifth dimension- that culture is individual, go hand in hand. I say this because it seems almost causal that culture is relative, because culture is individual. Levy explained that psychological research demonstrates that one’s perception of one’s own culture may vary from person to person. This is also because culture itself is highly complex. In the realm of FL instruction and learning, this translates into the FL instructor depicting how he or she sees the target culture and each FL learner making sense of what he or she construes the target culture, based on his or her own unique experiences. Levy cautioned us that while it is important to illustrate patterns and variations, it is crucial that we do not confuse FL learners with differences. On the other hand, we cannot adhere to stereotypes only and deny variation.

Yet another important challenge that becomes apparent from the current research related to culture teaching and learning in the FL classroom, or rather becomes apparent from the lack of it, is the issue of ‘assessing cultural understanding’. In the report titled ‘The Challenge of Assessing Cultural Understanding in the Context of Foreign Language Instruction’, Renate Schulz (2007) pointed out that the field of FL teaching lacks consensus on whether and how culture should be assessed in FL instruction. In light of previous attempts by Byram (1997) and Seelye (1997) to identify the goals of culture
teaching, Schultz (2007, p. 21) proposed five objectives for culture learning in the FL classroom. They are as follows:

- Development and demonstration of awareness that geographic, historical, religious, political factors can have an impact on cultural perspectives, products, and practices
- Development and demonstration of awareness that situational variables shape communicative interaction and behavior in many ways
- Recognition of stereotypes or generalizations about the home and target cultures
- Development and demonstration of awareness that each language and culture has culture conditioned images and culture specific connotations
- Development and demonstration of awareness of causes and reasons that can lead to misunderstandings, or cultural faux-pas

Now that the relevant constructs of culture, approaches, and challenges to teach culture may have become clear to some extent, it is also crucial to take a look at how culture has been researched in recent times. Particularly relevant to the proposed study is the body of research that investigates the effectiveness of computer technologies in ‘culture’ teaching and learning in the FL classroom.

Considering that there are numerous theories concerning the constructs of culture, as well as suggestions for teaching culture in the FL classroom, research studies carried out to specifically inform the teaching and learning of culture are relatively limited. Especially evident is the dearth of research that specifically addresses ‘culture’ in FL teaching. Since CALL has had an arduous role to play in more ways than one, in this subsection, I will describe recent research that examines the way in which Internet tools have
aided ‘culture’ learning and teaching. The research questions that guide this study necessitate examining how FL learners interact with each other via CMC tools relevant to the proposed study.

*Technologies in ‘Culture’ Teaching and Learning*

In this subsection, I will discuss research that examines the effectiveness of CALL technologies, along with CMC tools that have been found to aide ‘culture’ teaching and learning in the area of FL instruction.

Studies that aimed to examine the usefulness of the Internet in teaching and learning of the target culture in FL classrooms revealed that the opportunities through the Internet to experience virtual tours; read, watch or listen to authentic and updated *realia* including audio and video streaming clips; catch a glimpse into the target culture, without actually traveling to the country (ies) where the target language is spoken, were unmatched by any other classroom tool (Dubreil et al, 2004; Lee, 1998; Liaw, 2006; O’Brien & Levy, 2008; Osuna & Meskill, 1998; Furstenburg et al, 2001). In addition, the Internet allowed learners to observe tangible cultural products (food, clothes, towns, etc.), as well as non tangible cultural products (non verbal cues, body language, etc.), and listen to authentic L2 discourse in movies, interviews, and news clips. All above-mentioned studies inferred that among several other tools, the Internet affords learners a unique and life-like experience that is unparalleled.

In a pilot study Lee (1998) infused her ‘Spanish’ instruction with the use of authentic online newspapers and online chatrooms. The goals were to create opportunities for students to read authentic materials online and gain cultural knowledge; enhance intercultural exchange via real-time chats; and improve students’ writing skills in Spanish
in addition to promoting collaborative learning among the learners of Spanish. Findings of the study demonstrated that not only did the students find reading the authentic newspapers online challenging and informative, but also enjoyed the online interaction with their peers. In Lee’s words, the online interactions helped them become ‘individual knowledge constructors’. While the online interactions seemed ‘real’ to the students and furthered their writing ability in Spanish, Lee observed that students lost focus of the discussion topics, and instead, discussed topics of personal interest when the instructor was not present. Additionally, the messages they wrote were shorter than otherwise.

Overall, Lee found the use of technology to have a positive impact on her students’ linguistic abilities as well as their cultural knowledge, and encouraged FL instructors to explore and experiment with integrated Internet resources to fit the needs of FL learners.

Qualitative discourse-based analytical studies conducted by Mueller-Hartmann (2000) and Wildner-Bassett (2005) that investigated the CMC interactions between native speakers of the target language and learners of the target language showed that the online interactions via emails (asynchronous in both cases) furthered their understanding of the target culture. More specifically, FL learners in all the three studies were able to compare and contrast both cultures, negotiate meaning, appreciate differences to some extent, and draw connections between the practices and perspectives related to specific aspects of the target culture. Wildner-Bassett focused on the processes and products of the classes that entailed students’ writing, research and sharing opinions in their asynchronous CMC discussions and other collaborative activities. These students were mainly of American-Indian descent and were enrolled in an advanced German course. The reading for this course work was “Dialogue of the Sexes: Men and Women in German-speaking
countries”. Wildner-Bassett conducted in-depth interviews with each participant to fully understand the multiple identities, cultural dilemmas, and their perspectives about the ‘other’. Mueller-Hartmann’s (2003) qualitative study examined the role of tasks in intercultural learning via three email projects between high school learners of English in Germany, and students of Social Sciences in USA and Canada. Together, all participants had to read common literary texts that formed the basis of the email discussions. Analyses of the emails demonstrated that the teacher and learner roles, setting, activity, and the personal level in the emails, all played a role in the intercultural learning.

Additional studies (Hertel, 2003; Lee, 1998; Liaw, 2006) that also employed asynchronous CMC tools, where FL learners exchanged emails or participated in e-forums to communicate (share, compare and contrast, and understand the practices, products, and perspectives in the target culture) also showed these to be effective tools in enhancing students’ intercultural competence. More importantly, for the most part, the common strand of findings evident in all the above-mentioned research is that effective integration of CALL based activities in the FL classroom piqued the FL learners’ interest in the target culture, and enhanced their awareness about the target culture. Especially befitting the Interactionist Theory within CMC, is also the Sociocultural perspective on FL learning that considers social interaction an integral process in language learning (Lantolf, 2006). This perspective is based on Vygotskian sociocultural theory which claims that human cognition is formed through social activity. The Sociocultural theory, its chief constructs, and their role in furthering FL learners’ understanding of the target culture via CMC tools is especially crucial to the proposed study, since a part of the research questions aims to investigate how the learners of German mediate each others’
knowledge and understanding of the German culture via CMC forums (synchronous and asynchronous).

**Sociocultural Theory and Its Applications on Research in SLA**

Sociocultural Theory (SCT) has its origins in the writings of the Russian psychologist, Lev Vygotsky and his colleagues, who were in turn were influenced by the works of the German philosophers Kant and Hegel, and the sociological and economic writings of Marx and Engels (Lantolf & Thorne, 2006). SCT states that learning occurs in interaction, and that the functioning of the human mind is a mediated process, as Vygotsky explained in his book *Mind in Society* (1986). The following sections further clarify and explain the chief constructs of the SCT.

The pivotal concept in SCT is that of the psychological tool. As Lantolf and Thorne (2006) explained, physical tools such as hammers, shovels and spades help us to change or shape the outside world, i.e., they are outwardly directed. On the other hand, psychological tools, also referred to as cultural artifacts (such as numbers, figures, charts, and above all, language, spoken and written) may be directed in two ways – outwardly for the purpose of social communication, or inwardly, to regulate, learn, memorize, organize, and gain control of our thoughts.

The genetic method focuses on understanding the dynamic relations at work to aid the development of higher mental functions. The genetic method has its roots in Vygotsky’s (1986) underlying theory that all higher forms of mental activity are mediated by psychological tools and sociocultural practices. The genetic method can be categorized into four principal domains – phylogenesis (development of a group of
organisms), sociocultural history, ontogenesis (development of an individual), and microgenesis (development of a certain function in an individual). All in all, according to the SCT, what underlie ‘cognitive development’ are mediation and scaffolding.

Mediation and Scaffolding

What is mediation? Is it different from scaffolding? It is important to note that the terms ‘mediation’ and ‘scaffolding’ are both key terms in the SCT theory, and hence also high-frequency words in all research that involves SCT. While they are both construed as ‘help’ or ‘assistance’ in some form, the demarcation and usage of these terms are still blurry. In the following paragraphs, I shall attempt to describe the ways and purposes for which both ‘mediation’ and ‘scaffolding’ have been used, based on previous research in the realm of SCT. This will further enable me to substantiate my choice of ‘mediation’ or ‘scaffolding’ for the proposed study.

Mediation is the central construct of the SCT. Vygotsky (1978) claimed that all higher forms of human mental activity are mediated by culturally constructed artifacts. Lantolf and Thorne (2007) explained that there exists an indirect, as well as a direct relationship between humans and their world. The direct relationship refers to involuntary attention, involuntary reflex actions, and involuntary memory (indicated by the dotted line in Fig. 6). The indirect relationship on the other hand refers to the appropriation or self-regulation of auxiliary means (cultural artifacts such as numbers, charts, figures and above all, language, written or spoken) that allow us to voluntarily organize and control (or mediate) the human mental activity. The organized and internalized mental activity further enables us to carry out the respective practical activity in the real world.
The Vygotskian framework also views regulation as a form of mediation. Lantolf and Thorne (2007) explained that the process of self-regulation takes place in three stages. The first stage is characterized by the use of objects in the learner’s environment in order to think, and is known as object-regulation. In the second stage, the learner relies on implicit and explicit mediation (different levels of assistance, direction, and what is sometimes known as scaffolding) by parents, peers, or experts. This stage is known as other-regulation. The last stage, also called self-regulation, is achieved when learners are able to accomplish tasks with no external help.

Guerrero & Villamil (2000) examined mediating strategies employed by learners of Spanish in peer-revision of narrative writing tasks between dyads (where one student is a reader, and the other, a writer), using Lidz’ (2002) Twelve Component Behaviors of Adult Mediating Instruction. They are as follows:

1. Intentionality: Consciously attempting to influence the child's actions. This involves making efforts to keep the interaction going, engage the child's attention, inhibit impulsive behavior, and maintain goal orientation.

Figure 5. Vygotsky’s Model of the Mediate Nature of Human/World Relationship (Lantolf & Thorne, 2007, p.62)
2. **Meaning**: Promoting understanding by highlighting for the child what is important to notice, marking relevant differences, elaborating detail, and providing related information.

3. **Transcendence**: Helping the child make associations to related past experiences and projects himself or herself into the future.

4. **Joint regard**: Trying to see the activity through the child's eyes; looking at an object that has been brought into focus by the child; using "we" to talk about the experience.

5. **Sharing of experiences**: Telling the child about an experience or thought that the mediator had and of which the child is not aware.

6. **Task regulation**: Manipulating the task to facilitate problem solving; stating a principle of solution or inducing strategic thinking in the child.

7. **Praise/Encouragement**: Communicating to the child, verbally or nonverbally, that he or she has done something good; keeping high the child's self-esteem.

8. **Challenge**: Maintaining the activity within the limits of the child's ZPD. This implies challenging the child to reach beyond his or her current level of functioning, but not so much that the child will feel overwhelmed and get discouraged.

9. **Psychological differentiation**: Keeping in mind that the task is the child's and not the mediator's; that the goal is for the child to have a learning experience, not the adult and avoiding competitiveness with the child.
10. Contingent responsivity: The ability to read the child's behavior and to respond appropriately. It can be compared to a well-coordinated dance between two partners who are very much in tune to one another.

11. Affective involvement: Expressing warmth to the child; giving the child a sense of caring and enjoyment in the task.

12. Change: Communicating to the child that he or she has made some change or improved in some way.

While these strategies were developed by Lidz (2002) to observe and analyze an adult’s mediating behavior when actively interacting with a child in a learning experience, the term ‘child’ can be easily replaced with ‘learner’ or ‘student’ without losing its value or meaning, since this occurs in a learning context, or a learning experience. Guerrero & Villamil (2000) noted its potential use to evaluate ‘mediation’ between a teacher and a learner, as well as between learners. The results of their study indicated that peer mediation occurred in both ways, and was not unidirectional.

Donato (2004) described ‘Mediation’ as a collaborative activity (that would generally occur between learners in most educational contexts), resulting in higher thinking skills. By this Donato refers to strategic orientations to tasks, conceptions of self and community, or generalizations of semiotic systems (such as language, numbers, codes, etc.). Donato and McCormick (1994) also examined students’ perceptions and reflections of their own language development within the boundaries of a fifth-semester French conversation course. They found that the systematic act of documenting, and thinking about performance is a ‘mediator’ that catalyzed the development of students’ learning strategies. It is important to note, however, that the systematic art of
documenting and reflecting is still a product of the learners themselves, and not the instructor or the expert. Based on the usage of the term ‘mediation’ in the above-mentioned studies, mediation is understood as, but not entirely restricted to assistance or help received from peers, or learners themselves.

Bruner, Ross and Wood (1976) defined scaffolding as the interaction between a novice and an expert engaged in a problem-solving task (as cited in Anton & Camilla, 1999). The process of ‘scaffolding’ involves the expert taking control of the portions of the task that are beyond the learner’s current level of competence, thereby allowing the learner to focus on parts of the task that are within his/ her range of ability. In Vygotsky’s (1978) Zone of Proximal Development, the scaffolding process has the potential to have a better outcome for the learner in comparison to unassisted completion of the task, and may even lead to task-competence at a more rapid pace. Wood et al. (1976) categorize the scaffolded help provided by an expert to a novice into six functions:

1. **Recruitment**-enlisting the learner's interest in the task,
2. **Reduction in degrees of freedom**-simplifying the task,
3. **Direction maintenance**-keeping the learner motivated and in pursuit of the goal,
4. **Marking critical features**-highlighting certain relevant features and pointing out discrepancies between what has been produced and the ideal solution,
5. **Frustration control**-reducing stress and frustration during problem solving, and
6. **Demonstration**-modeling an idealized form of the act to be performed by completing the act or by explicating the learner's partial solution (Wood et al., 1976, p. 98).
Willhelm Jeffrey et al. (2001), described ‘scaffolding’ as a process that is initiated and created by the teacher (expert). According to Willhelm et al., it is the teacher (expert) who provides the scaffold to support construction. Scaffolding occurs in the environment the teacher creates. This environment includes the instructional support, and the processes and language afforded to the learner to approach the task and develop abilities to complete it. They further describe scaffolding as a means to build upon previously constructed knowledge, i.e., the new is built upon the known, where ‘scaffolding’ takes the learner to the Zone of Actual Development (ZAD), in that the learner can perform the task with no external assistance. Similarly, Miguel’s study (2002) on learner discourse in a literature-oriented foreign language course concluded that the term ‘scaffolding’ chiefly implies assistance or help initiated and provided by the instructor, although he does acknowledge Donato’s (1994) claim that verbal scaffolding can be provided by peers as well. In the same line of research, another study conducted by Adair-Hauck & Donato (1994) that examines the effects of instructor-help on the student’s linguistic development also uses the word ‘scaffolding’, again confirming its usage in a teacher-student, or an expert-novice context. While it is impossible to attribute ‘scaffolding’ strictly to help provided by an instructor/teacher, for the purpose of this study, and based on the usage and implications of the word ‘scaffolding’ in the SCT context, I shall restrict my usage of ‘scaffolding’ to teacher-assistance.

This external help provided to the learner or novice in the form of mediation or scaffolding takes the learner through the ‘zone of proximal development’, which is “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving
under adult guidance or in collaboration with more capable peers” (Vygotsky, 1978, p.86). Essentially, the ZPD refers to functions in a learner/human that are not completely developed, but are in the process of development. Within the Vygotskian framework, Lantolf and Thorne (2006) explained that the ZPD is the difference between the individual’s already attained developmental level, which is pre-established as an outcome of the already completed developmental cycles and the developmental level that the individual can achieve with the help of assistance and guidance. This external help provided to a novice in learning contexts in the form of ‘mediation, or ‘scaffolding’ leads to ‘self-regulation’. This stage is achieved as a result of internalization. In other words, internalization is a process of transforming knowledge and understanding with external help that is now internally available. Vygotsky (1987) explains internalization as a process that occurs on two planes, first between two or more people (also called interpsychological), and then within the individual himself (also known as intrapsychological). He claims that the essence of internalization lies in the innately human ability to imitate the purposeful activities of other humans, and that development based on joint effort and imitation is the foundation of all uniquely human characteristics of consciousness that grow in the individual.

Sociocultural Theory on Research in SLA

In recent years, Sociocultural Theory has received a significant amount of attention from second-, and foreign language researchers and practitioners alike, thus resulting in a robust body of research within the field of Second Language Acquisition (SLA). The following is a brief overview of the research and the discussion of the unique
insights that this theoretical perspective contributes to our understanding of second language learning.

A valuable string of empirical research consists of studies which examine and analyze the interactional dynamics between the participants of the study to understand how peer assistance in problem-solving language tasks mediates students’ advancement in second language learning. Studies confirm the crucial role of assisted help from experts, or peers (Anton & DiCamilla, 1999; Aljaafreh & Lantolf, 1994; Guerrero & Villamil, 2000; DiCamilla & Anton, 1997; Guerrero & Villamil, 1994, Kinginger & Belz, 2005), or the teacher (Adair-Hauck & Donato, 1994). Guerrero and Villamil (2000) examined the interactional data produced by a dyad during the peer-revision of a writing assignment. During this task, the reader played the role of an ‘expert’ (or the mediator, in the Vygotskian framework) and the writer took on the role of the novice. A microgenetic analysis of the L2 discourse provided by the two ESL learners showed that the reader, or the mediator, as in this case, played a crucial role in providing mediated assistance in advancing his ESL peer through the task, within his ZPD. The mediating strategies included recruiting the writer’s interest in the task at hand, marking crucial aspects in the text, offering explicit instruction in the form of mini-lessons, and modeling, all of which in the ZPD of the peer (or the writer).

Within the research concerning the ZPD and mediated assistance is a hallmark study conducted by Adair-Hauck and Donato (1994) that examined the discourse strategies or the interactional features occurring in the ZPD. Specifically they examined the dynamics of the explicit instruction, or scaffolding of a grammatical concept (present tense conjugation of French verbs) exercised by the expert – in this case, the teacher. A
close analysis of the interactional data revealed four levels of progression within the ZPD, where the novice and the expert co-constructed meaning through participation and interaction. The first level of ZPD, where the novice lacked a communicative context and was relatively clueless, is characterized by explicit teacher instruction, or in other words, other-regulation. The second level highlights the expert’s encouragement for the novice to participate more and take on the challenge of solving the problem at hand. The third level, as Adair-Hauck and Donato explain, is still conducted on the intermental plane, but now moves from the other-regulation to self-regulation, along the ZPD continuum. This is a result of the novice assuming more responsibility for the given task. It is in the fourth level of the ZPD that the novice or the foreign language learner gained self-regulation, as the primary focus now shifted to the assigned language learning activity as opposed to the initial struggle to gain situational authority.

Role of L1 in Socioculturally Mediated Tasks

While interaction, collaboration, and assistance form the nexus of the SCT, the language employed in the communication between the interlocutors plays a crucial role as well. A research study conducted by Anton & DiCamilla (1999) studied the use of L1 in the collaborative interaction of adult learners of Spanish who were native speakers of English. Here, L1 was found to be a crucial and effective psychological semiotic tool that mediated human mental activity on the interpsychological and intrapsychological plane, and instrumental in helping the learners of Spanish understand and define the various tasks in the writing activity assigned to them. The L1 assisted in establishing intersubjectivity, and provided each other with scaffolded help. In sum, this study supports the use of L1 in externalizing learners’ inner speech as a means to regulate their
own metal functions. Guerrero and Villamil (2000) corroborate the crucial role of use of L1 in collaborative tasks, during which they found that the consistent use of L1 (in this case, Spanish) facilitated making explicit connections with the L2 (English in this case) to achieve the goals of the task. This study also highlights the element of intersubjectivity that entails the shared focus, task goals and assumption of individual tasks.

In the same line of inquiry, Guerrero and Villamil (1994) examine the types of social interactions and the role these interactions played in forty ESL learner dyads set up for peer revision writing tasks. What was gleaned from a step-by-step analysis of the social dynamics of the dyads was that learners displayed movement between object-regulation, other-regulation, and self-regulation, constantly adjusting to the changing demand of the task. It was found that the participants displayed a higher level of self-regulation than other-regulation, but the researchers attribute that to the following factors – frequent use of L1, exposure to formal and content schemata, and revision procedures prior to the revision sessions.

While in the process of examining the benefits of employing L1 in learner interaction (mostly scaffolding mechanisms in the above cases), it is also important to understand the use of L1 in light of feedback, specifically negative feedback. One important study that must not be missed in this regard is that by Aljaafreh and Lantolf (1994) that examines the interactional data from a previous study to investigate the effects of negative feedback (also viewed as other-regulation in the SCT framework) on L2 development in adult ESL (English as Second Language) learners. It was found that in the corrective feedback discourse, as implicit forms of feedback outnumbered the explicit
forms of feedback, the ESL learners moved from other-regulation to self-regulation, thus gaining control over their linguistic abilities in the L2.

Within the same line of research are also studies that attempt to grasp the discourse of learners engaged in communicative tasks. One interesting result emerging from these studies is that discourse features such as meta-talk, whispering, metacognition, whispering, private speech (sometimes comprising of utterances), often regarded as negative in the SLA field, are in fact instrumental and crucial in achieving self-regulation, because they lead learners to progress in second/ foreign language learning (Appel & Lantolf, 1994; Brooks & Donato, 1994; Brooks, McGlone & Donato, 1997). Appel and Lantolf argue that the private speech has its origins in the ontogenetic development of the learner and serve as mediating psychological semiotic tools, not only in the mediation of recall tasks, but also in the construction of language in one’s mind – a key step to language acquisition.

**Sociocultural Theory in Intercultural Learning**

Although there exists scanty research on ‘intercultural development’ within the Vygotskian framework, it is crucial to provide a brief overview of the same, given that culture and language go hand in hand. A research study conducted by Kingston and Belz (2005) explored and demonstrated the complimentarity of intercultural pragmatics, technology, and SCT approaches to developmental research in FL settings. Within the domain of intercultural pragmatics, this paper focuses on the address forms, i.e., *du/ Sie* (informal/ formal address forms in German) and *tu/ vous* (informal and formal address forms in French), as adopted and learned by the participants in telecollaborative peer interaction, and in residence abroad settings. A microgenetic analysis approach of the
findings illustrate that the development of intercultural communicative competence (in this case, the address forms) reflects the nature of the learners’ unique experiences, linguistic and social. Kinginger and Belz’ (2005) study confirms Vygotsky’s fundamental principle that learning and development (linguistic or intercultural) is mediated through social interactions with different cultures and sub-cultures. However, what is gleaned from this study is that access to socially meaningful and purposeful L2 activity may or may not result in active engagement and socio-cognitive development. Furthermore, Kinginger and Belz acknowledged that each individual’s linguistic output is unique, because each individual has unique learning and cultural experiences.

Another study that views participant interaction within the SCT framework from a completely different angle is that conducted by Thorne (2003). What differentiates this study from the rest is that while this study examines the development of intercultural pragmatics in three different cases, the semiotic tool was the Internet-mediated Communication (IMC). In one of these case studies, Thorne found that there was a shift in the learner’s motives, from unwillingness to participate in the IMC activity to her desire to be intensively engaged in the activity. Thorne concludes that this shift occurred as a result of the following factors – a) switching to more familiar artifact of Instant Messaging (IM), and b) the assignment of a new French partner. What transpired from these changes was a high amount of participation and interaction that also furthered her understanding of the French culture.

As the above-mentioned research in FL learning and culture learning guided by the SCT indicates, external help in the form of ‘mediation’ or ‘scaffolding’ has a positive impact on learner(s)’ cognitive skills, thus furthering their linguistic or intercultural
Particularly relevant to the proposed study is the research in ‘intercultural learning’ within the SCT framework. What gleans from the above discussions is that there is not only very scanty research that examines development of learners’ knowledge and understanding of the target culture from an SCT perspective, but those that exist (Kinginger & Belz, 2005; Thorne, 2003) have primarily looked at learners’ development of ‘intercultural pragmatics’ or practices (Byrnes, 2008).

This suggests that little research appears to have been conducted that aims to examine students’ knowledge and overall understanding of the target culture from the SCT perspective that encompasses the products, perspectives, and practices, as should be goal of teaching culture in the realm of FL instruction (ACTFL, 1996). To fill this gap, the proposed study is guided by the construct of ‘mediation’ and examines how learners of German in a Distance German II course mediate each others’ knowledge and understanding of the German culture via synchronous and asynchronous CMC tools.

Since this study was administered to distant learners in an online German II course, it is important to describe what Computer Assisted Language Learning (CALL) is, what research in CALL, and specifically in the domain of Computer-mediated Communication (CMC) tells us, and to explain its relevance in guiding this study.

Technology in the 21st Century Foreign Language Classroom

Introduction

As we step into the 21st century, a time in which technological advancements are growing by leaps and bounds, it is no wonder that emergent technologies are ingrained into our daily lives. With real life scenarios such business colleagues from London,
Taiwan, and Bangalore web-conferencing from their laptops to discuss a business issue; a young Vietnamese student texting and sharing pictures of Paris with her family in Hanoi in real time over her cell phone to communicate her first experiences and glimpses of the French culture; and a young German family now settled in Cape Town sharing videos of their little son’s first steps through a popular video database website called http://www.youtube.com with their family members in Dresden, it is hard to imagine an area in our lives that is untouched by technology. In a ‘wired’ world where the need of the hour demands that ‘netizens’ communicate and connect with other netizens across continents and oceans, the need to employ appropriate and relevant technologies that will further FL learners’ interest and understanding of the target culture is now more urgent than ever.

Technologies in FL Teaching and Learning

As previously discussed, CALL (Computer Assisted Language Learning), an umbrella term for all technologies that are associated with the computer, is becoming increasingly commonplace in most FL learning venues across the USA. Implementation of certain current technologies in a traditional classroom setting in a creative fashion has the potential to not only aid and supplement FL instruction, but also motivate students. Based on significant works in the field of CALL (Fotos and Browne, 2004; Warschauer, 2004; Szendeffy, 2008) the following is a list and explanation of technological tools that are being used in FL instruction, face-to-face and distance.

World Wide Web (WWW) – The WWW can be accessed through the Internet, which is a library, publishing house, interactive television, telephone, all rolled into one (Warschauer, 1998). The World Wide Web can be used effectively for a myriad of ways
to teach foreign languages. Through the WWW, L2 learners can access a plethora of websites that disseminate information about the target country and its culture; read authentic and updated materials such as newspapers and magazines; walk through significant cities and monuments by means of virtual tours; view videos to observe tangible products and non linguistic cues; listen to radio shows, music and current news in the target culture; practice grammar and enhance vocabulary with the help of already existing language websites that are designed to let students type in their responses and provide instant feedback, among many other functions. To sum up the value of the WWW – while it is not possible for the entire class to visit the famous Neuschwanstein castle in South Germany, it is possible to take a virtual tour on the web.

It is important to mention here that with the help of websites commonly known as Quia, or HotPotatoes (most of them are cost free), among many others, FL instructors can create and develop their own web pages, activities, tests, quizzes, and surveys designed to fit their curricular goals, and meet the FL needs of their students. Activities and games range from matching games to filling the gaps, and allow for instant feedback, thus allowing students to engage in specific aspects of language learning, vocabulary building, grammar and culture learning, etc. and learn the language in an enjoyable manner.

a) Internet – The Internet, also a networking infrastructure, allows millions of computers across the globe to connect with each other. It is a crucial vehicle for CMC, thus enabling students to communicate with each other across continents.

Synchronous CMC (same place, same time and any place, same time) – Characterized by its ability to let FL learners ‘talk’ in real time with their peers and / or native speakers of the L2, synchronous CMC (applications such as Yahoo
Messenger, MSN chat, Google Talk, AOL, and Skype) is a brilliant tool providing students with ample opportunities to interact (authentic input), negotiate meaning and enhance their reading and writing skills. Audio and video capabilities have the potential to take this authentic interaction to a higher level, where L2 learners can listen (intonation, pronunciation, and other linguistic cues) to their peers, mentors, or native speakers, receive instant response to the L2 produced, and even watch native speakers as they ‘chat’, making this ‘conversation’ as real as possible.

b) Asynchronous CMC (same place, any time and any place, any time) – Common examples of asynchronous CMC include Email (Yahoo email, Gmail, Hotmail, and even email servers established and executed by universities and colleges), list serves, and discussion boards. This kind of ‘delayed interaction’ should not be undermined, as it lends the interlocutors the luxury of time to think their thoughts and responses through, such that they are cohesive and meaningful. In addition, asynchronous CMC lets L2 learners produce linguistically rich (complex structures, variety of morphosyntactic features, higher levels of vocabulary, proverbs and idioms) L2.

c) Other Internet Technologies – These comprise of wikis (websites that allow users/visitors to edit the content), blogs (websites where entries are made in journal style and displayed in a reverse chronological order, and often include views, discussions, or comments on specific topics such as food, politics, and current events), podcasts (both audio and video), and MOOs (Mult-user Object Oriented
Domains) offering FL learners extended prospects to read, write, speak, and listen in the L2 and raise their awareness of the target culture.

d) Commercial software – This CALL component comprises of CD-Roms (textbook peripherals or commercially sold software such as Rosetta Stone) which contain digitized sound files, graphics, and videos, all with a highly sophisticated interface. However, they are usually expensive and leave very little room for modifications to fit the specific curriculum goals and needs of the learner audience.

e) Presentation Software – Presentation software such as Power Point can be effectively used and integrated into FL teaching, so as to prepare lessons, while making them interactive, by adding content, graphics, audio and video clips. Each slide can be viewed and discussed in class, or can be viewed individually at the learners’ own pace and convenience.

Analysis of Significant and Related CALL Research

Along with the four distinct domains within the area of FL learning – listening, speaking, reading and writing, is also the crucial aspect of culture learning. While some research studies focus on the advantages of use of CALL on one aspect, others examine the benefits of CALL in more domains.

CMC in FL instruction and learning.

Commonly referred to as CMC and as explained above, the usage of form of communication that entails emails, e-forums, discussion boards, several chat softwares, and even blogs and wikis is only increasing rapidly. In a mixed study that examined the written and oral L2 (French) discourse produced by learners of French by using Daedalus
InterChange (a local area network computer application that provides students with multiple opportunities to engage in collaborative, written, synchronous discussion in a specific content area), Kern (1995) found the synchronous online tool to generate higher levels of dynamic content, and more discourse functions along with a range of morphosyntactic features as opposed to traditional face-to-face classroom dynamics. Additionally, students were found to brainstorm and interact with each other significantly more, providing even the usually reticent learners ample opportunities to actively participate in the synchronous conversations, while allowing students to reflect and analyze their discourse patterns.

Other empirical studies (Beauvois, 1992; Chun, 1994; Kelm, 1992; Sotillo, 2000; Warschauer, 1996a) corroborated these findings and also demonstrate that learner interactions in the Computer Mediated Communication (CMC) mode produced significantly more L2 that is also lexically and syntactically more complex (in contrast to L2 generated in a face-to-face classroom setting), a cardinal goal of FL instruction. Other studies that employed the use of online chatrooms for L2 learners to interact with native speakers found this mode of CMC to be valuable, in that it created opportunities for L2 learners to read and respond to authentic L2 discourse, enhanced their cultural (pragmatic) knowledge, improved their L2 writing skills, promoted collaborative learning among the L2 learners, and more importantly, motivated students to learn the target language and learn about its culture (Lee, 1998; Thorne, 2003).

Asynchronous vs. Synchronous learning.

While the general benefits of CMC in language learning have been established, it is important at this juncture to discuss the impact of asynchronous vs. synchronous
learning in the FL classroom. In a study conducted by Luisa Perez (2003) that aimed at finding whether emails or chats furthered her Spanish students’ vocabulary production, and which of the two CMC modes was preferred by those learners, she found that there was no significant difference between the vocabulary production caused by either of the CMC tools, and there was equal preference for both the email and the chat. However, it is interesting to note that student responses indicated that in the asynchronous CMC tool (emails, in this case), they had more time to think about their responses, elaborated on them as needed, and felt relaxed, owing to the flexibility of pace afforded. Perez found that the synchronous CMC tool (chats), on the other hand, catalyzed students’ increase in vocabulary and knowledge of verbs and their conjugations. But more importantly, the participants reported and commented on the ‘thrill’ of the instant feedback they received from their peers, in addition to the instant language input, while the instructor could simultaneously resolve any grammar or pronunciation difficulties they had. Moreover, the students seemed to particularly enjoy the fact that because they were communicating in real time with their peers and because the chats made the interactions almost ‘real’, they could occasionally digress from the topic, and chat about personal interests too.

Another hallmark study conducted by Sotillo (2000) examined discourse functions and syntactic complexity in English-as-a-second-language (ESL) learner output obtained via two different modes of computer-mediated communication (CMC): asynchronous and synchronous discussions. Two instructors and twenty-five students from two advanced ESL writing classes participated in this study. Results from this study demonstrate that there were indeed differences in the data generated from the asynchronous and synchronous CMC tools. The synchronous discussions were found to
be highly interactive, and were primarily controlled by the students. In fact, the findings demonstrate evidence for negotiation of meaning among participants when topics that were discussed were of interest to them. These thick and rich interactions arising from the questions posed and the responses provided are highly crucial as seen from a SLA (second language acquisition) perspective (Long, 1981; Pica, 1994). Also, the learner-control exhibited in these synchronous interactions serve as a step away from the traditional teacher-centered pedagogy to a pluralistic and innovative pedagogy that encourages collaboration and ‘learner-communities’, both especially pivotal to distance learning environments. What is more relevant for the proposed study is Sotillo’s claim that synchronous discussions exemplify ideal learning environments as they stimulate intense social interaction and meaning construction and negotiation, both of which are pivotal to human learning and higher order cognitive functions (Vygotsky, 1978).

Conversely, in the asynchronous (threaded) discussions, the students systematically responded to questions, both by teachers and their peers, but there was a lack of dynamic interactions among students.

Linguistic output aside, results emanating from yet another study that compared student output in asynchronous vs. synchronous CMC (Hrastinski, 2008) demonstrate that synchronous CMC stimulated ‘psychological arousal’, and motivated students as well. The interviews gathered from this study revealed that students found synchronous discussions to be closer to ‘real life social interactions’ and a more relaxed setting, as compared to asynchronous discussions, and hence found it acceptable to exchange personal information such as identity, feelings, experiences, and even off-task topics. Based on this literature review that compared asynchronous vs. synchronous CMC in FL
learning contexts, we can deduce that there are limitations and benefits to both modes of interactions. Also based on Sotillo’s (2000), Perez’ (2003), and Hrastinski’s (2008) findings, it appears that synchronous CMC is a generally preferred mode of communication among learners due to its close resemblance to ‘real talk’, while from a researcher’s point of view, synchronous discussions are more likely to yield dynamic interaction among participants, thus resulting in rich and thick data.

**CALL tools in ‘culture’ enhancement**

Studies investigating the use of CMC in enhancing learners’ understanding of the target culture (Belz, 2003; Levy, 2007; Mueller-Hartmann, 2000; Urdal et al, 1996; Valenzuela et al., 1996) and projects that examined the use of Internet for the same purpose (Dubreil et al, 2004; Liaw, 2006; Osuna & Meskill, 1998; Furstenburg et al, 2001) also confirmed that interaction with peers (learners or native speakers), access to prescribed Websites and other Internet tools furthered learners’ understanding of the target culture. Results and discussions from above-mentioned studies indicated that the FL learning opportunities provided by CALL (exposure to authentic texts such as newspapers, literary texts, magazines, authentic video/audio materials, images, etc.) were found to be unmatched by any other traditional tool. The above-mentioned studies also describe this as a unique, close-to-life way to experience the target culture that would otherwise be impossible to achieve.

While we consider the limitless possibilities and the vast potential that CALL affords in the acquisition of four skills, along with the culture factor in FL teaching, it is also highly instrumental in achieving the five Standards for FL teaching developed by the ACTFL (1996), namely, Communication, Cultures, Connections, Comparisons, and
Communities (Gonglewski, 1999; Walz, 1998). Gonglewski and Walz explored and discussed how the WWW and the Internet allow FL learners to engage in meaningful web-based activities (web links, audio/video clips, authentic and updated realia, virtual tours, etc.) that expose learners to the target culture, to enable them to communicate (via web based chat tools, emails, etc.) with native speakers, mentors and peers, to connect with other disciplines using the Internet and WWW, and to compare cultures (products, perspectives, and practices), while participating in communities. One more aspect of CALL that deserves particular attention is that of FL textbooks publishers such as Mc.Graw Hill (http://catalogs.mhhe.com/mhhe/viewNode.do?node_type=c&catid=153) and Prentice Hall (http://www.pearsonhighered.com/) that are making the extra effort to invest in and develop companion websites and auxiliary CALL materials, owing to the high demand for instructional aides that FL students can access outside the classroom.

For instance, in the case of German, Kontakte (Terrell et al, 2005) is accompanied by an online learning center, while Treffpunkt Deutsch (Widmaier, R et al, 2007) offers a companion website to the learners. Specifically what this does for FL students in terms of ‘culture learning’ is that these CALL components (Websites, CD-Roms in some cases) are designed to provide 1) web links and projects to enhance students’ understanding of the target culture, 2) additional links for communicating with native speakers of the target language, 3) authentic video and audio clips showcasing L2 discourse in context, thus also touching upon the products, perspectives and practices in the target culture - all developed with a communicative approach to prepare FL learners to successfully interact with native speakers in the real world.
Also worth mentioning here is a different approach to teaching culture for advanced learners of German called ‘Stationen: Ein Kursbuch fuer die Mittelstufe’ (Augustyn and Euba, 2008). This textbook has been designed in such a way that each chapter takes the students on a virtual journey through one of the significant cities in the German-speaking countries such as Berlin, Munich, Salzburg, and Vienna. The authors contend that such a thematic presentation of authentic cultural texts, information and dialogues allows for a smoother transition from the elementary to advanced levels, thus laying an equal emphasis on teaching about the German culture as the language skills (reading, writing, listening and speaking) themselves. Furthermore, the textbook has a companion instructors’ and students’ website for instant access to examples, activities, contemporary articles and texts from more recent newspaper and magazine editions, allowing students to navigate, explore and research to suit their individual needs and interests.

To draw upon the above-discussed research findings in the field of CALL, combined with research results discussed by Brutt-Griffler, J (2007) in The Sage Handbook of E-Learning Research, the benefits of CALL in FL teaching and learning can be summarized as follows:

- Exposure to authentic target language
- Access to wider open sources of information and varieties of language
- Opportunities to communicate with the outside world and native speakers
- A learner-centered task based approach
- Development of learner autonomy
- Learning in different locations and institutions
• Choice of pace
• Appeal to all multiple intelligences and learning styles

In today’s digital world, where researchers, educators, and even FL textbook publishers recognize the benefits, potential and the urgency to integrate CALL in FL teaching, it is only in the interest of our profession that we do not lag behind and take aggressive steps to meet the current demands and needs of the FL teaching profession.

Challenges in FL Instruction with Technology.

In a digital era, in which ‘web-based’ learning, also used interchangeably with ‘e-learning’, ‘online learning’, ‘blended learning’ and Computer Assisted Language Learning (CALL) have become commonplace in FL departments all across the nation, I find it to be of paramount importance to first identify what ‘web-based’ learning means. The web, or World Wide Web (WWW), is essentially a platform on the Internet for storing and disseminating pertinent information, as and when necessary (Warschauer, 1998), and hence is a huge subset of CALL.

Much of the CALL research conducted in the last decade has focused on the effects of using technology and FL learners’ interaction with certain technologies to support language development (Chapelle, 2004; Egbert & Hanson-Smith, 1999; Lee, 1997; Warschauer, 1996, among others). Already towards the turn of the century, Chapelle (1998) argued that the field had progressed in such a manner that SLA and FL specialists along with Instructional Designers ought to be concerned with whether technology should be used, or whether it is effective, but how it should be used for optimum outcomes. Research (Egbert & Hanson-Smith, 1999; Egbert, Paulus &
Namakachi, 2002, Warschauer & Healy, 1998) also demonstrates that if CALL is appropriately integrated into the curriculum, then the language learning experience can

- Support experiential learning
- Provide FL learners practice in a variety of modes
- Provide effective feedback to FL learners
- Enable pair and group work (collaborative learning)
- Promote exploratory and global learning
- Enhance learner achievement
- Provide access to authentic materials and multiple sources of information
- Facilitate greater interaction
- Individualize instruction
- Motivate FL learners

Pusack & Otto (1997) not only acknowledged the above-mentioned factors in the development of CALL (web based) activities, but also confirmed that the Standards for Foreign Language Learning (Standards, 1996) – the 5 Cs encompass them as well. Furthermore, they postulate three attributes of multiple forms of media and technology integration, namely, the combination of multiple media, control and interactivity. Usage of the web (text, motion, sound, graphics, video, images, etc. via the computer) compliments their philosophy of language learning through its vast potential to enhance students’ language learning experience. While interacting with multiple forms of media such as interactive programs, websites, and authentic materials students show an increased motivation to engage in more complex issues than mere drill and kill. Brandl (2002) however cautioned us that the mere usage of authentic material (which is found
plentiful on the web) in the curriculum can cause great frustration and little benefit if it is not contextualised and task-based. Tasks need to be supported in accordance with students’ proficiency levels, so that students can build on the experiences and knowledge that they already possess.

Although web-based (CALL based) activities are meant to afford learners more control over the pace and place, in terms of carrying out the task, Pusack and Otto (1997) reminded us that if the student chooses not to use appropriate strategies for carrying out the CALL based tasks, the development of the task is futile. It is hence crucial that the FL instructor clearly specifies the defined tasks while interacting with materials.

Chapelle (2001) further pointed out other factors that need to be considered when integrating technology into FL classrooms include the evaluation of tasks, curriculum, and CALL activities. She recommended that the following should be considered when developing tasks (or curricular activities):

**Learner potential** – Do task conditions present enough opportunity for beneficial focus over form?

**Learner fit** – Is the difficulty level of the targeted linguistic forms appropriate?

**Meaning focus** – Is learners’ attention directed mainly toward the meaning of L2?

**Authenticity** – Will FL learners be able to draw the connection between the CALL task and real world tasks?

**Impact** – Will learners learn more about the target language and about strategies for language learning via the use of the task?

**Practicality** – Are there sufficient sources for the task to proceed?
Interaction plays a pivotal role in CALL based FL learning. Because the web offers a range of venues, where FL learners can interact with authentic materials and native speakers, it is imperative that FL instructors contextualize the tasks, so that FL learners interact with the web based materials or the interlocutors with a purpose and in a context. Without a purpose and context, the activity of interaction will as such hold no meaning or value. In his book ‘Guide to e-learning’, Michael Allen (2003) described the anatomy of good interactions as constituting the following: Context (providing the framework and conditions which make the interaction meaningful); Challenge (being the stimulus to exhibit effective behavior); Activity (being the physical gesture in the learners’ response to the context and challenge); and Feedback (acknowledges learner activity and provides information about the effectiveness of learners’ decisions).

A dynamic tool that addresses all of four pillars (context, challenge, activity, and feedback) within the framework of CALL as described by Allen (2003) is the webquest, whose potentially remains largely underexplored in the realm of culture teaching and learning in the FL classroom.

*The MissingLink – Webquests*

In order to address relevant challenges in CALL (Chapelle, 2001) such as learner impact, individualized pace for learner potential, learner-fit, practicality, authenticity, and meaning and also in support of Warschauer and Healy’s (1998) and Paulus & Namakachi’s (2002) recommendations for FL instructional practices that aim to integrate technology effectively into FL teaching, I believe that the ‘webquest’ has the potential to support and address most criteria laid down by researchers and practitioners for optimal FL instruction.
Webquests are ‘inquiry-driven web lessons’ that make effective use of the Internet (Dodge, B, 1995). In other words, it is a contextually placed lesson in which most or all of the information for that given context (theme, or unit) that students explore and evaluate comes from the World Wide Web. Additionally webquests can be short-term (that can range from a day’s lesson to a week) or long-term (ranging from a week to a month). Most usually (though not always) webquests involve group work, with division of labor among students who take on specific roles or perspectives. More importantly, this CALL tool addresses Brandl’s (2002) cautionary note to not bombard our FL learners with a plethora of authentic material, with no context. This is because when creating a webquest, websites are preselected by the FL instructor with careful attention to their relevance to the topic, their appropriateness to the target audience, their linguistic level to fit the learners’ level and then sequentially organized, depending upon the task and process that ensues browsing and navigating the chosen websites.

Almost all webquests have a rubric for evaluation, letting the students know what the instructor expects to be done in the task, and how many points have been allotted to each sub-task that is completed. Finally, the ‘conclusion’ reminds the students of what they have learned and asks them to reflect upon the goals outlined for the webquest. It is important to note here, that though webquests were not originally created specifically for FL instruction and learning, I believe that webquests are very befitting in FL instruction. This is chiefly because they have the ability to take the FL learner sequentially through preselected websites relevant to the prescribed topic (such as food, educational system, festivals, travel, family), thus providing students with an opportunity to ‘semi-immers[e]’ themselves in the target culture.
Simultaneously, the students have the access to purposefully chosen, context-relevant websites that are means to further the learners’ linguistic output, raise their knowledge about the target culture, pique their interest in the target culture, and afford opportunities to collaborate with peers and native speakers alike. Hence, one may say that a well designed webquest has the potential to meet all National FL learning standards as proposed by the ACTFL (2006), i.e., Communities, Comparisons, Connections, Communication, and Cultures. As a FL instructor, and researcher, I believe that ‘webquests’ have an immense potential to teach our FL learners the target language and the target culture, and yet this potential unfortunately remains unexplored. In the proposed study, I plan to create contextualized and well designed webquests and illustrate their impact on developing students’ knowledge and understanding of the German culture.

However, as mentioned above, although there exist webquests on the Internet that have been created and used for teaching specific topics in foreign languages such as French, German, and Spanish, no research has been documented that examines the impact of webquests in FL learning, let alone to teach culture. The proposed study aims to fill this gap, in that it will investigate the role of CMC-embedded webquests in developing online students’ knowledge and understanding of German culture. Additionally, the interactional feature of the CMC components of the webquests will attempt to understand how online students of German II mediate each others’ knowledge and understanding of German culture within the asynchronous and synchronous embedded CMC tasks within the webquest. In the following chapter, I will explain the research paradigm I employ for the proposed study, and lay out a detailed roadmap for
selection of the participants, data collection procedures, timeline and the analysis, in order to answer the research questions guiding this study.
CHAPTER THREE: RESEARCH METHODS

Research Questions

This chapter of the dissertation discusses each research question that guided this research study, explains how participants were chosen, which instruments were employed, and how the data were gathered and then analyzed. Following are the research questions that shaped this study:

1) What role do the CMC-embedded webquests play in developing students’ knowledge and understanding of German culture?

2) From a Sociocultural Theory point of view, what mediating strategies are used by online students in their computer-mediated discussions of German culture?

2a) What mediating strategies are used by online students of German II in their synchronous computer-mediated discussions of German culture?

2b) What mediating strategies are used by online students of German II in their asynchronous computer-mediated discussions of German culture?

The first research question aims to investigate the role of ‘CMC-embedded’ webquests in developing students’ knowledge and understanding of German culture in an online German II course and entails an in-depth understanding of students’ perspectives and experiences of using the CMC-embedded webquests, and learning goals with reference to teaching and learning about German culture. Analyzing the data gathered from data sources, namely, interviews, student essays and field journals to answer the first research question appropriately necessitated a qualitative analysis approach.
The second research question seeks to understand and explain what mediating strategies (Lidz, 2002) are used by online students of German II in their synchronous and asynchronous discussions of German culture. This required a thorough analysis of the mediating strategies used with reference to pre-determined strategies (Lidz, 2002) and called for a qualitative analysis approach as well. Lidz (2002) viewed the Mediated Learning Experience (MLE) as the processes that form the ‘Zone of Proximal Development’ (Vygotsky, 1978). The MLE comprised of strategies that when employed by the interlocuters in a ‘learning situation’ were found to promote self-regulation, active learning, strategic problem solving and representational thinking in the child. It is important to note here that although the twelve meditational strategies were originally conceived with the interaction between a child and a more experienced collaborator such as a parent or instructor in mind, Lidz’ (2002) meditational strategies were considered valid for this dissertation study, because each student or interlocutor participating in the online discussions (synchronous and asynchronous) was more or less experienced and knowledgeable about different aspects of German culture than his/ her peers participating in the same synchronous and asynchronous online discussions. Specifically, since ‘culture’ was central to this study and is fluid in nature, it was crucial to take into account the possibility that while one student may have visited or lived in Germany or a German-speaking country, another student in the same group may have had more information about the topics that related to some guiding questions for both synchronous and asynchronous online discussions, thus making each student ‘more experienced’ in his or her own regard. Moreover, Lidz’ (2002) mediational strategies were also employed in qualitative study that examined how the meditational strategies activated the zone of
proximal development (ZPD) in L2 peer revision (Guerrero and Villamil, 2000). This approach is further substantiated in Lantolf and Thorne’s (2006) statement that “the only appropriate way of understanding and explaining higher, culturally organized, forms of human mental functioning, [is] by studying the process and not the outcome of development” (p. 28).

In the following sections of this chapter, I will discuss the research paradigm that this study followed, and describe the setting and selection of participants, the instruments, and the data collection procedures. Finally, I will explain the qualitative analysis method that was used for each research question.

Research Design

This study aimed to examine the role of ‘CMC-embedded webquests’ in the development of online students’ knowledge and understanding of German culture, and to investigate what mediating strategies (Lidz, 2002) were used by these students in their online (synchronous and asynchronous) discussions of German culture, bounded by parameters of time and place of the ‘Distance German II course’. This entailed the use of Blackboard activities within the CMC-embedded webquests which further involved student interactions in asynchronous and synchronous CMC modes in the stipulated timeframe (which will be discussed in the following subsections). All of these factors set the stage for a case study, as has been described by Cresswell (1998). For the purpose of this study, Merriam’s (1988) stance of viewing the case study as a methodology has been adopted.
Merriam (1988) also further classifies case studies as being ‘multi-site’ or ‘within-site’, whereby she describes ‘within-site’ case studies as those that examine one program, as opposed to ‘multi-site’ case studies that scan several programs. Because this study mainly examined how CMC-embedded webquests impacted the development of students’ knowledge and understanding of German culture, and investigated how these students mediated each others’ knowledge and understanding of German culture within the webquest via CMC tools, all as a part of one Distance German II course, it qualifies as a ‘within-site’ case study (Merriam, 1988). The study employed multiple sources of information, namely transcriptions of online interviews, students’ essays, field notes journal, and records of student interactions via asynchronous and synchronous CMC tools.

According to Yin (2003, p. 40) most case studies can be classified into four basic categories, i.e., holistic single-case designs; holistic multiple-case designs; embedded single-case designs; and embedded multiple-case designs. He asserts that an embedded multiple case study comprises of two or more cases carefully selected so that they either predict similar results or contrasting results (usually for predictable reasons), and entails more than one data source and embedded units of analyses. Since the research design of this dissertation study comprised of two purposefully chosen groups, where each group represented one case, and contained more than one data source (essay scores, interview questions, transcripts of synchronous and asynchronous online discussions), it fits Yin’s (2003) description of an ‘embedded multiple case study’.

The study can be classified as ‘exploratory’, since it aimed to explain the role of ‘CMC-embedded webquests’ (an under-researched CALL tool) in the context of FL
students’ knowledge and understanding of the target culture. Also, it can be categorized as ‘heuristic’, since it explained reasons for the problem (Merriam, 1998) i.e., inadequacy of research in teaching culture in FL instruction; under-tapped potential of webquests; mediating strategies to learn about German culture via CMC tools in a distance German II course; and the success or failure of the CMC embedded webquests, and an evaluation, summary and discussion of their potential applicability in the future.

Description of the Course and Students

For this dissertation study participants came from a pool of undergraduate students at a Research University in the southeastern part of the U.S.A. Participants were enrolled in an online German for Beginners II course (it is very rare that graduate students take a foreign language course at that university). These students had already acquired some basic skills in German from having taken and passed Online German I, due to which they also had some basic knowledge of using the Internet, and were familiar with BlackBoard (course-management software implemented university-wide). This course management software allows all students to access their course materials, course syllabi, tests, quizzes, assignments, course calendar, and also to interact with their peers and instructors in an asynchronous as well as synchronous fashion. Blackboard is especially crucial for the efficient and systematic delivery of course materials in online or distance courses, as was the case for this Online German II course. This research university also has a team of staff members who are dedicated to the upkeep of Blackboard usage at the university and are also responsible for problem solving and training of faculty for Blackboard.
The age of the Distance German II students ranged from 18 to 37. Given that this was a course that was administered and executed completely online, there existed a great possibility that students enrolled in this course had day jobs, or other physical constraints that did not allow them to come to the campus. Owing to the distance nature of this course, the instructor-researcher had only limited access to the students’ appearance (photo-roster was available and accessible to online instructors on Blackboard).

The objectives of this Online German II course were to advance students’ German language skills in the areas of listening, speaking, reading and writing and provide them with an overview of German culture, as it related to the topics covered in the curriculum. For all virtual classes and related materials disseminated online, a content-based approach was employed, where the content related to culture was integrated with language teaching aims, i.e. “academic subject matter is taught along with second language skills” (Brinton et al., 1989, p. 2). Due to the online nature of this German II course, ways and means were sought to provide students more opportunities and access to contextually relevant online materials (audio-, or video-clips and websites) to make up for authentic realia that is generally shown to FL students in a face-to-face setting, so that they could gain a deeper understanding of German culture. For instance, in the course of the two weeks during which the chapter ‘Auf Reisen’ (Travel) was covered, students were provided with websites such as: http://www.justgermany.org/; http://www.germany-tourism.de/ that provide an overview of traveling in and around Germany in addition to specific websites about cities in Germany such as Munich (http://www.muenchen.de/home/60093/Homepage.html), Berlin (http://www.visitberlin.de/index.en.php), Stuttgart (http://www.stuttgarter-tourist.de/index_ENG.htm), Vienna (http://www.wien.info/en), Zurich
(http://www.zuerich.com/en/Visitor.html) among others. Students were asked to browse, research, create their own itinerary based on their individual interests (literature, pop-culture, nature, biking, hiking, theater, music, etc), and then describe what they would do if they were to visit the city that best matches their interest. Additionally, as should be the course goal with any foreign language course, this German II course also aimed to pique students’ interest in German culture.

The concerned Online German II course was taught in the Spring’10 semester. The textbook used was called Neue Horizonte, Seventh Edition (2009). Students enrolled in this course needed to buy a book key from ‘Quia’ that allowed access to online materials (the workbook and the audio-exercises that formed the lab portion) for all chapters covered in the curriculum. This being an online language course, regular access to the Quia site was crucial for students as it allowed them to practice their grammar, vocabulary, listening and comprehension skills and complete these activities as part of their final grades. The syllabus of this course was designed to cover a range of topics that included Travel, Life in the city, Our Environment, Germany in the 20th century, Germany after the Wall, Memories, Switzerland and Austria. For each chapter covered in the syllabus, homework assignments, lab assignments, and extra online materials (relevant information about cultural topics or grammar topics) were disseminated on the Blackboard (BB) site, and most generally, students were expected to complete all of the above assignments for each chapter in a period of two weeks. At the end of the two-week period, a chapter test based on topics covered in that chapter was administered to the students in a stipulated time of two days. In addition to the chapter tests, homework assignments and the lab, students were also expected to write an essay, attend office
hours or virtual classes on ‘Elluminate Live!’ (a software for real time voice-enabled, text-enabled chat, and a smart-screen for instructional purposes) accessed through BB, and take a brief oral exam, all of which were also calculated towards their final grade.

**Population Size and Characteristics**

A total of 23 students registered for the Online German II course in Spring’10. However, two students dropped the course owing to personal reasons, bringing the final number to 21 students. Except for their appearance which was accessible through the photo roster on BlackBoard, their age, marital status, etc. was non-identifiable with the information available on BlackBoard. Given that most students in the Online German II had the same instructor as in the Online German I course, they were familiar with the instructor as well as her instructional style. Although the CMC-embedded webquests were administered to all 21 students (divided into five groups), only two groups were selected for the purpose of this study. More about creation of the five groups and the selection of the two groups will be explained in subsequent sections of this chapter.

**Timeline for Data Collection**

Considering that this is a complex study involving the design, creation, and time-sensitive dissemination of web-based materials such as surveys, CMC-embedded webquests, and collection of data from student interactions in online CMC components, it is imperative to provide a timeline. The following table sums up all the significant research related activities leading up to the data collection, followed by selection of the two groups, the online interviews, and finally the transcribing phase. To demonstrate that this study involved creation and development of tools and instruments concurrently with the administration of these tools and instruments, the following table (Figure 6) has been
divided into ‘duration’, which as the name suggests shows the duration of the activity, ‘preparation, which presents the development of materials created, and ‘Administration’ which displays the relaying of any materials or information that related to the study.

Table 1

*Timeline for creating and administering of CMC-embedded webquests and data collection procedures*

<table>
<thead>
<tr>
<th>Duration</th>
<th>Preparation</th>
<th>Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 30(^{th}) – February 1(^{st})</td>
<td>e-IRB application; Web-based survey was created and tested for user-friendliness and technical glitches</td>
<td>e-IRB application sent to the IRB office</td>
</tr>
<tr>
<td>February 1(^{st}) – February 7(^{th})</td>
<td>Created Webquest 1 – Environment (Chapter 9) in collaboration with German culture expert</td>
<td>Web-based survey was administered; all students took the survey; five groups with four students each were created based on the criteria (as discussed in Chapter III)</td>
</tr>
<tr>
<td>February 8(^{th})</td>
<td></td>
<td>Webquest 1 – Environment (Chapter 9) introduced to the Online German II class; Instructions for submitting Essay 1 for Chapter 9; Students submitted Essay 1; 5 guiding questions posted on Discussion Board with instructions to follow</td>
</tr>
<tr>
<td>February 9(^{th}) – February 13(^{th})</td>
<td></td>
<td>Students responded to guiding questions and group members’ posts in Discussion Boards for Webquest 1</td>
</tr>
<tr>
<td>Date</td>
<td>Description</td>
<td>Details</td>
</tr>
<tr>
<td>-------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>February 14th</td>
<td>Started creating Webquest 2 – ‘Germany before and after the wall’ in collaboration with German culture expert</td>
<td>New guiding questions with instructions for live chats and Essay 2 for Webquest 1 were posted</td>
</tr>
<tr>
<td>February 15th –</td>
<td>Received feedback from e-IRB office with suggestions</td>
<td>Students researched and read to prepare for live chats with group members</td>
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<tr>
<td>February 17th</td>
<td></td>
<td></td>
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<tr>
<td>February 17th –</td>
<td></td>
<td>Students participated in live chats (Elluminate) with their group members</td>
</tr>
<tr>
<td>February 18th</td>
<td></td>
<td></td>
</tr>
<tr>
<td>February 19th</td>
<td>Completed creating Webquest 2 – Germany, before and after the wall (Chapter 10) along with related documents</td>
<td>Students submitted Essay 2 for Webquest 1</td>
</tr>
<tr>
<td>February 21st</td>
<td>Made changes to the IRB proposal as suggested, and submitted for approval</td>
<td>Webquest 2 – ‘Germany, before and after the wall’ (Chapter 10) introduced to the Online German II class; Instructions for submitting Essay 1 for Chapter 10; 5 guiding questions posted on Discussion Board with instructions to follow</td>
</tr>
<tr>
<td>February 22nd</td>
<td></td>
<td>Students submitted Essay 1 for Webquest 2</td>
</tr>
<tr>
<td>February 22nd –</td>
<td>Students responded to guiding questions and group members’ posts in Discussion Boards for Webquest 2</td>
<td>Students researched and read to prepare for live chats with group members</td>
</tr>
<tr>
<td>February 27th</td>
<td></td>
<td></td>
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<tr>
<td>February 28th –</td>
<td></td>
<td>Students participated in live chats (Elluminate) with their group members</td>
</tr>
<tr>
<td>March 3rd</td>
<td></td>
<td></td>
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<tr>
<td>March 4th –</td>
<td>Received IRB approval</td>
<td>Students submitted Essay 2 for Webquest 2 (Germany,</td>
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<tr>
<td>March 5th</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date Range</td>
<td>Description</td>
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<td>---------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>March 15&lt;sup&gt;th&lt;/sup&gt; – March 30&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Read and scored essays; German colleague also read and scored essays for inter-rater reliability</td>
<td></td>
</tr>
<tr>
<td>March 30&lt;sup&gt;th&lt;/sup&gt; – April 7&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Upon consultation with German colleague/advisor and major advisor, the two groups for the study were selected</td>
<td></td>
</tr>
<tr>
<td>April 7&lt;sup&gt;th&lt;/sup&gt; – April 14&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Debriefing statements and Recruitment letters were emailed to all students in the two groups selected. All students responded and first interview with all participants were scheduled</td>
<td></td>
</tr>
<tr>
<td>April 14&lt;sup&gt;th&lt;/sup&gt; – May 8&lt;sup&gt;th&lt;/sup&gt;</td>
<td>First and second round of interviews with all consenting participants were conducted online. All participants were rewarded with prizes as promised.</td>
<td></td>
</tr>
<tr>
<td>May 8&lt;sup&gt;th&lt;/sup&gt; – June 7&lt;sup&gt;th&lt;/sup&gt;</td>
<td>All online interviews in Elluminate with participants from the two groups and the online chats in Elluminate (for CMC-embedded Webquest 1 and 2) were transcribed for analysis</td>
<td></td>
</tr>
</tbody>
</table>

**Selection Criteria and Sampling Scheme**

To ensure that the tasks would be followed through completely and to be able to trace students’ mediating strategies in asynchronous and synchronous online interactions in a more efficient manner, the class of 21 students was divided into groups. Drawing on Bender’s (2003) recommendation for optimal group size in online learning which is four or five students, four students were chosen to form a group. This number allowed for all participants to share their insights and yet provided enough diversity of perceptions.

Given the fact that ‘culture’ was central to this research study, it was believed that
including participants who had traveled to German-speaking country(ies) in the past could bring in interesting experiences and insights to the online discussions (asynchronous and synchronous), thus steering the online interactions to a new level. Additionally, as the webquests and embedded CMC interactions (synchronous and asynchronous) were both pivotal to this study, students’ comfort level with browsing the Internet, using the Blackboard, and CALL tools was considered when choosing the participants for this study. Participation levels of students were also taken into account for the formation of groups.

To achieve maximum variation in each group, a web-based survey was designed and created with the help of the Instructional Technology Support, and could be accessed at http://www.c21te.usf.edu/survey/TakeSurvey.aspx?SurveyID=7ILJ9p2 (Please see Appendix A). This web-based survey was developed and created using ‘Select Survey’ (software made available to instructors at the university) in the month of January. Once the survey was created, it was tested to ensure user-friendliness and technical accuracy. This survey was administered between January 30th and February 7th.

Results of the survey were used to aide the researcher in determining the overall comfort- and usage-level of each student with different technologies and their past travels to German-speaking country (ies). To guarantee that maximum variation was achieved in each group, a ‘criterion-based purposeful sampling scheme’ (Patton, 1990) was employed in creating groups within the course. It is important to note here that all students enrolled in the Distance German II course were divided into groups based on the above criteria, and the CMC-embedded webquests were administered to all students (as part of the course syllabus). The online class was divided into five groups, each group containing
four students, except for one group with five students, since there were 21 students in the online class.

Survey results indicated that out of the 21 students in the online course, 9 students had traveled to German-speaking countries in the past, mostly as tourists. Survey results also indicated that out of the 21 students in the Online German II course, six students used the Internet ‘more than 10 times a day’, nine students used the Internet ‘5-10 times a day’, and six students did so ‘less than 5 times a day’. The web-based survey was created to assess students’ proficiency levels in aspects of technology that were relevant to this study. Hence, the technologies concerned were as follows: email, chats, internet browsing, ‘Quick time’ and ‘Windows Media Player’, the latter two being softwares used for accessing and watching video files. The web-based survey revealed that with the exception of 5 students, all others indicated their proficiency levels in emails, chats, and internet browsing to be ‘5’, on a scale of 1 to 5, with one being very low, and five being high. Also, out of the twenty one students, 18 students indicated their proficiency levels to be ‘3’ (moderate) for using ‘Quick Time’ and ‘Windows Media Player’. To be able to carefully consider all of the above-mentioned findings from the web-based survey, a table was created with columns representing each question on the survey. Once the survey responses from all 21 students were gathered, the information was entered in the table and color-coded with highlighter pens for quick reading and categorization. (This information can be obtained from Appendix B).

A new table was then created with five columns to represent the five groups that were created for this study. Following this, based on the responses for the above criteria, i.e., past travels to German-speaking countries, use of Internet on a daily basis, levels of
proficiency with concerned technologies (email, chat, internet browsing, Quick Time, and Windows Media Player), and participation levels (based on their attendance and participation grades in addition to the ‘promptness’ and the length of their email responses until that point), these 21 students were then divided into groups in a way that maximum variation for each group was achieved. Following this, an email was sent to each group to familiarize the online students with their group members and to let them know the group number they belonged to. Please see Appendix B to view this new table. Now that the five groups were determined with four students in each (with the exception of one group with five students due to the uneven number of student enrollment in the online course), these groups were also created in BlackBoard under ‘Work groups’. They were called ‘Group one’, ‘Group two’, ‘Group three’, ‘Group four’, and ‘Group five’. This was done to provide a smooth transition into the asynchronous and synchronous interactions for all students within their own groups as part of the webquests. Within each ‘work group’ for each group was the list of students in that particular group, a brief description of the upcoming tasks, points assigned to each tasks, and a list of tools that each member within a group could access and use. However, for the purpose of the tasks related to the CMC-embedded webquests, students in each group had to only click on ‘Group Discussion Board’. Both the CMC-embedded webquests were administered to all students in the Online German II course, i.e. to all five groups. However, the two groups that were chosen to participate in the study (only the online interviews were exclusive to the participants of the study) were selected only upon the completion of the CMC-embedded webquests. Since selecting the two groups was an iterative decision in the process of data collection and was done only after the completion of the two CMC-
embedded webquests, the details and outcome of this selection process will be discussed in a later section of this chapter.

**CMC Embedded Webquests – General Design**

The CMC-embedded webquests were carefully designed and prepared based on modules and principles for creating content-based and task-oriented webquests developed by Dodge (1995), namely selecting a topic appropriate for webquests, selecting a design, describing how learners will be evaluated, designing the process, and finally publishing the webquests. Also taken into consideration here in the task design was Allen’s (2003) anatomy for good interactions, namely, context, challenge, activity, and feedback. In order to create webquests in a systematic and efficient manner, the instructor-researcher purchased membership and used the ‘Quest-Garden’ website developed by Dodge (2009) that allows teachers to use templates, formats and graphics, view examples of webquests created by instructors in various disciplines, preview their own webquests in progress, and publish to the Internet.

The CMC-embedded webquests developed for this study followed the template and the guidelines stated by Dodge (1995), i.e, each CMC-embedded webquest comprised of the following sections: ‘Introduction’, ‘Task’, ‘Process’, ‘Evaluation’, and ‘Conclusion’. For instance, the ‘Introduction’ introduced students to the topic at hand, the ‘task’ outlined the activities that the students were to perform as groups, and the ‘Process’ section took the students sequentially through a series of websites or links that informed the students (implicitly) about the products, practices, perspectives, people, and communities of the German-speaking cultures (based on Moran’s model of culture, 2001) as they related to two chapters: ‘Our Environment’, and ‘Germany, before and after the
wall’, and helped them achieve the afore-mentioned tasks. During this ‘Process’, students were expected to browse, research, look up, or simply surf some more to enhance their knowledge about topics or subtopics that might be of interest to them and to take notes if necessary. The ‘Evaluation’ section outlined the rubrics for scoring the students’ interactions and essays, and the ‘Conclusion’ section encouraged students to reflect upon what they had learned from the CMC-embedded webquest, and compare and contrast this new information and understanding about German culture with their understanding of their own culture.

As the name suggests, what set the CMC-embedded webquests apart from the webquests on the Internet were the two CMC components embedded in each of the two webquests. The first CMC component was the asynchronous component within the Discussion Boards in Blackboard that enabled the students to interact with each other asynchronously in responding to five guiding questions as part of the first task. The second CMC component required the students to engage in synchronous discussions with their respective group members to respond to five new guiding questions based on the cultural topic(s) covered in the webquest (both the CMC components will be discussed in the following subsection).

As mentioned earlier, the purpose of the asynchronous CMC component in the webquest was to engage students in asynchronous discussions. Both the asynchronous as well as the synchronous online interactions were anticipated to be responses and posts that comprised of suggestions, ideas, comments, questions, exchange of opinions, feelings, emotions, attitudes, and perspectives, and sharing of experiences with German-speaking people in German-speaking regions, etc. among the respective group members,
all of which culminated in completion of the CMC tasks of the webquests. While the asynchronous discussions were anticipated to take place in the ‘Discussion Boards’ section of the ‘BlackBoard,’ the synchronous exchanges were planned to take place in real time in ‘Elluminate Live!,’ a software within Blackboard that boasts of voice-capability, and is available to all instructors and students at the University. It is important to note here that the guiding questions developed for the asynchronous online discussions were ‘information gathering’ in nature. In the case of Chapter nine (Our Environment or Umwelt), for example, the guiding questions for the Discussion Boards were as follows:

How are the environment-protection laws in Germany different from those in the USA?; Among the recent laws passed in the ‘Energy’ sector, which one(s) do you find to be most valuable? Please substantiate your response(s); etc. A list of all guiding questions for the asynchronous components of both CMC-embedded webquests can be obtained in Appendices D and F respectively. On the other hand, the guiding questions formulated for the online chats were relatively subjective in nature. Examples of guiding questions for chapter nine for instance were: ‘How do recycling laws differ from state to state? And perhaps why?’; ‘How are Germans reacting to the recycling laws? And how?’ A list of all the guiding questions for the synchronous components for both CMC-embedded webquests can be obtained in Appendices E and G respectively. In all, guiding questions for both the asynchronous and synchronous online discussions were conceived so as to allow students to engage in meaningful discussions of German culture. Although there are conflicting opinions about the presence of the instructor in online synchronous discussions (Bender, 2003, pp 119-120), for the purpose of this study, it was planned that the researcher’s online presence would strictly be in the role of an ‘observer’ in the
synchronous online discussions, i.e., the researcher would intervene only if absolutely necessary. If intervention did occur, the cause, nature and description of the intervention would be recorded in the field notes journal.

**Mini-Pilot**

To test the design and usefulness of webquests in enhancing students’ knowledge and understanding of German culture, a mini-pilot was administered in the Fall semester of 2009 to a colleague’s students in a German I face-to-face course. To complement the content-based teaching approach used by the colleague for teaching her German I class, the webquest was designed with the theme of Chapter 6 in the textbook Neue Horizonte, Seventh Edition (2009) i.e., ‘An der Uni’ (Life at the university), to adapt to her syllabus and goals for that chapter. This chapter revolved around subjects offered at a typical German university, tuition in various German states, and student life at a German university in general.

The webquest created for this chapter focused specifically on providing information on culture related topics that went well beyond the confines of what the textbook had to say. The topics in the webquest included an overview of related vocabulary in German, overall rules and regulations about the education system in Germany, websites of five significant universities, and an additional website that provided information about applications, housing, costs, and such for students aspiring to study in Germany. It is important to note here that all websites chosen for this webquest that aimed at providing information about student life in Germany were all in English, or had both English and German pages disseminating the same information. Since the focus of the webquest was to specifically enhance students’ knowledge and understanding of
German culture, the websites chosen were meant to enhance students’ knowledge and understanding of the products, perspectives, practices, and people (in keeping with the culture model that was initially proposed) with regards to ‘life at a German/ Austrian university’. However, the webquest may not have been able to inform much about the ‘people’ and ‘communities’ in this regard, since I was unable to find interviews of students studying at German or Austrian universities, or interview students who had studied in Germany or Austria and upload the interviews to the webquest.

The only CMC component embedded in this pilot webquest was the asynchronous discussions that students engaged in on Blackboard, in order to complete the webquest tasks. The pilot ‘An der Uni’ reflected the design principles suggested by Dodge (1995), in that this webquest comprised of Introduction, Tasks, Process, Evaluation, and Conclusion, all in that order to guide the students through a project. This project allowed them to assume a role of a student aspiring to study in Germany or Austria, and provides them a deeper insight into ‘student life in Germany and Austria’, which could not be made possible with mere textbooks.

To complete most of the tasks for ‘An der Uni’, groups of three or four students each were created by a colleague who was also the instructor for that German I course on a random basis. The tasks were as follows: choosing a profession, choosing subjects that students would need to take to procure the degree to pursue that profession, and choosing a university to study at. Additionally, each group was asked to discuss how they would prepare to study at the chosen university and substantiate its choice of university. For each task, students had collaborated with their group members – post ideas, suggestions, and respond to posts within the Group in Discussion Boards on Blackboard created by
their instructor. The final task entailed that each student write an essay to describe what he or she had learned about ‘student life in Germany’, compare and contrast this with that in the USA, and discuss plausible reasons for the differences, in their opinion. To reiterate, all tasks were outlined in English, and student responses to all tasks were in English as well. The researcher called this a mini-pilot for the following reasons: no synchronous online discussions were integrated into the tasks of the webquest, and the scope of the webquest was relatively smaller than the CMC-embedded webquests developed for the purpose of this study.

Although the pilot webquest was introduced and administered to the entire class, only points for the tasks excluding the essay were calculated into their final grades. However, no points or grades were associated with the individual essays. At the end of Chapter 6, all students were emailed the link to access an Online Survey to determine what students thought about the usefulness of the webquest with a focus to learning about German culture. All survey responses were anonymous. Students’ responses to the tasks (choosing a profession, subjects, a university to study at, their preparation to study at a German/ Austrian university, and substantiating their choice of the university) were more than satisfactory, in that most students received full points (out of twenty points), as confirmed by the researcher as well as the colleague (instructor of the German I face-to-face class). Contrary to the webquest tasks, out of the twenty-two students taking that course, only five students submitted their individual essays, and only four students took the online survey, which could be accessed at

http://www.c21te.usf.edu/survey/TakeSurvey.aspx?SurveyID=7lLMmp2. The purpose of this web-based survey was to elicit students’ perspectives on their overall learning
experiences with the webquests and the embedded asynchronous CMC component as well as their usefulness in furthering their knowledge and understanding of German culture. All four students that took the survey indicated that they ‘enjoyed’ doing the webquest. Of the four students, three of them rated it to be ‘very useful’ in furthering their knowledge and understanding of German culture on a Likert scale of one to five, while one student rated it to be ‘extremely useful’. Again, two out of four students found the asynchronous Blackboard discussions among group members for executing the webquest tasks to be ‘very useful’ towards developing their knowledge and understanding of German culture, while one student found them to be ‘useful, and the fourth one to be ‘extremely useful’. What also emanated from the four surveys taken was that they found it particularly interesting to look through universities in German speaking countries to see what it would be like to study there, and to explore various university websites. Findings of the Student essays in the mini-pilot will be discussed in the subsequent sections.

The ‘Quest-Garden’ tools to create webquests were found to be particularly useful in creating ‘An der Uni’ (At the University) in the previous semester for the purpose of a mini-pilot. The entire webquest can be accessed at
http://questgarden.com/87/84/3/091104090239/. Please see Appendix C to view its main page.

CMC-Embedded Webquests for the Present Study.

The two CMC-embedded webquests were created with a focus to further the students’ knowledge and understanding of culture topics covered in Chapters 9 and 10 of the textbook Neue Horizonte, Seventh Edition (2009). Subsequently, both these CMC-
embedded webquests were administered to all students in the Online German II class in the Spring semester of 2010. These CMC-embedded webquests too followed the template of the webquest ‘An der Uni’ and the guidelines stated by Dodge (1995). It is important to note here that the two CMC-embedded webquests were central to this study, and ensured a systematic and efficient way for the online students to interact with their respective group members asynchronously and synchronously, all of which resulted in different forms of data, for the study. It is hence extremely pivotal to provide a descriptive documentation of how these CMC-embedded webquests were created and administered to the online students. The following subsections describe the creation and administration of the CMC-embedded webquests in a detailed manner.

To be able to successfully and effectively create, develop, and administer the webquests for this dissertation study, the researcher had already purchased access to use http://questgarden.com (before the pilot webquest in Fall’ 09) for a nominal fee. With access to log in, it was possible to use the online authoring tools, templates, and hosting service provided by this website, to develop, design and successfully administer the two CMC-embedded webquests for the purpose of the study. While the topics for the two webquests were pre-determined, based on the syllabus for the Online German II course in Spring 10, there was a myriad of ways to approach informing the online students of German II about the concerned topics.

Webquest 1 – Umwelt. The topic for the first webquest was ‘Umwelt’ (Environment), as prescribed by the syllabus for the Spring’10 semester. To ensure that this CMC-embedded webquest touched upon all aspects of culture, i.e., products, practices, perspectives, persons, and communities (according to Moran’s model of
culture, 2001) that related to ‘Umwelt’ or environment, a brainstorming session was conducted with the German culture expert and the Associate Professor of German in the department. Upon sharing ideas and views about topics and the ways to approach the above-mentioned aspects of culture in the CMC-embedded webquest, an outline for the first webquest (Umwelt) was developed. While most information needed to achieve the goals of the webquest was already available on the Internet, very little information was available that touched upon the ‘persons’ aspect of the culture model within the realm of ‘environment’. So, in order to inform students about the ways in which different persons and their lifestyles may be influenced by the environment and recycling policies and practices in their communities, videos of two Germans, one from an urban perspective, and the other from a rural perspective, reflecting the same were captured. These videos were then converted to digital files that were then uploaded to http://www.youtube.com.

All in all, care was taken to include all aspects of Moran’s culture model (2001) to inform students about environmental and recycling in German-speaking countries in the webquest through websites, videos, graphics, and text.

The ‘Introduction’ introduced the topic of the webquest; the ‘Task’ described each task (online discussions in BlackBoard, chats in Elluminate of BlackBoard, and the essay at the end of the chapter) in detail; the ‘Process’ entailed all of the online materials that were carefully selected to inform students about ‘environment and recycling in German-speaking countries’; the ‘Evaluation’ provided scoring rubrics for students’ online interactions (both asynchronous and synchronous) and their final essays; and the ‘Conclusion’ cohesively brought a closure to the webquest with the anticipation that the webquest had hopefully allowed students to compare and contrast environmental and
recycling issues in German-speaking countries and the USA. Once the ‘Umwelt’ webquest was created, it was proof-read and checked for broken links, typos, design, and its user-friendliness by the researcher as well as the professor of German in the department. Once it was ready, it was published on the QuestGarden website and could be accessed at [http://questgarden.com/87/84/3/100203210057/index.htm](http://questgarden.com/87/84/3/100203210057/index.htm). This link was carefully saved for further dissemination to all groups at an appropriate time.

Following the creation and publishing of the first webquest, it was now necessary to develop and post the guiding questions on BlackBoard for students in all groups to respond to. Based on the web-based materials (graphics, websites, and videos) in the webquest and careful thought, five guiding questions were developed for the asynchronous online discussions. A document comprising of the link to the published webquest along with a clear set of instructions to follow for each group with regards to the ‘discussion boards’ in BlackBoard along with the guiding questions was created and named as ‘Chapter9_week5’. Once ready, this document was uploaded to the ‘Course Documents’ section of the BlackBoard for easy access to all students. An email was then sent to all students to notify them that the document ‘Chapter9_week5’ was now available. Additionally, to ensure that students in each group could respond to the guiding questions and participate in the asynchronous discussions, a forum was created for the first webquest “Umwelt” on the ‘Group Discussion Board’ page for each group. This forum explained the tasks in greater detail, along with points each task was worth, and the deadlines for each tasks therein. For instance, in the ‘Group Discussion Board’ for ‘Group one’, ‘Umwelt-G1’ forum along with all five guiding questions was created once the Webquest ‘Umwelt’ was created before it was administered.
For the synchronous online discussions, five new guiding questions (this time about ‘recycling in different parts of Germany’) were developed. These new guiding questions along with a clear set of instructions to follow to ensure a solid understanding and smooth flow of the task, deadlines, points assigned to this task, and the names of the moderators for each group were created in a separate document. Furthermore, clear instructions about Task 3 of the CMC-embedded webquest, the essay, were also included in this document. This document was called ‘Chapter9_week6’ (Appendix E) and was uploaded to the ‘Course Documents’ section of the course in BlackBoard. Details of the administration of this CMC-embedded webquest will be provided in a subsequent subsection known as ‘Administration of the CMC-embedded webquests’.

Webquest 2 – Germany, before and after the wall

Just as in the case of the first webquest, ideas, themes, pertinent websites and videos that were chosen upon much research about the topic were shared with the same Associate Professor of German in the department. After the Associate Professor of German and the researcher had mutually agreed that the websites and videos were carefully selected for the above two topics for the second CMC-embedded webquest, the websites and videos were saved on a word document, only to be later integrated into the CMC-embedded webquest. Also, as in the case of the first CMC-embedded webquest, this one too was created with legitimate access at http://www.webquestgarden.com. This CMC-embedded webquest too comprised of ‘Introduction’, ‘Task’, ‘Process’, ‘Evaluation’ and ‘Conclusion’ and had a time frame of two weeks. Once the webquest draft was ready, the link to the draft was emailed to the Associate Professor of German in the department to check for errors, broken links, user-friendliness, content, and relevance.
to the topic at hand. Once the suggested changes were made, the webquest draft was proof-read, and published – all of this was done right before the first webquest ‘Umwelt’ was completed on February 20\textsuperscript{th} and could still be accessed at \url{http://questgarden.com/87/84/3/100218071531/index.htm}

To be as consistent as possible, a document titled ‘Chapter10\_week7’ was created and uploaded in the ‘Course Documents’ section of the Blackboard site for easy access (please see Appendix F). This document comprised of five guiding questions for the asynchronous discussions under ‘Forums’ and a set of clear instructions to follow, which would enable the online students to complete the first task of the webquest. Like before, all students were encouraged to submit an essay reflecting what they knew about the ‘German Reunification’ and the European Union on the first day (before the CMC-embedded webquest was disseminated to them).

Just as in the case of the first CMC-embedded webquest, new guiding questions were developed for the synchronous online discussions that were held the following week in ‘Elluminate Live!’ in Blackboard. As mentioned earlier, these guiding questions focused on the immigration laws and regulations, immigrants and life of immigrants in modern Germany, and the European Union. Once these guiding questions were developed, and instructions for the synchronous chats and final essays (same as the first CMC-embedded webquest) were integrated into a cohesive document, the document was named ‘Chapter10\_week8’ and uploaded to the ‘Course Documents’ section of the Blackboard course to maintain consistency between the two CMC-embedded webquests. (Please see Appendix G). Again, all students were asked to submit a final essay reflecting what they had learned from browsing, reading, and researching the selected websites,
watching the videos about ‘Germany, before and after the wall’, and interacting with their peers in the online discussion boards and chats.

For both CMC-embedded webquests, all documents that were uploaded on the BlackBoard were first proof read and checked for accuracy of the text and relevance of the questions by the Associate Professor of German in the Department. Also, all essays (before and after the administration of the two CMC-embedded webquests) were submitted to the same Associate Professor of German via email.

Data Sources

In this sub-section, I will discuss in detail the various data sources that were created and employed to gather data, so as to answer each of the research questions that shaped this study.

*Data Sources for Research Question 1*

This subsection describes the data sources for Research question 1 - What role do the CMC-embedded webquests play in developing students’ knowledge and understanding of German culture? The data sources deemed appropriate for answering this research question were student interviews, student essays, and field notes journal.
Since it was important to elicit students’ perspectives of their overall learning experiences with the CMC-embedded webquests and the embedded CMC components as well as students’ perspectives on the usefulness of the CMC components in furthering their knowledge and understanding of German culture within the realm of the online German II course, the researcher believed that the best instrument to elicit this information would be interviews since they would allow the participants to construct their thoughts and experiences that were meaningful to them.

*Type, format and length of the Interviews.*

The students that were interviewed for this purpose belonged to the two groups that were finally chosen. Informal and semi-structured interviews were deemed most appropriate so as to elicit participants’ perspectives about the role of the CMC-embedded webquests in developing their knowledge and understanding of German culture. Please see Appendix H for the list of the interview questions.
Given that this dissertation research study was to be administered to students in an online German II course, all interviews with the chosen participants were conducted via ‘Elluminate Live!’ which allows voice-recording, a feature that almost no other software that the researcher had access to could afford. Recording each online interview with each participant would allow the researcher to go back and listen to the pauses, gaps of silence, tone, and voice pitch.

For the purpose of this study, it was thought to be appropriate for the interviews to have an informal semi-structured format so that the participants would not feel overwhelmed or constrained in any manner. As the interviewer, I wanted the participants to feel relaxed, so that the interview could transcend into a free flowing conversation, which in turn could increase the chances of eliciting rich data. All online interviews were conducted on ‘Elluminate Live’, and the links that provided access to these interviews in a soft format were saved and stored away carefully on a password-protected laptop to ensure that only the researcher had access to them. Each online interview was anticipated to last for about 30 – 60 minutes, depending on the nature of the interviewee. Two interviews were planned for each student. The first interview with each participant was to elicit responses to the interview questions that focused on students’ experiences in using the CMC-embedded webquests, and the CMC-embedded webquests’ contribution in furthering students’ knowledge and understanding of German culture. Examples of questions posed during this interview were: How would you describe your overall experience with using the webquests?; How would you describe your overall experience in interacting with your peers in the Discussion Board in Blackboard?; What were the limitations or challenges that you were faced with during this activity?; What part of it
did you enjoy the most? And why?, etc. (Please see Appendix H for the list of the Interview questions). The second interview with each participant was intended to serve the following purposes: a) member checking; and b) gathering meaningful responses that were not elicited in the first interview (Onwuegbuzie & Leech, 2007). Since the aim of the interviews was to elicit students’ or participants’ perspectives on the role the CMC embedded webquests played in furthering their knowledge and understanding of German culture and its usefulness, it was only logical that all the interviews be conducted only after both chapters were concluded, and after the two groups were chosen iteratively for the online interviews and consent was obtained from the participants to take part in the online interviews, following the e-IRB procedures. Although the researcher and the instructor were rolled into one person, conscious efforts were made to ensure that the role of the researcher was maintained throughout the course of all online interviews. These efforts included assuring the online students that their final grades would not be impacted by their decision to participate or not participate in the study. Also, during the interviews, no questions about their impending assignments or tests were posed at them. During the interviews, efforts were made to seek relevant and adequate responses to all questions posed during the interviews. Additionally, students were probed into providing more explicit responses when responses were insufficient or incomplete information was provided.

Student essays.

Because one of the prime goals of the study was to examine if the CMC-embedded webquests furthered the participants’ knowledge and understanding of German culture (with reference to Moran’s culture model that takes products, perspectives,
people, practices, and communities into account), it was considered imperative to provide students the opportunities to demonstrate their understanding, or better yet, levels of understanding of all of Moran’s culture components, upon completion of the CMC embedded webquests. On account of these reasons, students were asked to write two essays for each chapter in English describing their understanding of German culture topics (Unsere Umwelt or Our Environment, and Deutschland im 20. Jahrhundert, or Germany in the 20th century) covered during the course of the study. The design entailed that students would write the first essay for each topic at the beginning of the chapter (before the CMC-embedded webquest link was disseminated), and would write and submit the second essay at the end of the chapter (after completion of the CMC-embedded webquests’ tasks). The rubrics to score the essays for the two CMC-embedded webquests administered for the purpose of this study were developed to evaluate and measure students’ understanding of all aspects of Moran’s (2001) model of culture, namely, products, practices, perspectives, people, and communities (Please refer to Appendix J to view the rubrics for both the CMC-embedded webquests). Thus, essays (and respective essay scores) were intended to be a direct means to determine the anticipated progression in the participants’ knowledge and understanding of German culture with regards to products, practices, perspectives, people, and communities, as they related to the concerned topics. A qualitative and descriptive analysis of these documents would be used to address the first research question. Appendix I provides a sample of the essay topics.
*Field Notes Journals.*

Lincoln and Guba (1985) recommend three types of journals: a) daily schedule/calendar that identifies logistics and events pertinent to the study, b) personal reflection diary where researchers note their thoughts, interests, values relative to the study, and c) methodological log with major related decisions and rationales. To be able to capture every detail of the data collection procedures and events surrounding and influencing them, I found it imperative to write and maintain a journal that documented all of the above mentioned. As the instructor-researcher, my experiences, iterative decisions, ponderings, etc. were recorded in the field notes journal.

Together, the students’ essays, the online interviews, and the field notes journal were conceived to provide robust and rich data, and to ensure triangulation of data owing to the three different data sources that would be used for the analyses to address the first research question of this study.

*Data Sources for Research Question 2*

Research Question 2 - From a Sociocultural Theory point of view, what mediating strategies are used by online students in their computer-mediated discussions of German culture?

2a) What mediating strategies are used by online students of German II in their synchronous computer-mediated discussions of German culture?

2b) What mediating strategies are used by online students of German II in their asynchronous computer-mediated discussions of German culture?

The data sources designed and deemed appropriate to examine what mediating strategies (Lidz, 2002) the online students of German II used in their asynchronous and
synchronous online discussion of German culture were the student interactions in the CMC components (both asynchronous and synchronous).

CMC Components.

The CMC components embedded in each webquest were as follows: synchronous and asynchronous

Synchronous CMC component.

The synchronous discussions within groups for all students enrolled in the Distance German II course took place at mutually pre-arranged times on ‘Elluminate Live!’ a software within Blackboard that could be used by all instructors and students. ‘Elluminate Live’ is a software now embedded within BlackBoard that enables the instructor or researcher to ‘voice chat’ and ‘text chat’ simultaneously with the students.

For each CMC-embedded webquest only one round of synchronous online discussion was planned for each group. It was anticipated that the synchronous discussions for both CMC-embedded webquests would take place in the middle of the second week for both concerned chapters (a detailed timeline follows in subsequent sections). All synchronous CMC discussions were recorded and then transcribed for analyses. All transcriptions in Word documents were stored away safely on a password-protected personal laptop.

Just as in the case of the asynchronous CMC components, each synchronous CMC discussion was termed as an episode. This means, each group had two synchronous CMC episodes, one for each chapter. Again, careful attention was paid to words and phrases within each episode that are indicative of Lidz’ (2002) twelve mediating strategies, such as task-regulation, sharing of experiences, and others. More of these
strategies and the taxonomy used for the data analysis will be discussed under ‘Instruments’.

Asynchronous CMC component.

For all students enrolled in the Distance German II course (Spring’10 semester), groups were determined in the second week of the same semester, as discussed earlier. Accordingly, ‘work groups’ were created in Blackboard (as described earlier). Each of these work groups would then be able to access the ‘Discussion Boards’ section, so that while students within each group could post, share documents and files, no other group had access to asynchronous discussions or shared documents. As the instructor of the course and the researcher of this study, only I had access to asynchronous interactions of all groups. From the time that the CMC-embedded webquests were introduced and disseminated to the students via Blackboard, participants had about a week to engage in asynchronous online discussions and complete the tasks of the CMC-embedded webquests. All asynchronous discussions were texts files that would then be archived in Blackboard. These texts were then copy-pasted into Word documents for analyses and stored away on a password-protected personal laptop.

Since there were two CMC-embedded webquests intended for the study, a total of two discussion forums with five guiding questions for each were developed and were administered for each of the ‘work groups’ in the Online German II course. Since research question 2b aims to understand how students mediate each others’ knowledge and understanding of German culture in the asynchronous CMC component, group members’ responses to each of the guiding questions formed the chief data source for responding to the Research question 2b. When analyzing each asynchronous CMC
discussion, careful attention was to be given to words, or phrases that are indicative of the 12 mediating strategies, as stated by Lidz (2002), while new emergent strategies were also noted. All of these mediating strategies and the taxonomy used for the data analysis will be discussed under ‘Instruments’.

Data Collection Procedures

*Ethical Nature of Data Collection*

An application was sent to the Institutional Review Board (IRB) for review and approval while the web-based materials, i.e., the CMC-embedded webquests were being concurrently developed. Upon review of the e-IRB application, minor edit changes that were suggested by the e-IRB office to the ‘deb briefing statement’ and ‘recruitment letters’ were made. Because both the researcher and the instructor were foiled into the same person, there was no need for explicit training in order to administer and collect data. This also gave me more control over other elements of data collection procedures.

*Administration of the CMC-Embedded Webquests*

*Webquest 1 – Umwelt*

On the morning of February 8th, as the timeline (Table 1) indicates, an email was sent to all the students of the Online German II course, requesting them to write an essay about ‘Umwelt’ or Environment in English. Students were encouraged to write as much as they could about Environment in German-speaking countries, and 5 bonus points were promised to those students who would submit their essays by the end of that day. Also, as discussed earlier, all students were asked to email their essays to the Associate Professor of German who would then delete the name of the authors, code them and then email
them to the instructor-researcher upon the completion of both the CMC-embedded webquests to avoid any biases. A total of 11 essays were received at the end of February 8th. Also on the same day, an email was sent to all students to specifically introduce the concept of CMC-embedded webquests, the link to the first CMC-embedded webquest, and the instructions to follow so as to maintain a smooth flow of tasks for the webquest to be successfully completed (Please see Appendix D). The first task in the webquest required students to browse a selection of websites, read related information, and watch videos so as to respond to the original five guiding questions (related to environmental issues and laws in Germany), and then also respond to at least two posts made by each of the members within their own groups. Students had exactly six days to complete this task. During this time the students browsed and navigated websites, read and watched videos to inform themselves about the ‘environmental issues in Germany’, and engaged in asynchronous discussions with their group members in ‘Discussion Board’ in Blackboard.

The second task for the CMC-embedded webquest entailed that the groups engage in synchronous discussions in ‘Elluminate Live!’ at mutually pre-arranged times. It is important to note here that although not conceived in the original design of the study, the decision to recruit a moderator for each group was iterative. That way, the appointed moderator would moderate (read each question aloud, ensure that each student had a chance to respond to each question, and strive for a smooth flow of responses, such that they develop into a free flowing conversation) and the instructor-researcher would not have to intervene at any point during the synchronous chats. The instructor-researcher was only going to be ‘present’ for procedural purposes. A moderator was chosen for each
group, and the criterion used for this selection was the highest level (5-10 times a day) of Internet usage per day. Each moderator was assigned the responsibility of communicating with their respective group members, agreeing on a mutually convenient time to participate in the synchronous chats and then relaying that time and date to the instructor-researcher. The document ‘Chapter 9_week6’ (Please see Appendix E) was made available to the students on February 14th. All students had from February 15th to February 17th to explore, browse, read and research the websites, and watch the videos in the webquest that related to ‘Recycling in Germany’ to prepare for the synchronous chats with their respective group members.

While engaging in the above-mentioned activities, moderators from all groups initiated emails to their respective group members and, after negotiating mutually convenient time slots with their group members, relayed that information to the instructor-researcher. All time slots were scheduled for the 17th or 18th of February, so as to accommodate schedules and availability of all students in the Online German II course. Once the timeslot for each group was established, a link was created in ‘Elluminate Live!’ within BlackBoard for each group and this link was then emailed to each group respectively. While creating a link (chat session) in ‘Elluminate Live!’ care was taken that ‘moderator privileges’ were assigned to all members of the group, and that the option to record chats was selected. That way, all chats or synchronous discussions among group members of all groups would automatically start recording as soon as the discussions began.

To complete the second task, all groups chose ‘to convene at different times in ‘Elluminate Live!’ Please see Table two to view the time and duration for each
synchronous discussion for each group for ‘Umwelt’ CMC-embedded webquest and the moderator for each group.

Although there was a protocol for the synchronous online discussions i.e., taking turns to respond to each of the five questions in the order they were written, most of the synchronous chats became casual and evolved into ‘conversations’. Except for one female student in Group two who intermittently lost access to the Internet, and was simultaneously facing difficulties with her microphone, another female student, also from Group two, and one female student from Group four, all students participated in the scheduled synchronous chats with their respective group members.

The next and the last task for the students in the Online German II class was to now go back to the ‘Chapter 9_week6’ document under ‘Course Documents’ in Blackboard and follow directions for writing an essay (the second essay) about ‘Unwelt’ (environment) that reflected what they had now learned and knew about environmental and recycling in Germany upon completing the CMC-embedded webquest. For this purpose, each student had to individually write an essay about issues related to environment and recycling in Germany, and compare and contrast them with those in the USA. To do so, students were encouraged to write as much and as earnestly as possible, so that their work could reflect what they had learned from the ‘Umwelt’ webquest.

This essay was worth 10 points and had to be submitted via email to the Associate Professor of German in the department by February 19th. A total of 13 essays were submitted, i.e., emailed to the Associate Professor of German in the department. These essays were then coded for anonymity, and saved on a private and password-protected
laptop for security purposes. With this final activity, the first Webquest, “Umwelt” was completed on 19th February.

**Webquest 2 – Germany, before and after the wall**

Given that only 11 students submitted their first essays for ‘Umwelt’, and that they had less than a day to submit their first essay for the last webquest, this time, the students were introduced to the second webquest (on the night of 21st February), and were urged to email their first essay to the Associate Professor of German in the department by the end of 22nd February. That way, they would have a complete day to write and email their first essays in a timely fashion. Additionally, this time, ten points instead of five were promised to those students who would submit their first essays for the second CMC-embedded webquest by 22nd February. The extra five points offered to the students who submitted their essays in a timely fashion was only an incentive and had no ramifications to the administration of the second CMC-embedded webquest ‘Germany, before and after the wall’. Essentially, the students were asked to write what they knew about ‘Germany, before and after the wall’ at that point. In all, 12 essays were received on 22nd February.

The first task in the webquest required students to browse a selection of websites, read related information, and watch videos so as to respond to the original five guiding questions (related to the reunification of Germany), and then also respond to at least two posts made by each of the members within their own groups. They had exactly six days i.e., until the February 27th to complete this task. The task was worth 10 points, just as was the case for the same task in the first webquest. For this purpose, the document ‘chapter 10_week7’ was uploaded to the BB and the students were notified about this is
as well (Please see Appendix F). Results indicated that this time around, students responded promptly to the original guiding questions, thus allowing time for their group members to react to their responses in the stipulated time frame of six days. During this time, the students engaged in browsing, researching, navigating the websites, and watching the videos related to ‘Reunification of Germany’ and responding to the five guiding questions, and their group members’ posts as their first task in the CMC-embedded webquest.

The students now had three to four days (from February 28\textsuperscript{th} to March 3\textsuperscript{rd}) to browse the websites, read and research as much as possible to prepare for the synchronous live chats in Elluminate Live. All instructions were specified in the document ‘chapter10\_week8’ and was uploaded to BB again (please see Appendix G). Also within the same time frame, previously chosen and assigned moderators had the responsibility of communicating with their group members via email for a mutually convenient time to ‘meet’ and then relaying the time and date to the instructor-researcher. Just as in the case of the first webquest, links were created for each group within ‘Elluminate Live!’ and were then emailed to the respective group members. The group members then clicked on the link at their chosen time to join the synchronous discussions.

It is interesting to note here that while most students participated in the online chats for the chapter nine webquest, fewer students participated in the online chats for the chapter 10 webquest. Out of four members in each group, only two members from Groups 2, 3 and 4 each participated in the synchronous discussions, while three members from Group one ‘showed’ up for the synchronous chats at the pre-decided time slot.
Similarly, out of the five members in Group 5, four students participated in the synchronous discussions. The reason for this drop in participation could range from lack of availability, loss of interest, lack of motivation to earn ten points for this task, or bad rapport with a member of the group. However, the reasons are neither known nor traceable. Regardless of the reasons, moderators in all groups moderated the session well, and what started as merely responding to the guiding questions based on ‘Immigration laws, Immigrants, and the European Union’ flowed into seamless conversations for all groups.

The third task of the webquest, i.e., the final essay, was submitted by 17 students by March 5th as email attachments to the Associate Professor of German in the department for coding and anonymity to avoid any biases. In an effort to maintain consistency, the Associate Professor coded all essays received by her for this CMC-embedded webquest as well, and saved them on a password protected laptop.

Table two shows which group members from which groups participated in the online chats, and who the moderators were. It also shows the number of students from each group that yielded complete essay data sets (a total sum of four essays, two for each CMC-embedded webquest).
Table 2

*Group members’ participation in online chats and submission of complete data set of essays*

<table>
<thead>
<tr>
<th>Group No.</th>
<th>‘Umwelt’ CMC-embedded webquest</th>
<th>‘Germany, before and after the wall’ CMC-embedded webquest</th>
<th>No of students that submitted complete data sets of essays</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1 Moderator – Wilson</td>
<td>February 18&lt;sup&gt;th&lt;/sup&gt; 11:30 p.m.– 00:03a.m.</td>
<td>March 3&lt;sup&gt;rd&lt;/sup&gt; 9:30 p.m. – 9:52 p.m</td>
<td>1 (Asha)</td>
</tr>
<tr>
<td></td>
<td>Wilson, Ashley, Sheela and Kai</td>
<td>Wilson, Ashley and Sheela</td>
<td></td>
</tr>
<tr>
<td>Group 2 Moderator – Erik</td>
<td>February 18&lt;sup&gt;th&lt;/sup&gt; 7:15 p.m. – 8:13 p.m.</td>
<td>March 2&lt;sup&gt;nd&lt;/sup&gt; 7:00 p.m. – 7:28 p.m.</td>
<td>1 (Wilhelm)</td>
</tr>
<tr>
<td></td>
<td>Pat, Erik, Wilhelm, and Kathy</td>
<td>Erik and Wilhelm</td>
<td></td>
</tr>
<tr>
<td>Group 3 Moderator - Laila</td>
<td>February 18&lt;sup&gt;th&lt;/sup&gt; 3:15 p.m. – 4:35 p.m.</td>
<td>March 4&lt;sup&gt;th&lt;/sup&gt; 2:45 p.m.–3:13p.m.</td>
<td>2 (Laila and Elisa)</td>
</tr>
<tr>
<td></td>
<td>Heidi, Laila, Willi, and Elisa</td>
<td>Laila and Elisa</td>
<td></td>
</tr>
<tr>
<td>Group 4 Moderator – Shane</td>
<td>February 18&lt;sup&gt;th&lt;/sup&gt; 2:00 p.m. – 2:46 p.m</td>
<td>March 4&lt;sup&gt;th&lt;/sup&gt; 9:30 p.m.- 10:11p.m.</td>
<td>1 (Dana)</td>
</tr>
<tr>
<td></td>
<td>Cathy, Dana and Shane</td>
<td>Dana and Shane</td>
<td></td>
</tr>
<tr>
<td>Group 5 Moderator -</td>
<td>February 17&lt;sup&gt;th&lt;/sup&gt; 10:30 p.m.– 11:27 p.m.</td>
<td>March 3&lt;sup&gt;rd&lt;/sup&gt; 10:30 p.m.-</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Ronald, Daniela, Katelyn, Segwin, and Catherina</td>
<td>Ronald, Daniela, Katelyn, and Catherina</td>
<td></td>
</tr>
</tbody>
</table>
Selection of the Two Groups for the Study

At this point, the two CMC-embedded webquests had been successfully created, administered, and the data (first and final essays for both topics, asynchronous discussions, and synchronous discussions) had been collected for both the webquests. The next step in the study was to select two out of the existing five groups in the online German II course – one with less than optimal level of interactions, and the second one with more than optimal level of interactions. It is important to note here that in this context and for the purpose of this study, the term ‘optimal’ was defined by the word count in the middle range resulting from the total word counts (total word counts of both asynchronous discussions) for all groups. This subsection explains the factors that led to the selection of those two groups.

The students from the chosen two groups were going to become the true participants for the study. In other words, these were the eight students (together from two groups), whose essays, online interviews, CMC interactions (synchronous and asynchronous), and field notes journal about whom were eventually going to become the data sources for the analyses. Consequently, it was crucial that in the process of choosing the two groups for this purpose, care was taken to ensure that each group chosen had at least one student who had submitted all four essays (two essays for each CMC-embedded webquest) to observe any progression in the students’ knowledge and understanding of German culture, in keeping with the primary goal of this study.

Since part of this decision depended upon determining which and how many students from each group had yielded complete essay data sets, it was crucial to gain access to all essays and score them first. However, according to the e-IRB rules and for
ethical reasons in data collection, the Associate Professor of German could not share all essays with the Instructor-Researcher unless ‘Inter-rater-Reliability’ was established.

For this purpose, four students (Asha, Laila, Wilhelm, and Elisa) who had turned in all four essays each were selected, i.e., sixteen essays were set aside and electronically shared by the Associate Professor with the researcher for scoring. Next, a timeframe of three to four days was set aside to score these essays. To make sure that there was consistency in the way the essays were scored, rubrics for each topic found under the ‘Evaluation’ page of each CMC-embedded webquest was referred to. Each essay was worth 20 points, with four points each for the student’s knowledge of ‘products,’ ‘perspectives,’ ‘practices,’ ‘persons,’ and ‘communities’ as reflected in the essay. Again, within each of the above categories, points ranging from 1 to 4 were allotted for increasing levels of understanding of these aspects, as reflected in the essay. Please refer to Appendix J for the rubrics for scoring the essays for both webquests. Both raters were aware of the complexity of the rubric and strived to follow them as scrupulously as possible. A thorough reading of the essays and a careful analysis of the essay rubrics led to the scores (as indicated in table three) as determined by the instructor-researcher (I-R) and the Associate Professor (AP) of German in the department for each of the four students:

As was evident from the scores determined by both, the instructor-researcher and the Associate Professor of German, there appeared to be very little discrepancy (ranging only from 1 to 3 points). It was thus ascertained that inter-rater reliability was established (0.97). Now that ‘inter-rater reliability’ was established, the instructor-researcher proceeded to score all remaining essays submitted by all the students.
The next step in determining the groups was to choose the group with ‘less than optimum’ level of interaction, and the group with ‘more than optimum’ level of interaction. To do so, all the texts from ‘online asynchronous discussions’ for both CMC-embedded webquests were ‘copied’ and ‘pasted’ into a word document to determine the number of words produced by each group in the online asynchronous discussions, since it was evident that all students participated in the online asynchronous discussions for both the CMC-embedded webquests. Although an individual group word count for the online synchronous discussions was also considered, the fact that members of some groups neither attended nor participated in the second round of the ‘online chats’ (for the second CMC-embedded webquest) also had to be considered. It became apparent that adding those numbers would produce skewed results.

A thorough word count score of both episodes of asynchronous discussions (for each of the CMC-embedded webquests) revealed that Group one had 5535 words, Group two produced 7322 words, Group three 6069 words, Group four had 6234, and Group five had 9182 words. While the word count was a pivotal factor in the selection of the two groups, the quality of interactions mattered as well. So, the next logical step was to take a closer look at the asynchronous discussions, and listen to the ‘synchronous chats’ more intently. This enabled the instructor-researcher to look for repetitions, unnecessary ‘text’ such as questions about the assignment itself that could have potentially increased the word count for that particular group. Upon examining the interactions for Group 2 closely, and referring back to the field notes journal, it was found that since the audio equipment for one of the students was not working, she typed out her responses in the synchronous online chats, making them longer than they needed to be. Moreover, as the
field notes journal indicated, it was the same student’s interactions and responses that were sometimes found to be ‘irrelevant’ and ‘repetitive’ in both asynchronous as well as synchronous discussions. In the eleventh week of classes that semester, this same student dropped the course.

Although Group three had two students yielding complete essay data sets, one student from this group had ‘withdrawn’ owing to personal reason, which reduced the participant size to three students. Since no student from Group five had submitted any complete data set of essays, this group could not be considered in spite of the high word count. On the other hand, apart from Asha and Dana from Groups one and four respectively, there were other students from those two groups who had submitted pre- and post essays for at least one of the two CMC-embedded webquest.

Upon creating a table with the word count for each group and making related notes for each group (please refer to Appendix K for the notes), the researcher shared this information with the Major Professor for feedback. After consulting with the Major Professor, it was mutually agreed upon to select Groups one and four for the study. Members of Group one were Asha, Sheela, Wilson, and Kai of whom only Asha had submitted all four essays for the webquest, while Kai and Sheela submitted both the pre- and post-essays for ‘Umwelt’ and ‘Germany, before and after the wall’ respectively. Members of Group four included Dana, Shane, Cathy, and Sandy, of whom only Dana had submitted all four essays for the webquest, while Sandy submitted both pre- and post essays for the ‘Germany, before and after the wall’ CMC-embedded webquest.

Once the two groups had been selected, ‘Debriefing Statements’ and ‘Recruitment Letters’ were emailed to all students from both groups, explaining the nature and purpose
of this dissertation study and requesting them to participate in the online interviews for a prize of a book called ‘Facts About Germany’ and a recent edition of a popular magazine in Germany (English version). Out of the eight participants chosen (two groups with four students each), six agreed to participate in the online interviews, while two declined participating in the online interviews due to time constraints. However, they agreed to respond to the interview questions as descriptively as possible via email. Based on the availability of the consenting participants, online interviews were scheduled and conducted between April 14th and May 8th. Thereafter, all the voice data from the online interviews were transcribed and saved on a password protected personal laptop. Details of the online interviews and transcribing are furnished under a subsequent section called ‘Instruments’.

**Instruments**

This subsection in particular describes the various instruments that were employed for careful analyses to address each of the research questions. To do so in a systematic manner, each instrument will be discussed in detail with regards to the research questions in a sequential manner in this section of Chapter III.

**Instruments for Research Question 1**

Research Question 1 - What role do the CMC embedded webquests play in developing students’ knowledge and understanding of German culture?

The following instruments were developed and deemed appropriate to address the first research question, namely, student interviews; field notes journal; and rubrics for scoring student essays.
Student Interviews.

Now that all the students for the study were chosen by April 6th, the next step was to furnish these eight students with information they needed before they could decide to participate in the study. On the morning of 7th April, an email was sent to them individually with the ‘debriefing statements’, and the ‘recruitment letter’ as attachments, which were prepared with guidance and feedback from the IRB team in Feb-March’10. Asha, Kai, and Wilson from Group one, and Shane from Group four responded on the same day to agree to participate in the study and even indicated their eagerness in scheduling their online interviews. On one hand, Sheela from Group one, and Dana from Group four responded to the initial email a little later, upon some reminder-emails. Cathy and Sandy from Group four responded to the initial email only almost at the end of the semester, upon constant reminders. In fact, Cathy and Sandy declined to participate in the online interview, but agreed to respond to the interview questions in a detailed fashion via email.

All online interviews were conducted through the ‘Elluminate Live!’ tool in BlackBoard for easy access and high sound quality. In addition, all participants were already familiar with the functioning of ‘Elluminate Live!’ from their previous interactions with the instructor (virtual office hours and virtual classes) and with their classmates (synchronous chats as part of the CMC-embedded webquests). Only one student, Dana, encountered difficulties with her headset and microphone during the pre-scheduled online interview session. Hence, it was agreed that the instructor-researcher would meet in person in her office at a mutually convenient time. Dana also let the instructor-researcher know that due to lack of time, and the long commute to campus, she
was not going to be able to participate in the second interview. Although the interview with Dana was in person, in the office, the interview was digitally recorded in ‘Audacity’ for transcribing purposes, and to preserve tone, excitement, pauses, etc., all crucial to qualitative research. Cathy and Sandy responded to the ‘Interview Questions’ only during the ‘Finals Week’ upon much persuasion and reminding. The following table indicates the times and dates chosen by each of the participants for the online interviews, and the duration of each interview.

Table 3

*Online Interview Schedule with Participants from Groups 1 and 4*

<table>
<thead>
<tr>
<th>Name of the participant</th>
<th>1(^{st}) Interview</th>
<th>2(^{nd}) Interview</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group one</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wilson</td>
<td>April 15(^{th}), 9:00 – 9:19 p.m.</td>
<td>April 22(^{nd}), 9:00 - 9:09 p.m.</td>
</tr>
<tr>
<td>Kai</td>
<td>April 14(^{th}), 12:00 – 12:38 p.m.</td>
<td>April 20(^{th}), 10:30 - 10:44 a.m.</td>
</tr>
<tr>
<td>Asha</td>
<td>April 19(^{th}), 9:00 – 9:22 p.m.</td>
<td>April 26(^{th}), 9:00 – 9:08 p.m.</td>
</tr>
<tr>
<td>Sheela</td>
<td>April 22(^{nd}), 9:45 – 10:13 a.m.</td>
<td>April 29(^{th}), 8:45 – 9:02 a.m.</td>
</tr>
<tr>
<td><strong>Group four</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shane</td>
<td>April 15(^{th}), 8:45 – 9:50 a.m.</td>
<td>April 22(^{nd}), 8:45 - 8:57 a.m.</td>
</tr>
<tr>
<td>Dana</td>
<td>April 28(^{th}), 9:00 - 9:20 a.m. (in person, but digitally recorded in ‘Audacity’)</td>
<td>/</td>
</tr>
</tbody>
</table>
A semi-structured format was followed for all online interviews with the six students (four from Group one and two from Group four) who chose to participate. The interview guide can be obtained in Appendix H. As the interview guide illustrates, students were asked what were their own perceptions of the role of CMC-embedded webquests in enhancing their knowledge and understanding of German culture, what they liked and disliked about the online asynchronous and synchronous discussions, what part of the CMC-embedded they liked the most, and the least, etc.

At the outset of all interviews, each student was greeted and thanked for participating in the online interviews and for volunteering their time to participate in the study. Care was taken to allow for the ‘online interview’ to transcend into a ‘free flowing conversation’. While the students were questioned and queried about their perspectives, opinions, experiences, likes, and dislikes about the CMC-embedded webquests as a whole, the online discussion boards, the online chats, the web components, etc. the researcher made conscious efforts that the role of the researcher was maintained, and did not let any ‘instructor biases’ influence or impact the interviews. This was done by ensuring that no course related questions, or reminders about their pending assignments, or questions about the syllabus were posed at the participants during the online interviews. Occasionally, when students responded too briefly, they were probed to explain, clarify, or elaborate, as needed. If they still did not explain or elaborate on their ‘brief’ responses, notes were made, and were then followed upon during the second round of interviews.

Since all files were recorded in ‘Elluminate Live!’ within Blackboard and hence could not be accessed offline, it was deemed appropriate to convert those sound files to
another digital version, namely ‘mp3’ on a password-protected laptop that no one else had access to. That way, the instructor-researcher could now access them even in a non-wireless setting. The next step was to transcribe all the eleven interviews (two with each of the five participants and one face–to-face interview that was digitally recorded). For each of the above-mentioned, care was taken to see that pauses; changes in tone that indicate excitement, concern, or other emotions; laughs or giggles during the interviews were noted in their transcriptions. In all, it was ensured that each digitally recorded interview was reflected thoroughly in its respective transcription. The entire process of transcribing all audio files took almost a month to complete. This process finally ended on June 8th.

*Student essays.*

Based on the Culture model that was proposed in Chapter II, all student essays were evaluated based on rubrics created separately for each CMC-embedded webquest administered to the students in the Online German II course in Spring’10. The rubrics for both the CMC-embedded webquests differed in that the topics were different and unrelated to each other. However, the parameters of evaluation remained constant, i.e., people, perspectives, practices, products, and communities (Moran, 2001) as discussed in Chapter II. That means, for each of these parameters, (products, perspectives, practices, people, and communities) in the model, students were scored from 1 point to 4 points on the basis of the knowledge and understanding they demonstrated in all the essays that were submitted. (Please see Appendix J to view rubrics to score essays for both the CMC-embedded webquests).
As has been already discussed in a previous section called ‘Administration of the CMC-embedded webquests’, all student essays were submitted to the Associate Professor of German in the department who then coded each essay for anonymity and saved it to her password protected personal laptop. During the entire period of administration, the coded student essays for both the CMC-embedded webquests remained with the Associate Professor of German. Also, after both the CMC-embedded webquests were completed and the sample that was agreed upon was shared with the instructor-researcher, the essays remained coded to protect the identity of the students. It was unanimously agreed upon by the researcher and the Associate Professor of German that the sample would comprise of 16 essays submitted by four students, all of whom had submitted pre- and post essays for both the CMC-embedded webquests. Table four indicates all scores assigned by the Instructor Researcher (I-R) and the Associate Professor of German (AP) for the selected sample set of essays (four students who had submitted complete data sets).

Table 4

Scores of essays shared by the Instructor-Researcher (I-R) and the Associate Professor of German for ‘inter-rater’ reliability

<table>
<thead>
<tr>
<th></th>
<th>Asha</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Umwelt 1</td>
<td></td>
</tr>
<tr>
<td>I-R</td>
<td></td>
</tr>
<tr>
<td>AP</td>
<td>11</td>
</tr>
<tr>
<td>Umwelt 2</td>
<td></td>
</tr>
<tr>
<td>I-R</td>
<td>18</td>
</tr>
<tr>
<td>AP</td>
<td>20</td>
</tr>
<tr>
<td>Germany-1</td>
<td></td>
</tr>
<tr>
<td>I-R</td>
<td>10</td>
</tr>
<tr>
<td>AP</td>
<td>12</td>
</tr>
<tr>
<td>Germany-2</td>
<td></td>
</tr>
<tr>
<td>I-R</td>
<td>20</td>
</tr>
<tr>
<td>AP</td>
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<td>Laila</td>
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<td>Umwelt 1</td>
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<td>I-R</td>
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<th>Elisa</th>
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<td>Umwelt 1</td>
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<td>Umwelt 1</td>
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<td>Germany-1</td>
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<td>I-R</td>
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<td>I-R</td>
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<td>7</td>
<td>9</td>
<td>13</td>
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It is also important to note here that after ‘inter-rater reliability’ was established and all the remaining essays were also scored based upon the rubrics, the instructor-researcher went back to re-examine the essay scores. Upon re-reading of all essays and careful reviewing, the new scores matched the already assigned scores for almost all essays, only differing by a point for one essay. An average of the two scores for that essay resolved the matter. In all, ‘intra-rater reliability’ had also been established for this instrument, thus increasing its ‘reliability’ quotient for this empirical research. All essays
were graded using the scoring rubrics for the respective essays. Please refer to Appendix N to view a sample of the essays submitted by Dana, one of the participants from Group four, for the ‘Umwelt’ CMC-embedded webquest. Appendix O provides an overview of the sub-scores and scores for participants from Groups 1 and 4 who submitted the essays.

Field notes journal.

Throughout the course of the study, i.e., from the conception of the research study to the transcribing phase, a field notes journal was maintained. The field notes journal existed in the form of notes on a scratch pad, marginal notes on the data collected, thoughts, suggestions, and ideas penned down in a notebook, and several correspondences with the participants of the study, the major professor, and other advisors on the dissertation study committee, all in the form of electronic mails (emails). All of these became a part of the field notes journal.

Instruments for Research Question 2

Research question 2 - From a Sociocultural Theory point of view, what mediating strategies are used by online students in their computer-mediated discussions of German culture?

2a) What mediating strategies are used by online students of German II in their synchronous computer-mediated discussions of German culture?

2b) What mediating strategies are used by online students of German II in their asynchronous computer-mediated discussions of German culture?

Since the second overarching question sought to examine what mediating strategies (Lidz, 2002) were used by the online students of German II in their synchronous and asynchronous online discussions of German culture, Lidz’ (2002)
taxonomy of mediating strategies within the sociocultural theory became an important instrument in coding all of the students’ online interactions, both asynchronous and synchronous.

However, to do so, it was important that the ‘unit of analysis’ be defined for this purpose. In an interesting study conducted by Steven Thorne (2000) that examined Computer Assisted Classroom Discussion (CACD) for principles of mediation and contextual analysis, he recognizes that ‘turn sequentiality’ in CACD cannot be equated with face-to-face discussions owing to the fact that participants could tend to post messages without concern for turn sequentiality, there are no facial cues or signals for other interlocuters to know when to respond, and that there is usually no control over the content of each turn. To address this, he proposes the ‘e-turn’ as a unit of analysis and defines it as a communicative unit that is derived from the way in which the server used for this study received its input, and the form and content of the message as typed by the user. For the purpose of this study, Thorne’s concept of ‘e-turn’ as the unit of analysis was considered most appropriate, except that in this case, the ‘e-turn’ was derived from the way in which the ‘BlackBoard’ server received, ordered, and recasted input. In other words, a student’s message became an ‘e-turn’ when it was displayed on the public screen as distinct block of text tagged with the user’s name. Additionally, the fact that the number of words (in the content of each message) for both asynchronous as well as synchronous computer mediated discussions that were produced by the two groups selected for the study were almost similar, and each student that participated in the asynchronous discussions (within the Discussion Boards) and the synchronous
discussions (within ‘Elluminate Live’) had comparably similar number of turns, only added to the appropriateness of the chosen unit of analysis for this CMC-related research.

Now that each ‘e-turn’ had been established as the chosen unit of analysis to respond to the overarching second research question (and its sub-questions), it is now important to understand how each ‘e-turn’ was coded based on Lidz’ (2002) mediating strategies (Intentionality, Meaning, Joint Regard, Transcendence, Sharing of Experiences, Task Regulation, Praise/Encouragement, Challenge, Psychological Differentiation, Contingent Responsivity, Affective Involvement, and Change) within the sociocultural theory framework. To begin with, all discussion threads (five threads) within each of the two discussion forums (‘Umwelt’ and ‘Germany, before and after the wall’) and the transcribed synchronous discussions that took place in ‘Elluminate Live’ for each CMC-embedded webquest topic for both groups were read and re-read. Following this, each ‘e-turn’, i.e., message posted (in both asynchronous and synchronous discussions) by each student from the two groups selected was examined and coded based upon Lidz’ (2002) taxonomy of ‘Adult-Child Mediating Strategies’.

While Lidz’ (2002) definitions for the mediating strategies were followed scrupulously, the mediating strategies of ‘Task regulation’ and ‘Challenge’ were revisited and redefined, keeping in mind that all interlocuters in this study were students (learners of German language and culture) as opposed to adults and children, as was originally conceived for. In the case of the mediating strategy, ‘Task Regulation’, for instance, there were little to no instances of the interlocuters (students) manipulating the task to facilitate problem solving (as one of the indicators of ‘Task Regulation’ as stated by Lidz), but there were instances where the interlocuters stated principle of solution or induced some
kind of strategic thinking in the other interlocuters during the online interactions, all of which aimed at enhancing each others’ knowledge and understanding of German culture. In the same vein, it was impossible to expect explicit signals or ‘utterances’ made by interlocuters that would challenge the other interlocutors in the online discussions (both asynchronous and synchronous) to reach beyond their current level of functioning, simultaneously ensuring that they would not get overwhelmed and get discouraged. Hence, implicit signals or ‘utterances’ demonstrating or geared towards the same goal were considered to be ‘challenge’ for the purpose of this study. Additionally, considering that all interlocutors were learners, and not experts of German culture, it was unrealistic to expect explicit ‘Praise/ Encouragement’ such as ‘excellent’, ‘bravo’, or ‘very good’.

For the purpose of this study, this mediating strategy too was modified so that, ‘utterances’ or instances where interlocutors praised or agreed with other interlocutors’ ideas, thoughts, or insights, were also considered as ‘praise/ encouragement’. Please see Appendices P and Q to see excerpts of the coding for an asynchronous and synchronous episode each, respectively.

Table five better exemplifies and demonstrates how each ‘e-turn’ was coded using Lidz’ (2002) taxonomy of mediating strategies that not only mentions and defines each ‘mediating strategy’, but also provides an example from the ‘e-turns’ generated by the participants in their computer mediated discussions. More specifically, the highlighted text in this table is indicative of the mediating strategy it represents.
### Table 5

**Lidz' (2002) mediating strategies with definitions and examples for the online student interactions**

<table>
<thead>
<tr>
<th>Mediating Strategy</th>
<th>Definition</th>
<th>Example</th>
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<tr>
<td>1. <strong>Intentionality</strong></td>
<td>Consciously attempting to influence the child's actions. This involves making efforts to keep the interaction going, engage the child's attention, inhibit impulsive behavior, and maintain goal orientation.</td>
<td>‘Umm...it seems like they are more environmentally aware and they are willing to do anything to be more friendly to the environment...the nation as a whole seems kind of strict but the laws definitely help them to kind of keep everything together so everybody works together’</td>
</tr>
<tr>
<td>2. <strong>Meaning</strong></td>
<td>Promoting understanding by highlighting for the child what is important to notice, marking relevant differences, elaborating detail, and providing related information.</td>
<td>Umm...it seems like they are more environmentally aware and they are willing to do anything to be more friendly to the environment...the nation as a whole seems kind of strict but the laws definitely help them to kind of keep everything together so everybody works together’</td>
</tr>
<tr>
<td>3. <strong>Transcendence</strong></td>
<td>Helping the child make associations to related past experiences and projects himself or herself into the future</td>
<td>Yeah, I mean, I agree that we are doing more for recycling than before but I remember earlier at the airports, you could see the various trash containers...they were segregated...so, maybe if they were provided maybe in stores and public places...i mean it doesn’t take much time to figure out what box to put it in...so, I agree that Obama will definitely pass a legislation to get us more involved and environmentally friendly..’</td>
</tr>
<tr>
<td>4. <strong>Joint regard</strong></td>
<td>Trying to see the activity through the child's eyes; looking at an object that has been brought into focus by the child; using &quot;we&quot; to talk about the experience.</td>
<td>Umm...where as over here, we just throw our trash wherever and I am guilty of that too.i did that tonight umm...yeah, they usually bring their own shopping bags...we don’t do that, we just use the plastic bags as much and basically sorting everything...we just throw our stuff together...we don’t really take the time to sort by glass, aluminum or paper</td>
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<tr>
<td>5.</td>
<td><strong>Sharing of experiences</strong></td>
<td>Telling the child about an experience or thought that the mediator had and of which the child is not aware.</td>
</tr>
<tr>
<td>6.</td>
<td><strong>Task regulation</strong></td>
<td>Manipulating the task to facilitate problem solving; stating a principle of solution or inducing strategic thinking in the child.</td>
</tr>
<tr>
<td>7.</td>
<td><strong>Praise/Encouragement</strong></td>
<td>Communicating to the child, verbally or nonverbally, that he or she has done something good; keeping high the child's self-esteem.</td>
</tr>
<tr>
<td>8.</td>
<td><strong>Challenge</strong></td>
<td>Maintaining the activity within the limits of the child's ZPD. This implies challenging the child to reach beyond his or her current level of functioning, but not so much that the child will feel overwhelmed and get discouraged.</td>
</tr>
<tr>
<td>9.</td>
<td><strong>Psychological differentiation</strong></td>
<td>Keeping in mind that the task is the child's and not the mediator's; that the goal is for the child to have a learning experience, not the adult and avoiding competitiveness with the child.</td>
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(Dana was not the moderator for this online synchronous discussion)
| 10. | Contingent responsivity | The ability to read the child's behavior and to respond appropriately. It can be compared to a well-coordinated dance between two partners who are very much in tune to one another. | Ja, I know what you mean, Cathy,…I remember when I first moved to Florida, it was a pretty new area and they gave us days for garbage and they gave us days for recycling |
| 11. | Affective involvement | Expressing warmth to the child; giving the child a sense of caring and enjoyment in the task. | Alright, that’s the five questions..Umm…I guess, we have to write individual compositions that are due tomorrow…Good luck with that! I know I have to do my homework yet. I hope I did a good job with moderating the session..Bye all! |
| 12. | Change | Communicating to the child that he or she has made some change or improved in some way. | None |

After the initial coding of all the CMC interactions (both asynchronous and synchronous) for both the groups was completed, it was crucial that a sample of the data set be shared and tested for ‘inter-rater reliability’. To do so, a colleague in the same doctoral program as the instructor-researcher, who was also familiar with Sociocultural Theory and the theories of foreign language teaching, was recruited. To make the most of the sample chosen from the data, the guiding question or the discussion thread that yielded the most responses were chosen. Coincidentally, the discussion thread that yielded the most number of responses for both the groups and for both the discussion forums was the same. Additionally, the synchronous discussion with the most number of participants was also chosen for the same purpose, all making it to about 15% of the total interactional data.
To go about this process in a systematic manner, the instructor-researcher and the colleague met at a mutually convenient time for a training session during which the instructor-researcher explained to the colleague the purpose of the study, the data sources, and Lidz’ (2002) mediating strategies. During this time, the instructor also shared with the colleague examples of the already coded asynchronous and synchronous discussions using this taxonomy, since the researcher had already coded all the ‘e-turns’. Additionally, the researcher explained to the colleague that Lidz’ (2002) mediating strategies of ‘Task Regulation,’ ‘Challenge,’ and ‘Praise/ Encouragement’ were adapted to fit the given context of peer interaction in online settings. A timeframe of three days was agreed upon by both the researcher and the colleague to code this sample data (it is important to note here that at this point the researcher was going to re-code the sample data). Three days later, the colleague and the instructor-researcher met again at a mutually convenient time and discussed how each of them had coded each ‘e-turn’ from the sample data shared based on Lidz’ (2002) taxonomy.

What emerged from the discussion and checking of codes for each ‘e-turn’ for the sample data shared was that the Inter-rater Reliability had a Correlation Coefficient of 0.92. The only mediating strategy that did not initially match in the coding of some ‘e-turns’ was that of ‘task regulation’. However, once the researcher explained to the colleague again that ‘task regulation’ as originally defined in Lidz’ (2002) taxonomy was intended for adult-child mediation, but had been redefined for the purpose of this study since this research study sought to examine peer interaction, i.e., mediation between peers in an online class, and how appropriate it was to code certain ‘e-turns’ also for ‘Task Regulation’ or ‘TR’, she added that code to those ‘e-turns’ in her sample data. Hence, it
was now safe to say that ‘inter-rater reliability’ was established for the CMC data generated by the chosen two groups for both their asynchronous as well as synchronous discussions. Thereafter, the researcher revisited all the data and re-coded it based on Lidz’ (2002) taxonomy for mediating strategies. Except on a couple of ‘e-turns’, the new codes matched the previous codes for all ‘e-turns’ generated. At this point, ‘intra-rater reliability’ was established as well, this increasing the trustworthiness of the research study. It was also agreed upon unanimously that no new mediating strategies seemed to have emerged at that point. Please refer to Appendices R and S for the tallying of Lidz’ (2002) mediating strategies for all ‘e-turns’ generated by both groups for the synchronous and asynchronous components of the CMC-embedded webquests.

Trustworthiness

The data for this study was collected during the Spring semester of 2010 at the University. The rationale for administering the study in the middle of the semester for two chapters in the textbook prescribed by the instructor was that the participants had already had two chapters of instruction with the instructor, had familiarized themselves with the content, syllabus, teaching styles and methods, and the Blackboard tools, including the software ‘Elluminate Live’. This eliminated the ‘novelty effect’ from the study. Also, as Miles and Hubermann (1994) suggest, the study accounted for triangulation of data, in that data was collected from four different sources – asynchronous and synchronous CMC discussions, online interviews, student essays, and field notes journal maintained by the researcher. Moreover, inter-rater reliability was established in scoring a sample (15%) of the essays, and coding of the ‘e-turns’ for Lidz’
(2002) mediating strategies before the final analyses began. This too enhanced the trustworthiness of the study.

Additionally, all necessary documents were submitted to the ‘e-IRB’ office, after which permission was received to conduct the study only with some minor revisions in ‘debriefing statements’, and ‘consent forms’. Once the necessary changes were made and approved by ‘e-irb’, the ‘consent forms’ and debriefing statements’ were disseminated to the eight participants at an appropriate time (please see Table one for the timeline). All data was saved and stored systematically on a password-protected laptop that only the researcher had access to. All of the above steps were taken to ensure ethical data collection and data analyses. Additionally, as the researcher, I was completely responsible for ‘descriptive validity ’ and ‘researcher biases’ for the analysis and the length of the study, as recommended by Leech and Onguegbuzie (2007).

Role of the Researcher

As is the case with several empirical studies, I was the instructor for the Online German II course offered in the Spring semester of 2010 at that university, and was also the researcher for this dissertation study that was administered within the confines of the above mentioned course. Owing to the dual roles I played alone, there was no need for any training towards creating the webquests, then administering them, online presence during the synchronous CMC discussions, or even conducting the interviews via Elluminate. In the same vein, it was my responsibility to ensure that my personal biases did not play out in grading the tasks assigned for the CMC-embedded webquests and vice-versa, that is not let their grades or responses develop personal biases as well.
More importantly ensure this, the online students of German II were asked to email all their essays to the Associate Professor of German in the department. Consequently, all the online students assumed that they wrote the essays for her, and not the researcher-instructor, and even emailed her to excuse them if their emails were delayed or let her know via email that their essays were in progress. This measured particularly distanced the instructor-researcher from the data collection procedure to avoid any personal biases on either ends.

Additionally, the same Associate Professor of German was added to the online course in BlackBoard, so that she could monitor and oversee the progress of the students as well as check for instructor biases and resolve them as and when necessary, although that never happened. Moreover, in the role of the researcher, I was accountable for storing away all soft copies and hard copies of all the gathered data safely on my password-protected personal laptop, so that no other person has access to them. The dual role allowed me to gain more control in determining the timeline of the proposed study, making changes or modifications to the plan (if necessary), and administer the materials designed for the study. However, it was important to keep in mind that my dual role may have had its implications on the study or the students enrolled in the Distance German II course, in that they may lose interest in the CMC-embedded webquests, and learning about German culture in detail due to overload of digital information, that the webquests may have exhausted them too much to write detailed essays thereafter, or there might have been a conflict of interests. To ensure that my dual role did not have any impact on the chosen students’ participation in the online interviews, or their responses in the online interviews, it was made explicitly clear in the
debriefing letters and the consent forms disseminated to the participants, that “the
decision to participate in the study, or the nature of their responses was entirely theirs
and, have no impact on their grades whatsoever.”

Data Analysis

Overview

The data generated for this study was rich and expansive. Data comprised of
participant interviews and follow up interviews for all participants from the two groups
chosen for the study; two episodes of asynchronous CMC discussions, one for each
chapter; two episodes of synchronous CMC discussions, one for each chapter; three types
of field journals recorded and maintained through the course of the study; and student
essays (two for each student) for both chapters. The following subsections explain the
data analysis method and procedure for both the research questions.

Data Analysis for Research Question 1

Research Question 1 - What role do the CMC-embedded webquests play in
developing students’ knowledge and understanding of German culture?

The instruments designed to elicit data for this research question are student interviews
(please see the subsection called ‘Student Interviews’ under ‘Instruments’), student
essays comprising of the two separate essays on the cultural topic at hand for each
student, one at the beginning of the chapter and one at the end (please refer to subsection
above called ‘Student Essays’ under ‘Instruments’), and the field notes journal
maintained by the researcher. A ‘Constant Comparison Method’ was used to analyze the
data generated from the interviews and the field journals.
Glaser and Strauss (cited in Lincoln & Guba, 1985, p. 389) describe the constant comparison method as four distinct stages – a) comparing incidents applicable to each category, b) integrating categories and their properties, c) delimiting the theory, and d) writing the theory.

For the first stage, codes were drawn deductively from the data gathered (as mentioned above). However, it is important to note here that creating and fine-tuning categories and their properties was a continuous process. Dye (2000) explains that creating categories is the first step to organizing and conceptualization of the data. For the purpose of analyzing the data gathered in this study, categories were drawn deductively (without reference to a priori categories). Other factors that Dye also deems crucial and were instrumental in determining categories (themes) for this method of data analysis were namely, inferences from the data, emergent or existing research questions, policy and theoretical issues, imagination, intuition, and previous knowledge.

As Dye (2000) noted, all data sources were utilized optimally, and the researcher became thoroughly familiar with the data, became sensitive to the context of the data. Conclusively, the researcher had to extend, change and discard categories, consider connections and avoid needless overlaps, record the criteria on which category decisions are to be taken, and consider alternative ways of categorizing and interpreting the data. It was important here that categories were meaningful internally, in relation to the data understood within that context, and externally, to the data understood from comparison. According to Dye, when a category is chosen, or adopted, a certain comparison is naturally implied. During the analysis of the data gathered for this study also, the
researcher looked for recurring signals, statements, words, expressions, or signs of behavior, all significant enough to be considered as a category (theme).

In the third stage of the constant comparison analysis, the categories became more refined. It is however important that the researcher was flexible in allowing fresh perspectives and new direction that might influence the categories and their properties. Finally, upon much consideration to the sensitive issues in the data, comparing the categories and their properties, a closer examination of the research questions that guided the study, and the emergent themes and theories, emergent observations, deductions specific to the study and its setting were carefully drafted. Please see Appendix L, which illustrates the color-coded emerging themes from the online interviews such as: advantages of the CMC-embedded webquests, value of peer-interactions, and complaints and suggestions expressed by the participants.

Given that this dissertation study has been categorized as an ‘embedded multiple case study’ (Yin, 2003), the method for analyzing the data gathered and reporting the analysis was also drawn from Yin’s (2003, p 50) model for ‘Case Study Methods’.
Data Analysis for Research Question 2

Research Question 2 - From a Sociocultural Theory point of view, what mediating strategies are used by online students in their computer-mediated discussions of German culture?

2a) What mediating strategies are used by online students of German II in their synchronous computer-mediated discussions of German culture?

2b) What mediating strategies are used by online students of German II in their asynchronous computer-mediated discussions of German culture?

The transcriptions generated from the synchronous CMC component (on the ‘Elluminate Live’ within Blackboard) and those from the asynchronous CMC component
(on the Discussion Boards within Blackboard) constitute the data to address research sub-questions 2a and 2b respectively. Since ‘mediation’ from the Sociocultural Theory point of view is central to both sub-questions of the second research question, a priori categories, namely Lidz’ (2002) taxonomy of ‘Adult-Child Mediating Strategies’ was used to code all ‘e-turns’ and determine the frequency of each mediating strategy within each online synchronous and asynchronous ‘e-turn’ for each CMC-embedded webquest, for each case (please note that each group represents each case in this study). This means, words, phrases, or the general meaning and intent of each unit of analysis (in this case, each ‘e-turn’) were mapped into the Lidz’ (2002) ‘mediating strategies’, namely, Intentionality, Meaning, Transcendence, Praise/Encouragement, Joint regard, Sharing, Task Regulation, Challenge, Psychological Differentiation, Contingent Responsivity, Affective Involvement, and Change. In other words, each ‘e-turn’ was analyzed using Lidz’ (2002) taxonomy to see which ‘mediating strategies’ were used in each ‘e-turn’ (unit of analysis, in this case). Additionally, as the researcher, it was important that I allowed for fresh perspectives to take root, in that I allowed for new connections to be made and account for emerging categories or mediating strategies as well.

Conclusion

This chapter of the dissertation outlines the research design, and explains why it was imperative to conduct a qualitative study to adequately address the research questions this research seeks to examine. This chapter also elucidates why this case study is an ‘embedded multiple-case study’, and ‘exploratory’ in nature. More importantly, Chapter III of this dissertation also provides an in-depth description of the web-based
materials developed for the study, and the data collection procedures in a systematic manner, accompanied by the timeline in a table format. In addition, this chapter also describes the data sources and instruments for each research question, followed by a detailed and step-by-step method of analysis for the data gathered to address all research questions that shaped this study. The next step is to report the findings of the analyses for both research questions. As explained at the outset of this chapter, this study is a ‘multiple embedded case study’ and hence adopts Yin’s (2003) model for ‘Case Study Designs’ (please see Figure 12). The next chapter presents the findings of the analyses for both research questions in a systematic fashion using this model.
CHAPTER FOUR: RESULTS

Introduction

This chapter of the dissertation provides detailed results for all research questions of the data analysis. Since this case study is an ‘embedded multiple case study’ (as indicated in Chapter III), based on Yin’s (2003) classification of case studies, the qualitative analyses and the presentation of the analyses will also follow Yin’s (2003, p. 50) analysis model for ‘embedded multiple case study’. To understand each case (group) better and to streamline the transition into each research question a group profile for each of the two groups will be presented first, which will comprise of a description of each student based on the data collected. To address each research question adequately, results of the ‘within-case analysis’ for each of the two chosen groups (cases) will be reported first, followed by a cross-case analysis report (between the two cases, or groups).

Group Profiles

Given that two groups, one with more than optimum level of interaction and one with less than optimal level of interaction, were chosen for the online interviews from a pool of five such groups in the Online German II course of the Spring semester of 2010, it is imperative to first provide a descriptive profile for each of the two chosen groups.

Profiles for members of Group One

This is the group that produced less than optimal level of computer mediated interactions. Like all other groups, Group one also comprised of 4 students. These
students were Asha, Wilson, Kai, and Sheela. The results of the web-based survey administered to create groups (please see Appendix B), the online interviews conducted with each student, and field notes journal, all yield the following information about each of the above mentioned students.

Asha.

The survey results indicated that Asha had never travelled to Germany in the past, and that she used the Internet between 5 and 10 times each day. The survey also showed that she was ‘proficient’ in using email, chat, and the web. Field notes journal indicated that Asha was also found to respond to emails promptly, although her responses were succinct. It is important to note here that she received an ‘A’ or ‘A+’ on most assignments and tests in the German II course.

Wilson.

Like Asha, Wilson had never travelled to Germany and indicated in the web-based survey that he used the Internet between ‘5 and 10 times a day.’ He also indicated that he was proficient in email, chat, web, Windows Media player and Real Player. On most occasions, Wilson too responded to the instructor’s emails in less than an hour and appeared interested in the German language and German culture. Wilson also readily agreed to be the moderator and did a very good job at coordinating with his group members to agree on a mutually convenient time for the online chats and then relaying it promptly to the researcher. As the moderator for both the synchronous sessions that took place in ‘Elluminate Live!’, one for each of the CMC-embedded webquests, he followed the guidelines and instructions, making sure that each question was addressed and that each member of his group (Group one) had an opportunity to respond, to express their
opinions and feelings, or to share their views and experiences. Also, Wilson was a History major and enjoyed writing very much, as he mentioned in his online interview.

*Kai.*

The results of the web-based survey indicated that Kai had travelled to Germany and the Netherlands for two weeks as a tourist. In the survey he mentioned that he rode along the river Rhine and visited Amsterdam during that trip. Like Asha and Wilson, Kai also used the Internet ‘5 to 10 times a day.’ In the web-based survey that he took, Kai indicated that he was ‘comfortable’ using email, chat, and the web, but was ‘proficient’ in ‘Windows Media Player’ and was ‘less than comfortable’ using ‘Real Player.’ Kai’s attendance at the ‘Fall of the Wall’ gala that was organized by the World Languages Department of that university in the previous semester was indicative of his interest in German culture. Kai did not receive an overall high score in the Online German I course. Although he participated in the first synchronous discussion in ‘Elluminate Live!’ for the first CMC-embedded webquest, he did not participate in the second synchronous discussion for the second CMC-embedded webquest, the reason for which was never provided.

*Sheela.*

Sheela, unlike all her group members, had travelled to Germany in the past with a purpose. She had lived in Germany for a period of three months with the aim to observe a particular school, during which she also visited friends in Germany, travelled by train, visited various cities and famous monuments and shopped too. Also, unlike her group members, Sheela used the Internet ‘less than five times a day,’ and while she reported herself as being ‘very comfortable’ using email, the web, and ‘Real Player’, she did
indicate that she was ‘less than comfortable’ using ‘chat’. Like Asha and Wilson, Sheela received an ‘A’ or ‘A+’ on most tests and assignments in the Online German II course and participated in both synchronous discussions, one for each CMC-embedded webquest. She also appeared interested in learning about German culture, in that she willingly agreed to participate in the online interviews with the incentive of receiving a book and a magazine about Germany and German culture.

Asha, Wilson, Sheela, and Kai all appeared to be keen to learn the German language and about its culture, in that they willingly agreed to participate in the online interviews with the incentive to receive a book called ‘Facts about Germany’ and a recently published magazine about the German culture, also in English.

Profiles for Members of Group Four

This subsection provides a profile for Group four, which was chosen as the group with more than optimal levels of interaction. The students in this group were as follows: Dana, Shane, Sandy and Cathy. This subsection furnishes an individual profile for each of these students based on the data gathered from the web-based survey, online interviews, and the field notes journal.

Dana.

In the web-based survey that Dana took, she indicated that she lived in Germany as a tourist for a month, during which she visited various cities and travelled extensively. Dana reported not to have made extensive use of the Internet, in that she checked the option of ‘at least once a day’, and also indicated that she was ‘less than comfortable using ‘email’, much less ‘chatting’, although she reported to be ‘very proficient’ in using the ‘web’. An interesting fact that revealed itself during one of the synchronous
discussions with another group member was that Dana was originally from Croatia, and came to the USA as a refugee herself at a young age. Because her family found a sponsor in Kentucky, she lived there initially while attending ESL programs in Middle School. She also shared that a translator accompanied her to every class for about a year. Although Dana admitted to have initially struggled with the English language and “fitting in,” she soon mastered it by practice and means of immersion, which helped her get over her fears and acculturate well.

She participated in both online chats conducted in ‘Elluminate Live’. Although Dana had willingly agreed to participate in the online interviews, owing to a technical problem on her computer, she then volunteered to come to the campus for a face-to-face interview, but only agreed to one interview session (as opposed to two, due to time constraints). From the personal stories that Dana shared about herself with Shane in the second online chat, Dana came across as a hardworking and determined individual, who wanted to assimilate well into the American culture. In her conversation with the researcher (which became a part of the field notes journal) she also briefly mentioned that she and her boyfriend had made plans to visit Germany and other European countries in the Summer semester of 2010 and were particularly excited about visiting Germany and experiencing German culture, now in a new light and a fresh perspective, having participated in the two CMC-embedded webquests revolving German culture, she told me.

Shane.

In the web-based survey that was administered to the online students, Shane indicated that he had never travelled in the past to Germany or any other German-
speaking country. He also mentioned that he checked his emails ‘more than 10 times a day’ and that he was ‘very proficient’ using all types of technologies queried on the web-based survey. As was revealed during both the interviews, Shane was a non-traditional student, in that he was approximately 36 years old, was married with two children, one of whom was in Kindergarten, had a part time job in the College of Education at that university, and had defended his dissertation proposal that same semester. Also, during the interviews, he described himself as being “young,” “sprightly,” and “chatty.” His maturity and assertiveness were reflected in his articulate responses, astute observations, and his moderation of the synchronous discussions, during which he demonstrated his high comfort with calling on group members to respond to questions, to transition from one question to the other, and with requesting more reactions or responses from group members, all of which might have been a result of Shane’s experience as a Teaching Assistant in this past. Not only did he participate in both synchronous sessions, but he also willingly agreed to be the moderator for both. Overall, he was an excellent student and that was reflected in his overall final course grade.

_Cathy._

In this chosen second group, Cathy too had travelled in the past to Germany and Austria, where she spent three weeks as a student in a high school and visited a friend. Cathy also indicated that while she was there, she enjoyed experiencing the culture, visited museums, and castles, and experienced the nightlife. In the web-based survey administered, Cathy indicated that she used the Internet between 5 and 10 times each day, and was ‘very proficient’ in using the ‘web’, and ‘comfortable’ using the email and chat. Owing to time constraints, Cathy was able to attend only the first synchronous discussion.
on ‘Elluminate Live!’ Also owing to time constraints, as she indicated, she was not able to participate in the online interviews, but promised to email descriptive responses to each of the interview questions as email attachments at the earliest. While Cathy’s responses to the interview questions were descriptive, they were received only five weeks after the deadline, after eight email reminders. Her overall grade for the Online German II course was ‘B’.

_Sandy_

She was the fourth group member of the second group, and like Shane from her group, she too had not travelled to Germany or any German-speaking country in the past. Sandy also indicated that she was proficient in the usage of ‘chat’, ‘email’, and ‘web’, and was more than comfortable but not proficient in the usage of ‘Windows Media Player’ and ‘Real Player’. While she did participate in the asynchronous discussions in ‘Discussion Boards’ for both chapters, she was the only student in the class that did not participate in any synchronous discussions. She explained that she had a very demanding course load and responsibilities, and promised to email detailed responses to all interview questions as an attachment at her earliest. Sandy, however, was not able to do so, and finally did email her responses only in the Finals week that semester. Her overall course grade was a ‘B.’

_Dana and Shane were the only members of group four that agreed to participate in the online interviews in exchange for the book called ‘Facts About Germany’ and the German magazine._
Results for Research Question 1

Research Question 1 - What role do the CMC embedded webquests play in developing students’ knowledge and understanding of German culture?

As Yin’s (2003) model for ‘embedded multiple case study’ suggests, the first step is to present the results of the qualitative analysis for each individual group (within-case analysis), and then provide the results of the ‘cross-case analysis’ (between the two chosen groups). As mentioned and described in chapter III, the main data sources employed for this research question were: essays written by students from the two chosen groups and scored based on the rubrics developed for each of the topics, the online interviews conducted with the participants from the two chosen groups, and the field notes journal.

**Within-Case Analysis of Group One**

Prior to presenting the results of the analyses for this question, it is important to reiterate that that Group one was chosen due to its ‘less than optimal’ level interaction in the asynchronous discussions of the CMC designed tasks of the CMC-embedded webquests. To report the findings to the first research question for Group one, themes that emerged from the analyses of the in-depth online interviews using the Constant Comparison Method will be discussed in detail. Thereafter, thorough analyses of the pre- and post-essays for the CMC-embedded webquests submitted by members of Group one will be provided. Needless to say the field notes journal has also contributed to the analyses and findings of this research question.
Online interviews.

The major themes that emerged from the analyses of the interview responses that explicitly addressed the first research question are as follows: CMC-embedded webquests – key factor; Culture via the CMC-embedded webquests, Opportunities for online interaction; Online Community, and Web Resources. This section reports the group members’ responses that pertain to each of the above-mentioned themes in light of their role in enhancing the online students’ knowledge and understanding of German culture.

CMC-Embedded webquests – key factor.

All members from Group one asserted that the CMC-embedded webquests played a key role in enhancing their knowledge and understanding of German culture. When asked whether the CMC-embedded webquests enhanced their knowledge and understanding of German culture, Asha said “certainly yes,” and she thought so because she “learned most about German culture during those two chapters due to the CMC-embedded webquests.” They “definitely impacted me” she said. To this question Sheela responded “definitely!” Wilson too responded affirmatively with “definitely helped!” Verbatim, he explained that the CMC-embedded webquests “got me more involved” and added that “the webquests could work for every chapter instead of just plain grammar and vocabulary.” Kai too attested that the CMC-embedded webquests “definitely helped” in enhancing his knowledge and understanding of German culture. In the online interview, he mentioned that although he also got help from a friend’s mother who used to live in Germany many years ago, the CMC-embedded webquests helped more than the friend’s mom.
A unanimous response from all students in Group one about the overall experience of learning about German culture from using the two CMC-embedded webquests was described as “interesting,” “useful information’, “informative,” and “positive.” In particular, Sheela described this experience as “very good,” ‘pretty descriptive,” “easy to use,” “really organized,” and also ‘interesting’. Wilson added that he “liked them a lot.” Moreover, Kai reported that the CMC-embedded webquests had “detailed information.”

*Culture via the CMC-Embedded webquests.*

In commenting about the usefulness of the CMC-embedded webquests Sheela elaborated that “the book has some cultural info at the end of each chapter, but this was so much more effective.” Wilson reported that he “learned a lot about Recycling” from the first CMC-embedded webquest (Umwelt), he did “not so much from the second CMC-embedded webquest because the topic was familiar to him, since he was a History Major”. Sheela added that the CMC-embedded webquests showed her “a different perspective of German culture, without an American spin on it.” She further explained that “past trips did not clarify how to recycle waste, but now I know…due to the webquests.”

*Opportunities for peer-interaction.*

In discussing the role of CMC-embedded webquests in the participants’ development of knowledge and understanding about German culture, Sheela acknowledged that “it was informative to be able to discuss cultural topics with online classmates.” In the same vein, Sheela added that she “liked the interactivity with online classmates and the wide spectrum of views although each of us read the same thing,” and
also liked “how other people contributed to and elaborated what you may or may not know.” Kai, also from group one, ‘liked the interaction so much,’” that he “hoped for more such interactions in the future.” Wilson added that he “came upon interesting viewpoints that I may not have thought of earlier,” and that in the online discussion boards “you can see the flow of thoughts, how the discussion emerged.” He also “liked seeing everyone’s response on a certain topic, and loved the real-time exchange of thoughts, especially on questions that were subjective, such as assimilation of Turks in Germany.” Similarly, Kai said that he found it “nice to compare how things are done differently in Germany vs. USA,” and that it was also “nice to see that we agreed upon a few things.”

Online community.

Another theme that emerged from the interview questions particularly pertinent to the role of CMC-embedded webquests in enhancing the online students’ knowledge and understanding of German culture was that of an online community that was generated on account of the CMC-embedded webquests. Asha was especially excited that she “got to know some people in the online class,” and Sheela further asserted the same by expressing that the online interactions with online peers “established an online community of sorts.”

Web resources.

In responding to the questions that elicited the impact of the CMC-embedded webquests on the members of Group one, Asha and Sheela exclaimed that they liked the videos very much, and Asha added that without the web resources, she would not have known where to look for all the information. Sheela elaborated that “sometimes it is hard
to imagine, but a video makes it all real.” Asha, Sheela, and Wilson asserted that they “loved the web resources!” Kai commented that the web resources provided in-depth knowledge. Asha also noted that she remembered the information even two months after the CMC-embedded webquests were administered and completed.

Design feedback about the CMC-embedded webquests.

While members of group one asserted that the two CMC-embedded webquests helped them to enhance their knowledge and understanding of German culture, analyses of the remainder of the interview questions that did not directly relate to the role of the CMC-embedded webquests in enhancing their knowledge and understanding of the German culture resulted in the following themes: Discussion Boards, ‘Elluminate Live!, and the general design of the CMC-embedded webquests. This subsection discusses their reports on the difficulties they encountered with respect to the above-mentioned themes.

Discussion Boards - Asha, Sheela, and Wilson explained that they did not like “waiting for peers’ responses to their posts,” and that there was a significant “response lag” (in Asha’s words), or “paced out” as Sheela described it. To add to that, Wilson voiced that “small responses comprising of about 15 words to his long and descriptive responses were frustrating.” To resolve the “late or delayed response” issue, Asha suggested “setting due dates for each question or parts of the forum so that everyone would post on time.” On the same note, Sheela pointed out a technical problem with the posts on DB, in that she “did not understand which post corresponded to which one, and that part was confusing,” because “posts were not indented enough or appropriately.” Kai, on the other hand, thought that “preparation for the DBs was a challenge.” He also
mentioned that he enjoyed the ‘Germany, before and after’ more than the ‘Umwelt’ CMC-embedded webquest, but had no explanation for the same.

**Online Chats** - Asha, and Sheela thought that the chats “did not flow smoothly, and were rigid.” Sheela elaborated that possible causes for the same could be that “turn taking part was confusing,” “went too fast,” and that there were “no visual cues for body language to see who wants to go next,” or “others might have said what you wanted to say or you may forget its your turn or what you wanted to say.” Asha suggested that to ensure a smooth flow in the chats, it might help to do a “random topic selection instead of responding to each question individually.” Asha, Wilson, and Kai voiced that there were scheduling issues, and “agreeing upon a time for chats that works for all was challenging.” Kai also mentioned that in the chat “responses were sometimes repetitive due to the nature of questions or same information that all are reading.”

**General Design of the CMC-embedded webquests** - Although Asha, Wilson, and Kai were satisfied with the overall organization of the ‘web’content in the CMC-embedded webquests, Sheela had a different opinion about the organization of the CMC-embedded webquests. She thought she had to “jump around from one web page to another word document to understand the flow” and “wished that all information was in one place, so there would be no need to jump around.” Sheela also said that the essays were her least favorite, but she understood that it was an important part of the process. In commenting about the webquests in general, Kai “wished that there were a broader view,” but was unable to elaborate this point.
Student essays.

While all students from Group one affirmed that the CMC-webquests did enhance their knowledge and understanding of German culture, it is crucial to note that this was their own perspective. To triangulate this finding, it was imperative to examine the sub-scores and final scores of the pre- and post essays submitted for the CMC-embedded webquests (please refer to Appendix J).

Table 6

Sub-scores and final scores for pre- and post essays submitted by Asha, Sheela, and Kai from Group one

<table>
<thead>
<tr>
<th>Group One</th>
<th>Asha – Umwelt</th>
<th>Asha – Germany, before and after the wall</th>
<th>Kai – Germany, before and after the wall</th>
<th>Sheela – Umwelt</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Products</td>
<td>Practices</td>
<td>Perspectives</td>
<td>People</td>
</tr>
<tr>
<td>pre-webquest essay</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>
As the table indicates, the total number of instances in which sub-scores have progressed by both one and two points, are equal in number. It is however interesting to note that the progression is more pronounced (by two points) in areas of products, practices, people, and communities, as opposed to ‘perspectives’.

‘Communities’ in Asha’s Essays.

To quote an example, Asha’s knowledge and understanding of ‘communities’ with regards to environment and recycling in the essay she submitted before the ‘Umwelt’ CMC-embedded webquest was introduced and administered to the online class was reflected in the following words:

The German way of looking at the environment and the American way of looking at the environment are very different. Germans look at the things they have done for the earth and see that they can only do more. Americans do much less, and perhaps it is because we are so focused on being consumers. If we had laws like the Germans do we would be forced to be more environmentally-friendly.

In this excerpt from Asha’s essay, she mentioned and described only one aspect of ‘communities,’ i.e., the comparison and contrast between American and German ways of being “environmentally friendly.” According to the rubric, one point is scored if the student ‘mentions and describes one aspect of the communities.’ However, in the essay submitted upon completion of the ‘Umwelt’ CMC-embedded webquest, Asha’s deeper knowledge and understanding of German culture with regards to ‘communities’ in the realm of environment and recycling (in which she mentioned and described four to five
aspects about ‘communities’ and received four points in this category) was mirrored in the following excerpt:

Their recycling system although strong in all parts in Germany, seems more lax in small towns and villages. In larger cities, they not only sort into different categories, but also sort those different categories into more categories. For example, not only do they sort glass from plastic and paper, they also sort glass into different colors. Germans seem very happy with their recycling systems, and it also seems to bring them together as a community. The Germans also have a Green party for their government that contributes to their perspective on the environment. In contrast, the Unites States does not recycle nearly as much. In some states there are bottle deposits that encourage the buyer to bring them back, however we do not have as many ways of sorting for actually recycling. In certain parts of Germany, there are Green Zones where cars without green, yellow, or red stickers are not allowed to drive.

More specifically, words and phrases from the above excerpt of Asha’s essay such as “small towns and villages,” “larger cities,” “it also [recycling] seems to bring them together as a community,” “Green party,” “In certain parts of Germany, there are Green Zones,” “the United States does not recycle nearly as much,” and “In some states there are bottle deposits that….” all indicate a deeper level of knowledge and understanding of ‘communities’ with regards to the topic of ‘Our Environment.’

*Triangulating the ‘Communities’ in Asha’s Second Essay.*

As noted in the previous section, the post-CMC-embedded webquest essays demonstrate a deeper understanding of Asha’s knowledge and understanding of ‘communities’ in German culture. Although the data sources for the first research
question do not include participants’ interactional data, and the researcher did not set out to examine the interactional data, this section links Asha’s interactional data with the interview responses and the post-CMC-embedded webquest essay scores and sub-scores on a micro-level and further triangulates the findings that address the role of CMC-embedded webquests in enhancing participants’ knowledge and understanding of German culture.

It is important to note here that to begin with, the ‘Process’ section of the ‘Umwelt’ CMC-embedded webquest entailed videos of two persons originating from a smaller town and Berlin, metropolis, in which they both talked about how waste was recycled in those respective regions of Germany. Another video, also linked into the ‘Process’ section, showed a conversation between an American and a German in which they both talked about the importance and enthusiasm for sorting and recycling waste in their own countries. Additionally, websites providing information about the ‘Green Party,’ and laws concerning the ‘Green Zones’ were also part of the ‘Process’ section of the first CMC-embedded webquest.

After or while watching the above-mentioned videos and browsing the websites that related to the ‘Green Party,’ and ‘Green Zones’ in Germany, Asha engaged in asynchronous and synchronous online discussions with her group members in responding to the guiding questions for each of the two CMC-components. The following excerpts taken from the synchronous online chats are indicative of Asha’s meaningful discussions with her group members about the ways in which different communities (smaller towns versus metropolises) recycle waste and in which various communities strive towards recycling in Germany.
Asha: I thought they sounded really happy with their laws and sort of really proud of what they are doing…ummm…I mean, on a daily basis like everybody was saying, they have to sort through their trash to figure out what to recycle and what to send to the incinerators and they sort everything in a whole bunch of different ways..they also buy glass bottles that are actually recycles..ummm..so they reuse the glass bottles and they also have the compost piles for organic waste..

Wilson: Alright, does anybody have anything else to add before the next question?

After a brief pause of silence

Wilson: Question no. 3 - does every household in Germany recycle waste in the exact same manner? If no, how are they different and perhaps why?

Somebody….please randomly pick..ok, Kai, what do you think?

Kai: Obviously, no..from the videos and the research done on the Internet..its different in the cities and it seems that it is a lot more easier and the containers are separate and its right outside on the back..so you can just sort it…and it’s all collected frequently In the cities, whereas in the small towns, paper is collected and picked up every other week or month and certain waste is picked up only few times of the year…so it’s a lot of more easier to recycle in the city

Wilson: I guess, Sheela can go next..?

Sheela: Well yeah…I watched the videos and it seems like the smaller villages per household, they have less varieties of trashcans, they only have 3 types of cans to sort their waste..but in the city, like in the Berlin video, he said that he had to even categorize according to the different colors of glass into different
containers...and maybe like they do it because in the city there are more people and like a small area, maybe its easier for like the government or something..

Asha: I definitely agree and it seems like the smaller counts or villages, they have to do a lot less sorting through the things, whereas in the city they seem to be really structured and like everything has a certain kind of way...um...they also talked about how there was little public transportation in the smaller cities and villages, so they have to use their cars more...so its more like a matter of what they have in their environment...so, they have the ability to be more organized in a larger city

In the same vein, Asha’s asynchronous discussions on the discussion board with her group members are indicative of the aspects of ‘communities’ reflected in her second essay, namely, the ‘Green Party,’ and the ‘Green Zones.’ Excerpts from one of the asynchronous discussion threads on the topic of Green Party in Germany and its comparison with that in the USA (responding to the guiding question such as ‘How is the Green Party in Germany different from the Green Party in the USA?’) were as follows:

Kai: The Green Party in the US focuses more on matters on social justice and peace with only a hint of environmentalism, while the Green Party in Germany has its roots against nuclear power and pollution. The German Green Party has elected members in the German Parliament, while the US Green Party has no elected members in the US Congress.

February 10, 2010 11:10 AM

Wilson: The German Green Party stands for environmental protection, social justice and human rights. This party has the largest ecological and social
representation in the world based on elected members of the party. The U.S. Green Party focuses more on government for the people by the people as well as social justice. The U.S. Green Party is not as popular a party in the United States holding offices only in local elections and not national elections.

February 11, 2010 2:34 PM

Asha: As Kyle said, the U.S. Green party seems to be more focused on human rights and justice, and not on environmental aspects. They do say they focus on the environment as well, but I have never seen them as any kind of key factor in change. The German Parliament. The U.S. Green party seems to be an extension of the European one. It has only been around since 2001. The German parliamentary group is made up of 68 members - the largest representation of ecological/social policies in any parliament around the world. The Green party for the U.S. is made up of a delegate member from each of the states. It's odd, but it seems like the Green party from the U.S. is almost anarchical, unlike the German Green party that works directly with the government.

February 11, 2010 5:01 PM

Asha: It's a good point to make that the U.S. Green party has only been able to make it into local elections. I've honestly never even heard of them before. The German Green party is much better known.

February 11, 2010 5:05 PM

Similarly, excerpts from another asynchronous discussion thread on the topic of ‘Green Zones’ in Germany that were in fact responses to one of the guiding questions for
this CMC-component (Do the ‘Green Zone’ laws differ for foreign cars in Germany? If so, how? What in your opinion might be the reason(s) behind this?) are as follows:

Kai: Yes the Green Zone laws differ for foreign made cars, because in my opinion the foreign cars are made with different emission standards compared to German ones and the fact that not all cars run on either diesel or petrol which is what the Germans mainly use to run their cars.

February 10, 2010 10:53 PM

Wilson: Yes the laws differ based on the emission of the car. Many German manufactured cars run on Diesel motors whereas foreign cars run a petrol engine. The foreign cars with cleaner emissions are permitted to run through all the newly designated environmental zones whereas some older German diesel cars are not permitted in these areas. My opinion is that the government might be trying to force German manufacturers to move to cleaner emission cars or lose business within Germany.

February 11, 2010 2:44 PM

Asha: The "Green Zone" laws are the same for everybody. If you want to drive in the Green Zone then you have to have a low emission car that has the green, yellow, or red sticker on it. However, if your car, which might have higher emissions due to not being German, has too high of emissions for their standards then you cannot enter the Green Zones that are continuously getting larger. If you do not have a sticker you will get a fine, just like a German citizen would if they drove in the area without the sticker. According to the website, you will have to pay more for the sticker if you order it from them, because they are not an
authority and are reselling them at a higher price. Of course, the fines or the stickers will be the same, because it is a universal rule. They cannot just let tourists do something that Germans are not allowed to do themselves. It also pulls in more money.

February 11, 2010 5:28 PM

Asha: I definitely agree with you Wilson, if you want to drive in the Green Zone then you have to have a car with lower emissions. It's definitely a way of getting U.S. manufacturers to produce cars that have lower emissions as well. In a way it encourages other country's to be more environmental as well.

February 11, 2010 5:31 PM

As demonstrated above, triangulation of Asha’s interview responses, her asynchronous and synchronous online discussions with her online group members, and her post CMC-embedded essay scores, all indicate that the CMC-embedded webquests played a key role in enhancing her knowledge and understanding of ‘communities’ in German culture. Although this section traces only interactional data to link interview responses and essay scores with them to show evidence of learning about ‘communities’ for Asha, the same can be done for all aspects of Moran’s (2001) model of culture, this method of triangulation can be applied to all participants from group one who submitted the pre- and post essays for at least one CMC-embedded webquest.

Within-Case Analysis for Group Four

Before presenting the results of the analyses for this question, it is important to reiterate here that Group four was chosen due to its ‘more than optimal’ level interaction in the CMC designed tasks of the CMC-embedded webquests. To report the findings to
the first research question for Group one, themes that emerged from the analyses of the in-depth online interviews using the Constant Comparison Method will be discussed in detail. Thereafter, a thorough analyses of the pre- and post-essays for the CMC-embedded webquests submitted by members of Group four will be provided. Relevant excerpts from the field notes journal that also contributed to the analysis and findings of this research question will be explained in this subsection. It is important to note here that while Dana and Shane volunteered to participate in the online interviews, Cathy and Sandy emailed their responses to the interview guide.

*Online interviews.*

The major themes that emerged from the analyses of the interview responses that explicitly addressed the first research question are as follows: CMC-embedded webquests – key factor; Culture via the CMC-embedded webquests, Opportunities for online interaction; Online Community, and Web Resources. This section reports the group members’ responses that pertain to each of the above-mentioned themes in light of their role in enhancing the online students’ knowledge and understanding of German culture.

*CMC-embedded webquests – key factor.*

When members of group four were asked to share if they thought that the CMC-embedded webquests had enhanced their knowledge and understanding of German culture, each of them unanimously and affirmatively exclaimed with “yes, definitely!” All found the experience to be “valuable,” especially due to the online nature of the German II course. Dana even admitted that she started paying more attention to the ‘Publix’ bags and recycling options in the neighborhood. She believed that the CMC-embedded webquests definitely impacted her, in that “they went beyond regular
classroom learning, and helped compare and contrast different cultures in terms of environment and recycling.” Shane noted that the CMC-embedded webquest about recycling was especially “eye-opening.” Shane reiterated that the CMC-embedded webquests had definitely enhanced his knowledge and understanding of German culture. He further made a comparison that the “textbook information on culture was sterile,” but “the two CMC-embedded webquests were real, and live, and interactive.” Cathy added that she learned about aspects of German culture that she never knew before. What Sandy found particularly unique about the impact of the two CMC-embedded webquests was that she had still retained all the information she had learned from the CMC-embedded webquests, even two months after they were administered, and expressed that there “should be more such CMC-embedded webquests in the future.” The following excerpt from the field notes journal that was in fact an email exchange between Shane and the researcher-instructor that demonstrates both the enthusiasm and motivation to use and browse more CMC-embedded webquests, and the disappointment that there were only two CMC-embedded webquests planned for that semester: “Oh, I was really hoping for more such CMC-embedded webquests. Completing them was a great experience.”

*Culture via the CMC-embedded webquests*

In discussing the experience of learning about German culture via the two CMC-embedded webquests, all members of group four echoed each others’ views and sentiments, describing it as a “great learning experience,” “interesting,” “pretty positive,” “challenging,” and “interesting.” Shane added that the CMC-embedded webquests “broke the monotony of grammar and vocabulary” as can be the case with an online foreign language course. In his own words, he further elaborated that the webquests offered a
“cultural perspective of the language we were learning” and “an opportunity to explore German culture from a German perspective,” which he said was “a different view from regular media such as TV, or what people tell us.” Moreover, Shane believed that the CMC-embedded webquests provided them with a “great opportunity to think, share, the process,” because of which they were “able to compare what we were familiar with, especially in an online class.” Cathy reported that the tasks were “lot of work,” but also admitted that she “learned a lot more about the German culture.” She also thought that this was a “great opportunity to interact with peers.” More specifically, Cathy understood that it was important to learn about German culture since “language and culture go hand in hand.” Sandy further eluded that the CMC-embedded webquests “sparked interest” and she “felt inclined to research more,” and not only that, but also suggested that the CMC-embedded webquests “should be a requirement for all language courses.”

*Opportunities for peer interaction.*

All members of Group four who participated in the asynchronous and the synchronous online discussions affirmed that they “enjoyed reading their peers’ responses,” and “different perspectives.” Shane, Dana, and Cathy, all, affirmed that they especially enjoyed the experience of interacting with their peers online and found it to be especially valuable, “unique and vital feature in an online course,” as Shane describes it. Dana, Shane, and Cathy all affirmed that it was interesting and enjoyable to “read what other people had to say,” and “appreciated group members’ viewpoints.” He particularly enjoyed the “back and forth” of the responses between group members. Sandy provided an explanation for her ‘absence’ on the DBs (her own time constraints), but did “enjoy reading peers’ responses” and “different perspectives.”
**Online community.**

Cathy reported that she “got to know some classmates.” She further added that “got to know her peers a bit better.” Both Dana and Cathy “liked that the group size was small, which made it easier to communicate,” and “it allowed them to get to know each other and added to the comfort level.” Dana was particularly excited that “even though you haven’t met them, you picture them, hear them, you joke, interact, and share stories.” Shane enjoyed listening to the different perspectives that group members brought to the chat, especially because each group member came from a different background, and particularly recalled that one of his group members, Dana, hailed from a different country (she had shared this with him during the second chat session).

**Web resources.**

Shane commented that the videos, graphics, links, text – all came together very well. He especially enjoyed watching the videos, and in fact “wished that the videos were a little longer.” Cathy and Sandy did not provide their responses for this question.

**Design Feedback about the CMC-embedded webquests**

While members of group one asserted that the two CMC-embedded webquests helped them to enhance their knowledge and understanding of German culture, analyses of the remainder of the interview questions that did not directly relate to the role of the CMC-embedded webquests in enhancing their knowledge and understanding of the German culture resulted in the following themes: Discussion Boards, and ‘Elluminate Live!’ This subsection discusses their reports on the difficulties they encountered with respect to the above-mentioned themes.
Discussion Boards – In reporting about the Discussion Boards, Dana reported that “some people would just go on and on, almost repetitive.” She suggested that setting due dates for parts of the forum would have then ensured that everyone would have posted their responses in a timely manner, which would have been less frustrating. Shane’s complaint about the DBs was mainly the “sterile” nature of the responses, and calls them “almost packaged food,” that is devoid of emotion, or the lack of “candid responses” in his words. He also pointed out that navigating through the DBs was cumbersome, and that BlackBoard should work on making it more “user-friendly.” Moreover, he found the time lag between responses to be a “bit frustrating.” In the same vein, Cathy thought that more time on the DBs would have helped, while Sandy did not provide a response for this. She only provided some more explanation on why she did not participate in the DBs, and wished that she had.

Online Chats - It is important to note here that although Cathy did participate in the first online chat, it was only Dana and Shane, who interacted with each other in the second online chat. Sandy did not participate in any of the two online chats. In describing their experiences of the online chats, they echoed each other with descriptors such as “great experience,” “awesome,” and “cool,” all of which indicate level of enjoyment. While Dana reported that there was nothing in particular that she disliked about the chats, Shane thought that because the group size was small, it seemed that nobody wanted to “step on each others’ toes,” so to say, and that a larger group size would have helped in creating more diversity through backgrounds, and hence opinions and experiences. Additionally Shane found the “its your turn” used by the moderator (Shane was the moderator for both chat sessions) almost disrupted the smooth flow of the discussion or
conversation. He further elaborated that having “no visual cues or body language in online chats made it difficult to tell if a group member was agitated, excited, interested, or disinterested.” Cathy and Sarah who emailed me their responses to the interview questions did not respond to this one.

*Student essays.*

While all students from Group four affirmed that the CMC-webquests did enhance their knowledge and understanding of German culture, it is crucial to note that this was their own perspective. To triangulate this finding, it was imperative to examine the sub-scores and final scores of the pre- and post essays submitted for the CMC-embedded webquests (please refer to Appendix J).

Table 7

*Sub-scores and final scores for pre- and post essays submitted by Dana and Sandy from Group four*

<table>
<thead>
<tr>
<th></th>
<th>Dana – Umwelt</th>
<th>Dana – Germany, before and after the wall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Products</td>
<td>Practices</td>
</tr>
<tr>
<td>pre-webquest essay</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>post-webquest essay</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>
As the table clearly indicates that progression in students’ knowledge and understanding of German culture (with regards to the topics covered) ranged from 2 to 3 points. It is also evident from the table that Dana was the only student in Group four whose knowledge and understanding of German culture, i.e., ‘Environment and Recycling’ and ‘Germany, before and after the wall’ progressed by three points in the areas of ‘people’ and ‘perspectives’ respectively, as reflected in the essays she submitted.

‘People’ in Dana’s essays.

While Dana scored zero out of four in ‘people’ in her pre-CMC-embedded webquest essay for ‘Umwelt’ (according to the scoring rubric, ‘mentions and describes no aspect about the ‘people’”), she had gained a better understanding of the same (scored three points since she ‘mentioned and described three to four aspects about people’) after the CMC-embedded webquest was administered and completed, as was demonstrated in the following words, phrases, and sentences taken from the second essay.

In the video that we watched, I was shocked to learn that ninety percent of Germans enjoy recycling and they do it because it makes them happy. Germans are extremely environment-friendly and from young age are taught to recycle. In bigger cities folks are very aware of recycling and they have huge systems. Systems such as people using three different garbage cans in order to recycle plastic, glass and paper…
Triangulating the ‘People’ in Dana’s essays.

As noted in the previous section, the post-CMC-embedded webquest essays demonstrate a deeper understanding of Dana’s knowledge and understanding of ‘communities’ in German culture. Although the data sources for the first research question do not include participants’ interactional data, and the researcher did not set out to examine the interactional data, this section links Dana’s interactional data with the interview responses and the post-CMC-embedded webquest essay scores and sub-scores on a micro-level and further triangulates the findings that address the role of CMC-embedded webquests in enhancing participants’ knowledge and understanding of German culture.

While the videos and websites in the CMC-embedded webquests disseminated information about ‘people’ with regards to recycling and recycling laws in Germany, Dana’s asynchronous and synchronous online discussions with her peers also addressed ‘people’ aspect in German culture. More specifically, the following excerpt taken from Dana’s online chat with her group members entailed discussions of the ‘people’ aspects for the given topic.

Shane: OK…alright..question no. 1 – what do the recycling laws tell you about the nation and its citizens? Am assuming we’re talking about Germany..alright, lets talk about Germany first…since Dijana is first on the list, Dijana go first..
Dana: The recycling laws tell me that Germans have a lot of respect for their environment and that they care a lot about whats going to happen in the future and they do a lot of research on things that could go wrong and they actually do the
right thongs for those things not to go wrong because once its too late, then its just too late

Shane: Ok, Courtney

Cathy: Ja, I’d have to agree. I thought it was interesting...a lot of it was like they want to identify like future problems and they have like this early detect system or like whatever and they’re definitely like environmentally like conscious of everything and like trying to conserve energy so, its like what you said – they show a lot of respect for their environment and try to do all that they can to fight against the garbage battle, acid and stuff.

Shane: Oh ya, I mean I think its pretty obvious and I agree with both of you..umm..actually in watching one of the youtube videos, the young male from Germany mentioned that 90% of the people seem to enjoy recycling I guess, and in one of the studies that was done by Germany but it seems that people are really really focused on recycling and trying to head off future problems like Dana was saying. It was interesting that in one of the ..umm..recycling bins , the young lady in a different video mentions that the bins are always full and people will put the bottles on the outside of the bins… and how neatly stacked all the bottles were ….and I had image of recycling bin or a trash can here in the US where certainly things were not stacked neatly ..so, having said that why don’t we talk about the recycling laws in the United States and what that may tell us about our nation and our citizens ..umm..Dana?

Dana: I believe in the United States, the nation is more of like a choice type of thing...that either you can do it or don’t...but if you don’t there is no penalty and
no one really cares…and if you do it, its good for you…you did a good job so I think we like influence more people that there is penalty, or that its wrong, or that if you don’t do it, people would do it more, coz in Germany, its not normal if you don’t do it.or mostly like everybody ..like you said, 90% enjoy doing it, but in the United States on the other hand, its like 50 enjoy doing it and 50 are just lazy and don’t want to do it..

Thus, data from Dana’s synchronous chats, her online asynchronous discussions, both of which stemmed from the information about ‘people’ disseminated in the CMC-embedded webquests, indicated that the peer-interactions enhanced Dana’s understanding of ‘people’ as demonstrated in her second essay. This is also triangulated by her online interview during which she acknowledged the impact of the CMC-embedded webquest on her, in that she “started paying more attention to Publix bags and recycling options in the neighborhood.” Dana also admitted that “the CMC-embedded webquests went beyond classroom learning and helped her compare and contrast.” Although this section traces only interactional data to link interview responses and essay scores with them to show evidence of learning about ‘people’ for Dana, the same can be done for all aspects of Moran’s (2001) model of culture, this method of triangulation can be applied to all participants from group four, who submitted the pre- and post essays for at least one CMC-embedded webquest.

**Cross-Case Analysis of Results for Group One and Group Four**

This subsection compares and contrasts the findings of analyses for Group one and Group four that are discussed in the above subsections. In keeping consistency with Yin’s (2003) model for writing the results for an ‘embedded multiple case design,” the
next step is to present the results of the ‘Cross-case analysis’ conducted between Groups one and four. At this point, it is important to reiterate that these two groups were chosen out of a total of five groups in the online German II course in Spring’10 because of the variance in level of interaction. More specifically, Group one was chosen because of the ‘less than optimal levels of interaction’ it generated, and Group four was selected because this group generated ‘more than optimal levels of interaction.’ Following is a discussion of the themes that generated from the cross-case analysis of both groups.

**CMC-embedded webquests – key factor.**

Although some participants called it a “great experience”, and others found it to be a “good experience,” all students from both groups described their overall experience with the CMC-embedded webquests as being very positive, enjoyable, interesting, and informative. Each student from both groups added that they learned most about German culture related to the concerned topics during those two chapters because of the CMC-embedded webquests. Although Sheela had travelled to Germany before, she never knew some of the practices and the perspectives behind those practices with regards to recycling, but did so only after she had completed the CMC-embedded webquest tasks. Asha and Sandy both were surprised that they still remembered most of the information that was presented to them in the CMC-embedded webquests. Dana noted that during and after the CMC-embedded webquests, she was able to compare and contrast how things are done differently in different cultures and sub-cultures because of the different perspectives. Moreover, members of both groups pointed out that although the German textbook did have some cultural information at the end of each chapter, it was limited and ‘sterile’ (in Shane’s words), but these CMC-embedded webquests were ‘so much more,”
“went beyond regular classroom learning,” were “real, and live, and interactive!” and “used a formula” that engaged and interested them.

*Opportunities for peer-interaction.*

All students from both groups suggested that such CMC-embedded webquests should be specially created as part of the Online German II course, since these CMC-embedded webquests not only provided them with a plethora of authentic cultural information in the form of links, graphics, and videos, and encouraged them to read, research, think, compare, contrast and self-introspect, but also gave them opportunities to engage in meaningful online discussions and chats to further their knowledge, share their experiences, thoughts, and views, and clarify their questions or doubts, all of which led to furthering their knowledge and understanding of German culture.

*Culture component.*

All members of groups 1 and 4 shared their enthusiasm, excitement, and acknowledged how important it was for them to learn about German culture with reference to the two topics covered in the CMC-embedded webquests as part of the German language course, since “language and culture go hand in hand,” as Sandy eluded to this point. In addition, Sheela from group one appreciated that the cultural information was disseminated in CMC-embedded webquests “without putting an American spin on it;” and Shane added that the views or information he encountered in the CMC-embedded webquests were “different from regular media such as TV or what people tell us.”

*Online community.*

All members of both groups affirmed that interacting with their group members online about the cultural topics allowed them to “get to know their peers,” and generated
a “sense of community” which they thought was especially valuable in an Online German II course.

**Web resources.**

While members of group one greatly appreciated and elaborated upon ways in which the web-resources, particularly the videos had an impact on enhancing their knowledge and understanding of German culture, only Shane from group one specifically talked about the web resources and appreciated how they all came together in the CMC-embedded webquests.

**Design feedback about the CMC-embedded webquests.**

**Discussion boards.**

Members of both groups reported having issues with aspects of the Discussion Boards on BlackBoard, particularly, the inadequately designed indentation to clarify if a group member’s post was a response to the original guiding question, or a response to another group member’s post. Additionally, members of both groups suggested that there should be two phases or deadlines for the discussion boards: one for posting responses to the original guiding questions, and another for posting to group members’ responses.

**Online chats.**

Members of group one and four reported that they found the online chats to be “rigid,” or “broken” due to the intervening of the moderator to ensure that all questions were addressed, and that each group member had a chance to respond. Additionally, due to lack of knowledge and usage of the functionalities offered by “Elluminate Live!,” members of both groups were unable to “express” interest, readiness, and other emotions in chatting online with their respective group members.
Sheela from group one was the only participant that reported discomfort, in that she had to “jump around from one page to another to understand the flow of the CMC-embedded webquests” and “found it confusing at times.”

*Participants’ essays.*

Another facet of the results yielding from the analysis shows that for group one, the average of the pre-CMC-embedded webquest essay scores for group one is 9.5, and that of the post-CMC-embedded webquest scores was 16. In the same vein, for group four the average score of the pre-CMC-embedded webquests was 6, while that of the post-CMC-embedded webquests was 17.3. In other words, essay scores for group one (with less than optimal levels of interaction) progressed by 6.5 points, while the essay scores progressed by 11.3 points.

**Results for Research Question Two**

Research Question Two – From a Sociocultural Theory point of view, what mediating strategies are used by online students in their computer-mediated discussions of German culture?

2a) What mediating strategies are used by online students of German II in their synchronous computer-mediated discussions of German culture?

2b) What mediating strategies are used by online students of German II in their asynchronous computer-mediated discussions of German culture?

To address the second research question adequately, and keeping in mind that it is divided into two parts, it is only appropriate and befitting to adopt Yin’s (2003) model for presenting the results of this ‘embedded multiple case study,’” that is, to first present the
findings of the analysis for each group separately (within-case analysis), then followed by a cross-case analysis for each of the two sub-research questions.

Results of Research Question 2a

This section provides detailed results for within-case analyses of the synchronous discussions generated by group one and group four. Following the results for the within-case analysis, the cross-case analyses of the two groups will be presented.

Results of within-case analysis for group one.

Before presenting the results for the ‘within-case analysis’ for Group one, the following table provides an overview of the cumulative frequencies of all Lidz’ (2002) mediating strategies recorded in the ‘e-turns’ generated by members of Group one in their synchronous ‘online chats’ for both CMC-embedded webquests.

At the outset of the within-case analysis of Group one it is important to mention that all members of Group one participated in both chats, except Kai, who was not able to participate in the Online chat for ‘Germany, before and after the wall.’ Table eight shows the cumulative frequencies for each mediating strategy employed by members of group one for both the CMC-embedded webquests, while the table in Appendix T shows the number and type of mediating strategies used by each individual group member during each of the two online chats for both the CMC-embedded webquests.
As shown in Table eight, the number of ‘e-turns’ produced by Asha, Sheela, Kai, and Wilson for ‘Umwelt’ chats were 7, 6, 6, and 8 respectively; and were 9, 5, and 6 produced by Asha, Sheela, and Wilson respectively for the ‘Germany, before and after the wall.’ Yet another point to note here is that every ‘e-turn’ displayed ‘Intentionality’ (I), in that every ‘e-turn’ generated by any member of the group illustrated the intentionality.

Table 8
Cumulative frequencies of Lidz’ (2002) Mediating Strategies in synchronous online discussions in group one for both CMC-embedded webquests

<table>
<thead>
<tr>
<th>Lidz’ Mediating Strategies</th>
<th>‘Umwelt’ CMC-embedded webquest</th>
<th>‘Germany, before and after the wall’ CMC-embedded webquest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intentionality</td>
<td>27</td>
<td>20</td>
</tr>
<tr>
<td>Meaning</td>
<td>25</td>
<td>19</td>
</tr>
<tr>
<td>Transcendence</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Joint Regard</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Sharing of Experiences</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>Task Regulation</td>
<td>14</td>
<td>10</td>
</tr>
<tr>
<td>Challenge</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Praise/ Encouragement</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Psychological Differentiation</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Contingent Responsivity</td>
<td>27</td>
<td>19</td>
</tr>
<tr>
<td>Affective Involvement</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Change</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
to keep the interaction going, according to Lidz’ (2001) mediating strategies. Also, almost every ‘e-turn’ that demonstrated ‘Intentionality’ also demonstrated ‘Meaning’ (M) and ‘Contingent Responsivity’ (CR). This is because each ‘e-turn’ promoted understanding by highlighting to the group members what is important to notice, marking relevant differences, or elaborating detail, or providing related information. Each ‘e-turn’ was also usually a response to a group member’s comment or question, due to the sheer nature of online synchronous discussions.

While Kai, Wilson, and Asha’s responses demonstrated more ‘Joint Regard’ (JR) through their usage of ‘our,” “we,” and ‘us,” in the ‘Umwelt’ online chat, only Wilson’s responses displayed ‘Joint Regard’ twice in the online chat for ‘Germany, before and after the wall’. As is clear from table in Appendix T, Asha, Sheela, Kai, and Wilson’s online synchronous discussions for ‘Umwelt’ showed 4, 4, 4, and 3 instances of ‘Sharing of Experiences’ respectively, while Asha, Sheela and Wilson’s responses entailed 6, 5, and 7 instances of ‘Sharing of Experiences’ in the online synchronous discussions for ‘Germany, before and after the wall’. Moving on to the next Lidz’ (2001) mediating strategy, Asha, Sheela, Kai and Wilson’s responses illustrated 2, 4, 3 and 5 instances of ‘Task Regulation’ (TR) in the online chats for ‘Umwelt’; while Asha, Sheela, and Wilson’s responses illustrated 4, 3, and 3 instances of TR respectively in the online chats for ‘Germany, before and after the wall’. Again, Asha, Sheela, Kai, and Wilson’s synchronous discussions for the ‘Umwelt’ included 1, 1, 1, and 2 instances of ‘Challenge’ (Chal.), while Asha, Sheela, and Wilson’s synchronous discussions for the ‘Germany, before and after the wall’ included 0, 3, and 2 instances of ‘Chal.’ respectively.
With regards to ‘Praise/ Encouragement’ (P/E), Asha, Sheela and Kai’s responses in the ‘Umwelt’ online chat demonstrated 1, 1, and 3 instances of P/E; while only Sheela demonstrated 1 instance of P/E in the ‘Germany, before and after the wall’ online chat. Wilson’s responses, however, did not show any instance of P/E in both the online synchronous discussions. While no member from Group one showed any instances of ‘Psychological Differentiation’ (PD) in the online chat for ‘Umwelt’, Asha’s responses showed only one instance of PD in the online chat for ‘Germany, before and after the wall’, which could be perhaps attributed to the fact that she was the moderator for that chat. It is interesting to note that it was only Asha who demonstrated one instance of ‘Affective Involvement’ (AI) in both the online synchronous discussions. Yet another interesting point to note here is that, there were no instances of ‘Change’ (Chn.) observed in either of the online chats in the ‘e-turns’ or responses generated by any of the members of Group one.

Results of within-case analysis for group four.

Before presenting the results for the ‘within-case analysis’ for Group four, table nine provides an overview of the cumulative frequencies of all Lidz’ (2002) mediating strategies recorded in the ‘e-turns’ generated by members of Group four in their synchronous ‘online chats’ for both CMC-embedded webquests.
Table 9

Cumulative frequencies of Lidz’ (2002) Mediating Strategies in synchronous online discussions in group four for both CMC-embedded webquests

<table>
<thead>
<tr>
<th>Lidz’ (2002) Mediating Strategies</th>
<th>‘Umwelt’ CMC-embedded webquest</th>
<th>‘Germany, before and after the wall’ webquest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intentionality</td>
<td>41</td>
<td>40</td>
</tr>
<tr>
<td>Meaning</td>
<td>33</td>
<td>45</td>
</tr>
<tr>
<td>Transcendence</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>Joint Regard</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>Sharing of Experiences</td>
<td>32</td>
<td>34</td>
</tr>
<tr>
<td>Task Regulation</td>
<td>20</td>
<td>12</td>
</tr>
<tr>
<td>Challenge</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Praise/ Encouragement</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>Psychological Differentiation</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Contingent Responsivity</td>
<td>42</td>
<td>39</td>
</tr>
<tr>
<td>Affective Involvement</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Change</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table nine illustrates the results of the ‘within-case’ analysis for the online synchronous ‘e-turns’ with reference to the types and frequency of Lidz’ (2002) mediating strategies used by the participants of Group four in both CMC-embedded webquests. Cathy did not participate in the online chat for ‘Germany, before and after the wall’ webquest.
wall’, and Sandy participated in neither of the chats conducted for both the CMC-embedded webquests (please see Appendix T).

As table nine shows, the ‘e-turns’ generated in the online synchronous discussions for ‘Umwelt’ indicated that Dana, Shane, and Cathy’s responses had 13, 16, and 12 instances of ‘I’ (Intentionality, i.e., the intention to keep the conversation going) respectively in the online chat for ‘Umwelt’, while Dana and Shane’s responses in the online chat for ‘Germany, before and after the wall’ had 19 and 21 instances of ‘I’ respectively. As explained earlier, since most instances of ‘I’ also mostly amounted to ‘CR’ (Contingent Responsivity), Dana, Shane, and Cathy’s responses demonstrated 12, 16, and 12 instances of ‘I’ in the online chat for ‘Umwelt’ respectively, while Dana, and Shane’s responses entailed 19, and 20 instances of ‘CR’ in that order for ‘Germany, before and after the wall.’ Again, given that most responses or ‘e-turns’ generated by group members were responses to the five guiding questions, most responses also entailed ‘Meaning’. In that vein, Dana, Shane, and Cathy’s responses in the online synchronous discussions for ‘Umwelt’ entailed 9, 15, and 9 instances of ‘M’ respectively, while Dana and Shane’s responses in the online synchronous discussions for ‘Germany, before and after the wall’ entailed 18 and 17 instances of ‘M’ respectively. For the responses in the online chat for ‘Umwelt’, Dana, Shane, and Cathy’s discussions included 2, 10, and 3 instances of ‘Transcendence’ respectively, while for ‘Germany, before and after the wall’ included only 2, and 1 instances of ‘Transcendence’ respectively. The instances for ‘JR’ (Joint Regard) produced in both the online synchronous discussions were close in numbers, in that Dana, Shane and Cathy had 4, 5, and 2 instances of JR in the ‘Umwelt’ chat respectively; and Dana and Shane had 1 and 4 instances of ‘JR in the
‘Germany, before and after the wall’ chat in that order. While Dana, Shane, and Cathy’s online synchronous discussions for ‘Umwelt’ had 9, 14, and 9 instances of ‘Sharing of experiences’, Dana and Shane had 17 instances each in the second chat in which they shared their experiences.

Additionally, while there were 7, 8, and 2 instances of TR produced by Dana, Shane, and Cathy respectively for the first chat, there were 5 and 7 instances of TR produced by Dana and Shane respectively in the second chat. Again, Dana, Shane and Cathy’s online synchronous discussion for ‘Umwelt’ entailed 2, 5, and 2 instances of ‘Challenge’ respectively, while in the online synchronous discussion for ‘Germany, before and after the wall’, Dana and Shane had both 3 instances of ‘Challenge’. It is interesting to note that Dana, Shane, and Cathy’s ‘e-turns’ showed 0, 3, and 2 instances of ‘P/E’ in the first chat, but for the second chat, Dana and Shane’s ‘e-turns’ showed 5 and 8 instances of ‘P/E’. Another striking feature of the online synchronous discussions generated was that Shane was the only group member that had instances of ‘Psychological differentiation’ – 6 in the first chat, and 1 in the second. Another interesting result of the analysis of the online synchronous discussions within Lidz’ (2003) ‘mediating strategies’ within the sociocultural theory framework was that only Shane’s responses entailed 2 instances of ‘Affective Involvement’ in the first chat, while both (all) group members, Dana and Shane’s responses showed 5, and 7 instances of ‘Affective Involvement’ in the second chat respectively. There were no instances of ‘Change’ observed in the chats for either of the chats.

Summary
There were no instances of ‘Change’ observed in the ‘e-turns’ generated by members of Group one in either of the CMC-embedded webquests. It is important to reiterate here that while three members (Shane, Dana, and Cathy) of Group four participated in the online chat for ‘Umwelt’, only Dana and Shane participated in the online chat for ‘Germany, before and after the wall.’ Due to the variance in differences within the findings of the types and frequencies of Lidz’ (2002) mediating strategies employed by members of Group four, these differences were variable. A small difference was also found in the frequencies of ‘Sharing of Experiences’ (32 in ‘Umwelt’ and 34 in ‘Germany, before and after the wall’), and ‘Contingent Responsivity’ (CR) where 42 instances of ‘CR’ were noted in the online chat for ‘Umwelt’, and 39 instances of ‘CR’ were noted for ‘Germany, before and after the wall’, despite the fact that three members of group four participated in the first online chat, while only two students participated in the second online chat.

_Cross-Case Analysis of Lidz’ (2002) Mediating Strategies Used by Group One and Group Four in the Synchronous ‘e-turns’ in both CMC-embedded Webquests_

This sub-section presents the results for the cross-case analysis conducted for the online synchronous discussions between Group one (the group that generated less than optimal levels of interactions) and Group four (the group that generated more than optimal levels of interactions). The subsection will be divided into two major parts, namely, commonalities and differences.
Table 10

*Cumulative frequencies for Lidz’ (2002) Mediating Strategies occurring in the synchronous ‘e-turns’ generated by members of Group one and Group four*

<table>
<thead>
<tr>
<th>Cross-Case Analysis of Group One and Group Four for Online Synchronous Discussions in both CMC-embedded Webquests</th>
<th>Total number of frequencies for each Mediating Strategy</th>
<th>Group One</th>
<th>Group Four</th>
<th>Difference +/-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intentionality</td>
<td>47</td>
<td>81</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>Meaning</td>
<td>44</td>
<td>78</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>Transcendence</td>
<td>4</td>
<td>18</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Joint Regard</td>
<td>11</td>
<td>16</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Sharing of Experiences</td>
<td>33</td>
<td>66</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Task Regulation</td>
<td>24</td>
<td>32</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Challenge</td>
<td>15</td>
<td>15</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Praise/Encouragement</td>
<td>6</td>
<td>18</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Psychological Differentiation</td>
<td>1</td>
<td>7</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Contingent Responsivity</td>
<td>46</td>
<td>81</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Affective Involvement</td>
<td>2</td>
<td>14</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Change</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

**Commonalities.**

As the table ten shows, there were no instances of ‘Change’ observed in the ‘e-turns’ generated by either groups. Moreover, the mediating strategy of ‘Challenge’ was
cumulatively used 15 times by both groups in their online synchronous interactions with their respective group members for both CMC-embedded webquests.

For all remaining mediating strategies, i.e., ‘Intentionality,’ ‘Meaning,’ ‘Transcendence,’ ‘Sharing of Experiences’, ‘Praise/Encouragement,’ ‘Contingent Responsivity,’ and ‘Affective Involvement,’ the cumulative frequencies of mediating strategies observed in the ‘e-turns’ generated by members of Group four for both webquests were significantly higher than those observed in the ‘e-turns’ generated by members of Group one for both the CMC-embedded webquests.

*Differences.*

It is clear from table ten that the frequencies of both ‘Joint Regard’ and ‘Task Regulation’ were higher for Group four than Group one by five and eight instances respectively.

*Results of Research Question 2b*

To be consistent with the presentation of the analysis of Lidz’ (2002) mediating strategies employed by the participants, this part of the ‘Results’ section will first provide the findings of the ‘Within-case’ analysis for Group one, followed by a ‘Within-case analysis for Group four’, followed by a ‘Cross-Case’ analysis between Groups one and four. Please see Appendix U for Lidz’ (2002) mediating strategies employed in all asynchronous ‘e-turns’ in the Discussion forums for both CMC-embedded webquests, for both, Groups one and four.
Results of Within-case analysis for Group one

The following table provides an overview of the cumulative frequencies of Lidz’ (2002) mediating strategies employed by members of group one in the ‘discussion boards’ for both CMC-embedded webquests.

Table 11

Cumulative frequencies of Lidz’ (2002) Mediating Strategies in asynchronous online discussions in group one for both CMC-embedded webquests

<table>
<thead>
<tr>
<th>Group One – Asynchronous Online Discussions</th>
<th>‘Umwelt’ CMC-embedded webquest</th>
<th>‘Germany, before and after the wall’ CMC-embedded webquest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lidz’ Mediating Strategies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intentionality</td>
<td>42</td>
<td>28</td>
</tr>
<tr>
<td>Meaning</td>
<td>37</td>
<td>27</td>
</tr>
<tr>
<td>Transcendence</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Joint Regard</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>Sharing of Experiences</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td>Task Regulation</td>
<td>16</td>
<td>12</td>
</tr>
<tr>
<td>Challenge</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Praise/ Encouragement</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Psychological Differentiation</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Contingent Responsivity</td>
<td>16</td>
<td>10</td>
</tr>
<tr>
<td>Affective Involvement</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Change</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
As is apparent from the table in Appendix U all members of Group one participated in the Discussion Forum for each CMC-embedded webquest. Given that ‘e-turns’ generated by each group member was in fact intended to keep the ‘online discussion’ going, almost each ‘e-turn’ demonstrated ‘Intentionality’. As table eleven indicates, Asha’s ‘e-turns’ in the asynchronous discussions had 20 instances of ‘I’ for ‘Umwelt’, but had only 10 instances of ‘I’ for ‘Germany, before and after the wall’. The number of instances for ‘I’ in other group members’ responses in the DBs for ‘Umwelt’ were comparable with those for ‘Germany, before and after the wall’, in that Sheela had 9 instances of ‘I’ for both the DBs, and Kai had 4 and 3 respectively, while Wilson had 9 and 6 instance of ‘I’ respectively. Also, given that almost each ‘e-turn’ produced was intended to provide meaning, elaborate and explain, the number of instances for ‘M’ was very similar to those of ‘I.’ For example, Asha, Sheela, Kai, and Wilson’s responses in the DBs for ‘Umwelt’ had 17, 8, 4 and 8 instances respectively, while the number of instances of ‘M’ for Asha, Sheela, Kai, and Wilson for ‘Germany, before and after the wall’ were 10, 8, 3 and 6 respectively.

Another finding that gleans from this ‘Within-case analysis’ for Group one is that only Asha and Sheela’s posts in the DBs for ‘Umwelt’ yielded one instance of ‘Transcendence’ each, while there were none observed for the DBs for the second CMC-embedded webquest. Also, while Asha, Sheela, Kai, and Wilson’s posts in the DBs for ‘Umwelt’ yielded 7, 3, 1 and 1 instances of ‘JR’ respectively, none of their posts in the DBs for ‘Germany, before and after the wall’ yielded any instances of ‘JR’
Asha’s posts for both forums indicated 5 instances of ‘Sharing of Experiences’ and Kai’s posts had 2 in each of them; Sheela’s responses showed only 2 of these in the first forum, and 6 in the second. However, Wilson’s responses had 0 instances of ‘Sharing of Experiences’ in the first and 1 in the second discussion forum. The mediating strategy of ‘Task Regulation’ or ‘TR’ was employed by Sheela and Wilson for equal number of times in both the discussion forums, i.e., 5 and 3 respectively, while Asha’s responses in the DBs for ‘Umwelt’ showed 7 instances of ‘TR’, but only 4 in the DBs for ‘Germany, before and after the wall.’ Kai’s responses for the DBs in the first forum entailed only 1 instance of ‘TR’, and none on the second one. Only Asha and Sheela’s posts in the asynchronous online discussions for ‘Umwelt’ yielded 1 instance each of ‘Challenge’. On the other hand, Asha, Sheela and Wilson’s posts in the DBs for ‘Germany, before and after the wall’ yielded 3, 3, and 2 instances of ‘Challenge’ each.

In the asynchronous online discussions for ‘Umwelt’, only Asha’s responses indicated 5 instances of ‘Praise/ Encouragement’, while in the asynchronous online discussions for ‘Germany, before and after the wall’, Asha, Sheela, and Kai’s responses indicated 3, 4, and 1 instances of ‘Praise/ Encouragement’ respectively. The ‘within-case’ analysis for the mediating strategies employed by members of Group one also demonstrated that Asha, Sheela, Kai, and Wilson’s responses for the first Discussion forum entailed 9, 3,4 and 0 instances of ‘CR’ respectively, while for the second discussion forum, their responses entailed 3, 3, 3, and 1 instances of ‘CR’ respectively. There were no instances of ‘AI’ and ‘Change’ seen in the responses of any members of Group one in either Discussion forum.
Summary.

As illustrated in table eleven, the ‘within-case analyses for the asynchronous ‘e-turns’ generated by members of Group one for both CMC-embedded webquests yielded that no instances of ‘Psychological Differentiation,’ ‘Affective Involvement,’ and ‘Change’ were observed for either of the CMC-embedded webquests. The differences in the types and frequencies of the mediating strategies employed by members of Group one in the asynchronous ‘e-turns’ for both CMC-embedded webquests ranged from low to high. Nine instances of ‘Sharing of experiences,’ and 16 instances of ‘Task regulation’ were observed in the asynchronous online discussions for the first CMC-embedded webquest, while 14 and 12 instances of these mediating strategies respectively were observed in the asynchronous online discussions for the second webquest. Moreover, while members of Group one produced five instances of ‘Praise/Encouragement’ for ‘Umwelt’, they produced 8 instances of the same for ‘Germany, before and after the wall.’ Another noteworthy difference was found in the cumulative frequency for ‘Challenge,’ where in contrast to the above mentioned pattern, eight instances of ‘Chal’ were recorded in the asynchronous ‘e-turns’ for ‘Germany, before and after the wall’, while only two instances of the same were observed in the ‘e-turns’ produced for ‘Umwelt.’

Results of within-case analysis for group four.

Before presenting the ‘within-case’ analysis for Group four, the following table (table 12) provides an overview of the cumulative frequencies of Lidz’ (2002) mediating strategies employed by members of group four in the ‘discussion boards’ for both CMC-embedded webquests.
Table 12

_Cumulative frequencies of Lidz’ (2002) Mediating Strategies in asynchronous online discussions in group four for both CMC-embedded webquests_

<table>
<thead>
<tr>
<th>Lidz’ Mediating Strategies</th>
<th>‘Umwelt’ CMC-embedded webquest</th>
<th>‘Germany, before and after the wall’ webquest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intentionality</td>
<td>34</td>
<td>42</td>
</tr>
<tr>
<td>Meaning</td>
<td>34</td>
<td>42</td>
</tr>
<tr>
<td>Transcendence</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Joint Regard</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Sharing of Experiences</td>
<td>27</td>
<td>34</td>
</tr>
<tr>
<td>Task Regulation</td>
<td>28</td>
<td>7</td>
</tr>
<tr>
<td>Challenge</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>Praise/ Encouragement</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Psychological Differentiation</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Contingent Responsivity</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>Affective Involvement</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Change</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Like Group one, all members of Group four participated in the discussion forums for each of the two topics (please see Appendix U) It is important to note here that the ‘within-case’ analysis of Group four for this purpose demonstrated that the instances for ‘Intentionality’ matched the instances for ‘Meaning’ (given that the intention to keep the conversation going also comprised explanation, elaboration and highlighting what is
pertinent to the discussion thread), in that Dana, Shane, Cathy, and Sandy’s responses for the ‘Umwelt’ discussion forum had 13, 7, 4 and 10 instances of both, ‘Intentionality’, and ‘Meaning’ respectively, and had 22, 9, 2, and 9 instances of ‘Intentionality’ and ‘Meaning’ each for the second discussion forum. While a careful analysis of Dana, Shane, and Sandy’s responses in the first discussion forum yielded 2, 1, and 5 instances of ‘Transcendence’ respectively in the ‘Umwelt’ discussion forum, Shane and Sandy’s responses yielded 3 and 1 instances of ‘Transcendence’ respectively in the ‘Germany, before and after the wall’ discussion forum. Similar is the variance when it came to ‘Joint Regard’. Dana, Shane, and Sandy’s posts for the first discussion forum in ‘Umwelt’ entailed 4, 1, and 1 instances of ‘JR’ respectively, while only Dana’s responses in the second discussion forum in ‘Germany, before and after the wall’ entailed only 1 instance of ‘JR’. Posts made by Dana, Shane, Cathy, and Sandy for the ‘Umwelt’ discussion forum contained 10, 4, 3, and 10 instances of ‘Sharing of Experiences’. On the other hand, posts made by Dana, Shane, Cathy, and Sandy for the ‘Germany, before and after the wall’ discussion forum contained 16, 7, 2, and 9 instances of ‘Sharing of Experiences’ respectively.

While Dana, Shane, Cathy, and Sandy’s responses to the threads in the discussion forum for ‘Umwelt’ showed 10, 5, 4, and 9 instances of ‘TR’, Dana and Cathy’s responses to the threads in the discussion forum for ‘Germany, before and after the wall’ demonstrated 6 and 1 instances of ‘TR’ respectively. Again, while 5, 2, and 6 instances of ‘Challenge’ were demonstrated in the first discussion forum by Dana, Cathy, and Sandy, only 1 instance of ‘Challenge’ was observed in Shane’s posts in the second discussion forum. In the category of ‘Praise/Encouragement’ mediating strategy, 5 and 1 instance
each was found for Dana, Cathy, and Sandy respectively in the ‘Umwelt’ discussion forum, while 6, 3 and 1 instance was found in the ‘Germany, before and after the wall’ discussion forum for Dana, Shane, and Sandy respectively. With regards to the mediating strategy of ‘Contingent Responsivity,’ (CR) 11, 1, 1, and 2 instances of CR were found in Dana, Shane, Cathy, and Sandy’s posts to the first asynchronous discussion forum, while 13, 5, and 2 instances of CR were found in Dana, Shane, and Sandy’s posts to the second asynchronous discussions. It is especially interesting to note that no instances of ‘Psychological Differentiation,’ ‘Affective Involvement,’ and ‘Change’ were observed in the responses to the threads posted by any member of Group four in both the discussion forums.

_Cross-Case Analysis of Lidz’ (2002) Mediating Strategies Used by Group One and Group Four in the Asynchronous ‘e-turns’ in both CMC-embedded Webquests_

This sub-section presents the results for the cross-case analysis conducted for the online asynchronous discussions between group one (the group that generated less than optimal levels of interactions) and group four (the group that generated more than optimal levels of interactions). The subsection will be divided into two major parts, namely, commonalities, and differences. The following table illustrates the total number of frequencies of strategies employed by members of both groups for each of Lidz’ (2002) mediating strategies in both CMC-embedded webquests.
Table 13

Cumulative frequencies for Lidz’ (2002) Mediating Strategies occurring in the asynchronous ‘e-turns’ generated by members of Group one and Group four

<table>
<thead>
<tr>
<th>Cross-Case Analysis of Group one and Group four for Online Asynchronous Discussions in both CMC-embedded webquests</th>
<th>Total number of frequencies for each Mediating Strategy</th>
<th>Group one</th>
<th>Group four</th>
<th>Change +/-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intentionality</td>
<td>60</td>
<td>76</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Meaning</td>
<td>64</td>
<td>76</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Transcendence</td>
<td>2</td>
<td>12</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Joint Regard</td>
<td>12</td>
<td>7</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Sharing of Experiences</td>
<td>27</td>
<td>34</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>Task Regulation</td>
<td>28</td>
<td>35</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Challenge</td>
<td>10</td>
<td>14</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Praise/ Encouragement</td>
<td>3</td>
<td>17</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Psychological Differentiation</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Contingent Responsivity</td>
<td>26</td>
<td>35</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Affective Involvement</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Change</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>
Commonalities.

No instances of ‘Psychological Differentiation,’ ‘Affective Involvement,’ and ‘Change’ were observed in the asynchronous discussions produced in either CMC-embedded webquests by members of Group one and Group four.

Differences.

Relatively smaller differences were recorded for the mediating strategies of ‘Praise/Encouragement,’ and ‘Contingent Responsivity,’ where Group one produced seven and ten for each of these respectively, while Group four produced ten and 20 respectively. Conversely, differences were also noted for ‘Transcendence’ and ‘Joint Regard,’ where Group one had higher frequencies of the same (eight and six respectively), while group four had four and one respectively.

Relatively higher differences in frequencies of mediating strategies that emanated from this ‘cross-case analysis’ of Lidz (2002) mediating strategies used by members of group one and four in the asynchronous ‘e-turns’ for both the CMC-embedded webquests included ‘Intentionality,’ ‘Meaning,’ and ‘Sharing of Experiences,’ where group four had 42, 42, and 34 instances of each of the above respectively, while Group one had 34, 34, and 28 instances of each in that order. Conversely, significant differences were also recorded in ‘Task Regulation,’ and ‘Challenge,’ in that the online asynchronous interactions between members of group one had 28 and 13 instances of each respectively, while the online asynchronous interactions of Group four had seven and one respectively.

A micro ‘cross-case analysis’ between Groups one and four demonstrated that the number of instances for the mediating strategies of ‘Intentionality’ and ‘Meaning’ for all group members in both the discussion forums ranged from 2-13, with the exception of
Dana with considerably high number of instances (22) for the second discussion forum, while Asha followed closely with 20 instances, but in the first discussion forum.

Summary

This chapter provides detailed reports of the analyses to the two overarching research questions that guided this study. Following is a brief summary of the findings for each of the research questions.

*Results for Research Question 1*

A constant comparison method analysis of the data sources reveals that the participants gained much knowledge about German culture (people, products, practices, perspectives, and communities, based on Moran’s model of culture, 2001) from the CMC embedded webquests. Data triangulation demonstrates that the knowledge and understanding gained by participants through their experiences with the CMC-embedded webquests about German culture is reflected in the post-CMC-embedded webquest essays, and is also expressed in their online interviews.

Apart from demonstrating the cognitive gains from the CMC-embedded webquests that was the focus of the first research question, the CMC-embedded webquests also had some affective benefits, in that participants were delighted with the opportunities provided for them to interact with their group members, and they enjoyed interacting with their group members in asynchronous and synchronous online discussions in varying levels. Additionally, students acknowledged and appreciated the amount of web resources provided to them to inform them about German culture with regards to the relevant topics. They believed that the CMC-embedded webquests
specifically aimed at imparting cultural knowledge and that they broke the monotony of grammar and vocabulary. In addition, the CMC-embedded webquests showed the students what German culture is without “putting an American spin on it.” Students also added that the CMC-embedded webquests went much beyond what the German textbook can do, in terms of imparting cultural knowledge.

Results for Research Question 2

The second overarching research question was aimed at determining what mediating strategies (Lidz, 2002) were used by participants in their online discussions of German culture, synchronous and asynchronous.

Research Question 2a.

Analyzing the synchronous ‘e-turns’ using Lidz’ (2002) mediating strategies’ coding scheme yielded the following results: In the case of Group one where all four members participated in the online chat for the ‘Umwelt’ CMC-embedded webquest the number of instances for all Lidz’ (2002) mediating strategies were higher (except for ‘Psychological Differentiation,’ and ‘Change’) than those in the online chat for ‘Germany, before and after the wall’ in which only three out of four students participated.

In the case of group four, on the other hand, where three members participated in the online chat for ‘Umwelt’ and only two members ‘chatted’ for ‘Germany, before and after the wall’, the results were skewed. Higher instances of ‘Meaning,’ ‘Contingent Responsivity,’ ‘Sharing of Experiences,’ and ‘Affective Involvement’ were observed in the online chat for the second CMC-embedded webquests although only two members interacted with each other.
A cross-case analysis of the synchronous ‘e-turns’ with regards to Lidz’ (2002) mediating strategies indicates that cumulatively, group four (group with more than optimal levels of interaction) generated higher ‘e-turns’ (almost double) than those generated by group one (group with less than optimal levels of interaction). There was a difference in cumulative instances of some mediating strategies used by members of group one and group four. In other words, the difference in the instances was higher for some mediating strategies (Intentionality – 34 instances; Meaning – 34 instances; Transcendence – 13 instances; Sharing of Experiences – 33 instances; Contingent Responsivity – 35 instances) and lower for some (Joint Regard – 5 instances; Task Regulation – 8 instances; Praise/Encouragement – 12 instances; Psychological Differentiation – 6; and Affective Involvement – 12 points). An equal number of instances was noted for ‘Challenge’ and ‘Change.’

Research Question 2b.

Upon coding all asynchronous ‘e-turns’ produced by members of group one according to Lidz’ (2002) mediating strategies, it was found that the frequency of mediating strategies such as ‘Intentionality,’ ‘Meaning,’ ‘Joint Regard,’ was higher (ten or greater than ten instances) for the ‘Umwelt’ CMC-embedded webquest. On the other hand although the difference was smaller (ranging from three to six), ‘Sharing of Experiences,’ ‘Praise/Encouragement,’ and ‘Challenge,’ had higher instances in the second CMC-embedded webquest than the first.

In the case of group four too, there is a variance in the frequencies of Lidz’ (2002) mediating strategies used. In other words, the instances of ‘Intentionality,’ ‘Meaning,’ ‘Sharing of Experiences,’ ‘Praise/Encouragement,’ and ‘Contingent Responsivity’ was
higher by three to eight points in the ‘Germany, before and after the wall,’ while the
frequencies of ‘Joint Regard,’ ‘Transcendence,’ and ‘Challenge’ were higher by four to
twelve points for the ‘Umwelt’ CMC-embedded webquest.

Upon through analyses for both research questions and reviewing the findings that emerged from these analyses, the next step was to examine the implications of these findings to the field of foreign language instruction, Online Teaching and Learning of foreign languages and culture, and also discuss possibilities for future research.
CHAPTER FIVE: DISCUSSION AND CONCLUSION

Introduction

In light of the findings that emanated from the data analyses for the two research questions that shaped this study, firstly, this chapter discusses the findings for each of the two research questions. Additionally, this chapter discusses implications of the study for foreign language (FL) instruction, particularly distance foreign language instruction, and addresses gaps in Computer-Assisted Language Learning (CALL) literature and ends with a discussion of directions for future research, and limitations of the study.

Discussions of Findings for the Research Questions

This section provides an overview of the findings pertaining to each of the research questions and sub-questions, and a discussion based on the results that emerged from the data analyses.

Discussion of Findings for Research Question One

This subsection discusses the findings that emerged from the analysis of the data pertaining to the first research question that aimed to understand the role of CMC-embedded webquests in advancing online students’ knowledge and understanding of German culture.

Triangulation of participants’ responses to the online interviews, their essay scores and sub-scores before and after administration of the CMC-embedded webquests, and the researcher’s field notes journal, all indicated that the CMC-embedded webquests played a key role in advancing students’ knowledge and understanding of German
culture. Results also indicated that students were not only excited, enthusiastic, and found the web resources particularly engaging, informative and beneficial, but also felt that the CMC-embedded webquests fostered their interest in German culture. Students were particularly surprised that they had still retained the cultural information they had learned from the webquests, even two months after they were administered and completed.

Results also indicated that students found the CMC-embedded webquests that were geared toward furthering their knowledge and understanding of German culture refreshingly different from the ‘textbook information,’ and because of this were able to “break the monotony of the grammar and vocabulary.” In the online interview, Asha acknowledged that she “learned the most about German culture during those two chapters due to the CMC-embedded webquests,” while Shane, Sandy, and Wilson suggestED that such webquests should be incorporated into the Online German course curriculum.

More importantly, the CMC-embedded webquests provided the online students of German II with a platform to interact with their respective group members in both asynchronous and synchronous modes of CMC. Students acknowledged and appreciated the fact that both the CMC-embedded webquests provided them with opportunities to engage in asynchronous and synchronous online discussions with their peers to discuss a variety of guiding questions (a different set of guiding questions for each synchronous and asynchronous online discussion for each CMC-embedded webquest). It is interesting to note that two students in group four (the only two who participated in the online interviews) and two students from group one preferred the ‘online chats’ because of the ‘real time’ nature that is inherent to the chats, the instantaneous feedback that they afforded, and the simulation of ‘virtual class,’ all of which are especially valuable to
distant learners, and particularly foreign language learners. On the other hand, two students from group one preferred the online discussion boards, since they allowed all group members to participate (any time, any place), and afforded time for students to think, reflect, research, and formulate their responses cohesively. William from group one pointed out that the online discussion boards allowed the online students to go back and see how the conversation flowed, which was an added advantage. Clearly, both synchronous and asynchronous online discussions had different aspects to offer, where one might work better than the other depending on the learners, instructors, purpose of the online discussions, and learning goals.

Additionally, the CMC-embedded webquests allowed the online students of German II to get to know their peers, and build a “sense of community” (in Sheela’s words). This confirms Carabajal, La Pointe & Gunawardena’s (2007) findings that CMC interactions between online learners create a sense of belonging and a sense of community that was invaluable to the ‘distant’ learners that participated in the study. It also corroborates Kim’s (2000) findings that this sense of belonging also reinforced the groups’ purpose and needs. In all, this finding underscores the importance of ‘peer interactions’, especially in online foreign language courses, where learners can otherwise feel isolated and distant from the course and the learning objectives.

Clearly, this study underscores the importance of CMC-embedded webquests, in culture learning. More specifically, the analyses of the online interviews, participants’ essays, and the field notes journal employed to address the first overarching research question indicated that the participants were delighted to have experienced the CMC-embedded webquests. More importantly, not only did all participants believe, but essay
scores demonstrated that the participants enhanced their knowledge and understanding about German culture with regards to the topics covered due to the CMC-embedded webquests. Furthermore, the CMC-embedded webquests’ tasks engaged students in reading and researching further, motivated them to learn more about the concerned topics; allowed them to discuss, ask, clarify, and share views and stories, thus enabling participants to construct their own understanding of German culture through the two CMC components, all of which were valuable experiences in the process of learning about German culture. Above all, the participants had retained the information long after the CMC-embedded webquests were administered and completed.

Results demonstrate that participants appreciated and acknowledged that these CMC-embedded webquests were developed with the goal to inform them about the culture of the language they were learning, and thus provided them with cultural information from a German perspective “without putting an American spin on it,” or “not what people, TV or the media tells you,” in Sheela’s and Shane’s words respectively. In a nutshell, this study not only emphasizes the importance of incorporating the ‘Culture’ component for this Online German II course, but also underscores the significance of seamlessly integrating ‘Culture’ in FL teaching at all levels. More specifically, unlike textbooks that have their own limitations, the ‘digitized’ format of CMC-embedded webquests allow for a portrayal of several communities (minorities, sub-cultures, sub-groups, diverse populations from urban and rural parts, sub-groups formed due to economic heterogeneity) via videos, websites, graphics, and pictures that address the concern raised by Kramsch et al (2007) in their essay that discusses how German culture is portrayed in modern German language textbooks. Hence, it might be reasonable to
conclude that this research study successfully highlights the potentiality and impact of CMC-embedded webquests to address and integrate ‘Culture’ on several levels in Distance FL instruction.

Results of this study corroborate Kim’s (2000), and Carabajal, LaPointe, and Gunawardena’s (2007) findings that creating groups and providing online students with opportunities to interact with each other during which they can ask, clarify, respond, discuss, or share their stories, views, opinions, and feelings, all of which are critical for student learning. This generates a ‘sense of community’ and a ‘sense of belonging to the group’, and allows students to mediate each others’ understanding of the concerned topic (Vygotsky, 1978), all of which are of immense value in a distance FL course. These findings thus strengthen the importance of creating groups in a distance FL course, and making available prospects for online students to engage in meaningful and content-based tasks with their group members or peers, it is also imperative to keep in mind the types of tasks that are appropriate for the two types of CMC components.

CMC-embedded webquests (a dynamic CALL tool) – Particularly well designed, and content-based CMC-embedded webquests that align adequately with teaching goals can provide online learners with comprehensive, content-based, and instructor-approved web resources, such as virtual ‘realia’, informative and engaging videos and websites that impart related facts and figures while addressing all aspects of target culture (products, practices, perspectives, people, and communities). This eliminates the risk of exposing students to a mere list of web-resources with little to no purpose and direction that often lead to student confusion and frustration (Brandl, 2002).
Moreover, CMC-embedded webquests not only provide students with opportunities to interact with their online peers (as discussed earlier), but also allow them to use mediating strategies in discussing topics related to the course and learning goals, thus propelling them through their ‘zone of proximal development,’ and developing their understanding of the content, which is the premise of Sociocultural Theory (Vygotsky, 1978).

Discussion of Findings for Research Question Two


A closer look at the cumulative frequencies of Lidz’ (2002) mediating strategies used by the participants in group one revealed that although all members of group one participated in the online chats for the first CMC-embedded webquest, a total of 27 ‘e-turns’ were generated for the second CMC-embedded webquest. On the other hand, with the participation of only three out of four group members, a total of 20 ‘e-turns’ were generated. While this difference could be attributed to the number of members participating in the online chats, it could also be a result of the varying interest levels for each of the two distinctly separate cultural topics of discussion, or perhaps a higher level of enthusiasm for the first online chat (Umwelt) and a relatively lower level of enthusiasm for the second online chat (Germany, before and after the wall).

Consequently, it may be reasonable to speculate that any of the above-mentioned factors may have contributed to the higher frequencies for most of the mediating strategies in the first online chat as opposed to the second.

Given that there were more instances of ‘Sharing of Experiences’ in the online chat about ‘Germany before and after the wall’ (18) than in the online chat about
‘Environment’ (15), it might be reasonable to deduce that participants had more opportunities to share their experiences, feelings, emotions, views, and opinions about the topics such as ‘European Union,’ ‘Immigration Laws,’ ‘Immersion of Foreigners in the Host Culture,’ as opposed to ‘Recycling laws,’ ‘Means and Ways to Recycle in Germany, or in the USA,’ to name a few.

Interestingly, findings emanating from the analysis of ‘e-turns’ generated by members of Group four revealed that three out of four members participated in the online chat for the first CMC-embedded webquest generating a total of 41 ‘e-turns’, while the second chat that was only between Shane and Dana produced a total of 40 ‘e-turns.’ A higher number of instances were also seen in ‘Meaning,’ ‘Sharing of Experiences,’ and a significantly higher number of instances (differing by 10 instances) in ‘Affective Involvement’ were observed in the chat between Dana and Shane in comparison the online chat in which Dana, Shane and Cathy interacted with each other. These observations lead us to speculate that online chats between two peers foster care, concern, willingness to share feelings and experiences that are personal in nature, and in general, willingness to interact with each other.

*Lidz’ (2002) Mediating Strategies in Asynchronous Online Discussions*

An interesting finding emerging from the analysis of the asynchronous ‘e-turns’ generated by members of both groups for the two CMC-embedded webquests is that the total number of ‘e-turns’ produced by group one for the online chat about ‘environment’ equals the number of ‘e-turns’ generated by members of group four for the online chat about ‘Germany, before and after the wall.’ This suggests that the number of ‘e-turns’ generated can be attributed to the level of interest of one or more members in a certain
group about certain topics, or even the impact of asynchronous interactions on each group member.

Additionally, as the table in Appendix U illustrates, another interesting finding that gleans from the results is the higher number of instances for ‘Challenge’ and ‘Task Regulation’ in the asynchronous ‘e-turns’ generated by groups one and four for the ‘Umwelt’ online discussion forums than those for ‘Germany, before and after the wall.’ This allows us to consider that the topic of discussions, and more specifically, the guiding questions were instrumental in shaping the online discussions, in that there were perhaps more opportunities for members of both groups to state principles of solution or induce some kind of strategic thinking in the other interlocuters during the online interactions. Similarly, more instances of ‘Sharing of Experiences,’ ‘Affective Involvement,’ and ‘Praise/ Encouragement,’ resulting in the online discussions for the second CMC-embedded webquest might have occurred because the participants had developed a certain level of rapport with their group members by then and did not hesitate to share experiences and feelings that were personal and private in nature with regards to the topics discussed; felt comfortable in praising, acknowledging, or applauding their group members, and showing care or concern for them in the discussion boards.

Although not originally the aim of this study, comparing and contrasting the results of the ‘within-case analyses’ for groups one and four demonstrate that no instances of ‘Affective Involvement,’ and ‘Psychological Differentiation’ were observed in any of the ‘asynchronous e-turns’ produced by both groups for both the CMC-embedded webquests. On the other hand 16 and eight instances for each of these mediating strategies respectively were recorded in all the ‘synchronous e-turns’ in the
online discussions generated by both the groups for both the CMC-embedded webquests. In light of these findings, it might be reasonable to speculate that asynchronous interactions may be less effective in generating a ‘sense of belonging’ as synchronous online interactions. To that effect, online students may not develop or may not be able to demonstrate feelings of ‘care,’ ‘concern,’ or ‘affability,’ and may also not be concerned about ‘power-roles,’ or ‘power’ in asynchronous online forums with their peers. On the other hand, the results of the ‘synchronous e-turns’ confirm Kim’s (2000) and Carabajal, LaPointe, and Gunawardena’s (2007) findings that the ‘sense of community’ and ‘sense of belonging’ generated from the interactions with online peers in real time foster feelings of ‘care,’ and ‘concern,’ which suggests that ‘real-time’ interactions may develop a concern for ‘power’ among peers.

An interesting commonality that gleams from the results of the analyses for the overarching second research question is that no instances of ‘change’ were observed in either the asynchronous online interactions or the synchronous online interactions. In light of this finding, it might be appropriate to assume that due to the complex nature of ‘culture’ and the relatively short duration of both asynchronous and synchronous online interactions, participants did not have the opportunity to demonstrate ‘Change’ in their understanding of German culture. Although in the interviews, participants indicated that their knowledge and understanding of German culture had been enhanced.

Results from the comparison and contrast of the cumulative frequencies of all Lidz’ (2002) mediating strategies in both modes of CMC interactions (asynchronous and synchronous) for both the CMC-embedded webquests also indicate that there were more instances of ‘Transcendence,’ and ‘Sharing of Experiences’ in the online synchronous
interactions (22 and 99 respectively) as opposed to the instances of the same mediating strategies in the online asynchronous interactions (14 and 84 respectively). This occurred despite the fact that the asynchronous interactions generated more ‘e-turns’ than synchronous interactions. Similarly, there were higher instances of ‘Contingent Responsivity’ in the synchronous online discussions (127) than those in the asynchronous online discussions (61) perhaps due to the sheer nature of ‘real time online chats’, where students’ responses are an outcome of their peers’ questions or comments directly posed to them. This implies that ‘real time’ interactions for online students are more likely to elicit personal experiences, memories, and feelings, all of which are an important part of their online experiences. This may be especially true in a distance FL course, where the online students may otherwise have little to no opportunities to interact with their online peers.

The above-discussed findings related to the mediating strategies of ‘Transcendence,’ ‘Joint Regard,’ ‘Sharing of Experiences’, in addition to those of ‘Intentionality,’ and ‘Meaning,’ all corroborate Sotillos’ claim that online synchronous interactions simulate intense social interaction, and construction and negotiation of meaning, all of which are fundamental to human learning and higher order cognitive functions (Vygotsky, 1978). Furthermore, these findings also lead us to believe that ‘real-time’ interactions with online peers allow students to achieve a higher level of comfort in sharing their experiences, as also recalling and referring to incidents, experiences or texts read in the past that relate to the concerned topic of discussion (‘Transcendence’). Additionally, Sotillo’s (2000), Kim’s (2000), and Carabajal, LaPointe, and Gunawardena’s (2007) claim that synchronous online interactions evoke a higher ‘sense
of community’ and ‘groups’ sense of purpose’ is reflected in the higher frequency of ‘Joint Regard’ in synchronous interactions (27) as compared to that in the asynchronous interactions (19).

Yet another interesting result that emanates from the table 13 are the higher frequencies of ‘Task Regulation’ and ‘Challenge’ in the asynchronous online discussions (63 and 33 respectively) as compared to those in the synchronous online discussions (56 and 25 respectively). In light of the results that emerged from the first research question, participants from both groups mentioned the advantages of ‘discussion boards’, i.e., the DB being ‘any-place, and any-time’ in nature allowed them to research, read, think, and draft carefully thought out elaborated responses and explanations, all of which are particularly crucial to ‘Task Regulation’ and ‘Challenge’. Hence, it might be reasonable to speculate that these factors may have contributed to yielding more instances of ‘Task regulation,’ and ‘Challenge’ in the asynchronous online discussions. This also aligns itself with Sotillo’s (2000) claim that online asynchronous discussions yield systematically addressed responses.

Implications for FL Teaching

This section of chapter five discusses the implications of these findings for FL teaching. Specifically, this section focuses on the following areas: Creation of groups for effective online interaction; Purposeful use of synchronous and asynchronous online discussions; and design implications for CMC-embedded webquests.
Creation of Groups for Effective Online Instruction and Learning

As established and discussed earlier, the impact of creating groups, more specifically, in distance courses, is multifold. Creating groups allows peer-interaction (that is otherwise absent in distance courses), rapport building, communicative learning, and collaboration, all being crucial factors for a positive online teaching and learning experience. Furthermore, from a sociocultural theory perspective ‘group creation’ and thus ‘group interaction’ fosters dialogue, and online communication within group members, since learning is social (Vygotsky, 1978). Lack of ‘group creation’ and subsequently ‘group interaction’ can cause online learners to feel isolated, or cause the experience of the online course being merely a one-on-one correspondence with the instructor.

In the realm of distance teaching and learning, especially in the case of foreign language courses, it is imperative to create groups with highly interactive dynamic. This can be done using a variety of criteria that may be relevant to the purpose of the course. For instance, in the case of foreign language courses, groups can be created based on learners’ past travels to the target countries, their background knowledge about the target culture, purpose of learning that target language, or likes and interests, or age of the online students. As noted earlier, it is also important that these online groups are assigned tasks that are pertinent to the course objectives, and are appropriately aligned with students’ background knowledge of culture and skill set in the areas of listening, speaking, reading and writing with respect to that foreign language. Furthermore, it is crucial that these tasks provide ample opportunities for online group interaction, both asynchronous and synchronous.
Bender (2003) recommends that an online group comprise of four to five students for all participants to share their insights and allow for enough diversity of perceptions. However, it is important to note that the online chat for the second CMC-embedded webquest between Shane and Dana produced astounding quality of online interactions. Shane and Dana generated significantly high instances of ‘Sharing of Experiences’ (that were personal in nature – feelings, struggles, frustrations, and emotions), ‘Joint Regard,’ ‘Praise/Encouragement,’ which also stimulated more ‘affective involvement’ along with broadening each others’ knowledge and understanding of German culture (aspects of which were covered by the guiding questions). This finding suggests that it is crucial to examine the purpose and mode (asynchronous or synchronous) of the tasks or discussions and assess the need for creating groups or pairs as may be deemed befitting to the objective of the planned online discussion.

*Purposeful Use of Asynchronous Online Interactions*

The fact that all students from both groups participated in the asynchronous online discussion boards suggests that more online students are able to engage in asynchronous CMC tasks because of the ‘any time, any place’ factor that is inherent to asynchronous online CMC components. Another interesting finding that gleans from the results is the higher number of ‘Task Regulation,’ ‘Challenge,’ and ‘Praise/Encouragement’ in the asynchronous online discussions. Thus, it may be reasonable to speculate that because of the asynchronous (any time, any place) nature of these CMC discussions, the participants had more time to research, think, elaborate, evaluate and carefully draft their responses with relatively more time at their disposal. We can hence
deduce that asynchronous CMC may have some more cognitive than affective benefits for online FL learners.

This suggests that tasks or questions for asynchronous CMC components for online FL learners are developed with these findings in mind. Specifically, these tasks or questions need to be of the following nature: information gathering, reflection-based, introspection-based, or peer or self feedback based. In the realm of online FL instruction, asynchronous tasks can be seamlessly incorporated to foster student interactions on topics such as food in the target culture, local restaurants serving or selling food in the target culture, sharing recipes from the target culture, beliefs associated with food in the target culture, etc. With regards to Moran’s model of culture, asynchronous online interactions can be purposefully used for online learners to engage in meaningful discussions about aspects of people, communities, products, practices, and perspectives that require research (careful browsing of selected websites, watching videos, etc.), reflection, introspection, comparing and contrasting, analysis, or speculation.

**Purposeful use of Synchronous Online Interactions**

As the table in Appendix T shows, not all participants from either groups participated in both the synchronous discussions, perhaps owing to the ‘same time’ factor that is inherent to synchronous online discussions. Nevertheless, the online chats generated an enormous number of ‘e-turns’, and higher number of frequencies for the following mediating strategies: ‘Transcendence,’ ‘Joint Regard,’ ‘Sharing of Experiences,’ ‘Contingent Responsivity, and ‘Affective Involvement,’ all of which indicate that the online FL learners shared a certain level of comfort with their online learners. These findings align themselves with Sotillo’s (2000), Perez’ (2003) and
Hrastinski’s (2008) claim that synchronous CMC interactions stimulate ‘psychological arousal’ since the ‘real time chats’ resembled ‘real life situations.’ Consequently students found it acceptable to exchange personal information (identity, past experiences, feelings, personal stories, and experiences). We can hence deduce that synchronous CMC may have cognitive as well as affective benefits for online FL learners.

It is this imperative that FL instructors must keep this in mind when developing tasks and questions for online synchronous components. More specifically, these tasks or questions need to be of the following nature: subjective, personal, or those that promote opinion sharing. In the realm of online FL instruction, synchronous tasks can be seamlessly incorporated to foster student interactions on topics such as eating habits, food preferences, personal cooking styles, restaurants of their choice, etc. With regards to Moran’s model of culture, synchronous online interactions can be purposefully used for online learners to engage in meaningful ‘real time’ discussions about aspects of people, communities, products, practices, and perspectives that elicit learners’ experiences, views, opinions, feelings, or attitudes.

**Design Implications for CMC-Embedded Webquests**

Among the significant results that emanated from the analysis of this study are also findings that relate to the design and structure of the CMC-embedded webquests, Discussion Boards in BlackBoard, and ‘Elluminate Live!’ in BlackBoard. Design implications for each of these are discussed below.

**CMC-embedded webquests.**

While most participants reported that the CMC-embedded webquests were ‘user-friendly’ and provided ‘detailed instructions,’ Sheela’s feedback on the design of the
CMC-embedded webquests suggests that all instructions and documents related to the CMC-embedded webquests be linked directly to the webquests as ‘web pages,’ so that students do not have to alternate between different formats, layouts, text font and size. This could create a seamless flow of resources and information, and make it easier for all learners to access the information by creating a webpage (in HTML, Dreamweaver, or Microsoft Front Page) that provides all directions for students, and more importantly is linked to the ‘Tasks’ section of the CMC-embedded webquests. This will ensure that the design flows seamlessly, and the learners don’t have to access and open documents in different formats simultaneously to read and gather information for the CMC-embedded webquests.

*BlackBoard.*

Results of the analyses point to the drawbacks in the design of the ‘Discussion Boards’ in BlackBoard, in that inadequate ‘indentation’ of the posts either ‘misled’ group members or ‘confused’ them because they could not identify which post was a response to which post or thread. In other words, online group members found it difficult to tell if a group member’s post was a response to the original question, or to another group member’s post. To eliminate this confusion (especially crucial for learners in a distance course), it is crucial that instructional designers that are responsible for developing, creating and executing prototypes for ‘Course management Software’ such as ‘BlackBoard’ or ‘WebCT’ develop different levels of indentation to indicate if a post is a response to the original question or a group member’s post and incorporate it into the design. More specifically, the confusion can be eliminated by developing different levels of ‘indents’ for responses to the original guiding question, group members’ first
responses to their peers, group members’ second responses to their peers, and so on. This will allow students and the instructor(s) to go back to the Discussion Forum and follow the flow of the online discussions at the first glance. It will also make it possible to track each group members’ contribution to the discussion more easily.

_Elluminate Live!’_

As is also evident from the analyses of the data, some participants found the online chats to be ‘rigid,’ or ‘broken.’ This was mainly because, as some students pointed out, the moderator did not know who wanted to respond to the question, or add to what was already said. Moreover, there were no visual cues to imply that a group member wanted to ‘respond’, or that a group member was interested or disinterested, i.e., the kind of visual cues that are accessible in a face-to-face class setting. It is important to note here that although there is a button that participants ‘chatting’ in an ‘Elluminate Live!’ session can push to let group members know that they would like to respond, and another functionality that results into a ‘smiley face’ (indicating interest) or a ‘sad face’ (indicating disinterest), none of the students were aware of these functionalities within ‘Elluminate Live!’

Despite the fact that the instructor was aware of these functionalities, and believed that the online students were aware of these functionalities on account of a document that was disseminated to the online students at a previous time, no explicit measures were taken to remind, inform, or train the online students about the same. Conversely, even if the participants were aware of these functionalities of ‘raising the hand when ready to speak’ and the button that indicates a happy or sad face in ‘Elluminate Live!’ there is no guarantee that they would have made use of these during their respective online chats.
For future purposes, it is crucial that explicit training be provided to the online students, and opportunities to use them be provided as well, so that students can avail of the functionalities that ‘BlackBoard’ has to offer and make the most of their ‘real time chats’ with their online peers. More specifically, the training document for ‘Elluminate Live!’ should have been disseminated to the groups before each online chat, so that they could have been reminded of the functionalities that this software has to offer.

Bridging gaps in the FL Teaching Literature

*Moran’s (2001) Model of Culture*

Results of this study demonstrate that the CMC-embedded webquests that were developed with the goal to advance online FL learners’ knowledge and understanding of German culture based on Moran’s model of culture (products, practices, perspectives, people, and communities) did in fact succeed in doing so, in that the CMC-embedded webquests catalyzed students’ understanding of ‘people’ and ‘communities’ in addition to the ‘products,’ ‘practices,’ and ‘perspectives’. Although the ‘National Standards’ (2000) Culture model that comprises of ‘products,’ ‘practices ’and ‘perspectives’ is widely accepted, quoted, and implemented in courses that emphasize the target culture in the realm of FL teaching, it overlooks the significance of ‘people,’ and ‘communities’ in the target culture, which are the foundations for the three pillars of the Culture model advocated by the ‘National Standards’ (2000), as pointed out by Atkinson (1999), Kubota (1999), and Fantini (2009). As Fantini (2009) discusses in his video, it is crucial to understand the diversity in the ‘people,’ and the ‘communities’ in the target culture, especially in this modern age in which the variance can be enormous owing to factors
such as economic stratification, partial influence of foreign cultures and technologies, geography, wide spectrum of political and religious beliefs, or degrees of education, to name a few.

Specifically in the context of teaching German as a foreign language in the USA, Kramsch et al.’s essay (2007) raises an important issue: German departments in America are finding it difficult to define the target language community for their learners of German. It is hence crucial to reflect and consider if German-speaking culture should still be represented by white people wearing Lederhosen, or women wearing the Dirndl, eating sausages and drinking beer, and the iconic Neuschwanstein castle, or if German-speaking culture should be appropriately represented by sub-cultures, different ethnic minorities, the middle class, the upper middle class, the farmers in the countryside, and the intellectuals in the academia, politics, theater and film. Hence, it might be reasonable to conclude that Moran’s model aims at providing a more comprehensive representation of the target culture as opposed to other culture models in the realm of FL instruction.

‘People’ and ‘Communities’ within the SCT Framework

As discussed in Chapter II, empirical studies have been conducted to examine students’ understanding of pragmatics or practices and perspectives of the target culture within the SCT framework (Belz, 2005; Thorne, 2003), and students’ understanding of literary texts, i.e., products and perspectives on the SCT premise (Mueller-Hartmann, 2000; Wildner-Bassett, 2006). However, few empirical studies have been conducted that researched students’ understanding of ‘people’ and ‘communities’ within the target culture and their diversity within the SCT framework. This study investigates students’ understanding of ‘people’ and ‘communities’ in the target culture within the SCT
framework, using Lidz’ (2002) categorization of mediating strategies to explain the ‘Mediated Learning Experience’ (MLE) within the Sociocultural Theory context. It can hence be deduced that this study addresses a gap in the concerned literature.

CMC-embedded webquests

Chapter II also pointed out the paucity of empirical research that examines the efficacy of webquests. Although a research study conducted by Altstaedter and Jones (2009) suggests that this inquiry-based approach is a viable way to incorporate culture into a university foreign language course, in that it motivated the participants in their study to learn more about the Hispanic culture. That study does not provide more tangible results to demonstrate the potential of webquests in general. In contrast, this study employs two CMC-embedded webquests in a distance German II course, the results of which establish a direct relation between the CMC-embedded webquests’ tasks and the cognitive as well as affective benefits in enhancing students’ knowledge and understanding of the target culture.

Directions for Future Research

While this study employs data generated from two groups upon administration of two CMC-embedded webquests in the online course for German II, it would be beneficial to conduct a study along similar lines of research using three or more CMC-embedded webquests over a period of time to online students, and purposefully selecting three to four groups to determine or verify the role of CMC-embedded webquests in furthering students’ knowledge and understanding of German culture, and better understand the use of Lidz’ (2001) mediating strategies. Conducting such a study using more CMC-embedded webquests and a larger participant pool will aide in further verifying the role
of CMC-embedded webquests in students’ learning of culture. Additionally, conducting such a study with a larger participant size may be able to shed more light on the usage patterns of Lidz’ (2002) mediating strategies, the results of which may confirm or contradict the findings of this study. Should the findings of the replication study corroborate the findings of such a study, asynchronous and synchronous CMC components can be purposefully created to elicit students’ responses that are befitting to the nature of the two CMC components (as discussed in a previous subsection).

Additionally, although this study demonstrates the high cognitive and affective benefits of CMC-embedded webquests in a distance FL course, it might be worthwhile to conduct an empirical study that administers webquests in both face-to-face and online course settings, and another empirical study that administers CMC-embedded webquests in both face-to-face and online settings. Not only will these studies further validate and solidify the findings of this research study, but they will also shed light on the impact of both webquests and CMC-embedded webquests on FL learners’ knowledge and enhancement of the target culture in both face-to-face and online courses.

Furthermore, with newer technologies such as ipads, electronic tablets, and smartphones (all of which have internet browsing, audio capabilities, and several applications built in) pouring into the market, and also being used heavily by the younger generation that also invariably takes FL courses at universities and colleges across the country, it might be noteworthy to conduct an empirical study that aims to examine how these tools and applications (also known as ‘apps’) may be used to promote foreign language and culture learning. Additionally, this empirical study can also be geared toward examining the usage level of CMC-embedded webquests administered to these FL learners, wherein
FL learners are able to use the ‘chat’ applications that are readily available to them and hence use them extensively.

In the same vein, it might also be worthwhile to develop CMC-embedded webquests that allow FL learners (both face-to-face and online) to ‘text’ responses to their group members or peers to complete the tasks for the asynchronous component of the CMC-embedded webquests. Findings of the above recommended studies will be able to draw relationships between the technology (ies) used by the FL learners for the CMC tasks (synchronous or asynchronous) and the impact of these on the enhancement of their knowledge and understanding of target culture. Additionally, these suggested studies will also superimpose the significance and applications of these newer technologies in the realm of target language instruction and learning. It is important to note here that while empirical studies are conducted to determine the cognitive and affective benefits of technologies and capabilities offered by ipads, electronic tablets, or smart phones on FL learners’ knowledge and understanding of target culture, they can also be extended to the realm of foreign language vocabulary learning, creative writing, and use of discourse functions in FL, to name a few.

Limitations of the Study

The limited ability to control for participants’ true responses is a limitation of this study. More importantly, because the researcher taught the German course in question here, personal biases about students and the instructor could have impacted the data elicited, which was also a limitation of this study, although multiple steps were taken to minimize the impact of potential biases. Also, due to the online nature of the interviews
conducted for this study, the researcher could not watch for body language, facial expressions, proslemic or other kinesthetic observations, record them and include them in the transcriptions (Fontana & Frey, 1994). However, since this study specifically addressed online collaboration among peers in the distance learning class, not being able to ‘see’ or ‘watch’ students during a discussion or interview was a given parameter for this type of a setting.

Conclusion

Results and the findings demonstrate the efficacy of CMC-embedded webquests, in that this dynamic CALL tool had a significant role to play in enhancing students’ knowledge and understanding of German culture, and had cognitive and affective benefits. More specifically, results indicate that the CMC-embedded webquests were successful in enhancing students’ knowledge and understanding of German culture, and also underscore the importance of ‘culture’ in FL instruction, which can be especially challenging in distance FL courses. Additionally, this study also highlights the importance of creating groups and peer interaction especially in online FL courses, so as to create a ‘sense of community’ and foster ‘sense of belonging’ to the group.

Moreover, this study also sheds light on the types and frequencies of Lidz’ (2002) mediating strategies generated by members of Groups one and four in their synchronous as well as asynchronous online discussions. Findings concerning different types and frequencies of strategies used by the students have various implications on the kinds of tasks and topics of interest for the implementation of CMC-embedded webquests in the realm of FL instruction and learning.
REFERENCES


APPENDICES
Appendix A: Web-based Student survey for ‘Criterion-based purposeful sampling’

Please respond to the questions in the following survey!

Please enter your full name in the box below

Have you traveled to any German-speaking country in the past?

If you answered 'yes' to the previous question, which German-speaking countries have you visited in the past? And how long did you stay there?

In what capacity did you visit that/ those German-speaking countries?

Please explain whether you visited that/ those German speaking countries as a tourist, to see family, as a student, to see friends, or anything else

What did you do during your visit there?

Typically, how often do you use the Internet in a day?

More than 10 times a day

Between 5 and 10 times a day

Less than 5 times a day

Twice a day

At least once a day

Other, please specify
Rate your level of expertise on the areas/technologies below (from 1=not proficient to 5=extremely proficient)

Email -
Chat -
Web browser -
Quick Time -
Windows Media Player -
Real Player –

**For what purposes do you use the following technologies?**

Email -

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Chat -

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Web browser -

................................................................................................................................................

Quick Time -

................................................................................................................................................

Windows Media Player -

................................................................................................................................................

Real Player -

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## Appendix B: Survey Results and Creating groups

<table>
<thead>
<tr>
<th>Sts</th>
<th>Name</th>
<th>Which Country?</th>
<th>How long?</th>
<th>What capacity?</th>
<th>Did what?</th>
<th>Usage of Internet in 1 day</th>
<th>Proficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Willi</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5-10 times a day</td>
<td>Email/chat/web – 5</td>
</tr>
<tr>
<td>2</td>
<td>Wilson</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>More than 10 times a day</td>
<td>5 in all</td>
</tr>
<tr>
<td>3</td>
<td>Asha</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5-10 times a day</td>
<td>Email/chat/web - 5</td>
</tr>
<tr>
<td>4</td>
<td>Erik</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5 in all</td>
</tr>
<tr>
<td>5</td>
<td>Ronald</td>
<td>Germany, Austria, Switzerland</td>
<td>2 weeks</td>
<td>Tourist</td>
<td>Visited placed and friends</td>
<td>5-10 times a day</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Laila</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Email/chat/web -5</td>
</tr>
<tr>
<td>7</td>
<td>Sheela</td>
<td>Germany</td>
<td>3 months</td>
<td></td>
<td>Visited monuments, cities by train, and shopped</td>
<td>Less than 5 times a day</td>
<td>Email/web/quick time – 4, Chat-3</td>
</tr>
<tr>
<td>8</td>
<td>Shane</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>All - 5</td>
</tr>
<tr>
<td>9</td>
<td>Elisa</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5-10 times a day</td>
<td>Email/chat/web - 4</td>
</tr>
<tr>
<td>10</td>
<td>Kate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5-10 times a day</td>
<td>Email/chat/web - 5</td>
</tr>
<tr>
<td>11</td>
<td>Daniela</td>
<td>Germany</td>
<td>3 days</td>
<td>Tourist</td>
<td>Touristy stuff, went to a mountain</td>
<td>More than 10 times a day</td>
<td>Email/chat/web-5; rest-3</td>
</tr>
<tr>
<td>12</td>
<td>Pat</td>
<td>Germany (7 times)</td>
<td>1 month</td>
<td>tourist/ family</td>
<td>visited family, tourisy stuff</td>
<td>5-10 times a day</td>
<td>email/chat-4, web-3</td>
</tr>
<tr>
<td>13</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>more than 10 times a day</td>
<td>email/chat-4, web-5</td>
</tr>
<tr>
<td>14</td>
<td>Heidi</td>
<td>Fruth, Germany</td>
<td>2-3 weeks</td>
<td>tourist/ to see family</td>
<td>stayed with family, visited places</td>
<td>2 times a day</td>
<td>email/web – 4, chat-3</td>
</tr>
<tr>
<td>15</td>
<td>Kai</td>
<td>Germany and Netherlands</td>
<td>2 weeks</td>
<td>Tourist</td>
<td>Rode along Rhine and visited Amsterdam</td>
<td>5-10 times a day</td>
<td>email/web/chat-4; wmp – 5, rp - 3</td>
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<tr>
<td></td>
<td>Name</td>
<td>Country/Region</td>
<td>Duration</td>
<td>Activity</td>
<td>Frequency</td>
<td>Technology Usage</td>
<td></td>
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<tr>
<td>16</td>
<td>Kathy</td>
<td></td>
<td></td>
<td></td>
<td>less than 5 times a day</td>
<td>all - 5</td>
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</tr>
<tr>
<td>17</td>
<td>Segwin</td>
<td></td>
<td></td>
<td></td>
<td>2 times a day</td>
<td>email-3, chat-2, web – 4,</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Cathy</td>
<td>Germany, Austria</td>
<td>3 weeks</td>
<td>as a student in high school and to visit a friend</td>
<td>5-10 times a day</td>
<td>email/chat-4, web-5,</td>
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<tr>
<td>19</td>
<td>Sandy</td>
<td></td>
<td></td>
<td></td>
<td>5-10 times a day</td>
<td>email/chat/web-5, rest - 4</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Dana</td>
<td>Germany</td>
<td>1 month</td>
<td>Tourist</td>
<td>at least once a day</td>
<td>email-3, chat-2, web-5</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Catherina</td>
<td>Germany, Austria &amp; Switzerland</td>
<td>9 years</td>
<td>she lived there with her family lived, schooled, etc.</td>
<td>at least once a day</td>
<td>all – 5</td>
<td></td>
</tr>
</tbody>
</table>

Groups created based on uniform distribution of the following -

Visits to Germany (VG)

Levels of technology usage, where

**More than 10 times a day**

**5-10 times a day**

**Less than 5 times a day**

<table>
<thead>
<tr>
<th>Group one</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group four</th>
<th>Group 5</th>
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</thead>
<tbody>
<tr>
<td>Sheela</td>
<td>Pat</td>
<td>Heidi</td>
<td>Cathy</td>
<td>Ronald</td>
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<td>VG</td>
<td>VG</td>
<td>VG</td>
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<tr>
<td>Wilson</td>
<td>Erik</td>
<td>Latha</td>
<td>Shane</td>
<td>Daniela</td>
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<td>VG</td>
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<tr>
<td>Asha</td>
<td>Wilhelm</td>
<td>Willi</td>
<td>Sandy</td>
<td>Katelyn S.</td>
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<tr>
<td>Kai</td>
<td>Kathy</td>
<td>Elisa</td>
<td>Dana</td>
<td>Segwin</td>
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<td>VG</td>
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</tbody>
</table>

Catherina
Appendix C: Main page of the webquest ‘An der Uni’

An der Uni

Introduction

Herrlich Willkommen!

This webquest has been created to introduce you to the German educational system, related rules and policies, and appropriate vocabulary. More importantly, ‘An der Uni’ will showcase some significant universities and institutions in German-speaking countries, while informing you about the university life there. In a nutshell, this webquest is aimed at providing you a glimpse into the ‘Uni’ culture, as it is, in German-speaking countries, and raising your awareness about education in German-speaking countries.

To complete this webquest, you will assume the role of a student that is preparing to study at a university in a German-speaking country.

Viel Glueck und Viel Spass!!

by Radhika Lothe, USF
Appendix D: CMC-embedded Webquest ‘Umwelt’ – Chapter 9-week 5

A webquest has been created for you, not only to enhance your knowledge and understanding of German culture with regards to ‘Umwelt’, but also to pique your interest in the German culture, in general.

Please click on the following link to access the webquest:

http://questgarden.com/q/umwelt

Task 1

Beginning today (Tuesday, February 9th, 2010) until Monday (February 15th, 2010), each of you will respond to the five questions below and also post meaningful responses (at least two posts) to each of your group members. To do this, click on ‘Group Discussion Boards’. Click on Forum ‘Umwelt-G1’ if you are in Group one, for instance, and click on each thread (question) to post your responses. Also click on your group members’ posts and provide meaningful responses to them as well (two posts per group member) over this week. Although choice of language (English or German) is entirely yours, it is encouraged that you complete all your tasks in English. The idea is to provide you with a platform to interact with your group members to ask, respond, clarify, and share your views and experiences, as they relate to the topic of ‘Umwelt’. To understand how to participate in Discussion Boards, please go to http://media.edo.usf.edu/pdf/student/Participating%20in%20Discussion%20Boards.pdf
Your responses for this task are worth **10 points**. Please refer to the grading rubric under the ‘Evaluation’ section in the webquest.

**The Group Discussion Board Questions are as follows:**

a) How are the environment-protection laws in Germany different from those in the USA?

b) Among the recent laws passed in the ‘Energy’ sector, which one(s) you do you find to be most valuable? Please substantiate your response(s).

c) How is the ‘Green Party’ in Germany different from the ‘Green Party’ in the USA?

d) What are the ramifications for companies that do not join the ‘Green Dot’ scheme? Is there an equivalent for the ‘Green Dot’ in the USA?

e) Do the ‘Green Zone’ laws differ for foreign cars in Germany? If so, how? What, in your opinion might be the reason(s) behind this?
Appendix E: CMC-embedded webquest ‘Umwelt’ – Chapter 9-week 6

**Task 2**

For the Task 2 in Step 2 of the webquest ‘Umwelt’, you will need to do the following:

a) Between today (Monday February 15\(^{th}\)) and Tuesday or Wednesday (February 16\(^{th}\) or 17\(^{th}\)) you will **browse and explore the websites**; and watch the four videos provided to you in Step 2 under the ‘Process’ section of the webquest, all of which are aimed at informing you about ‘Recycling in Germany’.

b) In the meanwhile, please email your team members to **decide on a mutually convenient time and date to meet (no later than Thursday, February 18\(^{th}\)) to meet in ’Elluminate Live’** to discuss questions related to ‘Recycling in Germany’ in real time. Please make sure that you schedule 60 – 90 minutes for these ‘real time online discussions in ‘Elluminate Live’.

**Following members will email me their group’s decision (time and date in ‘Elluminate Live’) as soon as possible**, so that I can schedule a virtual class for you.

- Group 1 – Wilson
- Group 2 – Erik
- Group 3 – Laila
- Group four – Shane
- Group 5 – Daniela

Once all (or most members) in your group sign in to ‘Elluminate Live’ at the mutually decided time and date, you will discuss each of the following questions. To ensure a smooth flow and avoid chaos, **the above-mentioned members** (for each group respectively) will read each question aloud and move to the next, after all group members
have responded to the question, and have shared their views, experiences, feelings and opinions, and even compare and contrast it with the situation in USA, as necessary.

**For this task, you will discuss each of the following questions:**

1) What do the recycling laws tell you about the nation and its citizens?
2) How are Germans reacting to these recycling laws? Name a few steps that Germans take on a daily basis to do their bit for ‘recycling’!
3) Does every household in Germany recycle waste in the exact same manner? If no, how are they different? And perhaps why?
4) How are the Germans reacting to these ‘recycling’ laws and how?
5) Why do you think are Germans so conscious about ‘recycling’ and ‘environment-protection’ in general?

The purpose of sharing the questions with you ahead of time is so that you have plenty of time to think them through and prepare (if possible)! Please refer to the ‘Evaluation’ section in the webquest to see how your Online Discussions will be graded.

**Task 3**

For the last task of the webquest, you will ‘individually’ write a composition to discuss what you now know about the German system as it relates to environment protection; specifically what steps Germans (in different parts of Germany) take to be ‘environment-friendly’. Also, articulate your thoughts on plausible reasons or perspectives that drive the ‘environment-consciousness’ in different parts of Germany; and as a nation, and compare and contrast the situation with regards to that in the USA.
Although there is no word limit or expected word no. for this composition, I urge each one of you to please write this composition as earnestly and as detailed as possible (Again, I sincerely thank all those of you who submitted their compositions last week!!!). Please type (double-space, font size 12) and email your compositions to Dr. Grieb only after the ‘Online Discussions in Elluminate Live’, before 11:59 p.m. on Friday, February 19th. Dr. Grieb’s email address is grieber@cas.usf.edu.

Please refer to the second table under ‘Evaluation’ in the webquest to see how your compositions will be graded.
Appendix F : CMC-embedded webquest ‘Germany, before and after the wall’ –

Chapter 10-week 7

Another webquest has been created for you, not only to enhance your knowledge and understanding of German culture with regards to ‘Germany in the 20th Century’, but also to pique your interest in German culture, in general.

Please click on the following link to access the webquest:

http://questgarden.com/87/84/3/100218071531/

Task 1

Beginning today (Tuesday, February 23rd, 2010) until Monday (March 1st, 2010), each of you will respond to the five questions below and also post meaningful responses (at least two posts) to each of your group members. To do this, click on ‘Group Discussion Boards’. Click on Forum ‘D’land-G1’ if you are in Group 1, for instance, and click on each thread (question) to post your responses. Also click on your group members’ posts and provide meaningful responses to them as well (two posts per group member) over this week. Although choice of language (English or German) is entirely yours, it is encouraged that you complete all your tasks in English. The idea is to provide you with a platform to interact with your group members to ask, respond, clarify, and share your views and experiences, as they relate to the topic of ‘Deutschland im 20. Jahrhundert’. To understand how to participate in Discussion Boards, please go to

http://media.edo.usf.edu/pdf/student/Participating%20in%20Discussion%20Boards.pdf
Your responses for this task are worth **10 points**. Please refer to the grading rubric under the ‘Evaluation’ section in the webquest.

**The Group Discussion Board Questions are as follows:**

a) Was the graffiti on the Berlin Wall representative of the events happening in Germany and the world at that time? Why? If you were given an opportunity to ‘paint’ on that wall, what would you have painted? Please explain.

b) How different do you think were ‘West Germans’ from ‘East Germans’ at the time of the reunification? Do you think that these differences are now a thing of the past?

c) What, according to you, was the ‘turning point’ that led to the ‘Fall of the Wall’ in 1989?

d) What is the significance of the ‘Neuenburg Castle’ (near Freyburg in Germany) in this context?

e) What, according to you might be the social ramifications for countries that were once joined & were then forcefully separated and the conflicts that have arisen from this as well as borders erected for "protection" (e.g. North and South Korea, India & Pakistan, Israel & Palestine wall, US & Mexico border, Nothern Ireland & Ireland)?

**Viel Spass beim Online-Diskutieren!!**
Appendix G: CMC-embedded webquest ‘Germany, before and after the wall’ – Chapter 10-week 8

**Task 2**

For the Task 2 in Step 2 of the webquest ‘Umwelt’, you will need to do the following:

c) **Between today (Monday March 1st) and Tuesday or Wednesday (March 2nd or 3rd)** you will browse and explore all the websites; and watch the video provided to you in Step 2 under the ‘Process’ section of the webquest, all of which are aimed at informing you about the European Union and Immigration/Immigrants in modern Germany.

d) In the meanwhile, please email your team members to decide on a mutually convenient time and date to meet (no later than Thursday, March 4th) to meet in 'Elluminate Live' to discuss questions related to ‘Germany, before and after the Wall’ in real time. Please make sure that you schedule 60 – 90 minutes for these ‘real time online discussions in ‘Elluminate Live’. Please ensure that you are in a quiet place where you can speak and listen to your group members during this session, and that your speakers and microphone are working well.

Following members will email me their group’s decision (time and date in ‘Elluminate Live’) as soon as possible, so that I can schedule a virtual class for you.

Group 1 – Wilson
Group 2 – Erik
Group 3 – Laila
Group four – Shane
Group 5 – Daniela
Once all (or most members) in your group sign in to ‘Elluminate Live’ at the mutually decided time and date, you will discuss each of the following questions. To ensure a smooth flow and avoid chaos, the above-mentioned members (for each group respectively) will read each question aloud and move to the next, after all group members have responded to the question, and have shared their views, experiences, feelings and opinions, and even compare and contrast it with the situation in USA, as necessary.

For this task, you will discuss each of the following five questions:

1) What may have necessitated the birth of the European Union? What are the chief objectives of the European Union?

2) Why is Turkey only a ‘candidate’ for membership into the EU? Do you think that religion may have a role to play?

3) What benefits does the German government provide to its immigrants? Can immigrants procure German citizenship? How and when? Please explain.

4) Based upon the websites you have browsed the video you have watched and from personal experiences or readings, do you think that Turks have acculturated and integrated into the German society and the German culture? Please substantiate your response.
Appendix H: Interview Questions

a) How would you describe your overall experience with using the webquests?

b) How would you describe your overall experience in interacting with your peers in the Discussion Board in Blackboard?

c) What were the limitations or challenges that you were faced with during this activity? What part of it did you enjoy most?

d) How would you describe your overall experience in interacting with your peers in the synchronous discussions in Elluminate?

e) What were the limitations or challenges that you were faced with during this activity? What part of it did you enjoy most?

f) Which of the CMC activities did you benefit from and enjoy more? Why?

gh) Do you think that the webquests impacted your knowledge and understanding of German culture? Please substantiate your response.

h) What aspects of the webquests were most frustrating? Why?

i) What aspects of the webquests did you like the best? Why?

j) Would you say that you know more about German culture now? How much of this would you attribute to the webquests? And how much of it would you attribute to your interactions with your peers in the online discussions?

k) Additional notes/ comments about the webquests -
Appendix I: Sample of essay topics - Essays for ‘Umwelt’

Following is a sample of the essay topics that will be administered to the participants for the Chapter ‘Unsere Umwelt’ (Our Environment). All essays will be written in English.

**Essay 1**

Day 1 of the Chapter ‘Unsere Umwelt’ – Please write an essay describing what you know about the topic ‘Umwelt’ in German speaking countries. In your essay, focus on the environment-related products, practices, perspectives of the German –speaking people, and how people react to the ‘recycling’ laws, if you know any of these.

Choice of language is entirely your prerogative, although it is encouraged that you write the essay in English. The essay must be at least 350-500 words. Please type your essay in Word document format with ‘Times New Roman’ font (size 12) and double space your document. Once your document is ready, email it to Dr. Grieb at grieber@cas.usf.edu by 11:59 tonight.

**Essay 2**

Day 10 of the Chapter ‘Unsere Umwelt’ - Please write an essay describing what you now know about the topic ‘Umwelt’ in German speaking countries. In your essay, focus on the questions discussed in the synchronous CMC component to demonstrate your knowledge and understanding of the products, practices, perspectives of the German –speaking people, and how people react to the ‘recycling’ laws, if you know any of these.

Choice of language is entirely your prerogative, although it is encouraged that you write the essay in English. The essay must be at least 500 – 600 words. Please type your essay
in Word document format with ‘Times New Roman’ font (size 12) and double space your document. Once your document is ready, email it to Dr. Grieb at grieber@cas.usf.edu.
Appendix J: Rubrics for scoring Essays

Following is the scoring rubric for each student essay based on Moran’s (2001) model of culture, where k & u = knowledge and understanding

Rubric to score essays for ‘Umwelt’

<table>
<thead>
<tr>
<th>Criteria</th>
<th>1 Point</th>
<th>2 Points</th>
<th>3 Points</th>
<th>4 Points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Products</strong></td>
<td>Mentions and describes at least 1 product</td>
<td>Mentions and describes only 2 products</td>
<td>Mentions and describes only 3 or 4 products</td>
<td>Mentions and describes 5 or more products</td>
</tr>
<tr>
<td>(e.g., laws,</td>
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<td>policies,</td>
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<td>regulations,</td>
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<td>trash bins,</td>
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<td>etc.)</td>
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<tr>
<td><strong>Practices</strong></td>
<td>Mentions and describes at least 1 practice</td>
<td>Mentions and describes only 2 practices</td>
<td>Mentions and describes only 3/4 practices</td>
<td>Mentions and describe 5 or more practices</td>
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<td>recycle such</td>
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<td>as sorting</td>
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<td>glass; biking,</td>
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<td>etc.)</td>
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<tr>
<td><strong>Perspectives</strong></td>
<td>Mentions and describes at least 1 perspective</td>
<td>Mentions and describes only 2 perspectives</td>
<td>Mentions and described only 3 or 4 perspectives</td>
<td>Mentions and describes 5 or more perspectives</td>
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<td>views,</td>
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<td>opinions)</td>
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<tr>
<td><strong>People</strong></td>
<td>Mentions and describes only 1 aspect about the</td>
<td>Mentions and describes only 2 aspects about the</td>
<td>Mentions and described only 3 or 4 aspects about</td>
<td>Mentions and describes 5 or more perspectives</td>
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<tr>
<td>(individuals</td>
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<td>or identity)</td>
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<td><strong>Communities</strong></td>
<td>Mentions and describes only 1 aspect about the</td>
<td>Mentions and describes only 2 aspects about the</td>
<td>Mentions and described only 3 or 4 aspects about</td>
<td>Mentions and describes 5 or more aspects about</td>
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<td>(e.g., urban,</td>
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<td>communities</td>
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<td>communities</td>
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<td>rural)</td>
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Rubric to score essays for ‘Germany, before and after the wall’

<table>
<thead>
<tr>
<th>Criteria</th>
<th>1 Point</th>
<th>2 Points</th>
<th>3 Points</th>
<th>4 Points</th>
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<tr>
<td><strong>Products</strong></td>
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<td>Mentions and describes 3 or 4 products</td>
<td>Mentions and describes 5 or more products</td>
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<td><strong>Practices</strong></td>
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<td>Mentions and describes 2 practices</td>
<td>Mentions and describes 3/4 practices</td>
<td>Mentions and describes 5 or more practices</td>
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<td>practices, etc.)</td>
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<tr>
<td><strong>Perspectives</strong></td>
<td>Mentions and describes only 1 perspective</td>
<td>Mentions and describes only 2 perspectives</td>
<td>Mentions and described only 3 or 4 perspectives</td>
<td>Mentions and describes 5 or more perspectives,</td>
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<td>opinions)</td>
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<td><strong>People</strong></td>
<td>Mentions and describes only 1 aspect about the people</td>
<td>Mentions and describes 2 aspects about the people</td>
<td>Mentions and described only 3 or 4 aspects about the people</td>
<td>Mentions and describes 5 or more aspects about the people</td>
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<td>(individuals or</td>
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<td>identity)</td>
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<td><strong>Communities</strong></td>
<td>Mentions and describes nothing about communities</td>
<td>Mentions and describes 2 aspects about the communities</td>
<td>Mentions and describes 3 or 4 aspects about the communities</td>
<td>Mentions and describes more than 5 aspects about the communities</td>
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<td>immigrants)</td>
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Appendix K: Word Count and field notes for selecting the two groups

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<th>Group No.</th>
<th>Word count for Discussion forums – UMWELT</th>
<th>Word count for Discussion Forums – D’LAND</th>
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<td>Group 5</td>
<td>4245</td>
<td>4937</td>
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While selecting the two groups (one with highest interactions and one with the lowest in addition to the essays) it is important to keep the following in mind:

- Group 1 – one complete data set; no attrition in group
- Group 2 – one complete data set; Pat’s audio equipment never worked during any of the chats. Additionally, her responses were ‘repetitive’ and ‘vague. Pat dropped the course.
- Group 3 – two complete data sets; Willi ‘withdrew’ from the course
- Group 4 – one complete data set; no attrition in group
  - Group 5 – no complete data set; no attrition in group
## Appendix L: Analysis of the Online Interviews – Group One

<table>
<thead>
<tr>
<th>Name</th>
<th>Overall Webquest Experience</th>
<th>DB +/–</th>
<th>DB +/–</th>
<th>Chats +/–</th>
<th>Chats +/–</th>
<th>DB or Chats?</th>
<th>Favorite part of Webquests</th>
<th>Disliked about Webquests</th>
<th>Enhancement of k and u attributed to Webquests?</th>
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</thead>
<tbody>
<tr>
<td>Asha</td>
<td>Interesting, got to know some people in the online class, useful, informative</td>
<td>interesting to see patient responses, do able to discuss them informatically like the interaction/dialogue of conversation created from the posts</td>
<td>-waiting for peer’s responses -responder lagging</td>
<td>nice to hear all talk about the topic to either like in a class setting under spectrum of views enjoyable experience</td>
<td>-most of the information was random, topic selection instead of responding to each question individually</td>
<td>DB!! -was able to go back and read the different responses -chats were more repetitive provided time to digest information and views</td>
<td>WEB Resources! Especially videos hard to imagine sometimes but a video makes it all real</td>
<td>-nothing in particular</td>
<td>-General knowledge about the German culture during those 2 chapters due to the webquests definitely impacted me. 20-30 videos/links, CMC</td>
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<td>Sheila</td>
<td>Very good experience, pretty descriptive, informative, easy to use, really organized, interesting</td>
<td>liked the interaction with online classmates didn’t get tired of seeing the same thing building an online community of sorts, interesting to see what other people thought of your posts, liked how other people contributed to and elaborate what you may or may not know</td>
<td>-spaced out -did not understand what posts corresponded to what - posts confused, posts were hard to understand enough appreciated</td>
<td>liked the instant interaction after posts were made, seemed to get more vocal in their views/opinions, experiences liked that chats were after DB, so we got to talk more</td>
<td>-more time to think, research -formalized responses people had more to say (maybe) because we did that first -could do it on our individual schedules</td>
<td>WEB Resources! Especially videos hard to imagine sometimes but a video makes it all real</td>
<td>was well presented</td>
<td>-definitely changed my perspective of German culture, without an American spin on it Past trips did not clarify how to recycle waste, but I knew...due to the webquests book has some cultural info at the end of each chapter, but this was so much more effective</td>
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<td>Name</td>
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<td>DB +ye</td>
<td>DB -ye</td>
<td>Chats +ye</td>
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<td>Favorite part of Webquests</td>
<td>Disliked about Webquests</td>
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<td>Wilson</td>
<td>-liked them a lot -learned a lot -Recycling not as much from the 2nd WBQ because the topic was familiar -History major -positive experience</td>
<td>-came upon interesting viewpoints -may not have thought of either (you can see the flow of thoughts, how the discussion emerged) -liked seeing everyone’s response on a certain topic -small responses (15 words) to my long and descriptive posts were frustrating -responses lagging responses -got to hear more different sides of the argument -liked the interaction -loved the exchange of thoughts, especially for questions that were subjective, such as “What is assimilation in Germany”</td>
<td>-scheduling and agreeing upon a time for chats that was all lower than Qs rate for chats were in-depth and subjective note that he had to read, research, and prepare more for chats engaged and got him more involved</td>
<td>Chats!! -because History major and liked writing -had to jump into the writing -Survey!! -because History major and liked writing</td>
<td>-nothing in particular -no strong dislikes</td>
<td>Definitely helped!! -got more involved -we could work for every character instead of just plain grammatical errors</td>
<td>20:20 W: CMC</td>
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<tr>
<th>Name</th>
<th>Overall Webquest Experience</th>
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<th>Chats -ye</th>
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<th>Enhancement of k and u attributed to Webquests?</th>
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<tr>
<td>Kaid</td>
<td>-positive -detailed information</td>
<td>-race to keep up with things -differences in Germany vs. USA are nice to see that we agreed upon a few points</td>
<td>-preparation was a challenge -enjoyed WBQ more than Recycling WBQ due to the nature of the topic -technical content difficulties</td>
<td>-overall very good -enjoyed chatting with my classmates -interesting ideas and insights -liked the interactions so much helped for more such interactions in the future</td>
<td>-scheduling the chats -sessions sometimes repetitive due to nature of questions or same info that all are reading -helped to put it all together</td>
<td>DB!!! -not time bound!! -more time to vote, understand responses</td>
<td>In 20th interview, CHATS!! -because we were communicating live and could hear each other</td>
<td>WEB Resources!! -especially Videos!! -The Chat had the right appeal -engaging as opposed to a documentary WBQ used a formula that got me interested</td>
<td>-wished there were a broader view</td>
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## Appendix M: Analysis of Online Interviews - Group Four

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<tr>
<th>Name</th>
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<th>DB [-x]</th>
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<th>Chats [-x]</th>
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<th>Favorite part of Webquests</th>
<th>Disliked about Webquests</th>
<th>Enhancement of k and u attributed to Webquests?</th>
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<tr>
<td>Cathy</td>
<td>challenging interesting dot of work learned a lot more about the German culture great opportunity to interact with peers</td>
<td>interesting to read everyone's thoughts helped to read others' input especially where I didn't understand something -got to know some classmates (valuable because this was an online class)</td>
<td>more time on each forum would have helped</td>
<td>enjoyed this the most -got to know peers a bit better/liked the small group was easier to communicate no room for ambiguity (due to instant turn around) he was kind</td>
<td>Chats!</td>
<td>unclear directions -more time for each forum would have helped</td>
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<td>Sandy</td>
<td>good experienced user friendly smooth process equal amounts of interest 35% inclined to research more should be a requirement for all language classes</td>
<td>-did not participate due to busy schedule -enjoyed reading peers' responses different perspectives</td>
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<td>Dana</td>
<td>great learning experiences interesting</td>
<td>reading what others had to say</td>
<td>some people would just go on and on repetitive</td>
<td>great experience even though you haven't met them, you picture them, hear them, you joke, interact, and share stories of was awesome!</td>
<td>teaching in particular CHATS!! deep and more interactive instant turn around, no need to wait for responses liked the small element in the discussions getting to know my peers a lot, here Chat: DB</td>
<td>CHATS!!</td>
<td>DB</td>
<td>Yes, definitely started paying more attention to FDB bags and receiving options in the neighborhood impacted me WEBs went beyond regular classroom learning helped make contrast and compare 20:20 WR: Chats</td>
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<tr>
<td>Name</td>
<td>Overall Webquest Experience</td>
<td>DB (+ve)</td>
<td>DB (-ve)</td>
<td>Chats (+ve)</td>
<td>Chats (-ve)</td>
<td>DB or Chats?</td>
<td>Favorite part of Webquest</td>
<td>Disliked about Webquests</td>
<td>Enhancement of it and its attributed to Webquests?</td>
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<td>Shane</td>
<td>pretty positive breaks the monotony of grammar and vocabulary cultural perspective was important provided an opportunity to explore German cultures from a German perspective different views from regular media such as TV, or what people say opportunity to think, share, the process able to compare what we are familiar with, especially in an online class great experience to have the cultural component</td>
<td>initially slow but get faster (maybe people were hesitant at first)</td>
<td>enjoyed the back and forth appreciated group members’ viewpoints enjoyable experience</td>
<td>enjoyed listening to the different perspectives that group members brought to the chat especially one came from a different background, and one even came from a different country</td>
<td>group size being small, nobody wanted to ‘step on each others toes’ would have benefited if it were a bigger group (more diversity through opinions)</td>
<td>CHATS!!</td>
<td>live and more interactive instant, synchronous nature</td>
<td>CHATS!! also liked the essay (helped process thoughts and put them together)</td>
<td>Web Resources (especially videos)!!</td>
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Appendix N: Example of a pre- and post CMC-embedded webquest essay

Dana’s pre-CMC-embedded webquest essay for ‘Umwelt’

To my understanding the Environment in Germany is much cleaner and the people in the Environment care more about things then people in the United States. In Germany going green is very important and it is not a choice like in the United States. There is a penalty for not separating trash that can be recycled and trash that is useless. The environment is driven to be conscious about certain issues if there are penalties for doing things differently. Rules have to be enforced in order for people to care and recycle. It breaks my heart when I come home from Publix and have all those plastic bags that I end up throwing out most of the time. If I had no other choice but to bring my own bag or use paper I am sure I would and I would feel good about it. I believe that we need to create a system like they have in Germany where the trash has to be separated at all of the locations throughout the city and big penalties should be given to people that litter our Environment.

Dana’s post-CMC-embedded webquest essay for ‘Umwelt’

I must admit I was not very familiar with the German system and their actions related to environment protection. I was glad I researched the steps Germans take in order to protect and better their environment. Environmental protection in Germany is very important and mostly everyone is involved in some kind of way. In the video that we watched, I was shocked to learn that ninety percent of Germans enjoy recycling and they do it because it makes them happy. Germans are extremely environment-friendly and from young age are taught to recycle. In my opinion Germany as a population is doing a
great job in protecting their environment and solving problems before they even occur. United States on the other hand is lately getting to be better with pushing people to care more for their environment. The amazing part of a German is that most of their life they spend separating all of the trash they have. In bigger cities folks are very aware of recycling and they have huge systems. Systems such as people using three different garbage cans in order to recycle plastic, glass and paper. People even go as far as separating glass by color in order to reuse it. Something extreme we talked about today in our eluminate session was that Germans reuse their glass bottles. I believe that reusing the glass bottles is a little nasty but if it works for them more power to them.

Some of the reasons that drive the environment consciousness is that it is not mandatory in Germany for people to be involved in the recycling programs but if nine out of ten people are doing it then you want to do it too. United States needs to in my opinion give some kind of reward out in order for people to recycle. I believe once people are taught and are used to do it, then it will be natural just to do it. German as a nation is doing a great job and we should take their Green Party as an example and better ours.
Appendix O: Participants’ essay scores and sub scores

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<th>Group one</th>
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<th>products</th>
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<th>People</th>
<th>communities</th>
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<td><strong>Sheela – Umwelt</strong></td>
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Appendix P: Sample of coding Lidz' (2002) mediating strategies for synchronous 'e-turns'

penalty, or that its wrong, or that if you don't do it, people would do it more, coz in Germany, its not normal if you don't do it or mostly like everybody...like you said, 90% enjoy doing it, but in the United States on the other hand, its like 50 enjoy doing it and 50 are just lazy and don't want to do it.

C: Ya, I definitely agree...obviously in the US its like a little more laxed...like they don't really care if you do it or not and definitely we they do not sort like the way they do and definitely like glass, different types of glass...brown glass, and green glass...and we just like throw our paper and like plastic bottles and cans and everything goes into their recycling and I know also like I mean, I don't know...obviously they have a lot of opportunities to recycle, but like I know that in my apt. complex, you know, they don't offer it or anything...and I know it probably costs more for them to do it, so they probably don't coz I have to take mine somewhere which is annoying but its like I cannot throw away a plastic bottle like. I don't know I think that if there was like an opportunity to help as well...but ya...we are definitely a little more relaxed on the whole recycling thing...

S: Ja, I know what you mean, Courtney...I remember when I first moved to Florida, it was a pretty new area and they gave us days for garbage and they gave us days for recycling...so, probably for the first couple of months...you'd see those trash cans out and on other days, you'd see those recycling bins and boxes and you'd see them out there. After couple of months went by, you kept seeing the trash cans but you very rarely saw the recycling bins and like you said, we do have opportunities to recycle but obviously they aren't as many or plentiful as they seem to be in Germany, and then the...I guess the impetus or the...the need or want to do it is lacking. You now whereas they said, folks were pretty excited about doing it in Germany and so...definitely different...I don't think we hate the environment more than the Germans do, umm...but I think that we have a little bit of ways to umm...catch up with them...um...anybody else want to add to that umm...brief conversation of question no. 1 before we move on to no. 2?

After a brief silence...
Appendix Q: Sample of coding Lidz' (2002) mediating strategies for asynchronous 'e-turns'

On the Energy page for the Federal Environmental Agency, there is an overwhelming call for the use of renewable energy. In our modern world, we have to edge away from fossil fuels and switch over to using more renewable sources to power our cars and homes. I see that there was a lot of mention on wind energy, a completely clean energy source. Wind energy is a great renewable resource that does no harm to our planet. The problem with this resource seems to be that people don’t like the look of them on their land and it does take many of them to power up just one single neighborhood. None the less, these problems seem minor to the problems we will face if we continue using fossil fuels. I hope Germany, along with the rest of the world, continue to move in the direction of clean energy as it will greatly help our planet.

Shown,
Fossil fuels and the renewable energy are a serious global issue but there are many global issues out there. Our biggest concern in my opinion is that energy insecurity combined with other global issues risks fueling conflict. Past mistakes in our history have been made concerning fueling conflict. I personally fear that the world is quickly using up the vast but finite amount of fossil fuels and we may have already peaked in fossil fuel extraction and production.

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**ONLINE CHAT 2 ➔ GERMANY, B4 & AFTER THE WALL**

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ONLINE CHAT 2: GERMANY, BEFORE & AFTER THE WALL

GROUP 4

ONLINE CHAT 2: UMWELT
Appendix S: Tallying of Lidz’ (2002) mediating strategies for all ‘e-turns’ generated in the asynchronous online discussions.
3. How is the Green Party in Germany different from the Green Party in the USA?

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3-4. What are the requirements for companies that do not join the Greenpat '24 movement? Is there an equivalent in the USA?

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3-5. Do the Green Zone laws affect foreign care in Germany? If so, how? What, in your opinion, might be the outcome?

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DBS - GROUP 1 - GERMANY


Q1. Was the graffiti on the Berlin wall symbolic of the events happening in Germany after World War Two? Why?

If you were given an opportunity to paint the wall, what would you paint? Please explain.

 relic  1  2  3  3  3
 kai  1  1  1  1  1  1
 wilson  2  2  2  1  1  1
 sha  3  2  2

BQR. How different do you think were W.Germans from E.Germans after the E.U. reunification? Do you think those differences are a thing of the past?

 sheela  3  3  3  1
 kai  3  3  3  3  3
 wilson  2  2  2  2  2
 sha  3  3  3

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DBS GROUP 1 - GERMANY (cont.)


Q3: What, according to you were the turning point that led to the 'Fall of the Wall' in 1987?
Sheila: ✓ / ✓
Kai: ✓ / ✓
Wilson: ✓ / ✓ / ✓
Asher: 2 / 2

B79/8: What, according to you might be the social ramifications of a society that once were joned but were now forcefully separated & the conflicts that have arisen from this as well as broken
ceded border protection (e.g. N. S Korea, India & Pakistan, Israel & Palestine Wall, US Mexico, etc.)?
Sheila: ✓
Kai: ✓
Wilson: ✓ / ✓
Asher: 2 / 2
Does the environment protection law in Germany differ from that in the USA?

Frances: Yes.

Shane: No.

Cathy: Not sure.

Sandy: Don't know.

Q2: Among the recent laws passed in the energy sector in Germany, which one(s) do you think is/are most valuable? Please substantiate your response.

Frances: Solar energy.

Shane: Wind energy.

Cathy: Nuclear energy.

Sandy: Hydro energy.
DBS> Group 4 - UMWELT (cont.)

1. Are there any differences between the Green Party in Germany and the Green Party in the USA?
   - Dan: ✓ 3 3 ✓ 2 2
   - Shane: ✓ 1 ✓ ✓
   - Cathy: ✓ ✓ ✓ ✓ ✓
   - Sandy: 🙅 1 🙅 1

2. What are the ramifications for companies that do not join the Green Dot scheme? Is there an equivalent in the USA?
   - Dan: ✓ 3 3 1 3 3
   - Shane: ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
   - Cathy: ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
   - Sandy: ✓ 3 ✓ 3 ✓ ✓ ✓ ✓

3. Do the green zones laws differ for foreign cars in Germany? If so, how? What is your opinion?
   - Dan: ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
   - Shane: ✓ 2 ✓ 2 ✓ 2 ✓ 2
   - Cathy: ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
GROUP 4 → GERMANY


- B1 → What would happen if there were a war?

Shane 1 1 1
Sandy 1 1 1

- B2 → How difficult do you think it was for Germans from the east to the west when they were unified? Do you think that east Germany was a ring of the past?

Shane 1 3 3 1
Sandy 1 3 3 1

Dana

- B3 → What, according to you, was the turning point that led to the 'Fall of the Wall' in 1989?

Shane 2 2
Sandy 2 2
Appendix T: Frequencies and Cumulative frequencies of Lidz’ (2002) mediating strategies for all synchronous online discussions

<table>
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<th>ONLINE CHAT - UMWELT</th>
<th>ONLINE CHAT – GERMANY, BEFORE AND AFTER THE WALL</th>
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Appendix U: Frequencies and Cumulative frequencies of Lidz’ (2002) mediating strategies for all asynchronous online discussions

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