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A Phenomenological Study of Teaching Endangered Languages Online: Perspectives from Nahua and Mayan Educators.

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A Phenomenological Study of Teaching Endangered Languages Online: Perspectives from Nahua and Mayan Educators.

by

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Dedication:

Nimoquintlazcamati nonanan huan nocihuauh

"Accept everything about yourself- I mean everything, You are you and that is the beginning and the end- no apologies, no regrets." ~Clark Moustakas

[Dedicated to the memory of Clark Moustakas, May 26th, 1923 to October 10th, 2012]

Table of Contents:

List of Tables:

List of Figures:

Abstract:

Language and culture teaching has always been a complex and challenging task. For many educators, their teaching experiences are rooted in their earlier preparation, their classroom situations and their curriculum. In this study, indigenous educators recount their lived experiences with teaching their language and culture at a distance. These educators belong to either Nahua or Mayan speech communities where endangered languages are maintained. Using a transcendental phenomenological approach, my participants described and explained their perspectives and experiences with teaching, studying, and integrating technology. I focused the interviews, the reflective writing tasks and their artifact sharing on their experiences in an online environment for a predominantly US audience through distance learning platforms. In the case of the Nahuas, they taught synchronously through Skype while the Mayans taught asynchronously through a socially mediated network (i.e. a Ning powered network). The resulting phenomenological essences provided a universal description of their textural and structural experiences and I used this essence to unearth these educators' descriptions, discoveries and perspectives on teaching, languages, culture and technology. From analyzing their journey the following implications emerged. First, these educators needed to learn an additional language beyond their home language in order to be a part of a teaching experience. Second, their personal ties to their speech communities were enhanced or completely changed due to their engagement with their

home institutions. Lastly, their efforts were linked to increasing the documentation and revitalization of their endangered languages.

Chapter 1: Tlanextli & Me

In the fall of 2011, I met with Tlanextli over Skype to discuss one of his favorite parts of teaching Nahuatl (an indigenous language spoken in Mexico) to students from the US. Tlanextli sat in the language center in northern Mexico where he studies and works and we talked about his journal entry from a week ago. I begin with his quote in Spanish followed by my translation in English.

> *Las partes favoritas de la enseñanza, es cuando, con el alumno practicó el habla del idioma, utilizando objetos y gestos para que el aprendiz trate de entender lo que instructor quiere dar a conocer. De esta forma facilita la comprensión de instructor-alumno.*
>
> Translation: [[My] favorite parts of teaching are when, with the student practicing to speak the language, [I am] utilizing objects or gestures so that the student tries to understand what the instructor is trying to explain. In this way, [we] are able to facilitate the understanding between the instructor and the student. (quote from Tlanextli on one of his favorite parts of teaching Nahuatl).]

When I read Tlanextli's response, I was struck by how similar his words were to what might have been an answer I would have given. Further, he also sounded like many different language instructors over the years whenever they talked about their favorite parts of teaching languages. This shared experience between language educators has made me wonder about the journey facing any educator, but specifically an indigenous

educator who faces a number of challenges in his or her journey to share their language and culture.

I chose the pseudonym Tlanextli after consulting with my participant and explaining to him my rationale for choosing this term, which means 'brilliant, radiant or majestic' in Nahuatl. While I was interviewing Tlanextli, I was surprised with his level of creativity, innovation and achievement in the classroom activities that he shared with me. I found a number of his self-created exercises to be brilliantly crafted. For example, during the course of an online session his students had difficulty conceptualizing vocabulary items for describing the different times of day recognized by the Nahuas (the present-day name for the people who speak the Nahuatl language in Mexico and are the descendants of the Aztecs). After the class had finished, he reflected on what had happened in the virtual classroom and decided on a course of action he could take for the next online session. In the end, he created a visual representing these different times of day (see Figure 1.1). By his own admission, Tlanextli explained that he had received limited formal training in pedagogy, curriculum development and instructional technology. Yet, he was able to perceive an area where he felt his students needed additional help learning a topic and he took stock of the tools he had available (e.g. Microsoft Paint) to craft an impressive visual representation. This step was especially impressive because of how much he was able to do with such a basic and outdated program. His actions showed a level of brilliance and I believed the choice of Tlanextli as a pseudonym captured an essence that I could represent using this name.

Figure 1.1. Teacher-created activity example. This figure is a representation of the different times of day as recognized by Nahuas. The Nahuatl words represent times of day much like in English where I can refer to the middle of the day as 'noon' or early morning as 'dawn' to mention a few examples. Tlanextli created this figure using Microsoft Paint and incorporated it into his online class sessions to better help his students make connections to the class topic.

Tlanextli is one of many indigenous educators I worked with who share their language and culture through distance learning tools. These indigenous educators work with students and scholars from the United States for many of their distance learning courses. For both speech communities (Nahua and Mayan), I provided these members the opportunity to tell their stories and "the opportunity to have a voice" (Janesick, 2007, p. 117) as well as to reflect on their journey in becoming (or being) a teacher of language and culture. Many of the Nahua and Mayan speech communities (along with large numbers of language communities across the globe) are facing extinction within the next century due to a myriad of pressures forcing the speakers to abandon or suppress their

mother tongue (Nettle & Romaine, 2000). Given the uncertain future that these speech communities are currently facing, the documentation of their journey is all the more important.

While this precarious state is an urgent and important motivation to research these indigenous educators, I also wanted to know what these individuals experience when they teach their language and culture, especially when they teach without having received training in formal language teaching, technology incorporation or pedagogical practices. Because my own experience with language teaching began without receiving very much formal training in those same areas, I wanted to learn more about these educators' perceptions, beliefs and discoveries of teaching their language and culture. Working with these indigenous educators was a personal and revelatory endeavor.

Fortunately, a number of factors are converging to help mitigate (if not reverse) this trend toward marginalizing speech communities (Fishman, 1996a; Flores Farfán, 2001; Meek & Messing, 2007; Skutnabb-Kangas, 2000). Societal changes (e.g. the recognition of governmental and legal status for languages like Yucatec Maya and Nahuatl), and emerging technologies (e.g. internet tools like Skype and socially mediated networks) are evolving to include participation from across language, cultural and geographic boundaries. In fact, university-level administrators in Mexico are actively supporting the pursuit of indigenous language maintenance. Speakers of Yucatec Maya and Nahuatl are enrolling in institutions to develop literature and other teaching materials in order to document and disseminate their language and culture. These efforts have created a unique outlet for indigenous members to reconnect with their language and

have allowed them the opportunity to help their language become documented, used, respected, and disseminated.

As these programs expand and include more indigenous members, it is essential to understand the indigenous educators' journey in order to provide the members of these Nahua and Mayan language communities with the best possible outcome for their future language use (Brown, 2010). With the documentation of their journeys, administrators in institutions of higher education can ensure that their programs maintain the highest level of quality and continue improving the experiences for these indigenous educators and their students. Research on the experiences of indigenous educators is somewhat limited with respect to some aspects of their journey, such as teacher training, classroom management, curriculum development and technology incorporation. In fact, Meek and Messing (2007) observed that bilingual schools (using Spanish and an indigenous language like Nahuatl) have only recently appeared in Mexico during the end of the 20th century. In some cases, the availability of instructional materials (textbooks, teacher guides, classroom resources like dictionaries and grammar guides) in the language has been limited or non-existent. Additionally, many of the instructional materials are designed in an effort to move the indigenous speaker to the acquisition of Spanish rather than in maintaining or developing his or her language (Meek & Messing, 2007). As a language educator, these efforts force indigenous members to engage in material development of basic resources like dictionaries, short stories, children's books, etc.

Instead of having young indigenous members rely solely on Mexican public schools to further develop their languages in areas like literacy and content development (e.g. history, mathematics, etc.), Pérez (2009) noted the home acts as the primary locale

for the development (including the acquisition and maintenance) of the indigenous language. Many indigenous members comment on the status of their language within Mexico because it is not highly regarded or valued outside of the home (Flores Farfán, 2002; Pérez, 2009). Even with these challenges, numerous individuals are accepting offers to study at Mexican universities in order to take advantage of the opportunities to continue to develop their skills with Spanish while finding an outlet for the further development of their family language. An understanding of how these indigenous educators succeed in their efforts to use and teach their language and culture despite the barriers facing them is an important area of study and these educators may be a crucial element in the continued existence of their endangered language speech community.

Teaching, Language & Technology through Indigenous Eyes

The purpose of this study was to describe and explain perspectives and experiences of indigenous educators in Mexico who are tasked with teaching, studying, and integrating technology within an online environment for a predominantly US audience through distance learning platforms. In this study, I focused on their experiences in order to unearth these educators' descriptions, discoveries and perspectives on teaching, languages, culture and technology. These educators are members of speech communities that use specific varieties of the Nahuatl and Yucatec Maya languages in their daily lives as well as in their academic lives. Additionally, they were using distance learning platforms to teach their language and culture while undergoing language revitalizing or stabilizing efforts. These distance learning platforms are a combination of synchronous, same-time formats, (Skype, a VoIP application) and asynchronous, different-time formats, (Ning, a socially mediated network) that allow non-speech

community members (in this case, predominantly students and scholars located in the United States) to participate in virtual classrooms or instructional scenarios.

In terms of the Nahua and Mayan communities, these members are in the process of developing as educators and as the contact between these indigenous speech communities and their majority language counterparts continue to grow, the need for qualified educators grows with it (Godwin-Jones, 2006). As such, there is an urgency for documenting the experiences of these educators because both speech communities face the possibility of vast language loss within the next century.

One factor fueling the language loss occurring within these speech communities is the attitudes of majority language speakers (i.e. Spanish or English speakers) (Flores Farfán, 2002, Messing, 2007; Ruiz, 1992; Skutnabb-Kangas, 2000). These negative attitudes can be seen in the policies and limited opportunities offered to students looking to study endangered languages. Many of the non-native speakers interested in learning Nahuatl and Yucatec Maya are members of Western nations like the United States or similar countries in Europe and the administrators for institutions that provide funding for these non-native speakers to take classes have preconceived cultural ideas of what a qualified language instructor is. Generally speaking, these administrators are interested in or have been exposed to language instructors at the public school or university level who have been trained to either teach their native language or have an advanced degree focusing on literature in that language. This Western-style paradigm of qualifying and certifying teaching is problematic for languages like Nahuatl and Yucatec Maya. Endangered languages do not enjoy the political stability of a home country, which has adopted the endangered language as its official language (Skutnabb-Kangas, 2000). In

order for languages like Nahuatl and Yucatec Maya to continue to exist and thrive, there needs to be a focus on curricula currently designed to educate these indigenous members, specifically on the language assistants and student teachers themselves.

On Phenomenology: The Essence of Experience

This study was a qualitative approach toward recognizing human knowledge I obtained from first-person accounts through interviewing and reflective writing. These interviews and reflective writing focused on the wholeness of the experience and a search for universal meaning and essence within those participants' words, stories and discussions (Moustakas, 1994). By adopting a phenomenological perspective, I formulated questions that elicited the interests, involvement and personal commitment of the research participants. Moustakas (1994) considers this human experience as a critical link in understanding behavior and is considered the basis for scientific investigation. Additionally, the use of qualitative research involves accepting reality as subjective, immersing the participants into the context of the phenomenon, understanding research as value laden, and integrating observation and description with theory (Creswell, 2007). All of these considerations in qualitative research depend on the notion of the individual as more than a number. Instead, the individual is capable of telling or sharing his or her lived experience and bringing that personal narrative and reflection to the forefront of the research study.

With the goal of understanding a lived experience with a phenomenon, Moustakas (1994) provides a research design with much value and applicability in the social sciences. I used this methodology to develop rich narratives from the thick descriptions of the participants' lived experiences (Creswell, 2007). This study details the indigenous

educators' experiences with teaching their language and culture to a predominately U.S. audience through distance learning tools and does so by obtaining rich and thick descriptions through in-depth interviewing and reflective writing (Patton, 2002) with the intent of uncovering the challenges, factors, and elements that comprise their lived experiences. This phenomenological method is further detailed in chapter three and it was an appropriate choice to understand the lived experiences of these indigenous educators because the methodological tradition provides for a systematic, comprehensive and scientific way to explore the phenomenon.

My Journey with Nahuatl & Yucatec Maya

In a traditional phenomenological study, the researcher discusses the autobiographical ground from which his or her topic emerged. He or she also includes a number of critical incidents that create a curiosity or, even, a passion to know more about the phenomenon (Moustakas, 1994). Following in that tradition, I present my journey with the Nahuatl and Mayan languages and speech community members. This discussion also contributes to my ability to achieve *Epoche* (Moustakas, 1994), a phenomenological expression that means the ability to view lived-experiences without suppositions, prejudgments or preconceived ideas.

Since phenomenological research is focused on first-person reports of life experiences, the discussion of my journey focuses on those areas of this phenomenon that I have had experience with. For instance, I have encountered and learned about the Nahuatl and Yucatec Maya languages and their indigenous speech communities and languages, even though I do not identify as an indigenous educator. I have taught

languages (including teaching basic Nahuatl) and used distance learning tools to share knowledge.

I am able to compare my own journey to that of Tlanextli and there are a number of commonalities I share with him in becoming an educator. We also share a number of differences that illustrate the unique situation of teaching an endangered language and culture that has limited resources available for it or a specific pathway for its teacher development.

As an English language educator, I was able to begin teaching adult immigrants in the Chicago area without any training or education beyond the high school level. This notion of teaching without having conventional training is the one area where our journeys share some similarities. Tlanextli began teaching without much formal language or pedagogical training. However, Tlanextli was not given years of education at government sponsored schools in his language whereas I was given the opportunity to learn literacy skills in my language. This gift of literacy is important because it allowed me the ability to access a multitude of resources available in English. Not only did I benefit from the gift of literacy, but I had access to a language with a high level of prestige, resources, and usage. This access included a standardized form of a language that has not had its written tradition interrupted and is the language choice for millions of people worldwide. Lastly, when I decided to become an educator, I was able to enroll in university programs to learn about English language teaching, technology incorporation and pedagogy. Tlanextli did not have these options available and any training he received was in Spanish or English (both languages being additional languages for him). While my personal journey shares a number of similarities with Tlanextli, the languages and

contexts in which I taught and those in which he teaches are strikingly different, and therefore create situations that cannot be compared in terms of identity, politics and marginalization.

Encountering & working with indigenous speech communities.

I first encountered the Nahuatl language during a trip to Cuernavaca, Morelos (Mexico) in 2003 (De Felice, 2005). During my trip, I visited a number of historical landmarks like the pyramids of Tepozteco in Tepoztlan and the ruins of Teopanzolco in Cuernavaca that provided guests with informational signs that were written trilingually (please refer to appendix M for a map of these locations). These signs included English, Spanish and a third language that I was not familiar with at that time. That third language intrigued me because I assumed that if the government of Mexico was creating signs in that language then there were Mexicans who could read them.

Reflecting on my own development, I can (look back and) now see that during this period of time I was still equating languages with the identity of a nation-state. In other words, a language was unknown to me if it was not spoken by the majority of a population of a country or state. I spent many weeks trying to identify the third language and, eventually, located a speaker of that language. My time spent looking for a speaker opened my eyes to a number of issues that I had never encountered before. First, as a majority language speaker in the United States with limited exposure to diverse communities, I was not familiar with or knew a speaker of an indigenous language. I found this perspective to be true of the Mexican nationals I interacted with and I was not able to locate a Nahuatl speaker using the networks with which I was acquainted.

Second, a few Mexican nationals mentioned that I should try to establish a connection with the vendors in the downtown plaza. These vendors tended to wear traditional dress and sold *artenasías* (handicrafts) and other items to tourists. The assumption was that based on the dress and occupation of these vendors, I would be able to find a speaker who could help me with the language. I would learn there were underlying flaws with this assumption. While these speakers fit the "stereotypical" image of an indigenous person, there was no direct connection between that stereotype and the Nahuatl language. Mexico has anywhere from 70 to over 200 indigenous languages within its geopolitical borders (Flores Farfán, 2002), so the chances that one of these vendors spoke the variety of Nahuatl listed on these governmental/tourist signs was very unlikely.

Another more problematic assumption that caused me the most difficulty was that I would be able to approach these vendors and casually interact with them. While Mexican nationals and tourists appeared to tolerate or accept the traditional dress and handicrafts, the history of language and culture oppression by majority language speakers (i.e. Spanish or English monolingual speakers) is mapped onto a barrier that now exists between these vendors and the society-at-large. What I experienced because of this barrier was that these vendors would not admit to being speakers of another language. Instead, they would become uncomfortable with the question. In retrospect, I believe that one reason these individuals were also uncomfortable was that I was also interested in finding someone who could read and write the language (again, another assumption I made based on my own experience with English and Spanish). Eventually, I was able to find an individual who would patiently and graciously entertain my interests; I also

would find a number of institutions where I was able to attend classes. My journey with the Nahuatl language and speech communities has continued to the present-day where I have also begun working with Mayan speakers.

During the fall of 2010, I presented my research project with English/Spanish speakers who attempted to learn the Nahuatl language at a conference held in the city of Mérida, Mexico. This conference, *IV Simposio sobre Política del Lenguaje: Procesos Lingüísticos y Globalización* [The Fourth Symposium on Language Policy: Linguistic and Globalization Processes] called together various Mexican indigenous educators and authorities to discuss current developments and directions with minoritized language communities in Mexico (please refer to appendix M for a map of these locations). During this conference, I attended a number of sessions on the developments of educational programs/initiatives of various indigenous languages in Mexico (e.g. Otomi, Zapotec, and Yucatec Maya). I was able to attend sessions that were conducted entirely in an indigenous language and I would learn that in this area of Mexico the regional language for many speakers is Yucatec Maya.

After completing my presentation, an educator from the audience approached me to ask if I would be interested in working with trilingual students (Yucatec Maya, Spanish and English) in a type of culture and language exchange. The offer intrigued me, and because of my commitment to working with indigenous language communities, I chose to work on developing this culture and language exchange. Through this exchange, I have gotten to know another variety of an endangered language spoken in Mexico and, more importantly, I have met someone who is currently fighting for the survival of the

language. As was the case with Nahuatl, I found myself having a higher degree of commitment and passion when I was able to put a face to the language.

Teaching a language.

I have been a language learner for much of my life and my language learning history is summarized in table 1.1. I have taught English, Spanish and Nahuatl professionally, though most of my teaching experience has been with English at various levels. I have taught English in schools, community centers, language centers and universities for the last decade. My experience with Spanish is much more limited, but I have taught Spanish in community centers at various times and for various purposes (e.g. tutoring for specific tests).

Table 1.1

Language Learning History

Language	Age at first encounter	Nature of encounter Formal class/Informal natural		Proficiency L S R W*
English	0			Native Speaker L>S>R>W
German	12	High School 3 years College 1 year	---	ACTFL[1] Novice L>S>R>W
Spanish	25	College 3 years	6 week immersion 8 month home stay Numerous visits	ACTFL Advanced L>S>R>W
Nahuatl	28	College 6 weeks	One-on-one w/native informant over one year 2 week immersion	ACTFL Beginner L>S ACTFL Novice R>W

*L=listening, S=speaking, R=reading, W=writing
[1]Proficiency level is based on the ACTFL scale (1986).

Lastly, I have recently begun using Nahuatl to teach pre-service teachers a number of different methodologies like Total Physical Response (TPR) and the Natural Approach (Larsen-Freeman and Anderson, 2011). I use Nahuatl as a way of immersing the students (who are mostly monolingual English speakers) into these language methodologies. In terms of this proposal, I must mention that I have only taught these languages in person in traditional settings (i.e. face-to-face (F2F) settings), which differs from my participants who may only teach through online formats.

Becoming an educator.

I do not have a specific moment when I decided to become an educator or even when I first began to identify as an educator, but I have always taught, in a sense, for as long as I can remember. This teaching stems from my love of games of chance of all kinds, be it board games, card games, and video or computer games. From an early age, I lived in the rulebooks and instructions that were provided with those. I remember distinctly being the only one in my family who would read the instructions. My older brother, for example, would never think to read the instructions, but, instead, he knew to ask me how to execute a special move in the game. Most of the time, I would relate what I had read to him during the course of play. Sometimes I would hold back something special that I had read, keeping it as a sort of secret weapon. Interestingly enough and as time progressed, I found that I would do that less and less often because I came to feel like I was abusing my responsibility as the "instruction reader." I found this trait passed onto my life in general. During my military tour I would often read instructional texts from front to back because I just did not feel right if I had not. This manual reading has carried over into many other areas of my life as well. I find myself reading course

manuals, instructions for appliances, furniture assembly, taxes, computer-related manuals, etc. I then find myself explaining what I read to the people in my life. I never really recognized this trait as a mode of teaching, but then what is teaching, if not the taking in of complex information and helping someone else understand and apply it?

Much of my initial contact and journey with indigenous speech communities parallels my development with understanding how language, culture, politics and power are intertwined with becoming an educator. In fact, Larsen-Freeman and Anderson (2011) state that many current teaching methods have a participatory approach as a "response to the politics of language teaching" (p.165). At this point in my career, I have come to understand that there is not a time when any teaching of a language is not an exercise in politics or power. I remember when I had first begun to teach English as a Foreign Language (EFL) in Mexico that I was challenged by a student about the course text and some of the course material. This student had difficulty in the way the books presented the family structure as well as relationships in general (I have to mention that the book and materials were not entirely to blame as I also presented the material in a very biased way). In a nutshell, I was challenged for not being inclusive in terms of sexual orientation. I was still new to teaching and multicultural awareness in general, so it took me a number of years for me to realize that I had been unwittingly transmitting dominant societal assumptions about heterosexuality in my beginning EFL courses.

I see this issue of politics and power in terms of my experiences with teaching at various institutions in the US and Mexico. Larsen-Freeman and Anderson (2011) discussed the idea of successful language use being based on multi-competence rather than getting students to imitate monolingual native speakers. I have been struggling with

this goal for much of my teaching career and I continue to investigate this issue of pluralingualism and multi-competence because I believe most of the institutions I have worked for have worked very hard to ensure this model of attaining native-like proficiency as the philosophy underlying all of the curriculum, teacher development, and classroom activities. In fact, most of the administrators of institutions I worked for in Mexico went so far as to only hire English language teachers of Anglo/Eurocentric origin (i.e., the United States, the United Kingdom, Australia and Canada). I hear the same from Spanish language educators in a US context. Many of the non-native speakers who want to teach Spanish in the US tell me that they are unable to do so because native speakers are preferred over them.

Using distance learning tools to co-construct knowledge.

As I mentioned before, I have not had any experience using distance learning tools to share a language. However, I have been a student using distance learning tools to learn a language and, in my professional life, I have used these tools to share knowledge, so I must discuss these experiences as part of the Epoche process. I found teaching in an online format to be a daunting process given the difficulties in defining a role as a moderator, choosing components for inclusion in the course, and feeling alone in the creation of the product.

First, I had difficulty transitioning from a face-to-face instructor into my role as a moderator for the course, the discussion boards, and the flow of information. Berge and Collins (2006), categorize the various roles an online moderator may encounter. These include filtering the content, preventing so-called "fires," facilitating group work, administrating the course, editing information, generating discussion through posts or

other means, and serving as an expert in the field. While these roles are varied and many, I needed to clearly define them in order to reduce noise, keep focus on topic, eliminate distractions or problems, ensure timeliness, and digest messages or postings (Berge & Collins, 2006). It took me a number of semesters to fully understand what roles may be required of me, but I also learned there is a greater chance that I would be prepared for a role as it occurs, due to my growing experience with online environments.

Second, I trained to become a face-to-face instructor, so I had spent much of professional development on making use of the features, layouts, and delivery models of a traditional classroom. I was not prepared for the list of components that are usual and/or required for a successful online course. For instance, the students in the class may need training on the use of the software/tools in the course. Additionally, I found I needed to employ a variety of methods of electronic communication. Though there are many differences in a F2F format versus an online environment, I found both needed a guide or set of objectives, usually in the form of an extensive syllabus. The one area I found the most difficult was this feeling of loneliness in terms of interactions with the classroom and students. This sense of isolation was even more acute when I taught using strictly asynchronous tools.

Questions Guiding Research

As the description of my own journey illustrates a reflection on lived-experiences, I used the following questions to guide this proposed qualitative inquiry into the lived-experiences of indigenous members. In following a traditional phenomenological study (Creswell, 2007), I had one question to guide this inquiry into the experiences of these indigenous educators. I used this phenomenological research question to construct a universal description or essence for the phenomenon of indigenous educators teaching

their language or culture through distance learning tools. ***In what ways do indigenous Nahua and Mayan educators perceive and describe their experience of teaching their endangered language and culture to English language speakers using distance learning platforms (e.g. Skype or Ning)?*** In looking to expand my understanding of this phenomenon, I also had the following sub-questions to help me develop a deeper understanding of that same experience through identification of themes, categories and concepts.

a. What elements constitute their perspective on teaching?

b. What factors influence their perspectives?

c. What are their discoveries about teaching their endangered language and culture to these speakers?

Within a qualitative approach, the questions above serve to guide me in exploring the perceptions, descriptions, and discoveries of my research participants for this phenomenon. I explored the following areas: teaching a language and its culture, developing professionalism in language teaching and teaching in general, making use of and relying on technology in teaching, teaching of an indigenous language and its culture to a non-speech community member.

Definition of Terms

I operationalized the following terms contained in my research questions by synthesizing these concepts from Creswell (2007), Patton (2002) and Moustakas (1994):

1. Experience— the feeling, knowledge, or understanding of one's personal involvement in a situation, event, moment, or phenomenon.

2. Description— an explanation that details an account, narrative or description of an experience.
3. Perception— the way an individual sees, understands, or refers to a phenomenon, which is also considered his or her *point-of-view* or *worldview*.
4. Elements— a part, aspect, or piece of an experience or phenomenon. An example *element* may be the anxiety felt before teaching.
5. Factors— a fact (or perceived fact) that can be considered as having a role, an influence or an impact. An example *factor* may be inexperience leading to anxiety before teaching.
6. Discoveries— finding, encountering, realizing or bring to the front a new perspective, description or understanding of the phenomenon in question.

Additionally, I constructed definitions for the remaining terms based on contributions of individual scholars that I provide citations for after each term:

7. Indigenous—that which is native to a particular culture or specific geographic area and is a speech community (using Nahuatl or Mayan in some form) that is not an official part of a nation-state and presupposes a particular community suffered an invasion or period of colonization, chose to self identify, attempted to preserve ancestral land, and maintained a non-dominant status within the majority (Ahmed, 2010; Bolaños, 2010; Walker, 2005).
8. Educator— an individual who shares or co-constructs his or her Nahuatl or Mayan language and culture with others (Ellis, 2008; Guichon, 2009).
9. Mayan— The language is referred to as Yucatec Maya and the people are referred to as Mayan. Additionally, there are a number of terms used for this language

variety (e.g. Maya to refer to people), but these terms are either laden with ethnic inequality or refer to a specific language variety (Ruiz, 1992).

10. Nahuatl, Nahua— The language itself is referred to as Nahuatl. The people or individuals who are part of the culture are referred to as Nahua. Additionally, there are a number of other variations for this language variety (e.g. Nahua, Nahuat, Nahual), but these terms have specific uses that are dependent on dialect or geographic location (Ruiz, 1992; Walker, 2005).
11. Speech Community— A group of individuals who employ the same code or language variety through the participation of its members in sharing the same set of norms (Wardhaugh, 2010).

I also further discuss these terms in chapter two.

Subjective, Varied, Multiple & Individual Reality

In terms of an ontological assumption, I approached this study as having a subjective reality lived by the participants that is varied, multiple and individual (Creswell, 2007). A complementary conceptual framework to such a stance is constructionism or commonly referred to as social constructionism (Wray, 2010). Experts of this framework state there is not a true interpretation of an object or the world. Instead, the individual interpretation is socially constructed within a larger group, culture or entity (Embree, 2009). With the adoption of a constructionist framework and a phenomenological methodology, I sought to explicate the perceived social reality in individuals that are created in numerous ways by larger groups, cultures or entities.

I believe documenting the experiences of indigenous educators and online teaching was essential for three reasons. First, if universities and nongovernment

organizations continue to provide opportunities for these indigenous educators, administrators and officials need access to information about the quality of the programs they are offering to ensure their goals are met. Second, these endangered language community members need their sons and daughters to succeed in becoming indigenous educators and being a part of the process of language survival. Third, the indigenous educators deserved the opportunity to engage in a discussion about their professional growth in the same way that this opportunity is extended to millions and millions of teachers within healthy language varieties like English and Spanish. This study addressed this gap by engaging in deep discussions with indigenous educators and their shared lived experience teaching their language and culture to others through distance learning.

There are a number of important professional conclusions from this study. The findings offer administrators and officials a better picture of the indigenous educators' experiences with the use of online technology. Additionally, the findings provide some support or direction to other indigenous educators who continue in future programs. Having access to the experiences of their peers may offer these indigenous educators a sense of validity, community and support. When the findings are available in English and Spanish, the indigenous educators will have access to the findings in a language variety they also speak and they may be able to use them to learn about what other indigenous educators have done when teaching in online environments, which could lead to greater understanding and allow for them to engage in a higher level of self reflection.

In addition to providing benefits to indigenous educators, this study has professional implications for government officials, administrators, and program directors, particularly as more US scholars seek out these indigenous educators for learning

experiences with the Nahuatl and Yucatec Maya languages. Therefore, these institutions can use the information from this proposed study to become aware of the needs and challenges facing indigenous educators as well as their successes and achievements. By highlighting the indigenous educators' thoughts, beliefs, and perceptions with this phenomenon, the institutional leaders have access to a rich pool of knowledge about what is happening with their programs and program participants.

Lastly, there is relevance to language teaching in general (e.g. teaching foreign languages online). Since language teaching through distance learning is evolving along with technology, there are many challenges to developing sound teaching practices or routines. This study sheds light on some methods, strategies or activities that work with the particular technology tools that indigenous educators use.

Outsider, Linguistic & Translation Barriers

Because my identity indexes linguistic, cultural, and geographical difference and (perhaps) distance from that of my study participants, I kept my status as an outsider in mind. I also needed to overcome the linguistic barriers and the issues of translation. I conducted the interviews in Spanish, a common lingua franca, between the participants and me (or English when possible). Spanish is a second language for me, so I had my translations checked and considered the issue of member checking in a different language from English. Finally, some members used the Yucatec Maya or Nahuatl language to explain their worldviews or unique perspectives. Again, this type of information needed to be translated from Nahuatl and Yucatec Maya to Spanish to English, which could have diluted or changed the original meaning without careful consideration of the social context in which the indigenous member used the information.

In summary, I attempted to narrow the gap in the literature by looking at a phenomenon that is not well understood or studied. Currently, little research available has explored the experiences of Mayan and Nahua educators as they lead instruction through distance learning tools. The following chapter contains a critical literature review examining the themes, concepts and assumptions for the proposed study with particular attention on qualitative research and the experience of educators in online teaching.

Chapter 2: Binding & Grounding

The overarching discussion in this study pointed to the experiences of an indigenous educator using technology to teach his or her endangered language and culture to individuals from different speech communities. As such, there were a number of themes, concepts, and assumptions that needed clarification, discussion and substantiation in the literature:

What constituted membership in a **speech community**?

How was one's status defined as an **indigenous educator** and/or **native speaker educator**?

What did one need to know when teaching a language? An indigenous language?

How was instructional technology implemented and used within indigenous language classrooms?

This qualitative inquiry focused on the phenomenon of indigenous educators teaching their endangered language through technology. The themes, concepts and assumptions underpinning this study are summarized in figure 2.1. I employed a constructionist theoretical lens whereby "meaning is not inherent," but "learned, used and revised in social interaction" (Harris, 2010, p. 10). I bound this social interaction to a number of constructs dealing with variety from within sociolinguistics (specifically speech communities and their heterogeneity). In order to learn more about indigenous pedagogy, I reviewed current work from scholars on practice and theory for teaching

endangered languages and the notion of a teacher's pedagogical content knowledge. Finally, these indigenous educators explored their development with teaching and technology with an emphasis on his or her teacher technological knowledge and his or her stance toward distance education. I composed my literature review using the following figure as an organizing device.

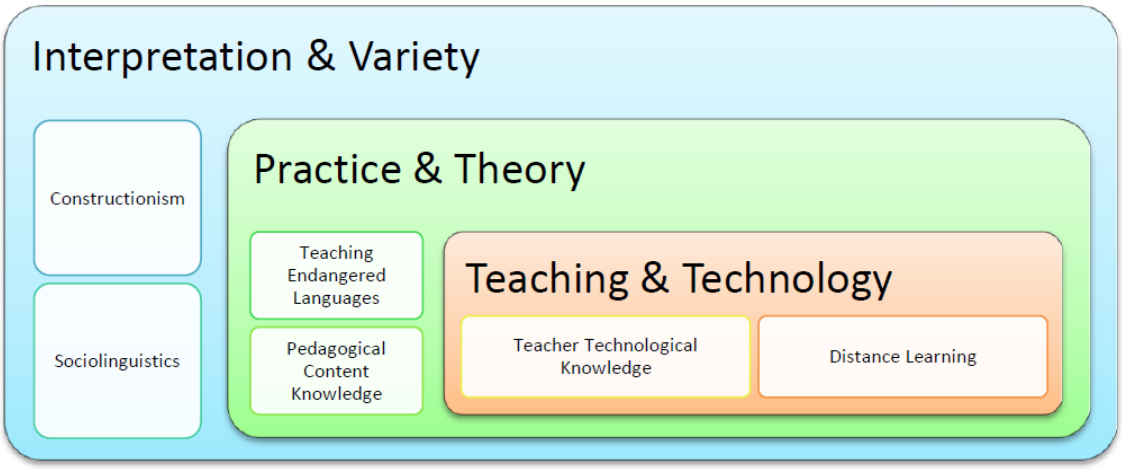


Figure 2.1. Themes, concepts and assumptions. This figure is a representation of the themes, concepts and assumptions present in this phenomenon of indigenous educators teaching an endangered language through distance learning. The various elements of this phenomenon are organized into three overarching themes: Interpretation & Variety; Practice & Theory; and Teaching & Technology. The discussion that follows is organized around these themes.

Interpretation & Variety

Harris (2010) employed a metaphor for human beings as construction workers: Men and women are laborers who assemble meaning based on their interpretations of the existence and qualities of a phenomenon. To continue with the comparison, there are multiple ways (possibly an unlimited variety of ways) to build something and, in the same sense, human beings have the capacity to define a phenomenon in just as many ways. Part of this capacity to define a phenomenon is not arbitrary. Rather, it is guided by

the numerous ways in which human beings form communities or groups and how they employ language, culture, and knowledge within these groups in multiple ways. Through the lens of constructionism and sociolinguistic concepts, I studied these indigenous educators as diverse, unique individuals who are part of a heterogeneous community (i.e. a speech community) where meaning was built socially.

Constructionism.

There were a number of ways for approaching constructionism within the social sciences. Perhaps easily confused with constructivism, constructionism differed in foci because constructivism focused on how the individual constructed knowledge while constructionism focused on the understanding of constructs between society and individuals. Scholars have used constructionism to study social problems or social movements in sociology, gender or identity in psychology, language use or status in sociolinguistics and a number of other areas that fall under the umbrella term of constructionism. Harris (2010), stated there are "two general forms of constructionism" that were competing and/or dominant perspectives (p. 2): Objective social constructionism (OSC) and interpretive social constructionism (ISC). The main difference between the two perspectives was while OSC focused on "why things occur as they do" and ISC focused on "how things are defined as they are" (p. 6). Although perhaps only a slight difference, I used the ISC focus for this study because I viewed meaning as not being inherent, but lived through social interactions. I was interested in how these indigenous educators defined their lived experience, which was a reflection of their social life. Harris (2010) called this concept "contingency" and my focus through

the ISC lens was on how these indigenous educators defined their teaching in terms of meaning.

Sociolinguistics.

Within the field of sociolinguistics, scholars adopted a framework based on the idea of a typical speaker-listener from a speech community. In other words, this typical speaker-listener was considered a representative member of the speech community where a group of individuals employ the same code or language variety. This speech community is not just defined by linguistic, cultural or geographic features, but by the participation of its members in sharing the same set of norms (Ellis, 2008; Ferguson, 2010). Any individual is a member of multiple different speech communities as organized by his or her gender, religion, ethnicity, political stance, and so on. This notion of a speech community differs from other constructs like the framework from within theoretical linguistics that stems from a Chomskyian perspective linked to an ideal speaker-listener in a homogenous community (Johnson, 2004). The speech communities in this study were comprised of heterogeneous and unique members who shared elements of culture and language amongst their members.

I looked at the participants in this study as members of a speech community and I defined them using sociolinguistic criteria (Hymes, 1986; Ferguson, 2010). I probed the multi-faceted identities to investigate the participants in my study as representatives of a particular speech community. Ferguson (2010) defined a speech community as a group of individuals who employ the same code or language variety and its members live in a common locality while interacting together. While an individual may be a member of multiple speech communities, in this study the speech community of focus was the

indigenous educators involved in a teaching process through distance learning. This narrow focus did not preclude the influences of an individual's multiple speech communities as also playing a role in the final analysis.

I accepted variety and heterogeneity as the natural state for speech communities and I provide explanations for the existence of variation within the speech communities and teaching process. I looked at variation as a foundation for a speech community and sought to describe how members of a particular speech community used variety for specific purposes. This use of variation had specific meaning and observable instances. There were a number of ways speakers in these communities varied their speech.

Another concept that was critical to understanding a speech community in the context of my study was the concept that variation was an integral part of any speaker-listener in a speech community, which differed from a focus on a homogeneous entity that only controls one variety of a language (Ellis, 2008) in other contexts. Researchers in this vein dismissed variety or variation as an issue of performance and unworthy of study while researchers in sociolinguistics believed variation is the foundation for the study of members of a speech community. In contrast, linguists of the Chomskyan tradition seemed to explain away a native speaker's mistakes as lapses, slips of the tongue, syntactic blends, and errors of judgment, since a native speaker held the rules for their mother tongue within.

Language standardization was an area where speech communities and endangered languages conceptually intersect. Through a sociolinguistic lens, the process of standardization was considered as a reduction or elimination of variety through codification. Creation of an alphabet, documentation of a grammar, and works of

literature were all considered part of the process of codification (Schieffelin & Doucet, 1998). The concept of codification took on a different meaning when considering an endangered language, which may or may not have any of the above items available to the speakers in the community. An example of this process was in Schieffelin and Doucet's study on Haitian Creole and the issues involved in developing a standard orthography (1998). In this article, a language was contrasted against a dialect with a written tradition, which marked the distinction between the terms. Speakers of a dialect may expend energy on the development of such standardization tools (e.g. dictionaries, style guides, etc.) while speakers of a language like English may focus on language purification (e.g. complaints toward slang, jargon, or discussions of language decay). I detail the two speech communities in this study and provide the context for their basis.

Description of Nahua & Mayan speech communities.

In this dissertation, I studied two speech communities that incorporated or were made up of two endangered languages within Mexico. The first speech community was comprised of speakers who used the Nahuatl and Spanish languages; the second speech community used Yucatec Maya and Spanish. While the two speech communities differed within Mexico in terms of the prestige and current levels of development of their languages, they also shared a number of similarities (Cifuentes & Moctezuma, 2006; Baker, 2001). For instance, the speech communities for both languages enjoy a healthy population, a status of official legitimacy (recent governmental recognition at the federal level) and a number of grass-roots efforts for revitalizing and stabilizing the language varieties. The differences between these speech communities lied in the linguistic structures, the cultural norms/practices associated with each, and the geographic locations

where the members reside within Mexico (and Central America for the some of the Mayan groups), among others.

The Nahuatl language, which is an endangered language that is a member of the Aztec-Tanoan family in the Uto-Aztecan branch, has a large number of varieties and speakers that are in a wide distribution of communities throughout Mexico (please refer to appendix M for a map of these locations). Overall, the speech community has speakers numbering in the hundreds of thousands in distinct communities throughout Mexico (Cifuentes & Moctezuma, 2006), though most speakers are found in mainland or central Mexico. In linguistic terms, the language is interesting because it is an agglutinating and polysynthetic language. In other words, its language structure is based on the compounding of morphemes to create phrases as opposed to an analytical language, like English, where individual words (and some morphemes) create sentences to form meaning (Baker, 2001). Nahuatl and English differences are very apparent in the written form, i.e.: *I am a man*. In written English, there are four words completing this thought. English speakers can change the meaning of this sentence by adding other words (or morphemes). For instance, the sentence can change from *I am a man* to *I am not a man* where the addition of a negative marker changes the meaning of the sentence. In Nahuatl, that same sentence would be a phrase made up of various affixes in this form: *Nitlacatl or Axnitlacatl.* This agglutination is especially interesting because most of the world's languages follow an analytic morphology rather than a poly-synthetic variety.

The Mayan language (specifically Yucatec Maya), which is a member of the proto-Mayan family, has a large number of varieties and speakers that are in a wide distribution of communities throughout Mexico (please refer to appendix M for a map of

these locations) and a number of various countries in Latin America. As with Nahuatl, Yucatec Maya is also an agglutinating and polysynthetic language (Baker, 2001). The speech community includes speakers numbering in the hundreds of thousands in distinct communities throughout Mexico and Latin America (Cifuentes & Moctezuma, 2006), though many of those speakers are in the Yucatán peninsula within Mexico.

The federal government of Mexico has listed 70 languages on its official registry for languages spoken within the country (Nettle & Romaine, 2000). The majority of these languages, like Nahuatl and Yucatec Maya, are not widely accepted as languages by majority language speakers (e.g. Spanish speakers) within the mainstream society. Rather, many native Mexicans refer to these groups as dialects (or "dialectos" in Spanish). Though Mexicans, in general, are proud of their Mayan heritage (Flores Farfán, 2002), the speakers of the Nahuatl language are considered indigenous in a negative light (Flores Farfán, 2001). In Naverrete (2003, p. 3), he states, "*no tengas vergüenza de hablar el idioma de nuestros antepasados, hablando no te vas a volver más moreno ni te vas a volver más indio tal como nos llaman"* ['don't be ashamed of speaking our ancestors' language, speaking (Nahuatl) is neither going to turn you darker-skinned nor turn you more Indian as they call us' (my translation)]. This voice from a member of a Nahuatl speech community vividly illustrates the perspective of many indigenous members who feel their language and culture is not valued in the same way Spanish-speaking Mexicans are.

While speakers of Nahuatl and Yucatec Maya enjoy a large population base (relatively speaking) of around a million, their vitality is seriously threatened (Cifuentes & Moctezuma, 2006). The proximity of the Spanish language and, more importantly,

modern living have led to a shift in the use of Nahuatl and Yucatec Maya. Many of the small villages in Mexico are now receiving more and more support from the Mexican government. These "benefits" include electricity, paved roadways, and Spanish-medium schools (some bilingual schools exist in the Nahua and Mayan communities, but the vast majority are Spanish only). While important, these benefits are slowly eroding the everyday use of Nahuatl and Yucatec Maya, especially as young children attend schools that provide an education in Spanish (Cifuentes & Moctezuma, 2006; Skutnabb-Kangas, 2000). Not only are the children attending schools taught in Spanish, but the much needed development occurring within the Nahua and Mayan communities is bringing with it radios and televisions allowing more Spanish influences into the region (Walker, 2005). Clark (2005) cited an indigenous woman, Emiliana Cruz as saying "In Mexico, indigenous languages are not considered valid for education and for written communication because they are thought of as incomplete and are looked upon as simply dialects or sub-languages" (p. 2). Such prevalent attitudes toward languages like Nahuatl and Yucatec Maya serve to further disenfranchise members of these speech communities.

Indigenous educators.

Using a speech community as a guide, I labeled my participants as "indigenous educators" as a tool for describing the various ways these individuals share similarities on some surface level. In working through this operationalized term, I found the use of a label a practical step in describing this particular group of individuals who share a similar, though broad, geographic and political location, a possible bond in the sense of being members of a language group that is endangered, and a profession where they were teaching a language and culture to members outside of their speech community. Through

a review of current research, I settled on the term "indigenous educator" over other terms as I detail in the following paragraphs.

On a global scale, defining an individual as being indigenous is problematic for many reasons. In legal terms, the definition was based on the work carried out in the United Nations over the past two decades. Ahmed (2010) presented a case study that illuminated the controversy and difficulty in the terminology provided by the United Nations and their Declaration on the Rights of Indigenous Peoples. Ahmed discussed an interpretation that presupposed a particular community that suffered an invasion or period of colonization, attempted to preserve ancestral land, maintained a non-dominant status within the majority, and chose to self identify.

As for the Nahua and Mayan speech communities, Ahmed's findings matched those presuppositions because, from a strictly historical perspective, the Nahua and Mayan speech communities suffered an invasion at the hands of the Spanish conquistadors in the 16th century and have endured a period of colonization that continues to today (Cifuentes & Moctezuma, 2006). Under current Mexican law, both speech communities are protected in terms of language use and the preservation of ancestral land. As this legal protection was fairly recent, most Nahuas and Mayans find their speech communities in a non-dominant status with Mexico, especially in terms of language use (Skutnabb-Kangas, 2000). Lastly, after so many centuries of assimilation policies under Mexican rule, the label indigenous depended primarily on self-identification.

The notion of self-identification is problematic (especially for governmental and language policies) and given Ahmed's discussion of a particular situation in Bangladesh,

the other interpretations of the term indigenous are problematic on a global scale. Ahmed suggested using the term **marginal community** in order to distinguish groups that have little or no political influence and are in non-dominant positions from those in the majority. An example of a problematic use of the term indigenous is the case of the Arapium and Jaraqui peoples of the lower Amazon in Brazil. According to Bolaños (2010), the definition adopted by the Brazilian government was dynamic and flexible and allowed for various indigenous groups to flourish (including some groups that were thought to have been extinct). Many discussions on the use of self-identification as a defining feature of being indigenous focus on the aspects that are legally problematic, but anthropologically or socially acceptable. Any and all of the other criteria used to validate whether or not someone is indigenous depends on whether or not that person self-identifies as a member of such a community.

I chose the term **indigenous educator** using the ideas from Ahmed (2010) where I defined the **indigenous** as an individual who is native to a particular culture or specific geographic area and is part of a speech community (using Nahuatl or Mayan in some form) that is not an official designation of a nation-state. Further, this definition presupposes that individuals from this particular community suffered an invasion or period of colonization, chose to self-identify, attempted to preserve ancestral land, and maintained a non-dominant status within the majority. I used the term **educator** to describe the position these indigenous members were in as they share their information about language and culture with others. The combination of the two appeared to be unique. The closest term I was able to find references for was *Native Educators* in the

work of Haynes Writer and Chávez Chávez (2002). Their use of the term limits the discussion to a North American audience that does not include Mexico.

For this study, the inclusion of self-identification is a crucial consideration. By including it, I was able to work with particular individuals who may not otherwise fit the definition of an indigenous educator. In one example from field notes, an individual lived in a Mexican household where his parents no longer spoke the family's ancestral tongue, but the grandparents did. This individual grew to become a limited bilingual and became more closely assimilated into mainstream Mexican culture than he did with the Nahua culture. He has since become an indigenous educator, however and self identifies more as Nahua than Mexican.

While providing a working definition for indigenous was difficult, I also encountered many difficulties with operationalizing the term educator for my research goals. A definition for an educator was important because of the unique situations in which these individuals and their speech communities existed. These research participants used a language that did not have an official nation-state or government to authenticate it or an educational system to support it. As a result, these indigenous educators did not have a teacher development path to follow for their languages. Korth, Erickson, and Hall (2009), discussed the nature of the term educator in contrast to teacher educator. In other words, they assumed a definition for a classroom teacher on the one hand. In fact, the article was replete with terms that imply the inherent advantages an individual has by virtue of using a language like English. Individuals who teach were referred to by a list of different terms (e.g. in-service teacher, pre-service teacher, instructor, intern, facilitator, moderator, etc.). One participant in their study defined the

difference between a teacher and an educator in the following way: "teacher-one who teaches; educator-one whose profession is to educate others (p. 7)." This simplistic definition was riddled with generalities and more assumptions.

The educational experience for indigenous members can exist in vastly different forms from that of a US system education. One example was found in the work of Hinton and Ahlers (1999) on revitalizing an endangered language through a mentor/mentee relationship as no other educational system existed. In fact, Korth, Erickson, and Hall (2009) found that some participants in their study referred to their interactions using those mentor/mentee terms. Another outlet for learning Nahuatl or Mayan came from the use of materials created by educators who are not members of the speech communities. Salvador (2003) provided an example of this type of interaction in his discussion on how to learn the Nahuatl language. The variety of ways to learn Nahuatl and Mayan allowed for a greater degree of flexibility in defining what an educator is.

The native speaker educator.

An important consideration for defining the term educator for language teaching may stem from an educator's background with the language of instruction. In fact, many student/institutions request a native speaker educator. This key construct came from a psycholinguistic tradition of the binary of a native speaker versus a nonnative speaker. In response to such an idea, TESOL (an abbreviation for the international professional organization) released a position statement for discouraging the practice of discrimination against any non-native speaker instructor (2006). This dichotomy was important to my definition of an indigenous educator because there was an assumption that these

educators should ideally be native speakers and members of the target language speech community.

Paikeday (2003) vigorously debated this native speaker construct when he stated that a linguist cannot prove that any specific person was a native speaker of English, but another person was not. Paikeday asked the following questions to a number of prominent linguists (including Noam Chomsky):

1. At what age does a native speaker became a native speaker?;
2. Do you know a native speaker? If yes, what makes that person one?;
3. Is a native speaker born or made?;
4. Are there self-made native speakers?;
5. In a sentence or less, give me a brief definition of a native speaker? (p. 33-34)

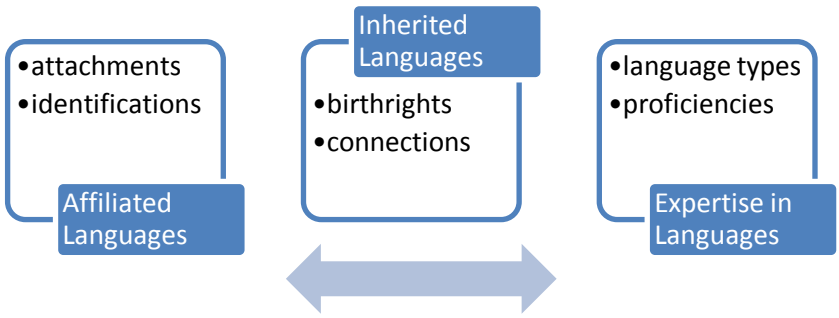


Figure 2.2. Speaker identity. My representation of the reformulation of speaker identity. In recognizing the limitations behind the dichotomous terms native and non-native speaker, Leung, Harris & Rampton (1997) posit the following framework for discussing variation in language identity. This framework recognizes that an individual can be born into a language(s) with the category of inherited languages, but also recognizes that an individual can feel an attachment or identification with the language (affiliated languages) and has a proficiency level or expertise in a language or languages.

In the end, neither Paikeday nor the expert linguists were able to answer these questions satisfactorily, so Paikeday concluded that the term *native speaker* as arbitrary and elusive. Paikeday instead prefers the term *proficient user*, which is a position adopted and further developed by Leung, Harris and Rampton (1997) in figure 2.2.

While the approach taken by Leung, Harris and Rampton (1997) and illustrated in figure 2.2 provided a clearer picture into what made up a language user in comparison to the native/non-native dichotomy, there were further components that should be taken into consideration when deciding on what denotes a language user. Norton (1997) states that "…speech, speakers, and social relationships are inseparable" (p. 410), which tells us that speakers are constantly engaged in identity construction through negotiation and how they relate themselves to the social world.

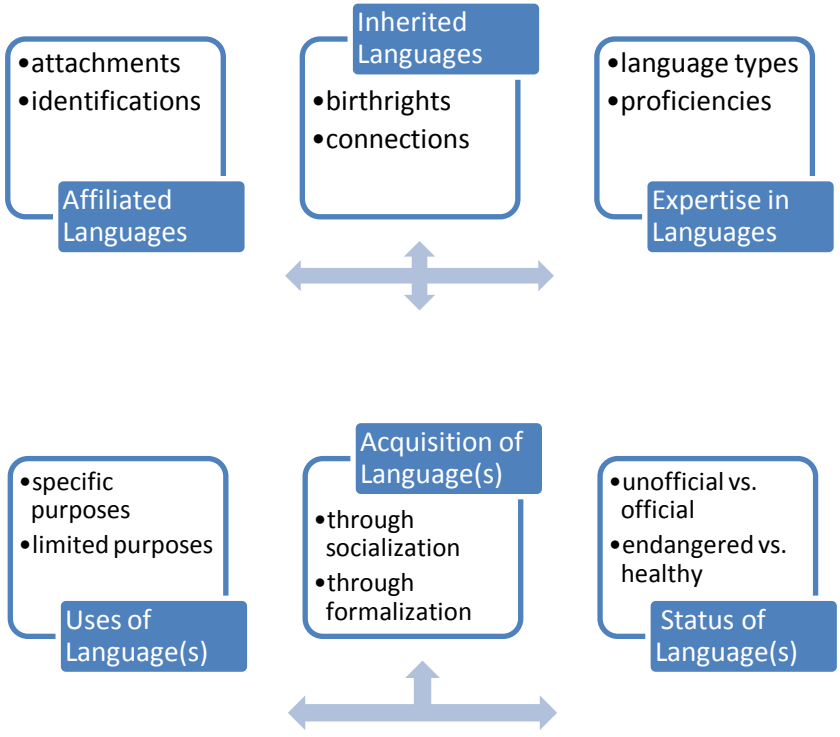


Figure 2.3. My expanded framework for speaker identity. I expand the framework developed by Leung, Harris & Rampton (1997) to include three additional categories.

The first category involves deciding how language(s) is being used by the speaker or the community. The second category involves information about how the speaker acquired the language(s) whether through socialization or formalization (i.e. the classroom or some other structured environment). Finally, the status of the language(s) plays an important role in identifying a language speaker. I believe the categories must combine with the original framework to create a more complete picture of the language user.

An example of research dealing with multiple identities was from McKay and Wong (1996) where they tied issues of identity to issues of power and discourse. Their findings showed "learners are extremely complex social beings with a multitude of fluctuating, at times conflicting, needs and desires" (p. 603). The complexity occurred in social environments with varieties of power relations and exposure to multiple discourses. All of this complexity was negotiated by the learners in response to their environments and experiences. Keeping this negotiation in mind, I have further developed Lueng, Harris and Rampton's core idea in figure 2.3.

Given that some languages have served very limited or specific purposes, a question of language use was relevant here. For example, many people learn languages like Latin or Arabic in order to satisfy the requirements of their religion even though they may not use the language in a vernacular sense (Agar, 1994). Additionally, the ways in which the language(s) were acquired was also a distinction that provided more information on the language user. There was much discussion on language learning in a context where the language was not spoken versus language learning in an immersive setting. Finally, the status of a language was also an important component of the description of a language user. If an individual speaks or learned a language that did not have an official function within a government or a nation-state then there were specific factors that came with such a distinction (Skutnabb-Kangas, 2000). The same applied to

whether a language was endangered and its vitality was threatened in comparison to a healthy language variety.

Practice & Theory

An important piece of any teacher's journey may be the growth in understanding the intersection between the practice of teaching and the theories behind it. In this study, many of the participants did not receive much formal training in teaching any language and did not receive formal training in learning their endangered language variety. The practice of teaching rests on the daily routines established within the confines of the classroom situation and many educators begin teaching without having had worked through the different theoretical strands that influence the fields of education today.

Teaching endangered languages.

Teachers often find they teach the way they were taught. An adoption of such a stance may lead a teacher to inherently believe components of good teaching were based on their own educational experience. During their teaching career, these teachers may adopt or embody the characteristics of a good teacher that are drawn from their earlier experiences rather than on other teaching training or other educational outlets. This stance may be problematic based on the way many indigenous cultures have been represented in some school system.

Table 2.1

Summary of Cultural Inclusion from the 16 participants

Nature of Cultural Inclusion				
General Pride	Mismatched Tribal Information	Negative Information	Student Initiative	**Stakeholder Involvement**
• **Indians as a heterogeneous population** • **discounted specific tribes or family lineages** • **Focused on Indian political Caucus**	• **no linkage between tribe and student** • **focused on other tribal issues: Cherokee vs. Sioux** • **no inclusion of regional information**	• **portrayal steeped in stereotypes** • **use of texts not written by Indian authors** • **Thanksgiving!** • **Tepees, moccasins**	• **inclusion of Native rituals** • **flexibility to choose what to study** • **learning Native languages** • **bringing languages to home**	• **relatives taught portions of classes** • **food shared by parents, elders**

For instance, Freng, Freng, and Moore (2007) studied various members from different tribes in Nebraska. These members were in high schools both on and off reservations. The findings from this study indicated that these participants recalled very few culturally inclusive experiences that were culturally sensitive and appropriate. These participants mentioned encountering very general references to being an American Indian along with mismatched information about their tribal identity. Finally, all of these participants encountered negative stereotypes that were present within the curriculum in the schools they attended on and off the reservation. I have summarized the findings from this research in table 2.1.

Within this same article, Freng, Freng and Moore called for the use of a model of cultural inclusion based on Charleston's (1994) model. I have summarized this model in table 2.2. This model is on a continuum that begins with assimilation and ends in multicultural diversity.

Table 2.2

Charleston's (1994) Model of American Indian Education

Model is represented on a continuum.		
Pseudo Native Education	**Quasi Native Education**	**True Native Education**
• aka deficiency or culturally disadvantage approach • standardized curriculum steeped in the English language and European American History and Culture • goal becomes assimilation of Native people into mainstream "American Society" • relies on monoculturalism and monocultural experience • no room for students' own cultural background	• aka reformist approach • attempts to make culturally relevant educational decisions • supportive of Native students and communities • goal is to teach about Native culture • focuses on material culture (e.g. artifacts) • relates European American experience history using Native student context • Native students/community members assume positions of leadership	• based on guiding principles • makes genuine commitment at all levels to protect and teach Native culture and language • involves partnerships with community members • incorporates Native worldviews • has an enriched curricula that acts as a bridge between cultures • goal is to combine high quality academics and Native culture

The assimilation side of the continuum provided students with material in the majority language and sought to assimilate the minority language learners into the mainstream culture, which created a deficiency in the cultural growth of the students. The middle of the continuum was referred to as a quasi-approach and was an attempt to include minority language culture, languages, and worldviews into the classroom. While this attempt has some redeeming qualities to it, it served to spread stereotypes rather than provide true representations of the minority language culture. Many school districts within the US implement this approach because of the minimal effort needed to achieve a quasi-state of cultural inclusion.

The ideal state was the True Native Education level. This level required several components. The most important condition fell to the stakeholders who must make a genuine and consistent commitment to implementing this level of integration. Additionally, the stakeholders must occupy important educational positions where they influenced the day-to-day classrooms as well as the curriculum. The last piece required for the stakeholders was that they define their worldview, which allowed such a perspective to give students the chance to move from mainstream society to the tribal society and back again. As stated in Fobb (2008) the goal of models like this example was to move from tolerating diversity to including it. Such a move was even more important to a marginalized community and one facing language loss like so many other groups. The implementation of such models were needed years ago as Wurm noted:

> This disappearance of languages continues today, and has greatly accelerated during the last two hundred years or so. Hundreds of languages, especially indigenous languages in several continents, particularly the Americas and Australia, have died during this period, and hundreds more are destined to meet the same fate in the foreseeable future. (Wurm, 1991, p. 1)

One area that can provide support for stabilizing a language group revolved around the connection between educational institutions and local communities. Since there were already established connections between the local communities and certain educational outlets in this study, the focus should be on improving those mechanisms that allowed these bridges between institutions to occur. I would like to focus on two areas that both derive from the effectiveness of teacher education programs. The first area would focus on the teacher development for public school teachers who ultimately serve

in the elementary and secondary schools within the local community. The second area would focus on the teacher development for the language assistants that are pursuing academic degrees at the university level. This development should include training on language acquisition, multiculturalism, mother tongue maintenance, and literacy development in second language acquisition (Berlin, 2000). There should be training as part of a certification program in the form of additional coursework as well as field experiences with internship experiences being provided within the local communities.

Pedagogical content knowledge.

Mishra and Koehler (2006) discussed a historical framework that posited the following knowledge sets existed in isolation from each other: content, pedagogical, and technological. Content knowledge had been the traditional focus of teacher education programs and was still the focus in many areas today. Because of the complexity of teaching as a skill, many programs had shifted their focus and, currently, emphasize pedagogy over content (to a detriment in some cases). Schulman (as cited in Mishra & Koehler, 2006) defined pedagogical content knowledge (or PCK) as a mutually inclusive interdependent relationship between the act of teaching and the knowledge of one's field. While this notion had been critiqued, refined, and modified, it continues to command a high level of currency within the teacher education field today.

Teaching & Technology

Technological improvements had always been a part of the teaching profession, but the current speed of new advances may be a new reality facing any educator. In fact, many established teacher education programs grappled with how to prepare future educators to incorporate and use technology in their classrooms. For many of these

indigenous educators, they did not receive the benefits of formalized training in pedagogical or content knowledge and they were implementing technology into their teaching as a necessity-mainly through trial and error (given much of their potential audience is located abroad).

Teacher technological knowledge.

In recent years, the saturation of current technologies had served to create a new area of knowledge that educators must be aware of. While classrooms have always had technology, these traditional tools (books, boards, overheads, etc.) along with the emergence of electronic computer-based technologies had altered the current delivery of instruction and modes of practice and assessment. This emergence led to a call for the addition of a new knowledge area into the pedagogical content knowledge structure. Currently, the intersection between the content, pedagogical, and technological knowledge created four areas of interrelated knowledge that any educator may need to take into account to function in his or her field.

Because of the constant change in technology, educators were faced with fundamental questions concerning how they were able to incorporate this ever-changing technology as it relates to both their content and pedagogical knowledge. By focusing on the interrelationships between the areas of knowledge, the true extent of change was possible to observe versus the traditional system of viewing these areas of knowledge as mutually exclusive. The change in one area was not seen as having an effect upon another area because the very relationship was never under consideration.

In fact, Mishra and Koehler stated "-traditional methods of technology training for teachers-mainly workshops and course-are ill suited to produce 'deep understanding'" (p.

1031). They also noted this same phenomenon was occurring with software design because most software packages were created as solutions to business problems rather than pedagogical concerns. Further, the emphasis on learning the tools instead of the context with the tools was very limiting in terms of linkage and creativity. In many cases, there may not be any development or training available to indigenous educators teaching at a distance.

As many indigenous educators were using synchronous platforms like Skype to take advantage of a many-to-many communication in a live format with a combination of applications that allowed for the transfer of files or the inclusion of multimedia content. These educators were able to incorporate the following features: classroom/conference replication, content development/inclusion, rich media support, management and usability, and technological considerations in accessibility and security.

The classroom/conference online replication features included teleconferencing, instant messaging, and group participation. In regards to teleconferencing, participants in the session needed to negotiate the following technological and social issues. With technological issues, user must make choices and work through meanings that must be negotiated before (or possibly at the same time) the social issues become relevant. First, any electronic communication bypasses the self-awareness built into the human ear. Once a participant chose to speak, the feedback from the human ear concerning how the participant sounds was cut off because the utterance was not fed back through the system (if a signal was sent back through to the participant then either an echo or a piercing whistle (otherwise known as feedback) appeared).

The limitation of this platform meant the participant was unable to adjust his/her tone, volume, or pitch and was unaware of how his/her proximity to the microphone affected speech. Another consideration not present in non-electronic communication came from the ability to turn on or off the microphone connection. This on/off option was not available in all electronic communication mediums, but it was a consideration in most synchronous platforms. Participants needed to know if the microphone was on, muted or not working. Additionally, participants needed to remember and be conscience of their microphone's status. There were similar issues in non-electronic communications in the case of not realizing there were others near while speaking or whispering and still having the message reach others outside their intended audience. The importance of this issue in this platform stemmed from its subtle nature. The primary visual way to know a participant was live was by the depression of a button with a microphone icon on it.

Finally, the current integration of software applications into suites was creating new sets of tools that required more skill sets for both these indigenous educators and students (Bloch, 2008a). These advances brought about more issues for their use in classroom settings and were being referred to as "technological literacy" (Bloch, 2008b). In some respects (e.g. Google documents), traditional asynchronous tools became synchronous in nature due to current abilities in software like same-time multiple person editing capabilities and real-time editing, which some of the indigenous educators utilized to complete various classroom tasks (Simpson, 2005). Another example existed in the use of social networking sites (e.g. a Ning network used in the Mayan speech community) and their microblogs (Ducate & Lomicka, 2008). These networks that allow for real-time

editing in both small and large groups were changing the manner in which language learning can occur.

As online based language learning continued to grow, learners were exposed to environments that were virtually based and, therefore, new environments, especially in the use of synchronous based learning tools, such as Skype. In this type of environment, learners were faced with a multi-modality approach that mimicked a classroom environment, but required a new set of communicative tools to utilize the medium fully. In the case of Skype, the learner must navigate through the information presented on as many as four channels. There could be information from the chat area, the speakers, external applications and the list of contacts (Godwin-Jones, 2006). An example of a five channel web-based environment can be found in Chen, Belkada, & Okamoto (2004), where the course content used frames to display videos, lessons, instructions, feedback, and tutorial functions. Using these five channels provided the students with interactivity and support within the same page, but this combination of frames added to the complexity of the site. Much like all human interaction, the complexity in synchronous virtual environments required the ability of the learner to acquire and use all of the communicative competencies. How indigenous educators balanced this interaction is of interest to the focus of this study and is currently a gap in the existing literature.

Distance education.

As the indigenous educators were teaching their language and culture through various tools over the internet, they were engaged in the use of distance education. Language learning has been involved in distance learning from the beginning in the form of correspondence courses and continued with each trend over the years (from radio

broadcasts to satellite training). With the advent of the personal computer, independent language study programs were developed. These tools ranged from prepackaged software programs to video courses. Also, following distance learning, language learning was enjoying new found potential due to advances in technology. Language learning was taking advantage of the internet in two forms: language exchange websites and portals containing language information. There also existed the possibility of a third area with the development of virtual worlds like Second Life.

Distance learning offered some learners unlimited opportunities for practice and in observing appropriate language use in some situations. These opportunities were especially relevant to intermediate or advanced speakers where the internet offered a type of immersion into a target language. For any level learner, distance learning offered a path to high levels of reading and writing literacy, though not necessarily in oralcy. Distance learning also appealed to the learning styles of its participants by offering numerous methods of communication (i.e. email, internet, two-way video/audio, etc.).

Language learning in the classroom has undergone many changes from a historical perspective in both methodologies and structures and teacher approaches (Kern, Ware & Warschauer, 2008). The recent addition of a suite of online tools combined to form an interactive platform for learning (among other uses) was changing the teaching/learning domain. An example of such a platform can be seen in the Skype software program. This program combined many of the features of a face-to-face (F2F) classroom into a synchronous format that also allowed for the use of a number of key technologies.

As this tool moved further into language learning classrooms, there was a need to familiarize teachers and students with this virtual environment (Xiangyang & Shu-chiu, 2007). If this trend continues, more and more students may choose to learn a target language through this platform and teachers may be required to use these technologies in order to both meet their students' needs and that of their professional institutions. Given the complexities of the language learning process in any form, the added dimension of a virtual environment needed to be a part of the teachers and students' repertoire as a new addition to their communicative competence ability, especially sociolinguistic competence (Guichon, 2009; Hegelheimer, Reppert, Broberg, Daisy, Grgurovic, Middlebrooks & Liu, 2004). Oralcy may be problematic since some research shows a learner was unlikely to achieve a high level of speaking ability using DE means alone (Ng, Yeung, & Hon, 2006). Though the technology was improving, a learner still needed to "live" a language to become a competent speaker. Though I found a study that posited classroom, hybrid and distance L2 learners can reach comparable levels of oral proficiency during their first year of study (Blake, Cetto, & Pardo-Ballester, 2008), I did not find any studies linking distance or hybrid learners to high levels of oral proficiency.

A number of indigenous educators were using asynchronous/synchronous distance learning platforms to reach audiences outside of Mexico. There were a number of initiatives that involved scholars in various fields who needed expertise in the Nahuatl and Mayan languages and they were taking classes with indigenous educators through technologies like Skype, NING, and course management systems (Chappelle & Douglas, 2006). I believe the use of technology, especially in terms of synchronous platforms, provided two key advantages to the language community. First, synchronous distance

learning platforms served a dual role. Since this language was not commonly taught (or even documented to a great extent), holding classes through synchronous tools like Skype allowed the interaction to serve its immediate participants in the session and the recordings to serve as documented instances of language use. The use of distance education could play an integral role in the maintenance of endangered language groups by bridging the gap between majority language speakers and indigenous speakers. Additionally, the availability of such recordings served to fulfill a pressing need for language documentation and dissemination. Scholars needed to provide a model or approach that could be used by indigenous language educators for this type of usage. One of the greatest contributions distance learning offers was its reach of audience. Learners had the potential to communicate in the world's languages and this reach can be especially useful for learning a less commonly taught language. This element was critical for this study for two reasons. One, the language can be shared throughout the world using networks and resources already established. Two, the language itself was recorded and stored through the various software platforms, which creates a record of the language that adds to its body of literature.

Second, many of the current approaches to IT and indigenous language teaching were closely mirroring what I label Western notions of education. There were multiple examples of curricula, program guidelines, or degrees that were not much more than watered down versions of materials used for majority language education.

Summary of Literature Review

These themes, concepts and assumptions in figure 2.1 played a prominent role in the lived experience for indigenous educators. Since these individual participants were

adults teaching an endangered language, the object of inquiry was on their experiences with teaching their endangered language as reflected in the themes of interpretation and variety, practice and theory and teaching and technology represented in figure 2.4.

Additionally, there was much to learn about the preparation these indigenous educators went through whether before teaching or in the act of teaching. There was also much to learn about the challenges present in teaching an endangered language variety as well as what was considered the necessary teacher pedagogical content knowledge for a distance learning experience with an endangered language variety (Levy, 2007). The gap in literature for these themes held the most promise for this study due to the relatively sparse foci currently pursued in teacher education research of an endangered language.

Finally, all of the indigenous educators were engaged in teaching an endangered language and culture through distance learning. The use of distance learning was having an impact on disseminating the endangered language beyond the limits of the geographic boundaries of the speech communities. An important consideration for the use of distance learning was the educators' technological knowledge base (Chapelle & Douglas, 2006). These educators began using distance learning tools without the benefit of training, supervision or guidance.

The knowledge gained from this literature review is organized into the following gaps as represented in figure 2.4. In this chapter, I discussed the following threads of indigenous educators, endangered language teaching through distance learning tools and constructionism.

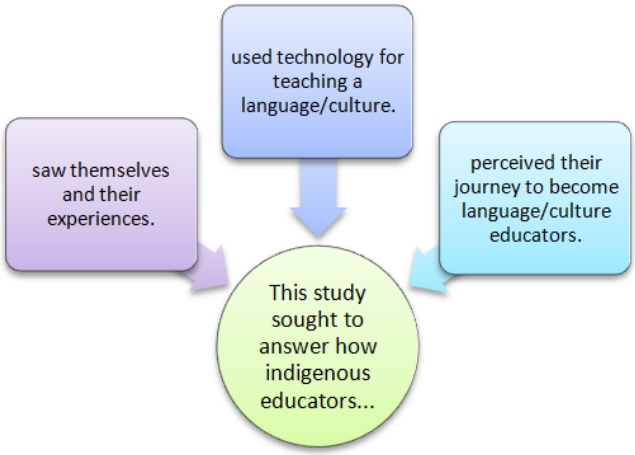


Figure 2.4. Literature review gaps. The conceptualization of the gaps in the literature review and the answers sought. Each of these questions is an organizing device for the implications in chapter nine.

Left unanswered was the issue of how these indigenous educators described their experiences using distance learning tools to teach their endangered language and culture and the meanings that I made of their experiences. In summary, a qualitative approach provided me with an opportunity to examine more closely the descriptions of these educators' experiences with this phenomenon. Within many fields of the social sciences there is a growing tradition of qualitative inquiry that explores the lived experiences of language learners and educators. This study was situated within a constructionist and phenomenological tradition and aimed to contribute to the body of literature on the lived experiences of indigenous educators using distance learning tools to disseminate their language and culture to non-speech community members. In the next chapter, I detail the specifics of my methodological procedures and my choice of text analysis.

Chapter 3: Nuts & Bolts

The purpose of this study was to describe and explain perspectives and experiences of indigenous educators in Mexico who were tasked with teaching, studying, and integrating technology within an online environment for a predominantly US audience through distance learning platforms. In this study, I focused on their experiences in order to unearth these educators' descriptions, discoveries and perspectives on teaching, languages, culture and technology. These educators were members of speech communities that use specific varieties of the Nahuatl and Yucatec Maya languages in their daily lives as well as in their academic lives. Additionally, they were using distance learning platforms to teach their language and culture while undergoing language revitalizing or stabilizing efforts. These distance learning platforms were a combination of synchronous, same-time formats, (Skype, a VoIP application) and asynchronous, different-time formats, (Ning, a socially mediated network) that allowed non-speech community members (in this case, predominantly students and scholars located in the United States) to participate in virtual classrooms or instructional scenarios.

I have organized this chapter's first half into separate sections covering the methodological choice, the rationale for the proposal, the requirements for selecting the research participants and the procedures for text generation (e.g. interviewing, reflective writing, etc.). In the chapter's second half, I discuss my text analysis procedures that incorporate phenomenological and qualitative methods.

In following a traditional phenomenological study (Creswell, 2007), I had one question to guide this inquiry into the experiences of these indigenous educators. I used this phenomenological research question to construct a universal description or essence for the phenomenon of indigenous educators teaching their language or culture through distance learning tools. ***In what ways do indigenous Nahua and Mayan educators perceive and describe their experience of teaching their endangered language and culture to English language speakers using distance learning platforms (e.g. Skype or Ning)?*** In looking to expand my understanding of this phenomenon, I also had the following sub-questions to help me develop a deeper understanding of that same experience through identification of themes, categories and concepts.

a. What elements constitute their perspective on teaching?

b. What factors influence their perspectives?

c. What are their discoveries about teaching their endangered language and culture to these speakers?

Research Setting

I recruited participants who were in their early or late twenties from the following settings where an indigenous language (Yucatec Maya or Nahuatl) or culture was the subject of instruction through either synchronous (real time) or asynchronous (anytime) tools. The first setting involved a university where indigenous members were teaching their language through synchronous platforms. This medium-sized university of roughly 10,000 students was located in northern central Mexico and had some course offerings in the Nahuatl language through collaborations with US universities and scholars (please refer to appendix M for a map of these locations). These classes were entirely taught

through synchronous platforms and the language of instruction was English or Spanish, which depended on the makeup of the course participants. For this research setting, the synchronous environment was Skype and it offered elements of a virtual classroom that required the use of other online tools to house documents, artifacts, and administrative items.

The second setting involved a university where indigenous members were attempting to earn their bachelor's degree in language and culture and these students were expected to complete a number of language requirements that required interactions with partner universities using asynchronous tools (please refer to appendix M for a map of these locations). As English language learners, they needed to interact with students in a US university to practice their English language abilities while teaching about their language and culture. This small-sized university of roughly 2,000 students was located in the Yucatán Peninsula of Mexico and it was a relatively new public university. The students who graduate from the language and culture program may enter into education or business fields where their language skills were required.

These educators engaged in a limited interaction that lasted for one or two semesters and was directly linked to their coursework. Their teaching needed to be balanced against their desire and need to learn English for academic and/or professional reasons. This teaching only existed in an online format with most of the activity occurring in asynchronous interactions supported by a socially mediated network that had a number of tools embedded in the network. Some of these tools included audio drop boxes, blog tools, discussion boards, and e-mail. For this study, the socially mediated network was a commercial platform used to create custom social websites owned by the

Ning company. The network was not public and only open to participants who had been invited to join as opposed to a public forum like Facebook or Twitter.

Methodology

I employed a phenomenological and qualitative methodology to explore these indigenous educators' experiences. Phenomenology is a complex term with many types (or brands) and many manifestations. Additionally, many academic fields use and have created perspectives and meanings based on the field's specific need. Scholars can look at phenomenology in terms of a philosophy, a qualitative approach, a qualitative tradition or a methodology (Moustakas, 1994). I have organized the various traditions found within the social sciences (with a particular emphasis on the fields of language and education) by its assumed label and the leading scholar associated with it. Giorgi (2009) employs a variation of phenomenology referred to as **empirical**. In empirical phenomenology, the researchers are interested in describing the phenomenon to obtain a comprehensive description of the experience. Researchers within fields associated with psychology use empirical phenomenology. Van Manen (1990) uses a variation of phenomenology that is known as **hermeneutical**. He uses this phenomenological tradition to look at a phenomenon through texts (from artifacts, participants and researchers). Researchers within educational fields employ hermeneutical phenomenology. Sokolowski (2008) puts in practice a variation of phenomenology published as **phenomenology of the human person**. Researchers in this variation of phenomenology focus more on the experiential components of the phenomenon and it is used in the philosophy fields.

The philosophy and methodology in this study stemmed from the ideas of Moustakas (1994). He utilized a variation of phenomenology recognized as

transcendental. Phenomenology was transcendental when the approach was taken to be interpretive instead of being purely descriptive, which was the approach taken in empirical phenomenology. An interpretive approach included the work of Husserl originally (van Manen, 1990) and of Moustakas (1994) for present-day use. Additionally, Heidegger adopted this transcendental approach and he argued that any description of a phenomenon was already an interpretation. He believed that interpretation was inseparable from human awareness. In his later work, he began to introduce expressive works as evidence of the interpretation (e.g. poetry and art) because he believed they spoke to the nature of language, thinking, truth and being (Moustakas, 1994). I also used phenomenological methods in this way by incorporating some examples of the indigenous educators' self-created activities for the classroom as I explain in detail in this chapter's section on text collection.

In short, all of these variations (or brands) of phenomenology study the meaning or essence of a lived-experience for a person or group of people who have experienced a similar phenomenon. This phenomenon is explored by carefully and thoroughly describing how people experience something. The people who experience this phenomenon describe it, provide details on their feelings, their perceptions, and their understanding of it, and spend time talking about the phenomenon of interest. For phenomenology to work, the participants in a research study must have firsthand experience, or "lived experience," with the phenomenon of study (van Manen, 1990). Additionally, phenomenology is a retrospective type of reflection because a lived experience is something that a person experienced and is then able to reflect on. Interpretative inquiry is a type of phenomenological approach that requires the researcher

to have an intense interest in the phenomenon and that participants in the study must also share in that intense interest (Moustakas, 1994). By adopting a phenomenological approach, the relationship between the phenomenon and research participants is emphasized along with the personal significance of the phenomenon rendered in a creative synthesis. Finally, this inquiry allowed the opportunity to experience the phenomenon as directly as possible through in-depth interviewing and to describe the essence of the phenomenon as the research participants reported it.

Research procedures: Logic of justification.

This transcendental phenomenological methodology aligned with a qualitative approach that focused on the routine or ordinary of everyday life. The use of transcendental phenomenology allowed me to elucidate the realities of everyday life and the taken-for-granted realities of these research participants who use endangered languages as their mother tongue on a daily basis as well as for academic reasons. Using phenomenological tools, I adopted a researcher stance as I investigated the personal experience of these members while balancing my own intense interest in the phenomenon. This intense interest was a bond that was shared by the participants (Moustakas, 1994). By adopting a phenomenological approach, the relationship between the phenomenon and its participants took precedent. Phenomenological methods also maintained the personal significance of the phenomenon while providing an interpretation in a creative synthesis. Finally, phenomenological methods allowed me to experience a phenomenon through the participants' lived experiences through in-depth interviewing and to triangulate using each participants' self-created classroom activities and reflective writings along with my researcher reflective portfolio.

As the research study is firmly situated in a qualitative tradition, I provide a justification for collecting various texts (interview transcripts, writing prompts, self-created classroom activities and my researcher reflective portfolio). I analyzed each of these texts in order to have diverse perspectives that enrich the possible interpretations of the phenomenon under investigation. This enrichment of the interpretation differed from a postpositive tradition of triangulating perspectives in order to corroborate the facts of a phenomenon. Rather, I used triangulation to obtain as many perspectives as possible in order to enrich the possible interpretations of the phenomenon (Piantanida & Garman, 2009). This interpretation aligned with a phenomenological and constructionist approach, especially during the text analysis phase that involved the use of creative synthesis and imaginative variation to reach a universal description or essence.

Research participant selection.

I studied the experiences of bilingual adults (Spanish/Yucatec Maya or Spanish/Nahuatl) engaged in teaching a variety of an endangered language and its culture (either Mayan or Nahua). In order to achieve my research goals, an ideal research participant for this study was a person who self identified as a speaker from/in a speech community where either Nahuatl or Yucatec Maya was the lingua franca or used alongside the Spanish language. In addition to being a speaker of one of these languages, a research participant also had to be engaged in teaching his or her language and culture to a non-indigenous audience that utilized a voice over internet protocol (VoIP) application (Skype) or a socially mediated network (NING) to conduct the language/culture instruction. I selected the six research participants for this study based on the following criteria:

1. Bilingual Educators (Spanish/Yucatec Maya or Nahuatl) with the equivalent of 1 or 2 two courses in the field.
2. Bilingual Educators who self-identified as being members of either a Nahua or Mayan speech community.
3. Bilingual Educators who were willing to be interviewed in a phenomenological study over time.

Within the Nahua speech community, I recruited two participants who were experienced bilingual educators having more than 5 years of experience each. These two Nahuas self-identified as being from a community where the Nahuatl language is spoken and Nahua culture is observed. Both participants (Ichtaca and Tlanextli) were willing to be interviewed, to complete the writing tasks, and to share artifacts with me (please refer to appendix M for a map of these locations).

Within the Mayan speech community, I recruited four participants who were experienced bilingual educators having participated in one or two courses in the field. These four Mayans self-identified as being from a community where the Yucatec Maya language is spoken and Mayan culture is observed (though all self-identified as members of these communities, two of the participants self-reported that they did not speak sufficient Yucatec Maya to participate fully in their own community) (please refer to appendix M for a map of these locations). Most of the participants (Kanik, Siis and Ts'íikil) were willing to be interviewed, to complete the writing tasks, and to share artifacts with me. My fourth participant (Nic te') was the recipient of a grant during the interview process and was not able to complete the study. She withdrew after completing the interview cycle with me and, though I transcribed those interviews, I did not include

her text in my analysis in any substantive way because she did not complete enough of the process (e.g. the writing prompts, the artifacts or the member checking).

I was granted approval for this study by USF's Institutional Review Board (IRB) and I provided participants with an information sheet outlining the objectives of the study, the voluntary nature of the project, the confidentiality of the interactions and the contact information for the study investigators. All participants received copies of the informed consent by email (in Spanish and English) as well as had the same information explained in conversational Spanish or English before the first interview began. Additionally, the participants were informed of the steps I took to protect their confidentiality, which included the use of pseudonyms and removal of identifying details, the storage requirements under password protected data storage, and the length of time the data would be stored.

In accordance with the IRB consent form I submitted, my participants did not receive compensation for participating in my study. However, during the research process I began to feel an obligation to thank my participants for their time, effort and energy. For the Mayan speech community, I volunteered my time to work with them and their development with English. Many times, I would meet with them via Skype or through the Ning network and help them practice with their English speaking. Other times, I would review their written work and offer feedback. A few of them asked for an evaluation of their language abilities using a formal rubric, which I conducted via Skype. For the Nahua speech community, I made a monetary donation to the foundation that supported these indigenous educators with scholarships and grants. I also continued working with

both of my participants on a number of projects that involved the creation of Nahuatl teaching materials through indie self-publishing outlets for e-texts.

Pilot study.

In the fall semester of 2011, I recruited multiple research participants to test out a number of aspects of this proposal. To begin, I put together a set of interview questions in English and Spanish and I began working with a research participant from a Nahua speech community for a period of eight weeks where we met through Skype to complete the interviewing every other week. On the off weeks, he worked on the writing prompts during his own time. During this process, I made numerous modifications to my interview questions and I implemented a number of changes based on what I learned from my research participant on language issues surrounding my translations, and on tying these questions more closely to the phenomenon in question (a complete list of the questions for the Nahuatl speech community is in Appendix B and the writing prompts are in Appendix D). All of the interviews were recorded and transcribed according to the steps I outline in this chapter.

As I neared completion of the eight week period, I became more confident in my approach and I sought to recruit some research participants from the Mayan speech community. I was able to recruit 2 research participants for one Skype session and one session for the writing prompts (a complete list of the questions for the Mayan speech community is in Appendix A and the writing prompts are in Appendix C). I also made modifications to these questions and prompts to better reflect the context for the interaction between the members of the Mayan speech community and the students they worked with in sharing their language and culture.

Texts Collection: Description & Procedures

In order to realize my research goals, I employed three types of text collection. I interviewed my research participants through Skype in either English or Spanish for a maximum of three hours for each research participant (I allowed my research participants to choose the languages used and I often conducted the interviews with a mixture or blend of languages that depended on the participants' preferences). Upon completion of each session, I transcribed each of these interviews. In their time between interviews, I asked my research participants to reflect further using some writing prompts that I provided in English and Spanish. Much like with the interviews, I allowed the research participants to choose which language they responded in that could also include a mixture or blend of languages. Lastly, I maintained a researcher's reflective portfolio (Janesick, 2011) where I recorded my thoughts, observations and notes about the interview sessions, the writing prompts and my own interpretations and growth as I proceeded through the research journey.

Qualitative interviewing.

I obtained my main source of texts for working with my research questions through qualitative interviewing following Rubin and Rubin's (2005) responsive interviewing model. Using this model, I reconstructed the experiences of my research participants without having participated first-hand. These interviews mirrored a normal conversation where I gently guided my research participants into an extended discussion of the phenomenon in question. I employed semi-structured interviews using the major questions in Appendices A and B to provide the boundaries for the conversation and the use of probes to ensure I understood my research participants. Each research participant

was interviewed for a maximum of three hours with the time divided into three sessions of at least thirty minutes each time, but no more than an hour due technological limitations, availability and/or costs. Each session covered as many questions as possible from the list of ten overarching questions in Appendices A and B. These sessions also included discussions of any activities or artifacts that my research participants chose to share. I was interested in any activities that my participants created to use in the classroom or materials that they had used to aid instruction. Once a session was complete, I personally transcribed the session (with additional help for the Spanish-only interviews) and prepared additional follow-up questions for the next session. Upon completion of each interview session, I forwarded the completed transcript to my study participant. This step allowed him or her to ensure the accuracy of my transcribing and to comment on or provide additional information that may have emerged from a careful reading. Janesick (2011) provided a sample member check form, which I had adapted and translated (see Appendix F) for my study.

My interview techniques at a distance.

Since I was not in the same geographic region as my participants, I needed to develop a set of procedures for working at a distance. As such, I used the following procedures for working with interviews at a distance. My intention for this section is to explain the analytical decisions I made in interviewing and transcription completion. In the end, my decisions did influence my procedures and the way I approached my research, so I detail those procedures with interviewing through Skype, my recording through Call Graph and my use of voice recognition software to create the transcripts.

For this study, my interviews were conducted solely in Skype and were recorded using an outside program called Call Graph. I would initiate the call through Skype with my participant at the arranged time and once my participant accepted my call, Call Graph would immediately begin recording (see figure 3.1 for Skype, Call Graph and the recording message).

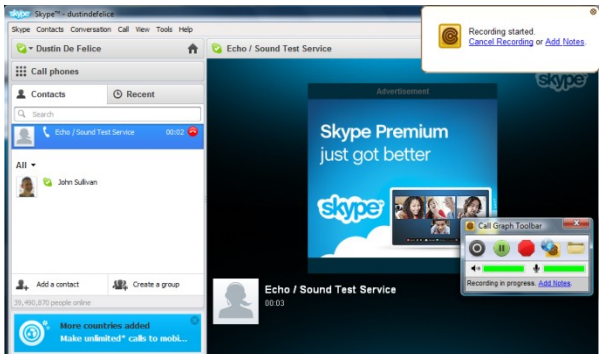


Figure 3.1. Skype and Call Graph screenshot. This screenshot contains an image of a sample audio-only call that was being recorded by Call Graph. This recording program is located on the bottom right of the screenshot and has two volume bars for monitoring the call quality among other tools. Call Graph will also send messages updating its status. In this screenshot, the message is located in the upper right corner and it indicated that the recording had started.

In many interviews, I would use the video option in Skype so that my participants and I could see each other. However, there were a number of times when the connection quality was so unreliable or poor that I completed the interviews using audio only. By removing the video feed, the quality of the recording would always improve.

I chose to use Skype instead of other possibilities (e.g. landline interviews, other voice-over internet protocol services, etc.) for two reasons. First, my Nahuatl participants were already using this program in their daily lives. Second, the program was available at no-cost to its users. I would later learn that my Mayan participants were also familiar with the program and their university supervisor maintained an account. Some of these

participants would choose to complete their interviews on campus and, often times, they would use their supervisor's account and her office.

There were a number of features that also made Skype a powerful tool for completing the interviews. While the program offered audio and video capabilities, it also had a chat function embedded in the program. This chat function was available whether or not a user was connected by a call. In other words, the chat worked much like an instant messenger service. I would take advantage of this feature to share consent forms, interview questions and other notes with all of my participants. My participants would also use this feature to contact me if we were online at the same time.

Above and beyond the advantages in Skype for my participants, Skype also had a number of add-ons available for me as a researcher that I investigated for recording purposes. Finding a program with recording capabilities was crucial for my research and I would investigate a number of options unsuccessfully before searching outside of Skype's add-on library. I would find a program called Call Graph that worked outside of Skype, but was synchronized to work in tandem with it. This synchronization meant I was able to use Skype without worrying about monitoring any recording I completed. Call Graph was also useful because upon completion of the Skype call, Call Graph would send the completed recording as an MP3 file directly to my desktop in a folder.

Upon receipt of the file, I would open it using Audacity (a free program) to complete editing tasks. I would use Audacity to edit files to remove any sections of the recording that were not relevant to the research in hand as well as to fix any problems that occurred with the Skype call (see figure 3.2). Many times, a call would be interrupted because of issues with either Skype or the Internet and I would need to piece together

those conversations into one whole conversation. Additionally, I used Audacity at times to cut the conversation into chunks of about 10 to 15 minutes in length. I found this step assisted me in the transcription process because I was able to open up a file that was only 10 minutes long versus working on a file that was more than an hour long. This chunking of the audio file made it easier to work through the interviews over a long period time.

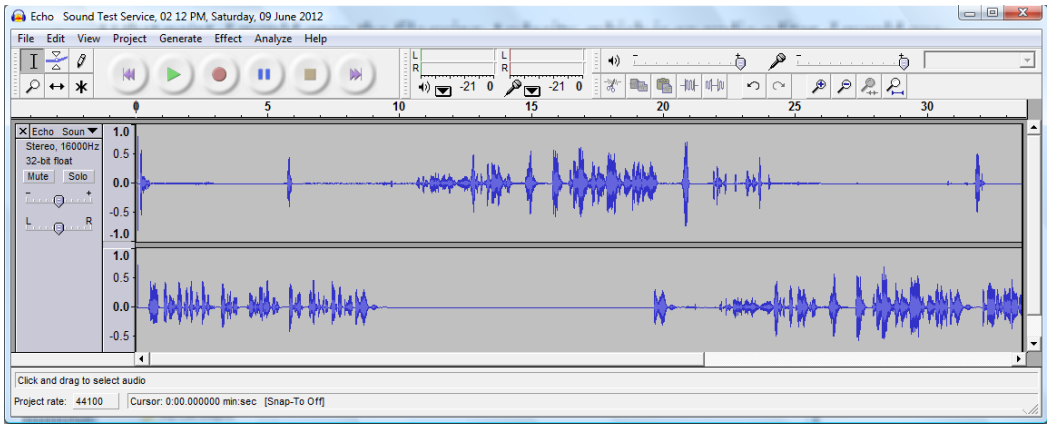


Figure 3.2. Audacity screenshot. This screenshot contains an image of a sample audio file that had been recorded from a Skype call using Call Graph. This audio-editing program has a number of powerful features that include the ability to remove sections, loop parts and export finished work as MP3 files.

With the completed audio file exported out of Audacity as an MP3 file, I would then import that file into Express Scribe, which is a transcription program (see figure 3.3). I utilized two different options within the Express Scribe program. Initially, I began to transcribe using Microsoft Word as an additional screen. After I became more experienced with Express Scribe, I found it was easier to use the transcription function directly within Express Scribe and then to copy and paste sections from within Express Scribe about every 10 to 15 minutes. I would copy and paste those sections into Microsoft Word and save it as an additional backup for the work.

One feature from within Express Scribe that allowed me to efficiently and accurately complete this transcription process was the fact that it enabled users to slow down the speed of the file. I normally slowed the speed down to about 45% and this reduction in speed allowed me the opportunity to transcribe effectively.

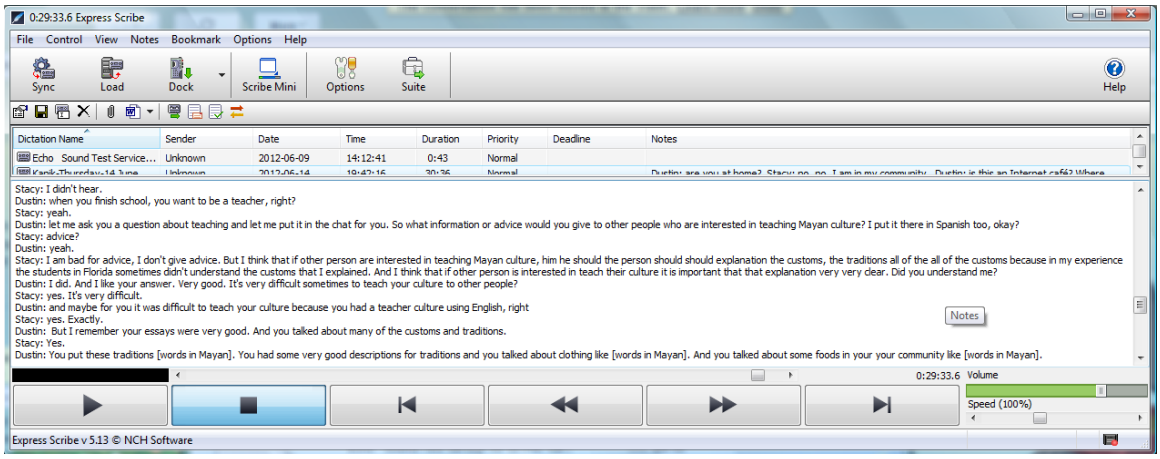


Figure 3.3. Express Scribe screenshot. This screenshot contains an image of a sample audio-only call that was being recorded by Call Graph and cleaned up within Audacity. Once I loaded the file into Express Scribe, the transcript was created within the program. Express Scribe offers a number of important features like controlling the speed of the recording. This speed control was an important time-saving feature and is located on the bottom right of this screen shot (listed as Speed (100%).

I also used one last modification during this transcription process. I began using voice recognition software a few years ago and I found it to be an incredible resource and time-saver when transcribing. I would use Dragon NaturallySpeaking 11.5 to speed up the overall transcription process (see figure 3.4). Though this program had assisted me in my past research project, I ran into one challenge with this modification. Since I was working with files that contained both English and Spanish, I needed to purchase the Dragon program in both languages. The versions I purchased did not allow a user to put two different language versions of the software on one computer. Instead, I needed to install the English version on one laptop and the Spanish version on another. This split

also meant I needed to concentrate on one language only until I could move the file to the other computer that contained the correct language version of Dragon.

Figure 3.4. Dragon NaturallySpeaking 11.5 screenshot. This screenshot contains an image of the Dragon toolbar, which I normally maintained in the background as an icon in my toolbar. The version in this screenshot is for the English version.

I used Dragon as a transcription tool in that I would listen to the interview in my headset and I would speak back what I heard into either Microsoft Word or Express Scribe for my own voice and that of my participants. I developed this procedure because I found that by using just my keyboard and Express Scribe I was only able to transcribe roughly 30 to 40 words per minute. Once I began using Dragon I found I was able to transcribe closer to 150 words a minute. By following all of these procedures, I created all of my transcriptions (with some additional help in transcribing the interviews completed in Spanish). Upon completion of each interview session, I had my participants work on some writing tasks in the form of reflective writing prompts using procedures that I outline and explain in the next section.

Reflective writing prompts.

After completion of the interview, I informed my research participant that I sent him or her a set of writing prompts that were related to the interview questions. Due to a

number of technological limits, availability issues, and costs, I collected texts through reflective writing on the part of the indigenous educators. In some instances, the participants did not have access to a stable and consistent internet connection. In fact, some participants needed to pay for their connection per minute (a cost I compensated when it occurred). In order to allow these educators the chance to fully participate, I supplemented the Skype interviews with writing prompts that the participants completed offline. Once ready, they sent the information in an attachment by email, which required minimal time online. I recommended the participants spend at least thirty minutes to an hour working on their answers. He or she completed these writing prompts in English or Spanish and I asked them to send me the finished document before the next interview session. The writing prompts were tailored to the unique situations and characteristics for each speech community and they are in Appendices C and D. In table 3.1, I detail an example schedule for completing the interviewing and writing prompts. Within the table, I also elaborate on the purpose for each set of questions and writing prompts.

I have included a purpose for each session in table 3.1 in order to ensure I was incorporating the following characteristics of the responsive interviewing model from Rubin and Rubin (2005): relationship, protection, flexibility and adaptability between the researcher and research participant. These same characteristics also guided my interactions with my research participants during their time working on their writing prompts.

In terms of table 3.1, I had built in time to develop rapport into the first session because I approached these first interviews as an exchange whereby I began to develop a relationship that was meaningful and based on respect, especially in terms of being aware

of my own opinions, experiences and culture. I also added in opportunities for clarification and to ensure understanding because my research participants were investing time, energy, and creativity into their work and I wanted to ensure I protected all of their contributions during and after the completion of the sessions.

Table 3.1

Example Interview and Writing Prompts Schedule.

Session	Task	# of Questions or Prompts	Purpose
1	Interview (Skype)	Questions 1 – 4	Introduction and Rapport Building
2	Writing Prompts	Prompts 1 – 4	Further Connection to Topic and Time to Reflect
3	Interview (Skype)	Questions 5 – 8, plus follow-up questions from 1st and 2nd sessions	Further Connection to Topic and Time for Reflection
4	Writing Prompts	Prompts 5 – 8	Further Connection to Topic and Time for Reflection
5	Interview (Skype)	Follow-up Questions, plus follow-up questions from 3rd and 4th sessions	Ensure Understanding and Provide Clarification
6	Writing Prompts	Optional Additional Prompts	Opportunity to Reflect and Add in Research participant Thoughts

Lastly, I had included time devoted to follow-up questions and for my research participants to ask me questions or to add anything else they might feel is pertinent or important (Janesick, 2011). Using the interview schedule in table 3.1 allowed me to gain knowledge by listening intently for new insights and allowed my research participants to share any insights they may have gained through the interviews or writing prompts.

Researcher reflective portfolio.

My last type of text collection was a reflective portfolio that allowed me to evaluate my work externally and internally. Janesick (2011) noted that portfolios have

been used in classrooms to provide evidence for ongoing learning, for record-keeping and for showcasing the work done by students. In this study, I made my researcher's reflective journal as the centerpiece of my portfolio that I assembled electronically to include various sections that documented my journey through the research process. Based on the long history of journaling writing in various fields and endeavors (Janesick, 1998), I built on this tradition through the incorporation of new technology tools that allowed me to go beyond the written word. I explore this portfolio more fully in the next section because it became an integral part of my research process while providing me with a space to develop as a researcher and to analyze my thought process. I also provide examples of interactions I had with all of my participants as further evidence of their experiences. Lastly, I detail how this portfolio became an invaluable space where I was able to record my progress with this research project in a safe space for developing my ideas, continuing my growth as a writer and encouraging creative uses of language, visuals and poetry.

An important piece in phenomenological research involves the awareness of the researcher and his or her stance toward the phenomenon under study. In building my awareness, I included a discussion of my own story with this phenomenon in chapter 1 when I detailed my journey with Nahuatl and Yucatec Maya. This autobiographical start was important in establishing my role as the researcher in this study. As Janesick (2004) stated "the researcher is the research instrument in qualitative research projects," as such I needed to "sharpen [my] awareness" by engaging in a number of activities, tasks and collaborations (p. 103). For instance, I put together and used my researcher reflective portfolio as text source and as a way to further define my understanding of who I was as a

researcher. I achieved this understanding through writing about my experiences, feelings, interpretations, and intuitions throughout the research process. I used this portfolio as documentation of my role as a researcher, as a triangulation of perspectives from the research process and, when possible, as a connection between my participants and me (Janesick, 1998). Within the open-ended format of my portfolio, I was able to interact with any issue or topic in a creative and safe virtual environment. I was also able to write freely about what I encountered before, during and after completing the interviews or in sharing the transcriptions with my study participants, among other tasks.

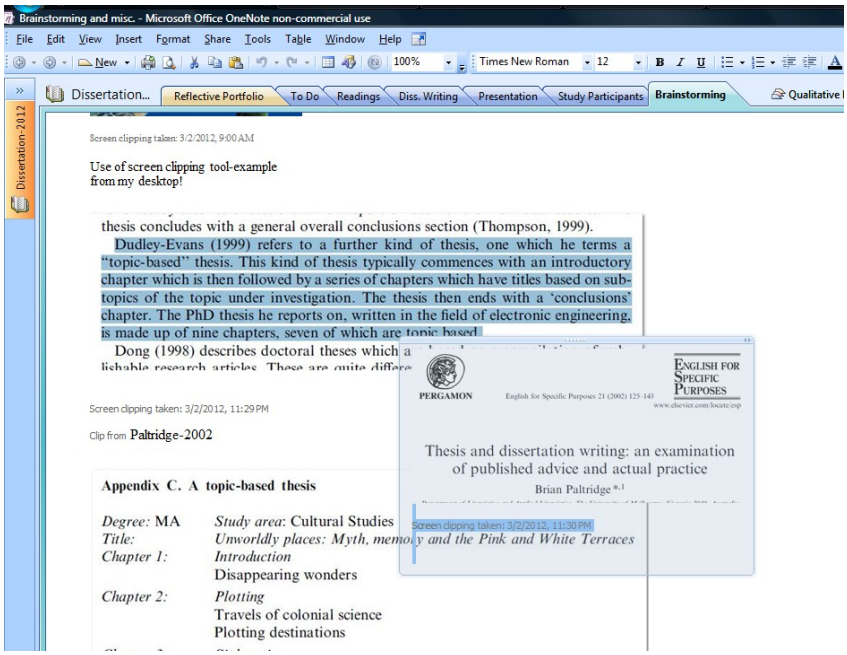


Figure 3.5. Reflective portfolio screenshot. This figure is a screenshot of one section of my researcher reflective portfolio. The different sections within the portfolio are listed across the top of the window (starting with Reflective Portfolio and ending with Brainstorming). The current section is on brainstorming and it shows examples of the screen clipping tool as well as the ability to organize items anywhere on the page.

Within this electronic portfolio, I had simple text-based entries as well as multimedia files embedded throughout. The use of software allowed for the inclusion of audio, video and picture files as well as screen clipping capabilities. In figure 3.5, I show

a screen shot of one section of the program. I mostly added material into my portfolio using English, so I was not able to use many entries with my participants who did not read English. However, I communicated through email on many issues with these same participants in Spanish.

By sharing many portions of my work with my participants, I opened myself up to differences of opinion. I was careful to ensure I focused the foundation for this study on my participants' emic voices. This focus kept returning me "to the things themselves" or the maxim of phenomenology (Moustakas, 1994, p. 27). As such, I would resolve any differences by opening a dialog about the item(s) in question and reevaluate my own stance. In the end, I would always side with the opinion of my participants because the phenomenon under study was from their lived experience. One example of such an interaction occurred when a number of participants reported having difficulty reading the transcripts because I chose to use very limited punctuation to preserve the fluidity of the spoken word. Since my participants had difficulty, I decided to include more punctuation to aid in readability. In the end, these changes helped my participants better attune themselves to their lived experience.

My portfolio served many roles for me and I found myself turning to it when I needed to write. In many ways, I found I was limited in writing the dissertation in terms of creativity and intuition because of the rigid and linear demands of it as a traditional written document. Janesick (2000) saw "the nature of Intuition and Creativity as a key component in qualitative research projects" (p. 5), so I used my portfolio to engage in activities like the writing exercises found in Janesick (2011) and Piantanida and Garman (2009). These activities included creating collages, drawing scenes, reflecting on specific

writing prompts, among others. Using Microsoft Office OneNote (2007 edition), I also added in clippings of photographs, articles, comics, and illustrations that I found had some connection to what I was working on. I also shared portions of this portfolio with colleagues who acted as peer reviewers (see Appendix G for my peer reviewer form). Some of my sharing with colleagues also occurred informally and naturally. I would often share portions of my writing (only after I had removed all identifying information) to ensure my writing and analysis were clear, accessible and thorough. Janesick (2004) included the use of a peer reviewing for the texts, transcripts, and journal entries as one of many checkpoints for supporting the researcher's claims and interpretation. I invited a number of individuals to review my portfolio and text analysis to offer me more perspectives and interpretations and to further triangulate the various texts I analyzed.

Peer reviewer procedures.

While many of the interactions with my reviewers were informal and depended on tried and true tools (e.g. comments within a document, lists of questions/recommendations sent via email, shared documents through virtual spaces (e.g. Google Drive), etc.), one area of my research required formal procedures. In attempting the synthesis of the individual textural and structural descriptions, I needed my reviewers' help in specific ways. In order to ensure the synthesis was a direct reflection of my participants' experiences, I asked three reviewers to complete the steps in table 3.2 that I created. I sent the procedures and the appropriate sheet from within my analysis workbook (again, I had removed all identifying information using the procedures I outline in this chapter to ensure my participants' confidentiality).

Since I conducted many of the original interviews in Spanish, my peer reviewers needed to read Spanish at a high level of proficiency. Additionally, I recruited peer reviewers with experience in qualitative research. I considered this individual as experienced if he or she had taken at least one course with a focus on qualitative methods or philosophies at the doctoral level or if this individual had completed field work where interviewing was one of the text sources.

Table 3.2

Formal peer reviewer procedures

Step	Procedure (Matches the column heading in the spreadsheet)
1.	Read through Conversation once (step a).
2.	Read through Relevant Statements once (step b).
3.	Read through In Vivo Coding once (step b.1).
4.	Read through Focused Coding once (step c.1).
5.	Read through Meaning Units to Themes (step d).
6.	**Make note of any theme or meaning unit that you did not find represented or discussed in steps 1-5.***
7.	Read through Textural-Structural Experience once (step g).
8.	**Make note of any part of the experience that you did not find represented or discussed in steps 1-6.***
9.	**Make note of any area with the file where you have a question, comment or doubt.***

*Bold font indicated these steps required written responses on the part of the peer reviewer. These responses were in the form of email notes and/or comments within the document.

I asked my reviewers to take the time they needed to work through each procedure. The ultimate goal was two-fold. First, I wanted a thorough read-through by a highly fluent Spanish speaker to ensure the accuracy of my interview transcriptions, In Vivo code choices and overall understanding. Second, I wanted to ensure my analysis was directed linked to "the things themselves" (Moustakas, 1994, p. 27). I specifically asked for my peer reviewers' help in steps 6 and 8 in table 3.2. I chose to complete this peer review prior to the final analysis step of creating a universal description. Because the

integrity of the universal description depended so highly on the accuracy of the individual textural/structural descriptions, I believed the step was an important necessity.

My biggest regret with this peer reviewer process was that I was unable to share these analysis worksheets with my participants. While the first few columns were in Spanish from my Spanish-speaker interviews, I completed the rest of the columns in English, which was not an accessible language for many of them unless I translated all of the work for them. This translation issued concerned me greatly and it would be a topic in my researcher reflective portfolio that I was never able to fully conclude. At this point, my final research product is in a form that is inaccessible to my participants. I discussed this fact with some of my participants and they asked me to still send them the finished product. They also asked me if I would be willing to help them understand sections or passage that they have troubling interpreting. I will honor this agreement and I will pursue publishing portions of this work in Spanish. (Of course, an ideal situation would also allow me to publish this work where it is needed most: in the languages of Nahuatl and Yucatec Maya. This goal is one I have not found a satisfactory compromise for.) In the end, my portfolio was so many things and its most important function was as a space to work through multiple issues such as translation, accuracy, etc. and to give me a space for increasing my creativity.

Creativity & a thesaurus.

My portfolio gave me the opportunity to be creative with what I encountered throughout the research journey. For example, Janesick (2004) recommended crafting haiku to "capture the essence of an individual's role in a particular study…" (p. 97). I used this exercise on a monthly basis because of the clarity it brought to what I was

contemplating (Slotnick & Janesick, 2011). The process of crafting a haiku also required a great deal of concentration and focus, which are both essential elements in a phenomenological study. Table 3.3 is a compilation of a number of haiku I created throughout the research process. When I first began making them, I found the white space on the page in OneNote inhibiting, so I used photographs next to each haiku. Initially, these photographs were just background until I started to see there could be a connection between the haiku and the accompanying image (see table 3.3 for multiple examples of these photographs and the progression of matching lines to them). This realization made me begin to include photographs that further enforced the haiku theme. Many times, the photograph became a metaphor for the poetry lines.

As I created more haiku, I also started to lose the original connection or meaning behind the lines. For some of the haiku, I could not remember the situation or event that triggered the haiku. In order to maintain that link to a specific time or place in the research process, I began to include short blurbs where I explained the circumstances that prompted the haiku (see table 3.3 for multiple examples of these short blurbs). In the haiku entitled "A Haiku on My Analysis" for example, I wrote that haiku because I completed my chapters on the analysis of the universal description. I had some fear and concern with these chapters because they were directly linked to my development of chapter 4.

Table 3.3

Selection of stretching exercises in the form of haiku that I created (Janesick, 2011)

Haiku	Photograph
A Haiku on My Study **My Super Study** **Surprises, Strengths, Savvy and** **Serendipitous** A Haiku on Languages/Translations **English - Español** **Hmmm, Qué Hago - Which to Use** **I Hardly Know When** A Haiku on Terminology **My Participants** **Culture and Language Experts** **Nahuatl or Mayan** A Haiku on Phenomenology **Methodology** **It's Phenomenology** **Lived Experience**	
A Haiku on Transcribing **Dragon Voice Two Laps** **English -- Español My Voice** **Their Words Their Language** A Haiku on Proofreading Transcriptions **View from Start to End** **Accurate & Anonymous** **Next Begin Anew** A Haiku on Language Style* **Your Voice In One Way** **Carries Through In All You Speak** **In English-Spanish*** *This Haiku is a reaction to transcribing the work of Ts'iikil's first interview session. I found his manner of speaking in English to be the same in Spanish.	

A Haiku on Busyness
So much to do now
Recruit, transcribe, interview
Balance v. progress

Summer courses and
Summer teaching and online
Summer projects

Invited class guest
On interviewing techniques
And research questions

Conference Dates/Times
Book notice, helping profs
All done at same time*

*This haiku was written in response to the number of tasks I found myself juggling as soon as the spring semester finished. This picture also spoke to me about how many directions I felt pulled in.

A Haiku on Guilt
Page number so far
Some change-difference-progress
But still not enough*

*I wrote this haiku in response to the pressure I feel at this point in the dissertation process. As I'm working through my summer responsibilities, I find I am not making the progress I wanted to on any of my responsibilities and it has become frustrating.

A Haiku on Next Phase in Text Analysis
Text Analysis
Cyclical and Immersive
Looking for Essence

Start from Interview
Read, Read, and Reread Again
Writing Prompts as Well

Materials, too
Code, Categorize, and More
Extra Steps By Me

Essence has this Shape
Textural and Structural
Description and More

All of it Complete
Brings Phenomenology
Finished with Essence*

*I wrote this haiku in response the realization that I am slowly wrapping up with text collection. At this point, I just need to complete one final interview with a Mayan participant and complete one transcription remaining for the Nahua participant.

A Haiku on Fear and Isolation

Am I doing this right?
How do I know I'm ok?
Is any of this right?

I fear for my work
I'm afraid of my spreadsheet!
Is this column good?

What about this cell?
And do not forget the rows?
It's me and the sheet!

Isolated now.
What do I do to move onward?
It's time for review.

Peer review for it.
I'm isolated no more,
The sheet is open.

Rows, columns and all
Let the comments start
End the fear for once*

*I wrote this haiku in response to the idea that I don't have to give in to the loneliness of the analysis process. I am at a stage where using my peer reviewers is an important step in seeing my work with fresh eyes. It is also freeing to have another person see where I am in the process who can confirm, hone and question my work.

A Haiku on Forgetfulness
My Forgotten Month
Very Busy Very Much
Analysis Done*

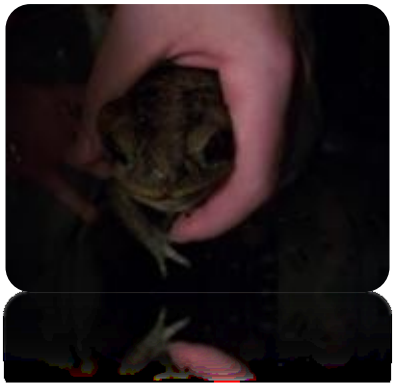
*I wrote this haiku in response to the idea that I was so busy analyzing text, preparing for the fall semester and participating in meetings/workshops that I had very little time left over to reflect, mediate and journal.

A Haiku on My Analysis
My Analysis
In Major Professor's Hands
Chapter 5 and 6

Individual
Themes, Descriptions, Essences
Am I On Right Track?

My Major Says Yes
Just Need to Work On Some Things
Voice, Style and More

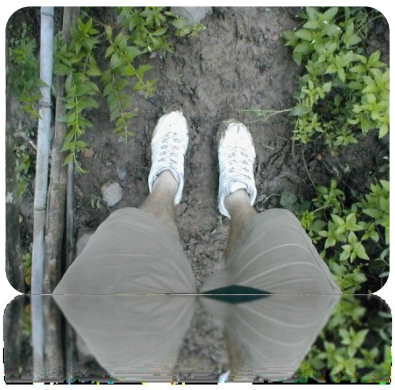
Now, No More Waiting
Now, More Writing, Editing
Onto Chapter 4*



*I wrote this haiku in response to my major professor's comments on chapters 5 & 6, which I needed in order to attempt the final analysis for chapter 4.

A Haiku on Closing in on the End
My Final Haiku
Got the Green Light Off I Go
Only Steps to Go*

*I wrote this haiku in response to the imminent conclusion of the writing process. I have been given the green light to take the steps necessary to defend my work.



All of this dialog and these exercises were maintained within the portfolio and I continuously added to and worked with it throughout the duration of my study. I also included a number of peers to help me see my work through fresh eyes as well as to confirm/strengthen my interpretations. I took all of these steps to develop my role as the researcher for this study and to ensure I satisfied the demands of a qualitative research project that included judgment, trustworthiness and verisimilitude.

Judgment, Trustworthiness, & Verisimilitude

For a phenomenological study, the object of inquiry is quite different from a post-positivist study. This difference required a fresh perspective on how the research was judged or measured. Whittemore, Chase, and Mandle (2001) equated this judgment with trustworthiness and they found trustworthiness in qualitative studies was comprised of four criteria: credibility, authenticity, criticality, and integrity. Credibility referred to the interpretation of the research participants' meaning and the level of accuracy of the researchers' interpretations. Authenticity referred to the voices being heard through the study. In other words, were the research participants' voices (the emic), used effectively to show their perspectives. Criticality related to the researcher and whether or not all

aspects of the research were subjected to a critical appraisal. Finally, integrity was the presence of the self-critical nature of the researcher. When a researcher used these standards for validation they moved away from rigid guidelines and into the lens of qualitative inquiry. I utilized two ways of ensuring the use of these criteria by incorporating researcher reflexivity and question-raising throughout the research process. With this phenomenological study, I also strengthened trustworthiness through the use of the following elements: Epoche, phenomenological reduction, imaginative variation and synthesis. I incorporated each of these elements into my analysis procedures. In the spirit of transparency, I provide detailed accounts of each of these elements along with examples from within my text sources in this chapter.

Patton (2002) stated that trustworthiness was a process rather than a fixed or rigid test whereby qualitative researchers used strategies to demonstrate the accuracy of their research. These "validation strategies" (p. 557) included an extended time in the field, the use of multiple sources or texts, the inclusion of member-checking, and the adoption of describing research participants and their experiences using rich and thick descriptions, which included ample use of the emic voice.

These manners of judgment or measurement rest on the abilities of the researcher and his or her ability to recreate the experiences of the social world as his or her research participants saw it. A researcher is able to accomplish (or aspire to accomplishing it) through a number of strategies (Cresswell, 2007; Patton, 2002). First, the use of thorough and detailed field notes was critical. These field notes included my researcher's journal along. Second, I transcribed the interviews while keeping a focus on the social content as well as the linguistic features. These transcriptions included the language used, the

educators' materials/artifacts and any field notes taken during the interview. I depended on the use of these strategies and tools to achieve as close a state of trustworthiness as possible.

Finally, by taking into account the considerations from striving for trustworthiness, I needed to capture the experiences in writing that was clear, engaging, realistic, and believable. I needed to include and reflect on unexpected ideas and complexities that occurred in my participants' lived experiences (Creswell, 2007). All of these characteristics make up the concept of verisimilitude, which is a literary term that can be summarized as the feeling of being there. This concept related very well with my phenomenological research because the ultimate goal was to describe the essence of an experience. In order to describe that experience, I needed to provide the reader with a sense of being there and having had that experience.

In this section, I discussed how important of a role my researcher reflective portfolio was in my journey. I also highlighted a number of components that played an integral part in completing this study. Lastly, I addressed the rigorous demands of a qualitative research project. In the next section, I provide the details for a number of my analytic procedures and choices.

Excel as a Text Analysis Tool

I provide the steps I took in converting my text sources into files read for importation into a spreadsheet that was ready for analysis. My decision to use Excel as my data analysis tool had a number of ramifications that caused me to revisit my transcriptions and my original text in order to best work with the texts I had generated. Upon completion of each interview transcriptions, I sent them back to my participants

and asked him or her to review the file. Initially I sent the files as attachments and asked my participants to work with an attached MS Word document. In a number of instances, I noticed I did not receive any response from some of my participants. After thinking about what may be causing such a delay, I realized that by sending the files as attachments I was inadvertently limiting access for my participants. Many of them were accessing the files at Internet cafés or on their university Web server. At times, these locations have pop-blockers or other systems in place that restrict access to downloads. I revised my procedures and began to send the files as text within the body of the e-mails. As soon as I made this small change, I found my response rate was back to 100% and the process was usually completed within a week or two of taking receipt.

After my participants finished reviewing the files and making any changes they felt necessary, I began my process of taking those files and importing them into Excel. In order for this process to work I needed to undergo a number of steps to ensure that the import process left me with the finished products I desired. Within the original transcription file, which is saved as a .DOC file extension, I began by removing any hard tabs, extra hard returns, colons not listed after the name of the participant and any empty spaces between lines. I also ensured that the document was formatted so that each line had a participant's name followed by a colon marking each meaning unit or utterance the person made.

Once I completed these formatting steps from table 3.4, I then reread the entire transcription in order to check for any identifying information that needed to be removed or modified. This information was items like names of institutions or universities, names

of specific towns and cities, and names of individuals, among other types of identifying information.

Table 3.4

Checklist of steps for importing a file in MS Word format to MS Excel

Step #	Description of Steps
1.	Within MS Word document, remove all tabs, hard returns within paragraphs or more than 1 consecutive throughout and empty spaces of more than 1 in a row.
2.	Ensure format of materials is in this way: NAME: TEXT (followed by hard return before next entry).
3.	Ensure all indentifying information has been removed or modified.
4.	Save MS Word document as a .txt file format.
5.	Import .txt file into MS Excel in cell A2 (or the first open cell in the worksheet).
6.	In the MS Excel menu, choose *delimited* because the text is separated by a colon.
7.	Within the *delimited* step, chose *other; colon* as the choice for the delimiter.
8.	Choose text for the data format to ensure MS Excel does not convert dates into numbers, etc.

The following screenshots and descriptions provide more details for the rest the steps in table 3.4.

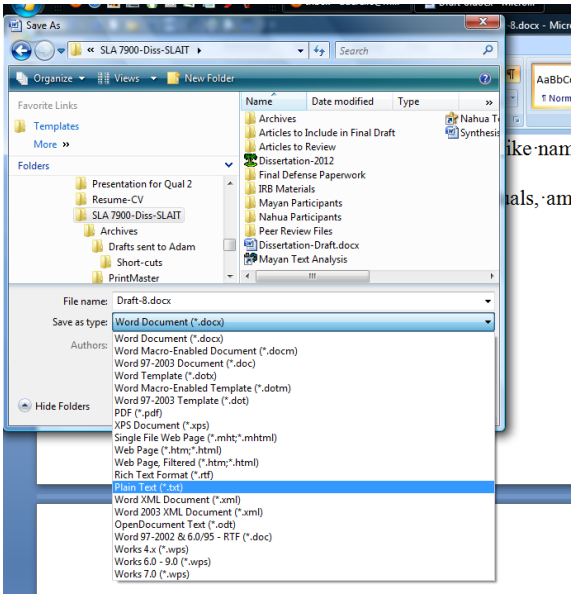


*Figure 3.6. S*ave as function screenshot. Using MS Word 2007, I saved my .docx files into the .txt format upon completing the steps in table 8.1. This .txt format was one of the

only acceptable formats that I could import directly into a MS Excel 2007 spreadsheet. Rather than simply copying and pasting the text directly in, I utilized the import feature because it allowed for a number advantages in terms of how the text was displayed within the spreadsheet.

Once I completed steps 1-3, I needed to save the file as a.txt or plain text format (see figure 3.6). This formatting step allowed Excel to accept the text in a usable form using the data function and importation tab within Excel (see figure 3.7). I imported the information into the appropriate spot, which is marked by an open cell under the participation column. As I chose import, I needed to complete the following selections in order to make the text fit into my template (see figure 3.8).

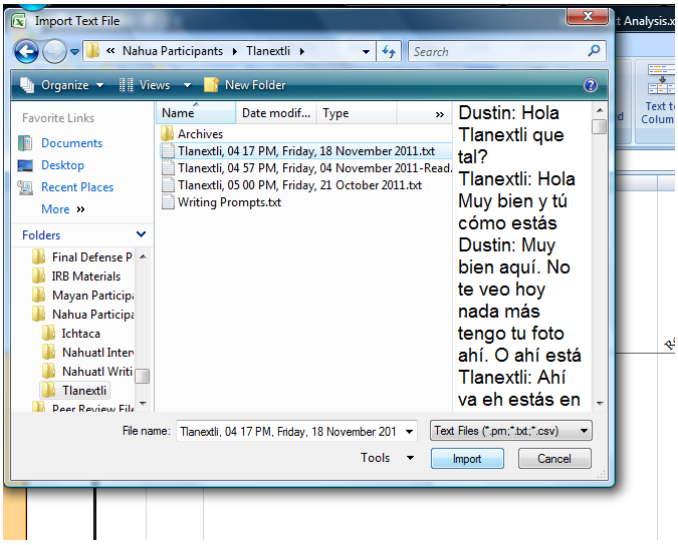


Figure 3.7. Import wizard for text files screenshot. This tool only accepted text files and provided a preview of the saved file.

First, I needed to choose delimited text rather than a fixed width (see figure 3.8). This limited the text that would go into cells based on a specific symbol that I chose.

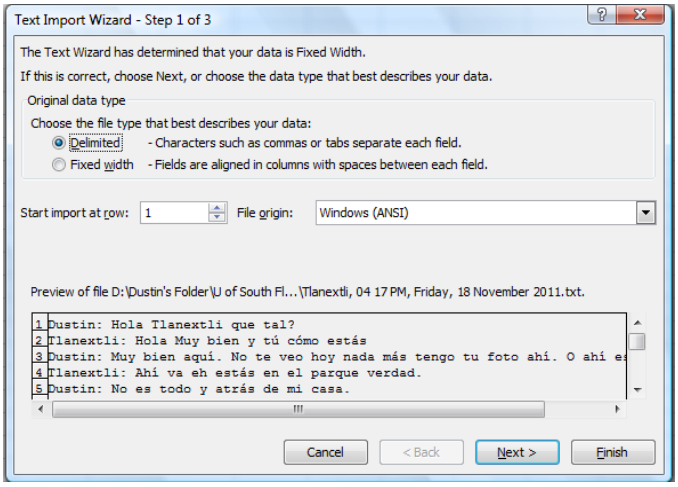


Figure 3.8. File type choice screenshot. The preview window provided a chance to review the original text file. If the file was formatted correctly, the conversation would appear with the participant's name followed by a colon.

I then selected my symbol of choice and entered the colon as the delimiter (see figure 3.9).

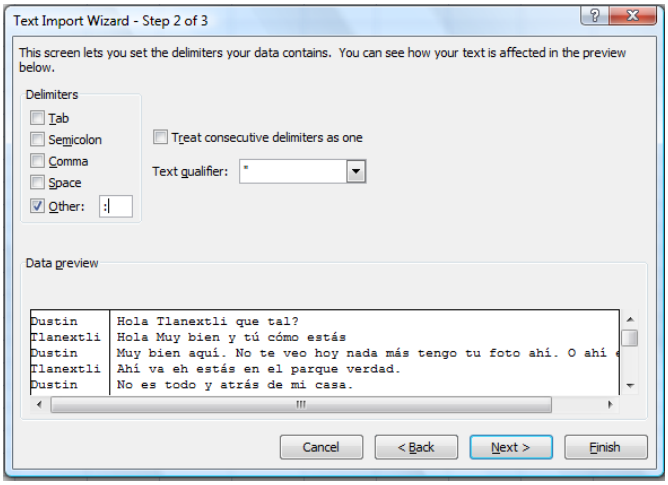


Figure 3.9. Delimiter option screenshot. The text import function allowed for a number of delimiter options. I chose the colon as the symbol that indicated a change in conversation speaker.

Finally I needed to choose text for the data format because Excel needed to understand that the information I was importing was text rather than equations, dates, time, etc (see figure 3.10).

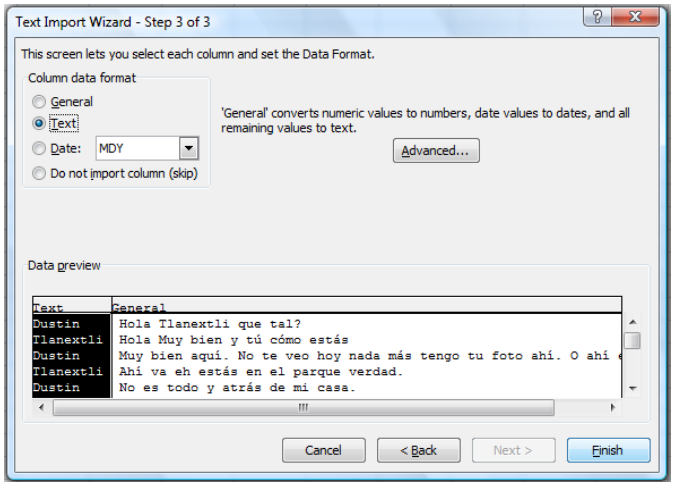


Figure 3.10. Text formatting option screenshot. For the text formatting options, I chose the data format as text, which could include numbers, date values as well as text.

Once I completed all of these steps, the text appeared in the appropriate columns throughout the Excel spreadsheet (see figure 3.11). I developed these guidelines in conjunction with an article by Meyer and Avery (2009) where they laid out a number of procedures and considerations for the use of Excel as a qualitative data analysis platform.

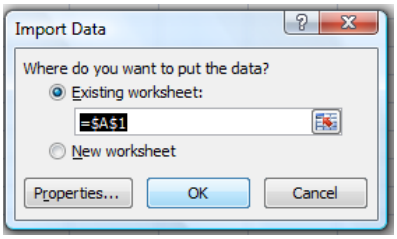


Figure 3.11. Final import step screenshot. The final import option involved placement into the spreadsheet. The default choice was column A row 1.

I completed all of the steps in 3.4 for my interview files, writing prompts, and the artifacts I collected from the educators. These files were also imported in separate worksheets within the final Excel spreadsheet. I did maintain one shared worksheet where the final textural-structural descriptions for all the participants were shared. I

completed this step to allow me to see the final descriptions together, which was important for working on the composite textural-structural description.

Text analysis procedures.

A transcendental phenomenological study required the following overarching methodological pieces before and after beginning the text analysis process: Epoche, transcendental phenomenological reduction, imaginative variation, and synthesis of meanings and essence. I summarized the Moustakas procedures in table 3.5 (1994) and the first five steps I completed for each participant during and after the text collection. The last step was completed after I completed all of the steps for each participant in order to focus my attention on synthesizing a universal description from all the research participants' experiences.

Table 3.5

My Overview of the Moustakas (1994) Method

Overview of the Moustakas Method	
During Text Collection	1. Adopt intentionality as a phenomenological stance.
	2. Assume Epoche throughout the research process by focusing on setting aside prejudgments, biases and preconceptions. In other words, attempt to block the natural attitude.
	3. Use phenomenological reduction to obtain a sense of the qualities of the experience through multiple readings for textural descriptions.
	4. Seek possible meanings through imaginative variation to arrive at the essential structural descriptions.
	5. Integrate the textural and structural descriptions into a synthesis of the essence of the experience.
During Text Analysis	6. Using the synthesis from each participant, construct a universal description of the group's essence.

In table 3.5, step 1 is the adoption of intentionality as a phenomenological stance. Intentionality refers to the consciousness of an individual toward a specific phenomenon or entity and how it is perceived (Moustakas, 1994). An individual can perceive objects

in reality as well as imaginary ones and the consciousness is made up of two interrelated constituents: the noema and the noesis. The noema represents the appearance (or perception) of an object. For instance, an individual can see a flower on a table and perceive its shape, color, size, and essence. Without further investigation, this individual may perceive the flower as natural rather than synthetic. The appearance can be altered or changed if that same individual moves closer to the flower or touches its petals, he or she can ascertain more perceptions. In fact, she or he might discover that the flower is made of plastic rather than being a natural plant. All of this information on the flower's appearance is intertwined with the individual's past and present experiences to form a multi-layered and complex meaning called the noetic. The overall experience is the essence of the noema and noesis and their interactions under examination. The examination required the following processes to be undertaken. First, the sense of the experience was made clear (or explicated) while examining the individuation of the real or imaginary objects as they exist in the consciousness (noema) as well as any beliefs that are held (noetic). The last step in this process required the integration of the noematic and noetic elements into "the meanings and essences of experience" (Moustakas, 1994, p. 32). The noesis and noema relationship create the intentionality that is explored in phenomenology through the examination of the textural and structural dimensions of a specific phenomenon.

In table 3.5 step 2, the study of human experience requires the freedom from supposition, which Husserl called Epoche (Moustakas, 1994). In order to thoroughly examine a phenomenon, any prejudgments, biases, and preconceptions must be set aside and any previous knowledge and experience was bracketed and placed out of the realm of

the study. However, Epoche does not set aside or deny everything, rather the process involved suspending the natural attitude or the everyday biases from which truth and reality are drawn from. The Epoche process began from the initial phases of the research study and was constantly revisited and maintained throughout the duration of the study. The process was difficult to achieve in a pure state, but the sustained attention, concentration and presence led to an ever-growing connection to the possible meanings within the experience.

In table 3.5 step 3, phenomenological reduction led to describing the experience using textural language to focus on the qualities of the phenomenon itself in all its forms, qualities, shapes, and exponential contexts. Each quality enhanced the perception of the phenomenon and directed the consciousness onto the phenomenon itself. Moustakas (1994) stated "the whole process of reducing toward what is texturally meaningful and essential in its phenomenal and exponential components depends on competence and clear reflectiveness, on ability to attend, recognize, and describe with clarity (p. 93). By engaging in this iterative process, the meaning from the participant's experience became refined, revised, and revisited, until clarity was reached. In completing phenomenological reduction, the process of horizontalization, or the focus on meaning units from within the participant's experience was realized. These meaning units were the essential meanings contained within the statements the participants made regarding the phenomenon during the interview process. Each statement was read multiple times and given the same weight as every other statement. As the reading process continued, redundant meaning units or statements irrelevant to the topic were removed. The remaining statements, or horizons,

were clustered into themes and organized into a coherent textual description for the phenomenon and were ready for the next step in the process.

In table 3.5 step 4, imaginative variation moves the textual descriptions into structural meanings by systematically varying the possible meanings that underlie the textural meanings. The systematic variation included employing divergent perspectives or varying the frames of reference to arrive at the structural description and the underlying factors that account for the experience. In other words as Moustakas (1994) stated "how did the experience of the phenomenon come to be what it is?" (p. 98). Utilizing imagination, the phenomenon was probed for universal structures and exemplifications that illustrated the invariant structural themes. This development of invariant structural themes highlighted the similarities of the experience, however there are unique variations that many times do not fit into this idea of universality, which may lead to the development of separate essences during the final step.

All of this reflection led to the development of a structural description for the phenomenon, which was critical in completing the final step for the individual participants. In table 3.5 step 5, the synthesis of the textural and structural descriptions for the essence were formed into unified statements that exemplify the essences of the phenomenon as a whole and, while the essences for any phenomenon are unlimited, the textual-structural synthesis was a representation of the essence from "a particular time and place from the vantage point of an individual researcher following an exhaustive imaginative and reflective study of the phenomenon" (Moustakas, 1994, p. 100). By completing these five steps for each individual participant, I systematically investigated the human experience from an individual perspective, but the end state in a

phenomenological study is to arrive at a universal essence for a phenomenon (or essences), which required one more level of analysis.

Table 3.6

My Description and Modification of the Moustakas Phenomenological Analysis Method.

Step	Used to Reach:	Description of Step
1.	epoche	Complete a description of the researcher's experience with the phenomenon.
2.		Complete a verbatim transcript for all texts from this person using the collection procedures outlined above.
2a.	phenomenological reduction	Weigh each statement for a connection or link to the experience.
2b.	phenomenological reduction	Compile a list of statements connected or linked to the experience.
2b.1.		**Complete first cycle coding procedures for In vivo (see description of modification below).**
2c.	phenomenological reduction	Compile a list of invariant horizons, which are the non-repetitive, non-overlapping meaning units for the experience.
2c.1.		**Complete second cycle coding procedures for Focused coding (see description of modification below).**
2d.	imaginative variation	Using themes, cluster and relate the invariant meanings.
2e.	synthesis	Including verbatim examples, synthesize "a description of the textures of the experience" (p. 122) using the invariant meaning units and themes.
2f.	imaginative variation	Using imaginative variation, construct "a description of the structures of the experience (p. 122) by reflecting on the textural description from step 2e.
2g.	synthesis	Using the meanings and essences, construct "a textural-structural description" (p. 122).
3.		Complete steps 2a-2g for each research participant and the verbatim texts collected.
4.	universal description	Using all of the research participants' experiences in the form of their individual textural-structural descriptions, construct "a composite textural-structural description of the meanings and essences of the experience" (p. 122) by crafting a representative universal description of the group as a whole.

After completion of steps 1-5 in table 3.5, I completed step 6 and constructed a universal description of the group's essence. I detailed the steps necessary from

Moustakas (1994, p.122) in table 3.6, which he developed by modifying and integrating the steps used by Stevick, Coliazzi, and Keen (as cited by Moustakas, 1994). I also made modifications to this analysis process in order to better reach my research goals. I indicated these modified steps by placing them in a bold font in table 3.6 and I provide further information on each modification in the following paragraphs. Before providing that information, the steps for the text analysis procedures are illustrated in table 3.6:

Analysis technique.

After completing some initial analysis, I encountered some difficulty in completing the analysis steps in table 3.6 because of the inflexibility of the spreadsheet. After reviewing my procedures and searching for the meaning behind each step, I was able to modify my procedures to ensure I was completing the steps in the analysis laid out by Moustakas (1994) while also conforming to the rigidity of the MS Excel spreadsheet. Given the linearity of spreadsheets, I needed to create a slight modification to the order I proceeded through in my analysis steps for creating meaning units (in the procedures in Moustakas the meaning units process was step 3). I needed to complete the meaning units step prior to importing this information into the spreadsheet. I would accomplish this step by turning the text from the interviews, the writing prompts and the artifacts into meaning units by using hard returns within the MS Word document.

In completing the steps I outlined in table 3.6, I generated the following analysis at each point in the process that I will detail with an exemplar of the resultant text from selective participants. After completing the invariant horizons, or meaning units, for the experiences of each of my participants, I completed my first modification to the procedures listed in Moutsakas (1994, p.122) where I analyzed the transcriptions and

other artifacts for language used by my participants themselves. From roughly 98 pages of text, I generated 925 codes using the procedures for In Vivo coding in Saldaña (2009). I did not, however, look at these codes across cases; rather I used this step to help me better attune myself to the language used by my participants and to assist in relating and clustering the invariant meaning units into full themes. Using the second cycle coding method of focused coding (also from Saldaña, 2009), I developed categories to help me see the common set of features that were present within those first cycle codes. The second cycle was difficult because, while there were common features in my participants' experience, not all of them had sharp boundaries and in many cases there was overlap between them. Again, I did not look at these categories across cases and I used this step to assist in completing the phenomenological themes. For this second cycle, I generated 33 categories for those 925 In Vivo codes. While these steps were modifications to the original procedures (from Moustakas, 1994), I believe they offered me clear steps for engaging directly with the language used by my participants. In table 3.7, I present the steps of analysis I cover in this chapter along with exemplars for each step.

Table 3.7

The Steps Outlined for Each Individual Participant in this Chapter.

Step	Used to Reach:	Description of Step
2b.1.		**Complete first cycle coding procedures for In vivo (see description of modification below).**
2c.	phenomenological reduction	Compile a list of invariant horizons, which are the non-repetitive, non-overlapping meaning units for the experience.
2c.1.		**Complete second cycle coding procedures for Focused coding (see description of modification below).**
2d.	imaginative variation	Using themes, cluster and relate the invariant meanings.
2e.	synthesis	Including verbatim examples, synthesize "a description of the textures of the experience" (Moustakas, 1994, p. 122) using the invariant meaning units and themes.
2f.	imaginative variation	Using imaginative variation, construct "a description of the structures of the experience (Moustakas, 1994, p. 122) by reflecting on the textural description from step 2e.
2g.	synthesis	Using the meanings and essences, construct "a textural-structural description" (Moustakas, 1994, p. 122).

First cycle coding method: In Vivo.

I used this coding method in conjunction with the modified Moustakas (1994) method because this additional coding method allowed me the opportunity to immerse myself in the language, perspectives and worldviews of my research participants. I followed the procedures for my first cycle of coding elaborated by Saldaña (2009, p. 74) called *In Vivo*, which allowed me to answer my first sub-question dealing with the elements of the experience. The procedures included reading the interview transcripts to attune myself to the words and phrases that featured clever wording, ironic phrases, similes or metaphors, action-oriented verbs or high impact nouns.

One benefit of using this coding method was that it allowed me to ensure I attended to the language my participants used and helped in ascertaining the meanings of my research participants' statements. Any code I identified was marked in quotation

marks and capitalized to indicate the code was research participant inspired rather than researcher inspired. In total, I generated 925 In Vivo codes. In figure 3.12, I provide a screen shot of this column in my excel spreadsheet (I organized this spreadsheet using the suggestion in Meyer and Avery, 2009). This example comes from Tlanextli's interviews, writing prompts and artifacts. Each column in the spreadsheet corresponded to a step in the analysis process with the In Vivo codes listed under column F.

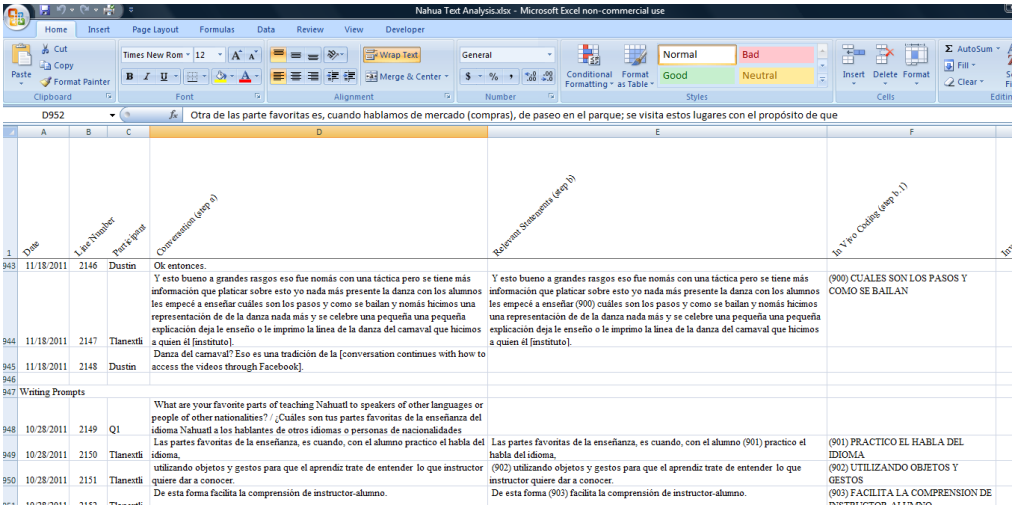
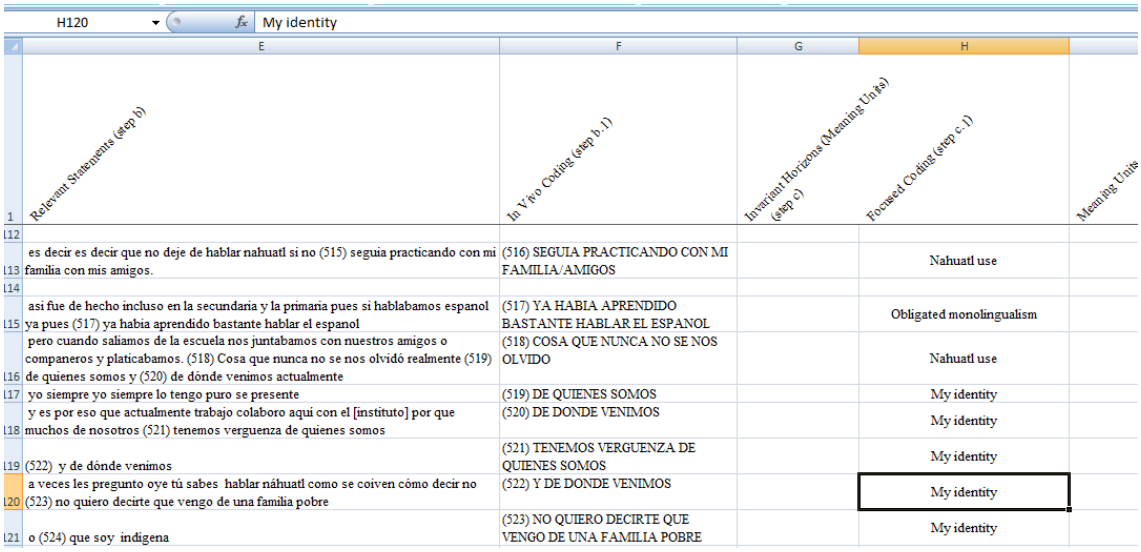


Figure 3.12. In Vivo Coding with the spreadsheet screenshot. This figure is a screen shot of the analysis steps for Tlanextli. Using columns, the text was organized into the interview date, turn number, participant, complete interview or writing prompt, relevant statements and In Vivo Codes. These codes were written in all caps to indicate that they were the participant's words. They also had a number code that was embedded in the relevant statements for organizational purposes.

Second cycle coding method: Focused coding.

I followed the procedures for my second cycle of coding elaborated by Saldaña (2009, p. 155) called *Focused Coding*. I used this coding method in conjunction with the modified Moustakas method because this additional coding method allowed me the opportunity to categorize my In Vivo Coding based on thematic similarity. This step also

helped me to identify clusters from the varied and expansive set of In Vivo Codes generated during the first cycle of coding and it allowed me to answer my second sub-question dealing with the factors of the experience. I created these clusters through an analytical process using my researcher journal and analytic memos to focus my thinking (see figure 3.13). As detailed in Rubin and Rubin (2005), the analytic memo contained an outline of the major categories and subcategories I identified from reviewing the In Vivo Codes. I used this simple organizational step to construct my categories and subcategories as they emerged.



H120 | My identity

	E	F	G	H
1	Relevant Statements (step b)	In Vivo Coding (step b.1)	Invariant Horizons (Meaning Units) (step c)	Focused Coding (step c.1)
12				
13	es decir es decir que no deje de hablar nahuatl si no (515) seguia practicando con mi familia con mis amigos.	(516) SEGUIA PRACTICANDO CON MI FAMILIA/AMIGOS		Nahuatl use
14				
15	asi fue de hecho incluso en la secundaria y la primaria pues si hablabamos espanol ya pues (517) ya habia aprendido bastante hablar el espanol	(517) YA HABIA APRENDIDO BASTANTE HABLAR EL ESPANOL		Obligated monolingualism
16	pero cuando saliamos de la escuela nos juntabamos con nuestros amigos o companeros y platicabamos. (518) Cosa que nunca no se nos olvidó realmente (519) de quienes somos y (520) de dónde venimos actualmente	(518) COSA QUE NUNCA NO SE NOS OLVIDO		Nahuatl use
17	yo siempre yo siempre lo tengo puro se presente	(519) DE QUIENES SOMOS		My identity
18	y es por eso que actualmente trabajo colaboro aqui con el [instituto] por que muchos de nosotros (521) tenemos verguenza de quienes somos	(520) DE DONDE VENIMOS		My identity
19	(522) y de dónde venimos	(521) TENEMOS VERGUENZA DE QUIENES SOMOS		My identity
20	a veces les pregunto oye tú sabes hablar náhuatl como se coiven cómo decir no (523) no quiero decirte que vengo de una familia pobre	(522) Y DE DONDE VENIMOS		My identity
21	o (524) que soy indigena	(523) NO QUIERO DECIRTE QUE VENGO DE UNA FAMILIA POBRE		My identity

Figure 3.13. Focused Coding with the spreadsheet screenshot. This figure is a screen shot of the analysis steps for Tlanextli. In this screen shot, the columns showed the relevant statements, the In Vivo coding, the space marker for the invariant horizons (step c) and the Focused Coding.

In total, I generated 33 Focused Codes or categories from those 925 In Vivo codes. In figure 3.13, I provide a screen shot of this column within my excel spreadsheet. This example came from Tlanextli's interviews, writing prompts and artifacts. Each column in the spreadsheet corresponded to a step in the analysis process with the Focused

Codes listed under column H. There was also a one-to-one relationship between the Focused Code and the In Vivo Code with the spreadsheet whereby the row containing the Focused Code was the same row as the In Vivo Code. This step allowed me to use the *Sort* function with the spreadsheet to move all Focused Codes together while keeping their original In Vivo Code with them. I used this tool to ensure the Focused Codes matched up with the first cycle step. By seeing the Focused Codes in groups, I was able to complete a self-check on the appropriateness of the category I generated.

In addition to the analysis steps from Saldaña (2009), I also engaged in text analysis through the phenomenological methods from Moustakas (1994). In the following sections, I illustrate the analytic procedures through samples from various sections of my participants' lived experience. I also provide the analysis step and the phenomenological process used to reach the resultant write-up.

Example clustering for Kanik.

During the text analysis for Kanik's texts, I generated 48 In Vivo codes and 4 focused coding categories. These steps helped me to see how the individual elements and factors of her experiences frame the textural and structural description of her teaching language and culture online. From those steps, codes, invariant horizons, and meaning units, I generated the following themes in table 3.8.

Table 3.8

Themes developed from Second-Cycle Coding for Kanik

Focused Codes	Themes
Multilingual Language Use	Language use divided into specific domains or areas
Interaction Qualities	The overall interaction qualities and challenges
Culture Sharing	Teaching Mayan culture to the students
Future Goals	Short and long term goals from/in the collaboration
Technology Limitations	Internet connections and user abilities

Multilingual Language Use: Language use was divided into specific domains or areas. Yucatec Maya was used within the family, around the downtown, and within the University since more students speak Yucatec Maya then English or Spanish. Spanish was used and studied in schooling from an early age until college. English was used in the interaction through the portal and on any texts or tasks that needed to be completed whether in reading, writing or speaking, though some words in Yucatec Maya were occasionally used.

Interaction Qualities: The overall interaction qualities were positive whether it was good or exciting. Interaction allowed for practicing English language skills through discussions on the experience of learning English and other languages. There were opportunities to write essays, read other work, and record and listen to voices participants in the portal. It was also an opportunity for teaching Mayan culture. Some challenges in the process came from a feeling of frustration explaining certain Yucatec Maya words and customs and it was difficult to do in English because it was hard to know the correct words to use and what was appropriate to say for the specific customs and traditions. Many times the students in Florida didn't understand those same rituals and customs. Another challenge was the difficulty in completing the tasks using only English. These tasks included listening, talking, and writing. Much of the frustration centered around students speaking fast and a perceived lack of confidence in English abilities, especially for writing essays. This portion of the interaction was difficult.

Culture Sharing: Teaching Mayan culture to the students was interesting because it involved sharing not just Mayan culture but interacting with the culture of the others.

During the collaboration, there was much interest in talking about Mayan rituals and traditions. If such teaching occurs, the customs and traditions should be explained very well and very clear. It was also a favorite part of the interaction, especially when the students talked about their culture, too. One example of learning new things about culture was that there are different dates for holidays in Florida and Mexico and this simple, yet astonishing, fact allowed for the learning of new things. Much of this learning occurred in posted essays and during the reading of other essays. Some of the explanations could be better with the inclusion of pictures for helping with understanding and explaining about some of those traditions or customs.

Future Goals: In the short term, the collaboration requires new participants and help can be provided for those students, especially in the use of the Ning portal. The Ning portal can also be improved by adding pictures within the posted essays and the addition of a section in the portal where students can post their pictures for understanding more about the culture (i.e. traditions, customs or rituals). In the long term, the opportunities and activities completed within the interaction had some motivation in the future goal of going to work as a teacher for children upon completion of studying. Additionally, there is a hope to write about Mayan culture in the future through publications.

Technology Limitations: There were some technology limitations that centered around the Internet connection and the user's technology skills. These issues involved the slow connection that was available within the University and that the only available outlet for Internet use was on the campus. Additionally, this connection could only be accessed outside of classroom time. In terms of technology skills, having very little background in using computer programs was bad and having a perceived lack of

proficiency with the use of computers required the help of the teacher and experience to move beyond not having any specific kind of training for using the tools in the portal.

Example textures from Siis.

Siis' individual textural description for teaching the Yucatec Maya language and Mayan culture following step 2e in table 3.9.

Table 3.9

The Process for Siis' Textural Description through Synthesis.

Step	Used to Reach:	Description of Step
2e.	Synthesis	Including verbatim examples, synthesize "a description of the textures of the experience" (p. 122) using the invariant meaning units and themes.

Siis' individual textural description for teaching Mayan culture to the students in Florida. Siis describes his interactions with the students from Florida as a productive and good experience "…it was a big opportunity to practice my English..." and he was able to better judge his current level with using English "...because I have ideas about my English level…I don't like to speak a lot. I am a shy person and [speaking off mic to get a translation on inseguridad] and I wasn't confident." He found he was able to share his culture to the students. "…I think that my favorite part of teaching Mayan Culture to them is that I can share my culture with people who are interested in my culture, and in this way I can help people to know more about my culture…" He felt that the students were interested in learning about him. He found that by comparing the different aspects of his culture and the cultures from the students in Florida he was able to learn about the similarities between the cultures "…because I think that we learnt too much about what are the similarities that we have in common."

He found the experience to be great and he really liked everything that was done during the project. “My experience teaching the Mayan culture was good, and also, all the process was good, so I didn't have a bad moment during the process because all the students from Florida were really interested in what I told them.” However, during the semester there were a few aspects of teaching his language and culture through the network that caused him difficulties. He had difficulty teaching Mayan culture because he is not sure that he understands and knows enough about Mayan culture to teach it. “I think that I have a good knowledge about this thing but I think that I need to read more about this…I didn't know very well the Mayan culture but I know little things about this.” He does not speak Mayan, but he is able to understand the language since he grew up listening to his mother and father speak Mayan.

> …My parents speak Mayan and know Mayan culture but they didn't teach me this knowledge and now I start to learn this all the culture and to speak Mayan. I can understand Maya language but I can't speak it and I think that now I’m not prepared to teach Mayan culture.

Because he is unable to speak or think in Mayan, he felt that he was not prepared to teach Mayan culture and he believes he only knows little things about the language and culture. So he struggled with his own knowledge in Mayan culture, but he believes “…everyone can teach his own culture. All people are able to do this, but if you don't believe it you can’t do it.”

He was disappointed sometimes when he felt like the students were not really interested in what he told them. While he was able to write a lot about his culture and post this information into the network, he did not have the opportunity to talk to students

about this and he was looking for more interaction, so that he could learn more. "…we couldn't find students from Florida connected in Ning when we logged in Ning." In many cases his students wrote that the traditions he talked about in the blog were really interesting "…some students asked me about some rituals we practice and I explained it to them and they said me that they like it…" but they really didn't inquire further. "I wrote an essay about traditions, but I didn't have the opportunity to talk with the students about it…they wrote that the traditions are really interesting, but they didn't ask something about it."

He believed the interaction would have been more beneficial if he had been able to encounter students in the chat function when he logged on. "When I was logging into the account there was no people connected and I only read and write." He was able to encounter students on two occasions. "I used [the chat function] twice. Twice because I couldn't find people in the chat." During one of these times, he was able to talk about a specific holiday that he celebrates in his community. "…we talked about a holiday that we celebrate in Mayan communities."

Lastly, his teaching and sharing of Mayan culture and language is not limited to this interaction. He is also working on a project to bring the Yucatec Maya language to radio by using the Internet.

> …yes, some of my partners take a seminar about radio in native language. How to make radio with Maya language, Nahuatl, for native language or languages…And we start to think how to apply this knowledge and we decided to use the Internet for making a radio in Mayan language.

He is currently leading a project to develop an Internet radio station that will broadcast radio in Yucatec Maya as well as other native languages in Mexico.

> …we were to design a project about it…We are finding money to start with that and when I return to Morelos my partners and I, we are going to work with the radio we are to apply all of the knowledge and we are going to start to transmit the culture and the language.

Example structures from Tlanextli.

The structures that permeate his experiences with teaching his language and culture using step 2f in table 3.10 are issues related to identity, community and feelings, uses for various languages (e.g. multilingualism vs. monolingualism),and materials from developing technology skills. Tlanextli's experience is made up of a number of competing and conflicting structures related to the breath of activities he is engaged in as an indigenous educator.

Table 3.10

The Process for Tlanextli's Structural Description through Imaginative Variation.

Step	Used to Reach:	Description of Step
2f.	imaginative variation	Using imaginative variation, construct "a description of the structures of the experience (p. 122) by reflecting on the textural description from step 2e.

Though much of his current experience is centered on the institute, his background is heavily rooted in his experiences with his community and that of the larger Mexican influence from his time in public schools to his experiences with leaving his community. It was during his time in the public school system that he was obligated to no longer speak Nahuatl in the classroom and many times he was punished or tortured

because he used his language. As he started school with very limited knowledge of Spanish, he struggled a lot with learning and he felt that the schools taught classes as if all of the students in the classroom actually knew how to speak Spanish.

Initially he was exposed to majority language speakers during his time as a child where his teachers and others instilled in him negative feelings toward his own language and culture. In many circles in Mexico, his language is known as a dialect, which carries with it a number of negative connotations. Many Spanish-speaking Mexicans put indigenous members to the side and discriminate against them. This discrimination is something he sees in the way that Mexico organizes its primary schools because very few are truly bilingual schools. Instead these schools indoctrinate students into Spanish while attempting to rid the individuals of their indigenous language. In so many cases (including his own), these children arrive at schools without having the knowledge necessary in Spanish to succeed and in many cases those same students are not able to communicate with their Spanish-speaking classmates. He remembers teachers telling him that learning his language would be a waste of time and that it will not help him in anything that he does. In fact, some people told him that his language was a "fracaso" or failure.

He is reliving those moments of negativity because he now sees Nahuatl speakers who are afraid or ashamed to either speak or teach their language. He sees these indigenous members trying to disguise the fact that they speak a language like Nahuatl and they begin to use and speak Spanish as if they were just like the same Spaniards who came and conquered in Mexico so many years ago. Whenever he visits his home community, he sees the youth returning from working in the city for a few months putting

Nahuatl off to the side as if they had never learned in the first place. Many of these youth return to their communities speaking Spanish with everyone including their families. Even in his current position, he sees some instructors using Spanish once they leave the confines of the institute. He understands this attitude very well because he feels he was denied the ability and the opportunity to speak and learn more about his language in the public school system. In fact during his time in the school system, he had moments when he began to believe what his teachers were telling him about his language and culture.

These kinds of negative attitudes are still present in his life when he meets individuals who tell him that teaching his language is a waste of time. He has slowly worked through much of this negativity towards his language and culture, especially due to the work he is doing at the institute. Because of his experiences at the institute he is now starting to feel proud of his language and culture and he views the negativity as not having value because it comes from people who have close minds. In fact, his experiences with the institute have begun to change his entire outlook and he sees his language as being worthwhile and useful for his personal life. He also sees that the abilities he has with his language will also open doors for him in his professional life.

Again all of this development is possible because of the space created within the institute where he is able to discuss all kinds of issues among other community members. He is also able to engage in debates and discussions about the differences within the varieties of Nahuatl that are spoken by other instructors who come from different regions or communities and have their own interpretations and vocabularies. He finds there are a mountain of words/phrases that this is true for especially when it comes to customs that were passed down from generation to generation. For example, many of the instructors at

the institute mentioned different traditions or customs that involve either planting a boiled egg in the soil along with the new crops or others mentioned using a lit candle that marked a ceremony to show the beginning of the planting season. He has come to believe he can now focus on other aspects of teaching his language and culture because of this space that has been created. He is looking to focus on certain cultural traditions like dancing that are done in his communities and he is looking for ways of teaching such a specific item of culture because he feels there is a trick to it and that is a little bit complicated.

Another aspect of his pride in his language and culture is based on the fact that what he was born with is now allowing him to work and earn a living. In fact, his work with the Nahuatl language has replaced an earlier career path that would have had him using his degree in economics that he completed in Spanish at a Mexican University. For many years he felt defined by his studies and his major in a specific variety of economics. He is still a student because he is actively trying to finish his master's program and has been working on completing his thesis in order to finish it as quickly as possible. His earning potential has made him reevaluate his language and culture and has given him a sense of value because his language is useful and valuable to him and his career as well as in helping him meet and discover new people for whom his language and culture are valuable to.

When he began working at the institute, he had not told his family about his current position. It was not until some students from the institute came to visit his community that his family learned of his current position. During this visit, the director of the institute had the opportunity to sit down and talk with Tlanextli's father about what he

was doing. This was a fortuitous meeting because his father works in a different city and is only able to return to the community during vacations in the school year. Tlanextli grew up without seeing his father very much because of his position as a teacher in another area. The situation has become even more challenging in these last few years because Tlanextli's vacation time does not overlap with that of his father's, so he is not able to even spend that little bit of time with his father. His family now understands that he is working at this institute teaching his language and culture.

When teaching, he uses Nahuatl for the majority of the time unless there is a word that his students really do not understand and his initial use of movements, gestures or images did not help them understand the concept. At times, he will use Spanish to help with understanding and he has begun to learn English as well because he is encountering students that do not always know how to speak Spanish and he believes using English may also help with the understanding of certain points. However, he tries to use Nahuatl only and he began to model and enforce this approach because he found that in the beginning of his teaching that much of his class time was spent on answering questions like "what does this mean?" or "how do you say this?" There are times he finds it problematic to explain things to students in Spanish or English because many times there are not direct translations and the words can mean different things in different situations. He struggles with this fact as an instructor because sometimes he is not able to provide a coherent explanation for certain words and he is left using other ways describing what he means.

Most of his teaching requires a high level of interaction with technology in order to meet the basics of the classroom in terms of distance learning and materials

development for curriculum purposes. He has used technology to help him develop materials and teach with having very limited training (essentially one course in one semester where he learned a little bit of basic software). Instead of receiving formal classroom-based training, he was able to become a proficient user because of his time spent exploring his own personal computer. His initiative in taking the time to explore his own personal computer and his desire to create interesting and engaging material for his students have led him to create or make up new materials that give students the opportunity to enjoy their time in the classroom while learning various things about the Nahuatl language and culture. Many of his activities are developed in basic programs like Microsoft Paint where he is able to simply and efficiently create various didactic materials. This focus on technology is so strong that he even recommends that new instructors should have a handle on not only the basics of the computer, but knowledge about the space where the work is being done, especially in terms of the services that are there for an online environment. At this point in his development, he has gotten so proficient that he feels he can operate a classroom using a laptop, a microphone and an Internet connection from any location that does not have a lot of background noise including holding classes on top of a mountain.

While he has been successful in using technology, he has encountered a number of challenges. In terms of teaching, he tries very hard to ensure that any distance learning experience he has with his students mimics a classroom environment so that it feels as if they were in a room together. He accomplishes this through the use of the audio and video tools available in the programs he uses. Unfortunately, there are many times when the video connection is lost during his online classes and he feels that he is not able to

deliver the material in the same way as he would if that connection were still available. Another challenge he faced in material development was tied to hardware issues where he would develop materials that were of such a large file size that they created problems for the hard disk capacity within the institute. These large file sizes would inadvertently slow down some of the machines and was especially true when he was editing audio and video files for use in his teaching.

Tlanextli has tried very hard to maintain and never forget who he is as well as where he comes from. While he finds many individuals from his community have some shame in who they are or where they come from, he has always felt it was important to continue using his language within his household because he believes that it is an important part of his own identity. Though he struggles with individuals who deny who they are because they might not want to admit that they come from a poor family or they do not want to say that they are indigenous, his own experiences help him understand, but not approve of these denials. Because of his current successes, he is proud of being an indigenous member and a native speaker and no matter where he finds himself now he uses his language freely.

He has spoken Nahuatl from birth and it was and is the language used in his household to the current day. When he was obligated to speak Spanish outside of the home, he still maintained the Nahuatl language with both his friends and family. When he would leave school he would meet up with his friends and classmates and they would speak in Nahuatl together. He has never forgotten what it felt like to be able to use his language freely when he was with friends and family. As an indigenous member, he is aware of the fact that he was a native speaker who at one time was much like many other

native speakers in his community because he did not know how to write his own language. He was not given literacy training in Nahuatl during his time in the public school system and his literacy skills were not gained until he began working at the institute. He spends much of his day discussing the origins of words in Nahuatl as well as learning how to divide up phrases in the written form. Because of this fact, he finds many times he is learning Nahuatl in the same way that his students are even though he is the instructor in the class. All of his work with Nahuatl is completed with his knowledge of the fact that his language is starting to be lost in the region where he is from because many of the youth choose to ignore their roots with this language.

Example textural-structural description from Tsíikil.

The synthesis for Ts'íikil's experience teaching Mayan culture to the students in Florida from step 2g in table 3.11. His description starts with an acknowledgment of the experience "because they are and me interchange experience and cultures" through the NING platform. The structures that permeate his experiences with teaching his culture through the NING portal are the use of a particular language to achieve his goals, the focus on the culture and the motivational aspects that he received from this participation.

Table 3.11

The Process for Tsíikil's Textural-Structural Description.

Step	Used to Reach:	Description of Step
2g.	Synthesis	Using the meanings and essences, construct "a textural-structural description" (p. 122).

He had an opportunity to complete conversations through the chat tool and he responded to a number of assignments that asked him to share his ideas on culture, which he then posted in the blog tool. The experience involved using English: *"nunca fue en*

espanol, todo en ingles…" [it was never in Spanish, everything in English] in order to teach his culture. Regarding language use, he finds he must be able to use English in order to participate fully in the experience, but he feels his own English level is not sufficient enough for him to fully participate in the experience and "there is a barrier, this barrier is that the English. The English. At the beginning is, it's some thing a difficult for me..." He questions his own abilities in English and talks about English being the only barrier that he had in working with the students from Florida. It was difficult for him and that in order to get rid of this block the first day that he came into the portal he met a student through the chat function and he had difficulty chatting with this student because of his English. His struggles with the language did not occur at the same level of intensity when he needed to write essays because he feels he can write better and even though it's difficult he feels like he is able to express himself in the written form.

He taught about his Mayan culture and included things like food, clothing and customs and he approached them as being different from Mexican culture. He also needed to learn about the culture of students in Florida and in the US in general. For example he learned about Indian reservations

> *...hay reservaciones- son reservation indians. Y yo cuando, creia que en EEUU no hay, no habia ese tipo de personas...* [there are reservations – Indian reservations. And when, I didn't believe that in the US there aren't, there weren't this type of persons.]

These reservations were not a concept he was familiar with prior to engaging in the collaboration. He was motivated to learn more about the students in Florida because he is from a very small rural community without access to very many foreigners, so by being

able to have contact with outsiders he found himself with more motivation for continuing to study. This opportunity was rich and allowed him to

> *tener contexto contacto con otras personas de fuera y cuando mi familia fue eso que me dijo como que se sorprendió y pues es una forma de donde me motivara hacía que de seguir estudiando.* [to have contact with other foreigners and when my family heard what I said they were so surprised and umm it's one of the ways in which I was motivated toward continuing to study.].

He was able to give the students in Florida the chance to know

> *nuestra cultura que otro lugar en el mundo existe otra cultura como la nuestra y darles a conocerle asi que sepan que existen otras culturas en el mundo. Y que tengo algo más en su conocimiento.* [our culture like other places in the world there exist other cultures like ours and to give them some knowledge where they can know that other cultures exist in the world. And that I have something more in my knowledge base].

As he indicated, many of his family and friends found it surprising that he had the opportunity to work with students from the US and they and he indicated this would be good for his future and it would serve him later on because

> *es algo bueno para para mi futuro para contacto con otras personas como en este caso personal de Estados Unidos y que me serviría en un futuro en cuanto mis estudios.* [it is something good for my future to be in contact with other persons like this person from (USA) and help me in my future with my career.]

One area he wanted to explore further in the collaboration was to teach a little bit of the language:

como decía algo en Maya. Yo les decía alguna frases, alguna palabra fue eso mas gran interacción tanto ella tanto yo aprendimos más en esta interacción. […how you say something in Mayan. I told them about some phrases, some word that was the most interaction she as much as me had. we learned more in this interaction.].

Unfortunately, he found the collaboration mostly focused on culture and hardly touched on language.

Though he is not sure of his future:

no se decirle todavía pero creo que en el futuro se ve tal vez sera un maestro más el que enseñar a éste en la lengua maya no sólo eso creo que tal vez el inglés o el francés, [I can't tell you yet but I believe that the future looks maybe like I'll be a teaching better said the one who teaches ummm in the Mayan language not only that I believe that maybe English or French…]

he believes he may one day become a teacher and that one of his duties will not only be to teach the Mayan language but he would be interested in teaching English or French, but, as he stated, he is not sure yet on his future plans.

In this chapter, I have outlined and described the procedures I employed throughout the research process. I named this chapter nuts and bolts because these procedures were what held my project together much like the nuts and bolts do for construction projects. Many times, these choices required changes or modifications to my day-to-day research activities and I talked about them in this chapter in an effort to demonstrate that my choices influenced analytic decisions while maintaining the integrity of my theoretical framework.

In summary, I approached this study through the phenomenological methods of Moustakas (1994) (with modifications from Creswell, 2007 and Saldaña, 2009). The interviews, writing prompts and artifacts provided me with my participants' lived experiences and the next chapter contains the inter-structural essences of their experiences. Because of the diversity of experiences within this phenomenon of teaching a language and culture through distance learning tools, chapter 4 contains two essences (one for each speech community) and the individual essences and experiences are in chapters 5 and 6 (the Mayans for the former and the Nahuas for the latter).

Chapter 4: Mayan & Nahua Essences

Interesante, la pregunta de [la opinión de su familia y amigos] porque nadie me había preguntado eso. [Interesting, this question on [the opinion of his family and friends] because no one has ever asked me that.] This excerpt from our interview on November 11th, 2011 was from Tlanextli and his thoughts on what his family and friends think about his teaching and work at the institute. His honest answer gave me pause and I reflected on the possible impact my interview was having on him. Because my research had a number of goals, I took this interaction as an indication that I was meeting the most important to me as a qualitative researcher. I was giving my participants a voice in their journey to become educators that helped them see new perspectives. I would encounter many instances where my participants shared how much this research process meant to them. As Tlanextli mentioned in the excerpt above, he found the process interesting and enlightening as he was asked questions and led in directions he had not had the opportunity to explore prior to working with me. All of this interviewing, researching and analysis led me to the formulation of "a universal description of the experiences representing the group as a whole" (Moustakas, 1994, p. 122). This universal description answered my traditional phenomenological question of **"*In what ways do indigenous Nahua and Mayan educators perceive and describe their experience of teaching their endangered language and culture to English language speakers using distance learning platforms (e.g. Skype or Ning)?*"**

Initially, my literature review and experience with both speech communities led me to conceptualize this research project as a shared phenomenon between the two. I believed these indigenous educators shared enough similarities in a number of macro level areas as well as in the type of work they performed. I also believed there were enough similarities in the two speech communities based on the histories of their development within Mexico. As I progressed through the interviewing, I started to see that this phenomenon was highly diversified and that the experience for both groups did not fit into a single description or a phenomenological essence. As such, I developed a description for each speech community that more closely reflected their unique situations with teaching their language and culture online. As Giorgi (2009) discussed, a phenomenon may be comprised of textural and structural descriptions that have "intra-structural variability" (p. 103). When such intra-structural variability is found in the analysis, one description is the appropriate choice for the phenomenological essence. However, if the participants' experiences have "inter-structural variability," which is the existence of many differences between the higher order textural and structural descriptions, the use of multiple descriptions is the appropriate choice (p. 104). Since there was much diversity present between the speech communities, I completed a separate universal description for each of them.

This diversity was due to a number of unique factors within the speech communities. For instance, the Nahua educators were highly experienced in the field having at least five years teaching experience each, while the Mayan educators were new to teaching having completed either one or two courses in the field. There were also differences between the education backgrounds with the Nahuas having completed the

equivalent of a US bachelor's degree and working on a Masters. The Mayans were in the middle of their journey in working on the equivalent of a US bachelor's degree. Another difference between the speech communities was in the online teaching platform. The Mayan educators used mostly asynchronous tools in a collaboration where their experience required them to not only teach, but to also engage in improving their English proficiency. The Nahua educators used mostly synchronous tools with video and audio capabilities where they spent their teaching time on developing their students' abilities with the language. Lastly, the experiences with the home language differed greatly between the speech communities in terms of how the language was perceived by Spanish-speaking Mexicans.

Figure 4.1. During text collection from Moustakas (1994). This visual represents the four iterative steps completed during text collection. First, I adopted intentionality as a phenomenological stance. Second, I assumed Epoche throughout the research process by focusing on setting aside prejudgments, biases and preconceptions. In other words, attempt to block the natural attitude. Third, I used phenomenological reduction to obtain a sense of the qualities of the experience through multiple readings for textural descriptions. Fourth, I sought possible meanings through imaginative variation to arrive

at the essential structural descriptions. Fifth, I integrated the textural and structural descriptions into a synthesis of the essence of the experience.

Within this chapter, I present one description of the phenomenological essence for each speech community beginning with the Mayans. These descriptions are the result of an extensive analysis process following the work of Moustakas (1994) with modifications from Creswell (2007) and Saldaña (2009). Using 98 pages of data (roughly 50,000 words from 12 interviews and 5 writing files), I created two diagrammatic forms and two universal structures following the steps in figures 4.1 and 4.2. Figure 4.1 shows an overview of the steps I followed during the collecting of text (e.g. interviews, writing prompts, and artifacts). Upon completion of these steps for every participate, I developed these textural-structural descriptions into the universal descriptions of the groups' experience. Additionally, I provide verbatim examples of each step at the end of this chapter.

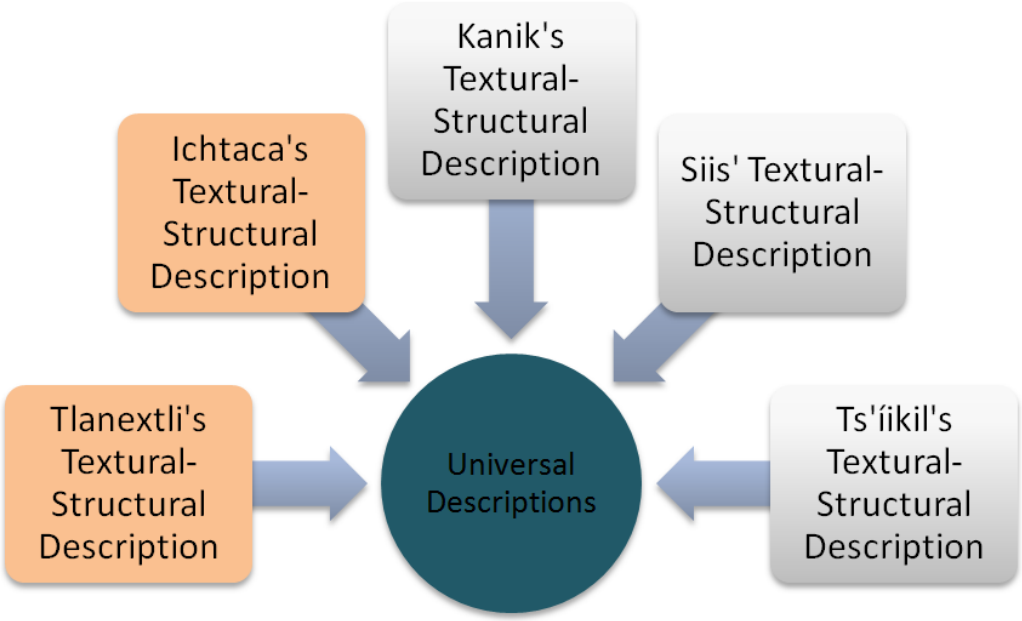


Figure 4.2. Representation of the final universal descriptions. Upon completion of all interviewing and text collecting, I completed the final universal descriptions. Using the

synthesis from each participant, I constructed a universal description for each of the group's essences.

The first description in this chapter is the synthesis from each Mayan participant where I constructed a universal description. This final analysis (figure 4.2) took into account the adoption of intentionality that I began the process with (or step 1 in figure 4.1) and each step leading up to the integration of the individual description in figure 4.1 (step 5). My universal description for the Nahua educators follows immediately after this one and I unpack both of these descriptions in chapters 5 and 6 respectively.

Universal Description of the Mayan Educators' Experience

From the individual textural and structural experience of the Mayan educators teaching language and culture online, I developed a synthesis of their qualities, meanings and essences into a composite form. I present this composite synthesis as a unity of texture and structure that includes the interaction qualities, technology limitations and language challenges. In figure 4.3, I provide a visual representation of this description.

For these Mayan educators, the experience of teaching a language and culture online was one of positive, yet frustrating qualities. Teaching was very good, exciting and a likable experience overall and working with students who were interested in learning about Mayan culture was also very motivating. As educators, it was interesting for them to learn about the Florida students' culture through the work they posted in the network. These educators talked about their desire to teach Mayan culture and learn more about US culture through the comparison of work completed in that network. This positive sharing allowed for learning about the similarities between the cultures at a very practical level rather than abstract or theoretical one.

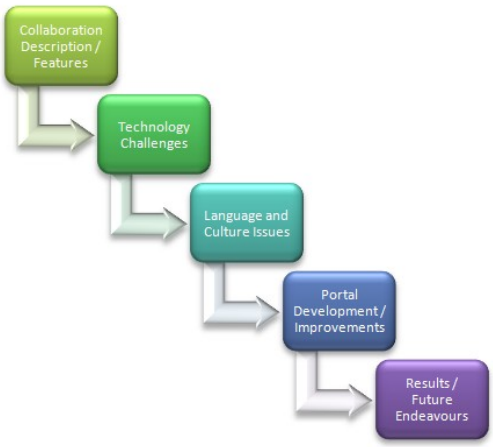


Figure 4.3. Visual representation of the Mayan educators' description. This figure is a representation of the themes that emerged from the analysis of these educators' experiences teaching their language and culture online. The discussion that follows is organized around these themes.

Collaboration descriptions & features.

Through a virtual network, (i.e. the Ning platform), an interchange of experiences and cultures occurred with a particular focus on culture. While interacting, the educators and students gained knowledge about each other's' cultures. This interaction was based on the meeting of diverse perspectives like that of the Mayans for the students in Florida and the culture of university students in Florida for these indigenous educators. Many times the focus on culture included surface issues like food, clothing and customs with a specific focus on how these practices differed from an overarching Mexican culture. These educators liked to share information about their customs and rituals. This focus on culture can bring about unexpected consequences because learning about the practices of other people in general can alter the educators' perception.

The educators interacted with their students using English only through the Ning portal. Material, texts and recordings were posted within the portal at varying times throughout the course of the semester. Much of the student-educator interaction relied on

the written word and occurred in the form of blogs, comments or synchronous chatting. This synchronous chatting allowed for deeper interactions between the participants and gave the educators the opportunity to continue practicing their English. While chatting served many purposes, it was not utilized frequently because it was difficult for encounters to occur because of the different schedules between the students and educators.

Technology challenges.

Some aspects of the interaction were not positive and these frustrations and difficulties were related to the level of comfort that each educator had with technology. Others were related to physical aspects of the virtual setting. Because the educators did not have a strong background in technology, they needed to utilize much of their time learning the technology. This limitation led to using others as resources for helping learn how to interact in the portal that included the supervising professor in Mexico. Lastly, all of the interactions, whether asynchronous or synchronous, required the use of the Internet. The connection speed was slow and was complicated to work while on campus, so they found it difficult to work through these issues and it led to a lower level engagement with the experience.

Language & cultural issues.

Though technology created some frustrations, there was one greater frustration for them. In discussing culture, the educators needed to use English to share with the students and it was difficult because many times they did not know how to say or write specific words. Some of this difficulty was linked to the level of English ability for the educator, while others were linked to specific vocabulary for rituals and customs that did not have

appropriate counterparts in English. In attempting to find clear explanations, these translation issues left them with feelings of frustration and displeasure. At certain points, speaking or writing abilities in English became barriers to working with the students, especially for completing activities that required recording or synchronous interactions.

The use of English was not the only source of language frustration for many of the educators. In some cases, the use of Yucatec Maya was deeply embedded in the educator's life with that language being used in the home, in the city, and at the university. However, in many cases, the educators felt inadequate in their use of Yucatec Maya. Even though the language was used at home, it was not necessarily directly taught or shared with everyone in the household (e.g. parents using the language between, but not with, their children). In such a case, the educator could understand the language but was not able to speak it. This situation led to the educator not believing that he or she could teach culture. This situation also had repercussions outside of the collaboration because of the time spent deciding whether or not to continue studying the Yucetec Maya language and Mayan culture at the university.

Portal developments / improvements.

The portal itself caused frustrations because there were areas where it was not sufficient for quality interactions and led to some disappointments. This disappointment was especially true when it seemed like students were not really interested in what was being discussed or shared. Some of the tools in the Ning did not allow for students to easily ask many questions. The nature of the comment feature meant the flow of conversation could be interrupted by the addition of more comments. Many educators were also frustrated by the amount of time they had to wait for a reply. In some

occasions, the difficulty existed in the assignments required. These assignments were given to the educators by their university supervisors and/or classroom instructors and were not negotiable in the content covered or the activity design. This fact led to the assignments being completed without further inquiry about the posted work.

The educators were also disappointed by the lack of focus on teaching a little bit of the Yucatec Maya language. They wanted opportunities to talk about certain phrases or vocabulary words so that both the educator and the student learned more through the interaction. They also saw areas where the portal itself needed some improvements. One suggestion was a space for participants to add photos into essays or an additional section that could be incorporated where participants could post visuals in order to explain certain traditions and customs.

Results / future endeavors.

In the end, the collaboration served as an opportunity for practicing the art of teaching, which was important for many educators as their future plans included a career in education or in publishing. While those future plans were up for change, the interaction provided an opportunity to explore an interest in teaching languages and culture. It was also an opportunity that was rich and full of chances to have meaningful contact with outsiders. These educators benefitted from contact with English speakers because of the university's location. Because of their university's location in a very small rural community, they found much motivation in interacting with outsiders (i.e. the students in Florida). This interaction helped them learn about these students as well as about themselves.

This experience with the portal was not their only outlet for sharing their culture. At times, the educators engaged in other activities for sharing the traditions and customs of their people. Some were involved in other projects at their universities, while others were engaged in personal projects meant to widely disseminate information. Their motivation rested in the hopes that this knowledge would be spread to other parts of the world. There is much pressure on these educators to teach about their culture and to disseminate information because of the ever-present fear that their culture may disappear.

This universal description was comprised of the Mayan educators' experiences and it had a number of features present that are unique to their situations. These educators engaged in a limited interaction that lasted for one or two semesters and was directly linked to their coursework. Their teaching needed to be balanced against their desire and need to learn English for academic and/or professional reasons. This teaching only existed in an online format with most of the activity occurring in asynchronous interactions. Lastly, their experience was one of necessity at the moment rather than a possible career path. Each of these factors was not present in the Nahua educators' experience, which I present in the next section.

Universal Description of the Nahua Educators' Experience

For the Nahua educators, I offered a different universal description because, even though they shared some textural and structural descriptions with the Mayan educators, their experiences differed enough that I needed to construct a separate essence. This composite essence was a vivid presentation of the textural and structural meanings in a synthesis of the experience of teaching language and culture through online tools. Within the Nahua speech community, I found three major areas or themes: the interaction

characteristics, the underlying philosophy, and the challenges with language and technology. I also highlighted the process of change brought on by a catalyst that helped move the Nahua educators from believing that their language and culture held no value to their current belief that it had great importance as well as value. In figure 4.4, I provide a visual representation of this description.

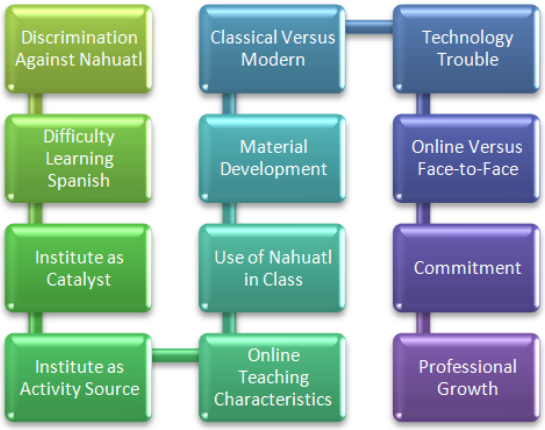


Figure 4.4. Visual representation of the Nahua educators' description. This figure is a representation of the themes that emerged from the analysis of these educators' experiences teaching their language and culture online. The discussion that follows is organized around these themes.

Discrimination against Nahuatl.

Their process of teaching began with their upbringing in environments where their language and culture was not respected outside of the home. They were also forced to learn Spanish once they entered the public school system. Being raised in a community where Nahuatl was spoken as the primary language led to them not knowing how to speak or use Spanish when they began their formal education. This exposure to Spanish language speakers had negative effects on them because of the treatment and abuse they received. Many times, they were told that learning the Nahuatl language would be a waste of time and that it would not help in anything. Their teachers would reinforce this

idea because they punished students who did not speak Spanish at an ability level they felt the students should have. They were also punished and were prohibited from using the Nahuatl language within the school setting. This institutionalized discrimination led schools to indoctrinate students into Spanish while attempting to rid the individuals of their indigenous language.

Difficulty learning Spanish.

Their limited knowledge of Spanish created a lot of struggle for them in the public school classrooms because they were taught as if they actually knew how to speak and use Spanish. Even as they became more fluent in Spanish, they never judged themselves to be completely competent. Instead, they believed they had enough of the language to just get by. Those early educational experiences were full of fear and frustration and these feelings would last throughout their education experience until diminishing slightly during the secondary education years. Even with this obligation to speak Spanish, Spanish, and more Spanish, there were attempts to maintain the Nahuatl language within the home community and it would give the educators a feeling of freedom whenever it was spoken among friends and family.

The institute as a catalyst.

From this early challenge, these educators found solace and redemption in an institution that was created to foster growth and development for the language and Nahua culture. This university institute was a space dedicated to discussing these items with other indigenous members from various speech communities. Many of the debates and discussions focused on the different varieties of Nahuatl and the unique interpretations and vocabulary present within them. Many times these variations came from the different

customs that were passed down from generation to generation. Since the public school system did not help these educators learn literacy skills, the institute served as a space to develop those very skills. Many of this literacy development involved learning how to divide up the different phrases/words into their various parts.

The institute was also a source of financial support for many of these educators as they could apply for scholarships that were need based and allowed them to focus on studying. The institute also served as a location for working with and meeting people from all over the world whether in virtual settings or in traditional classrooms when students and scholars came to the institute for intensive study.

Finally, the institute acted as a catalyst for them because it allowed the educators to become proud indigenous members and native speakers of Nahuatl. Before finding the institute, many of the educators arrived at the university denying they even knew the Nahuatl language. This personal shame would diminish through their time there as they began to struggle with accepting and changing their own attitude toward the Nahuatl language.

Part of this change began because of this space where they could use their language freely. Eventually, they began to use their language freely even when they left its confines. The educators' opinions changed drastically because they slowly began to see the importance that their language had. They were also given the opportunity to view their language as being worthwhile and useful for not only personal reasons, but also for professional development. This professional development extended to the institute, which provided an outlet for earning a living. These small changes influenced the overall direction of the language and, consequently the speakers. In the case of Tlanextli and

Ichtaca, this change happened as they had a career trajectory that moved them from their original paths.

The institute as an activity source.

Within the institute, educators found a mountain of work ready for them. The institute was involved in a number of projects that included development on a curriculum for a summer intensive program held annually at the university. The educators spent time creating audio/video dialogs that were for classroom use. These dialogs were made in conjunction with the curriculum for the intensive classes as well as the online ones. They also were involved in creating oral and grammar exercises to accompany the finished curriculum. Their activities were not restricted to classroom materials. They also worked on the formation of a bibliography on community members and the creation of a Nahuatl dictionary. This dictionary required working with modern Nahuatl as well as with Classical. The dictionary included audio files and the educators spent time in the editing process for making those embedded files. Lastly, they were engaged in teaching in a variety of formats, including virtually.

Online teaching characteristics.

Teaching online involved the use of a virtual platform and the majority of time the educators interacted through Skype. A typical classroom experience involved them connecting with 2 to 4 students who were all in the same room and sharing a camera/computer somewhere in the United States or Europe. These virtual sessions usually lasted for around two hours a week and most lessons involved the use of audio as well as video with a set curriculum for beginning level learners and a negotiated curriculum for more advanced level students. During a typical lesson the camera needed

be moved around and focused on each individual participant to make sure that everyone understood the material.

This type of teaching required a high level of interaction with technology and required a level of knowledge that went beyond just the basics computing. These educators needed have knowledge about the space where the work was being done, especially in terms of how that translated for the students at the other end. Much enjoyment came from the use of Skype because the students were able to be seen and their movements could be captured on the camera. Meeting at a distance also allowed for the sharing of materials in the form of digital archives that were opened and used during the class. Oftentimes this material had to be sent prior to the class meeting because the exercises called for puzzling through complicated Nahuatl phrases or grammatical features. These types of activities required that the students analyzed the phrases in order to identify the root of the word and divide up the rest of the word into its parts.

Use of Nahuatl in Class.

Teaching at a distance required them to make a decision about the language of instruction. These educators decided (and preferred) to use Nahuatl with their students. They focused heavily on using this language because they felt that they had a responsibility that the students learned the language they were paying for. There was also a belief that students would only learn if they were exposed to it. There was also some motivation to continue using Nahuatl because during the initial teaching experience for the educators, they found that much of their classroom time was spent explaining things to students in Spanish or English. They found that many times students consistently asked for translations. This was problematic in that it wasted precious classroom time or it

caused difficulties because there were no direct translations available for certain concepts. Additionally, certain phrases took on different meanings in different situations.

By focusing on Nahuatl-only, these educators developed skills in conveying meaning by using other methods of reaching the students like movements, gestures, or images. There were exceptions to this Nahuatl-only policy because many times Spanish was needed for purposes of understanding abstract or complex grammatical items. Recently, these educators found Spanish use to be problematic as well because many times the students who were engaging in coursework did not have very high abilities with Spanish and required some explanation in English.

Material development.

These educators spent much of their time developing their pedagogy and in developing ways of reaching the students that included games, dynamic activities and modeling. This desire to use a variety of methods was linked to the belief that a successful classroom needed to have materials that are in hand to teach. Because of the limited availability of these types of teaching materials in Nahuatl, the educators spent much of their time creating them. In many ways, the classroom environment was new for many of the students because they had only limited exposure to Nahuatl. These educators would try to capitalize on this fact by ensuring their classroom was organized and left the student feeling content with the material they had seen rather than walking away from the lesson feeling tired and exhausted.

There was a focus on the basics for many students with a pressure to steadily increase the level of difficulty in order to allow the students the chance to truly learn the language. This focus was on learning the language as a language rather than a subject like

mathematics. One way of reaching this focus was to require involving the students in interactions with everyday objects or even creating immersive experiences with the language and culture. Given the uniqueness of the online environments, the educators tried to never begin a class directly and instead spent time examining things from previous class session or utilizing some kind of dynamic activity to get the session started.

Many times, there was a negotiation between the educator and the student in terms of curriculum and/or topics of interest. The students were given the chance to be active participants in the process because these educators believed they were on the same journey as their students. They also believed that this type of negotiation helped the students because they were able to understand better and make deeper connections to certain ideas or concepts that they may have already covered or had an interest in.

Classical versus modern.

One challenge in teaching Nahuatl was the existence of a classical as well as modern variety for the language. While there were some students interested in learning about the modern variety, the institute recruited more students with an interest in the classical side. Many students and scholars needed to gain knowledge about Classical Nahuatl because of their professional needs in terms of translating documents or understanding ancient texts. Because the modern variety was one that was used by the educators on daily basis, they found a certain comfort level with using it in the classroom. This comfort level differed from that of the classical variety because much of the learning came from on-the-job experiences. These experiences would occur during a class session when a student brought in a document that needed to be translated. During these

translation sessions, the educators found they learned as much about Classical Nahuatl as their students did. During sessions, they encountered words/phrases that they intuitively understood, but they also encountered many words/phrases they were not familiar with. Working with the classical was complicated and they wanted to know more and more about their own language in all its forms.

Technology trouble.

Another challenge that was very difficult to overcome was that of issues relating to technology. Though interactions with Skype were for the majority of the time successful, there were many times where using Skype became a challenge and caused everyone to lose time. For instance, educators needed to spend time asking participants to move the camera to each student in the room in order for them to verify that the student understood and was able to complete the same action that was modeled by the instructor. There was also a challenge in dividing words and translating documents virtually without the use of a different program that would allow such interaction to take place. As these educators spent time in traditional classrooms and online environments, their philosophy was to mimic a traditional classroom environment. They would attempt this mimicry through the use of audio and visual tools built into Skype.

The greatest challenge facing the educators was related to the Internet and difficulties with the connection speed. Many times, the audio and video connections became out of sync or slowed down and created disruptions in the classroom. Other times the video connection was lost completely and the educator needed to continue teaching without having access to that video connection. These educators made mention of a

degraded quality in the Internet over the last year and a half that may be related to the Skype program itself or may have more to do with the connection speed at the institute.

Online versus Face-to-Face.

These educators occupy two different worlds with their teaching because many times they were involved in face-to-face classrooms and intensive summer courses. At times, they had a preference for working face-to-face because there were more possibilities to incorporate in-class activities and bring students on field trips that allowed students to learn Nahuatl in an enjoyable way. Much of the online classes had their origins in the intensive summer sessions because students made their first connection with the institute through these course offerings. After completing the intensive session, many students looked to continue their studies through the only way possible for them (e.g. working with their former instructor online through Skype). Many times, it was difficult for the educators to adapt to the online environment because there were a number of advantages in the traditional face-to-face classroom. For example, the intensive sessions allowed for more time on a daily basis with the inclusion of one-on-one tutoring that occurred after each intensive session. The intensive sessions also had a built-in homestay component that brought the students to a community where Nahuatl was spoken. Because of the powerful connection students made during that homestay, much of the curriculum was dedicated to learning the language necessary for surviving in and communicating with members of the community. By linking the courses to this task, educators made a connection between the language and the community that was relevant and useful for the students in traditional classrooms.

Commitment.

Whether teaching online or in a traditional classroom, these educators strongly believed that their students needed to make a commitment to learn that matched the commitment the educators had for teaching. This commitment involved putting forth the effort necessary and making sacrifices to ensure that class time was taken advantage of. During class time, they believed the students needed to be active participants in their learning and that their teaching allowed for the students to speak or practice the language more than the instructors do. By providing a path to success that included clear goals, discipline and enthusiasm, these educators believed anyone could succeed as they as long as they followed this path toward success and learned from their own mistakes. Success was not limited to only a privileged few; instead everyone could succeed with the determination and the desire to take a few simple steps to reach their goals.

Professional growth.

These indigenous educators grew into competent professionals from humble beginnings where they fought against and changed their own opinions of their language and culture that was based on the opinions of individuals and institutions with closed minds. There was much fear and nervousness in the beginning of the process, but as more experience was gained, those fears and nervousness were left behind. These educators are now in a position where they are interacting with, training, and teaching new indigenous educators.

The Nahua educators' experience showed a deep and lengthy connection to teaching online (and in traditional settings) that led to professional growth and an expectation of a continued career in this field. These educators struggled with

discriminatory practices against their language and its speakers during their formative years (and to some extent, they still do). With the help and support of the institute, they began to recover from those early treatments. The administration at the institute created a space for the development of Nahuatl as a language, a culture and a community that was also a center point for the generation of teaching materials, activities and curriculum in modern and Classical Nahuatl varieties. Having such a vast set of teaching experiences, these educators developed teaching philosophies and styles and they were actively engaged in bettering themselves and their teaching craft.

Having presented the universal and composite descriptions in this chapter, I unpack and provide evidence for them in chapters 5 and 6. Using guidelines for creating vocative text (Nichols, 2008), I present the emic voice from my Nahua participants along with the textural and structural descriptions for their individual experiences. I also use the extant literature to substantiate my findings. I repeat this same process for my Mayan participants in chapter 6.

Chapter 5: Ichtaca & Tlanextli, the Nahuas

In chapter 4, I addressed my main question in this traditional phenomenological study (Creswell, 2007) and, in this chapter, I answer the sub-questions that I used to expand my understanding of this phenomenon for the Nahua speech community. These sub-questions helped me develop a deeper understanding through the identification of themes, categories and concepts.

a. What elements constitute the Nahua educators' perspective on teaching?

b. What factors influence their perspectives?

c. What are their discoveries about teaching their endangered language and culture to these speakers?

In chapter 6, I will detail my analysis of the Mayan participants from their interviews, writing prompts and artifacts. In this chapter and, in continuation of the spirit of transparency, I unpack the composite description from chapter 4 with a particular emphasis on each individual Nahua participant and their individual experiences teaching their language and culture at a distance. My analysis includes the interview transcripts, the writing prompts and the artifacts for each participant. For these educators, the artifacts include their examples of work used in the classrooms and their descriptions of teaching activities.

For this speech community, I worked with two participants: Tlanextli and Ichtaca. These participants were a pleasure to work with and would tell me unique stories and

share creative work they had done. After working with them and, with their permission, I chose their pseudonyms based on the stories and work that emerged during the interview process. Before I present my analysis of their experience, I explain my pseudonym choices and provide some background on my work with these creative educators.

Ichtaca, a Nahuatl Name Meaning *Secret*

Ichtaca (a young woman in her late twenties) shared many stories and experiences with me throughout our time working together and she was always cheerful, inquisitive and enjoyable to interview. While there were many facets of her personality, I considered one story in choosing her pseudonym. This story caught me off guard because of the way she presented herself throughout the interview process. At some point in our conversations, she told me a story about her first encounter at her university. She mentioned that when she tried to enroll in the university she ran into all kinds of difficulties in the process. At one moment, she was asked whether or not she spoke the Nahuatl language. On the surface, it was a simple question, yet she told the administrators that she did not speak that language. She stressed to me that it was not that she was ashamed of her language or culture, but that, in the moment, she was afraid that because of the color of her skin or the way that she spoke or the knowledge they had about her background that they would make it even more difficult to enroll in the university. In her words,

> *…no sé si por el color de piel o por la forma que como uno se expresa…Y si pude, batallé mucho para entrar y un un maestro en el momento que llegué aquí me dijo yo voy a encargar de que tú no entras a esta universidad…* [I don't know if because of the color of my skin o because of the way people talk…and, yes, I

could, battled a lot in order to enter and one one teacher in that moment when I arrived here said to me I am going to make sure that you don't enter this university…]

She explained further that many people in Mexico do not want to see indigenous people in their communities or institutions. Many times, they want indigenous peoples to only be located in their community. She would maintain her silence on her abilities with Nahuatl until the director of the institute went looking for her because he wanted her to work with him and the others on important projects for her language and culture. As these Nahuas originate in small communities, their anonymity once they arrive onto campus is hard to maintain.

Because of Ichtaca's personality and her interactions with me, I was very surprised to hear this story from her. In all of my work with her, she was very forthright and direct with me about her own experiences. The idea that she was carrying around a secret when she first began studying at the university made me look at her in a whole new light. It especially made me revisit all of my discussions with her. I wanted to learn more about her experiences as an indigenous member whereby she felt forced into a position of maintaining a secret for her own well-being. Since this was a defining moment for me with her, I chose the pseudonym *Ichtaca* (with her permission) because it meant *secret* in Nahuatl.

Tlanextli, a Nahuatl Name Meaning *Brilliance, Majesty or Splendor*

I met Tlanextli (a young man in his late twenties) virtually when I was recruiting for my original pilot study. During this meeting with about ten different indigenous educators at the institute, Tlanextli stood out for me because he had a number of very

specific questions about my research project. The questions were so specific that it showed me he must have read my work very carefully and he was really interested in taking part in the study. My initial impression of his interest level turned out to be correct in that during the interview process his actions exemplified the philosophy he described to me in terms of a work ethic and commitment. Tlanextli was always on time with his work and would be logged in early for our sessions. While his commitment and work ethic impressed me, there was another aspect of his personality that stood out even more. I discussed an example of Tlanextli's work in chapter 1 and I present two more examples of his work in this section.

Tlanextli spent many of the interviews talking to me about the ideas he had for using very basic software programs and he also shared with me a number of different items that he created using these basic programs. He would later tell me about his limited technology background, though this limited training did not inhibit him. He went out and purchased his own laptop and began a process of exploration and learning on his own that led to the creation of a number of different activities or items that will he uses in his classes. In figure 5.1, there is an example of his work combining traditional pen and paper activities with a basic software program. During one class session, Tlanextli was having trouble explaining the geography behind the small communities where he was from and he decided that a map would serve as a useful visual for helping his students understand the relationship between the various communities. He initially sketched the design on the piece of paper seen in figure 5.1 with the lines completed in pen. He then took a picture of his work with a digital camera and uploaded it to his computer. He used

a basic photo editor to add in the different names of the communities and create a digital file.

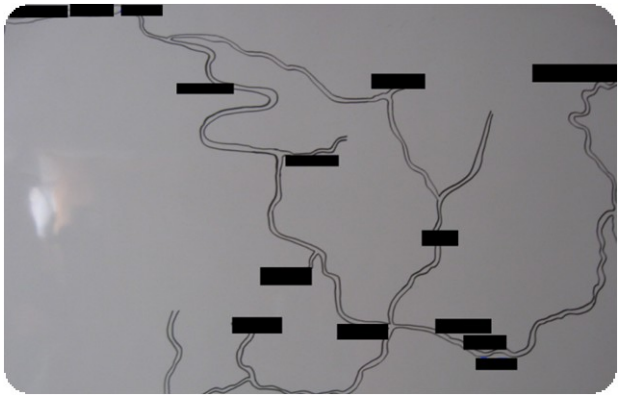


Figure 5.1. Teacher created map of Nahua communities. This figure is an example of the combination of traditional pen and paper work (the lines representing roads) and technology (use of camera and basic software to edit the photo). I have blocked out the community names for purposes of confidentiality.

He used very basic functions from within a photo editing software to create the digital enhancements to the community map and this effort was an early example of his development with technology use for his classroom. As Tlanextli grew into his abilities, he was looking for a way to engage his students in vocabulary development. A common game played in Mexico is called "*Lotería en español*" [Bingo in English]. He saw the potential in such a dynamic game for practicing key vocabulary, but he was not able to find a commercially produced version that did not contain the words in Spanish for the pictures represented on the card. He was also interested in tailoring this activity to his own classroom and he decided to create his own cards using clip art and Microsoft Paint. In Figure 5.2, there is an example of one such card that he created.

Figure 5.2. Teacher created bingo cards. This figure is an example of the bingo cards Tlanextli created. He used these cards in his classrooms to provide his students with an interesting and enjoyable method of practicing Nahuatl vocabulary.

He would use Paint to fit each of the clip art files into the grid he designed, which is outlined by a photo of a landscape scene from near his home community. He also provided the Nahuatl term under each picture to help his students identify the phrase related to the image. Once he completed each card, he exported the file out of Paint and complied them in Microsoft Word. The file he shared with me contained ten unique cards covering sixty-five vocabulary items in their base form.

The creativity and initiative he demonstrated lead me to choose the pseudonym "Tlanextli," which is a Nahuatl word meaning brilliant or radiant. Given his use of technology to help him reach his classroom goals and to help his students better understand, I found the activities to be brilliant in nature and by design. Because of this impression, I asked his permission to use Tlanextli for purposes of confidentiality.

Through the artifacts, the writing prompts and the emic voice of both Nahua participants, I unpack their composite universal description using the themes that emerged as an organizing device. These themes were visually represented in figure 4.4

and include discrimination against Nahuatl, difficulty learning Spanish, the institute as a catalyst and an activity source. In terms of the classroom, these themes include the classical versus modern varieties, the development of material, the use of Nahuatl in the classroom. In terms of working at a distance, the themes include online teaching characteristics, technology trouble, and online teaching versus face-to-face. Lastly, these themes include the educators' perspectives on commitment and professional growth. I developed these themes following the analysis steps while focusing on these educators' experiences teaching their language and culture online.

Inequity, Insensitivity, & Intolerance

Ichtaca and Tlanextli experienced discrimination against them from an early age that was directly linked to their home community and its language. In Ichtaca's case, she was raised in a community where Nahuatl was spoken as her primary language. She explained *"yo no sabía hablar el español yo sólo sabía hablar el idioma náhuatl…"* [I didn't know how to speak Spanish, I only knew how to speak Nahuatl…] and that *"….mis padres, mis abuelos, mis hermanos menores, todos hablaban nahuatl…"* […my parents, my grandparents, my younger siblings, everyone spoke Nahuatl…] Her immersive experience with Nahuatl would change once she entered the public school system where *"en la escuela de alguna manera a mí me obligaron aprender el español."* [in school to some degree they made me learn Spanish]. This obligation included the use of punishments like

> *nos castigaba de manera parados en el pleno sol con dos bloques de piedra sostenerlos así, porque no podíamos dominar el español...ahí nos cobraba por palabra en aquel tiempo nos cobraba 50¢ centavos o digo $0.50 por palabra si*

hablábamos una palabra. [They punished us through standing in the full sun with two bricks to hold up like this, because we couldn't master Spanish…there they charged us for each word in that time they charged us 50¢ cents or like 50¢ for each word if we had said one word [in Nahuatl].]

Not only was she subjected to physical punishments, she would also be told her language held no value:

Siempre nos hicieron ver que el náhuatl no era importante que el náhuatl no nos iba a llevar ningún lado. Entonces nos prohibieron el náhuatl, el náhuatl para no lo hablaramos para nada, entonces tienen que olvidar entonces. [they always let us know that Nahuatl was not important that Nahuatl wasn't going to bring us anywhere. So, they prohibited Nahuatl , Nahuatl so that we didn't speak for any reason, so you have to forget then.]

Ichtaca's words followed with those of Grenoble and Whaley when they stated "Over and over again, one finds the relinquishing of a native tongue is tied in part to the belief that success in a non-native language is crucial to economic advantage" (1998, p. 37). These teachers believed their Nahua students would not benefit from their language and they sought to eradicate it from them.

Ichtaca was not alone in such an experience. In Freng, Freng and Moore (2007), American Indian students in high schools throughout Nebraska recounted their experiences with public school education. These high school students had no recollection of any linkage between their home culture and that of the classroom. They also had no inclusion of their family lineages, heritage or communities. This approach matched with Charleston's (1994) model of American Indian education (as cited in Freng, Freng &

Moore, 2007). On one side of the continuum in such a model, students are subjected to standardized curriculum steeped in the majority language with a focus on assimilation into the majority culture. This culturally disadvantaged approach, or pseudo native education, does not allow for the inclusion of the students' own cultural background or language. As Garza Cuarón and Lastra (1991) noted:

> Apparently, the most important historical factor related to the disappearance of the Indian languages of Mexico has been the oppressive domination of the speech community by speakers of another language. (Garza Cuarón & Lastra, 1991, p. 98)

This oppressive domination was achieved with the help of the public school systems and their adoption of policies that fall under this pseudo-native approach. Tlanextli encountered a similar situation as Ichtaca that also matched with Charleston's model.

Tlanextli's background was heavily rooted in his experiences with his community and that of the larger Mexican influence from his time in public schools. It was during his time in the public school system that he was obligated to no longer speak Nahuatl in the classroom

> *y cuando nosotros hablabamos el nahuatl con nuestros companeros o con los companeros pensaban los maestros que nosotros le deciamos cosas porque no entendía, entonces nos obligaban a que no hablaramos Nahuatl solo español, incluso nos castigaban asi nos torturaban pues para dejar de hablar el nahuatl en ese tiempo.* [and when we spoke Nahuatl with our friend or our classmates the teachers thought we were talking about them, so they forced us to not speak

Nahuatl only Spanish, even they punished us or tortured us to get us to stop speaking Nahuatl at that time.]

These negative experiences included verbal abuse as well that led him to develop negative feelings toward his own language and culture. In many circles in Mexico, *"...en ese tiempo el Nahuatl se conocia como un dialecto nada mas..."* […in those day, Nahuatl was considered a dialect only…], which carries with it a number of negative connotations. As Tlanextli noted *"...y entonces a nosotros los indigenas nos hechan a un lado..."* […and at that time, they pushed us, the indigenous, aside…] and discriminated against them. Lastra (1991) succinctly summarized the situation in Mexico and provided a perspective that matched with the experiences of Ichtaca and Tlanextli:

> Language policy in Mexico can be summarised as a tendency to unify the country linguistically and make native languages disappear. The policy is based on the relations established by the indigenous groups with Spanish-speaking sectors which in turn are based on economic relations and social discrimination transmitted by the media, religion, and primarily by the educational system (Lastra, 1991, p. 160).

This discrimination was something he saw in the way that Mexico organized its primary schools because very few were truly bilingual schools. Instead, these schools indoctrinated students into Spanish while attempting to rid the individuals of their indigenous language. This indoctrination was another example of a pseudo native education on the Charleston continuum whereby schooling became a place of assimilation of minority language speakers into the majority culture. This assimilation was driven by a focus on the acquisition of Spanish.

Tlanextli remembered teachers telling him that learning his language would be a waste of time and that it would not help him in anything that he did. In fact, some people told him that his language was a "*fracaso*" [failure]:

> *yo pensé que el saber náhuatl para mí era un fracaso cuando vive la primaria a los maestros nos decían no deben de hablar náhuatl deben de hablar español.* [I thought that my knowing Nahuatl was a failure when I was in elementary school, the teacher told us you shouldn't speak Nahuatl you should speak Spanish.]

This pressure to adopt a majority language is one faced by communities across the globe (Skutnabb-Kangas, 2000). In fact, Clark (2005) cited a number of examples within Mexico where indigenous languages were not considered valid for education or written communication. Adegbija (1991) discussed the benefits of languages that enjoyed official status as well as being supported within a country:

> Every language is entitled to a buoyant life. A language that is deliberately used in the home and public sector, which its speakers are proud to be associated with, which has a vibrant culture that is consciously promoted and orchestrated into prominence, and which the younger generation is eager to use and be associated with, can never die. Conversely, a language that is restricted in use both in the private and public sectors, family, local, regional and national settings, which its speakers are ashamed of, which has no vibrant culture to boast of or exhibit, and which the younger generation would rather forget, is already dead, even if apparently living. (Adegbija, 1991, p. 307)

Tlanextli and Ichtaca encountered frustrations, difficulties and disappointments because of this assimilation policy and the fact that their language and culture was not supported,

and, yet, they also struggled with learning Spanish. Their struggles lasted for years as they recount in the next section.

Spanish, Spanish, & More Spanish

Leaving the Nahuatl language behind was a difficult task because Tlanextli and Ichtaca would need to "pick up" Spanish in replacement. As Tlanextli started school with very limited knowledge of Spanish, he struggled a lot with learning and he felt that the schools taught classes as if all of the students in the classroom actually knew how to speak Spanish. In so many cases (including his own), children arrived at schools without having the knowledge necessary in Spanish to succeed and in many cases those same students were not even able to communicate with their Spanish-speaking classmates.

He spoke Nahuatl from birth and it was the language used in his household to the current day. When he was obligated to speak Spanish outside of the home, he still maintained the Nahuatl language with both his friends and family. When he would leave school and meet up with his friends and classmates and they would speak in Nahuatl together. He never forgot what it felt like to be able to use his language freely when he was with friends and family.

Ichtaca remembered being afraid of attending school because of the way the teachers treated her due to her inability to use Spanish at the level expected of her. This fear stayed with her for most of her elementary education and would only gradually diminish as her abilities in Spanish improved. Sometime in secondary school, she felt her abilities increased in Spanish, but she never judged herself to be 100% competent. Instead, she felt she had enough Spanish to get by.

Many times, physical punishments were coupled with verbal abuse. Because she felt like she was pressured to learn Spanish, she found herself forgetting her own language. She also felt herself losing abilities in the Nahuatl language because of the verbal abuse she received at the hands of her teachers. In fact, these teachers would have her believe that the only way she could communicate with the rest of the world was through Spanish because within Mexico it was only Spanish, Spanish, and more Spanish. As she became more and more fluent with Spanish, she found herself becoming less and less comfortable with the Nahuatl language.

In many respects, the teachers in Tlanextli and Ichtaca's backgrounds suffered from a severe lack of understanding of basic linguistic and second language acquisition theories. As Berlin (2000) mentioned, teachers should receive exposure to multiculturalism, language acquisition and mother tongue maintenance as part of their certification process. These items may be incorporated into existing coursework or an internship experience within a community where multilingual/multicultural populations exist. This type of development is especially critical given the precarious state for the Nahuatl language and its speech communities.

Reversing the Abuse, Discrimination, & Intolerance

Their background experiences could have had irreversible effects on these two educators if it were not for an institute located in the university they attended. When they began to pursue a degree, both were offered the chance to work with their language and culture. This institute worked on a number of principles that closely mirror the work of Hinton and Ahlers (1999) where an endangered language is revitalized through a mentor/mentee relationship. While the institute incorporated many aspects of this work, it

also provided a space for these educators to adapt, develop and grow. As Fishman discussed "creating community is the hardest part of stabilizing a language. Lack of full success is acceptable, and full successes are rare" (1996b, p. 90). This institute was a rare success because it provided these indigenous members with the ability to reverse the language shift currently occurring within their speech community. Engaging in such a task was not simple and involved careful planning at a basic level as Fishman noted:

> It is relatively easy to reconstruct historically, describe and analyse cases of RLS [Reversing Language Shift], one at a time. It is also easy to prescribe 'fixes' that cannot really be undertaken. It is relatively vacuous to suggest that speakers of threatened languages should be 'larger in number,' should establish 'more and stronger language supporting institutions' or should 'provide their language with more status'. It is of no help to tell a patient that he should attain health by getting better, or that he should get better by being healthier. These are redundant and non-operational bits of advice. If such advice could be followed, the patient would not be sick to begin with and the languages to which the advice is addressed would not be threatened. But it is not merely the case that such advice is impractical or non-operational. It is also non-theoretical insofar as it posits no priorities, establishes no sequences or linkages between events and provides no differential weights to the factors being ignored (e.g. geographic, economic, linguistic, political, and so on) (1991a, p. 13).

As Fishman discussed, the changes must be accomplished through practical and operational changes that take into account the specific situations of the members using an

endangered language. At a very personal and direct level, the institute would help two of its members toward getting 'healthy.'

The institute had a profound effect on Ichtaca and it would take her many years to find value in her language and culture. This process quickened when she found others who shared that same interest.

> *Yo estaba entonces este el doctor me empezó buscar, me buscaba, me buscaba para que nosotros nos incorporemos con él al grupo pero yo no quería porque dicen, cómo es posible que un gringo venga acá y quiera sacarlo del náhuatl cuando yo vengo de una comunidad donde los maestros nos dijeron nos advirtieron que el nahuatl no era importante.* [I was there so the doctor started looking for me, looking for me, looked for me because he want that we formed part of his group but I didn't want it because I was thinking how is it possible that a gringo came here and wanted to make use of Nahuatl when I came for a community where the teachers told us that Nahuatl was not important.]

Once she began working with this institute, her opinion changed dramatically:

> *y como de cinco años para acá en adelante pues me dado cuenta la gran importancia que tiene el náhuatl…estoy muy feliz también porque nunca pensé que esto me iba a llevar hacer cosas buenas y estar hasta donde estoy, verdad saber más del Náhuatl…* [And almost five years ago and up to now I noticed how important Nahuatl is...I'm very happy because I never thought that this would allow me to do many good things and to be where I am now, right knowing more about Nahuatl…]

Tlanextli had a similar experience that he was constantly reminded of with some of his interactions. He has been reliving those moments of negativity because he saw Nahuatl speakers who were afraid or ashamed to either speak or teach their language. He saw these indigenous members trying to disguise the fact that they spoke a language like Nahuatl and they began to use and speak Spanish as if they were just like the same Spaniards who came and conquered in Mexico so many years ago. Whenever he visited his home community, he saw the youth returning from working in the city for a few months putting Nahuatl off to the side as if they had never learned it in the first place. Many of these youth returned to their communities speaking Spanish with everyone including their families. Hornberger and King (1991) discussed this idea of losing a 'safe space' for an indigenous language (Quechua in this case):

> There is no longer a 'safe' space, for instance, in the home, in the community, or among family, for Quechua to be used exclusively and therefore ensured transmission to younger transmission to younger generations. The limited bilingualism which exists is extremely unstable and likely a transitional phase leading to Spanish monolingualism. Thus, in the communities studied by Hornberger and King, and in many other Andean regions as well, shift away from Quechua takes place domain by domain, as Spanish encroaches into every arena of use. (1991, p. 168)

This use of Spanish was so ingrained that Tlanextli noted that even in his current position, he saw some instructors using Spanish once they left the confines of the institute. He understood this attitude very well because he felt he was denied the ability and the opportunity to speak and learn more about his language in the public school

system. During his time in the school system, he had moments when he began to believe what his teachers were telling him about his language and culture.

Because of his experiences at the institute he started to feel proud of his language and culture and he viewed the negativity towards his language as not having value because it came from people who had close minds. In fact, his experiences with the institute began to change his entire outlook and he saw his language as being worthwhile and useful for his personal life. He also saw that the abilities he has with his language have opened doors for him in his professional life. Tlanextli tried very hard to maintain and never forget who he was as well as where he came from.

While he found many individuals from his community have some shame in who they are or where they come from, he always felt it was important to continue using his language within his household because he believed that it was an important part of his own identity. Many times, he struggled with individuals who deny who they are because they might not want to admit that they came from a poor family or they did not want to say that they are indigenous. His own experiences helped him understand, but not approve of these denials. Because of his current successes, he is proud of being an indigenous member and a native speaker who no matter where he finds himself now uses his language freely.

A Mountain of Work, a Mountain of Space

The institute was not only a catalyst for change, but it was a location full of work and opportunities. For Tlanextli, this university-supported institution was where he began his studies many years back:

> *...me encontre que con esta [Universidad] tiene ciertos este ciertas becas…y esto se los brinda a todas las personas que realmente provienen de un pueblo marginado o que tienen problemas con los ingresos...donde uno realmente no paga absolutamente nada solamente se dedica a estudiar estudiar y estudiar...* [I found that this university has many kind of scholarship and these are offered to all the people who come from a poor town or they don't have enough income…where one really doesn't pay anything we only need to be focused on learning, learning and learning…]

The administration at this university also provided a space where they had an opportunity to discuss language and culture with other indigenous members. Another benefit he saw from the institute was the fact that through its programs he was able to meet and learn about people from within his country as well as from outside of Mexico:

> *...es que mi propia lengua me está ayudando a desenvolverme en la sociedad a ampliar mi red social a conocer más personas más personas ya sea dentro o fuera del país en lo que a mí creo que me resalta a enseñar esta lengua a otras personas a diferentes nacionalidades.* […it's that my own language is helping me to develop in society and extending my social network by meeting more people more people in or out the country in a way that I believe resulted in teaching this language to people of others nationalities.]

Many of these individuals were interested in talking with Nahuatl speakers and they were only able to make contact with them because of the institution itself.

Again all of this development was possible because of the space created within the institute where Tlanextli and Ichtaca were able to discuss all kinds of issues among

other community members. They were able to engage in debates and discussions about the differences within the varieties of Nahuatl that were spoken by other instructors who came from different regions or communities and had their own interpretations and vocabularies. They found there were a mountain of words/phrases that this variety was true for especially when it came to customs that were passed down from generation to generation. For example, many of the instructors at the institute mentioned different traditions or customs that involved either planting a boiled egg in the soil along with the new crops or others mentioned using a lit candle that marked a ceremony to show the beginning of the planting season. These activities, discussions and developments were all examples of reversing language shift, which was the underlying goal for all of these activities:

> RLS [Reversing Language Shift] is concerned with the recovery, recreation and retention of *a complete way of life,* including non-linguistic as well as linguistic features. Some of the features of both kinds are solidly documented in memories, texts and realia of the near and distant past. Others are innovative extensions and inventions required in order to cope with the differences between now and then, between an interrupted past and the partly unprecedented present. (Fishman, 1991b, p. 452)

Because of this institute and its focus, they believed they could focus on other aspects of teaching language and culture that were linked to their present while drawing from roots in their past. Tlanextli, in particular, was looking to focus on certain cultural traditions like dancing from his community. Ichtaca was interested in recording the legends and stories of other community members. Both educators were always looking

for ways of teaching such specific items of culture and for understanding how Modern and Classical Nahuatl interact within each.

Standardizing while Training on the Job

In much of their work at the institute, Ichtaca and Tlanextli were engaged in the process of standardization. This process included the creation of a dictionary, a grammar and works of literature (Schieffelin & Doucet, 1998). Many of the tasks were situated in the creation of these works while also linking these developments to the classical variety.

This focus on the classical variety was one of Ichtaca's struggles in teaching because many of her students were interested in the classical side. These students needed Classical Nahuatl for professional reasons in terms of translating documents or understanding ancient texts. One challenge with Classical Nahuatl is that of training. Ichtaca found her learning came from on-the-job experiences:

> *lo poco que he aprendido es dando clases…y más que nada he aprendido poquito más este año en el curso de verano que pasó ya es cuando…yo aprendo un poquito más porque pues me tocó dos alumnos que pues querían estar traduciendo documentos.* [the little I learned is from teaching classes…and more than anything I have learned a little more this year in the summer that just passed it when…I learned a little more because I had two students that wanted to be translating documents.]

She felt she needed to improve on her development in terms of Classical Nahuatl because

> *El clásico es lo que nos hace falta todavía saber más…hay palabras que si se entienden, pero hay algunas que no. Entonces se complica un poquito entonces como, que si queremos saber más, más, más y más que viene lo del náhuatl.*

[Classic is what we are still missing knowing more…there are words that are understandable, but there some that are not. So, it's a little bit complicated, that yes we want to know more, more, and more that comes from Nahuatl.]

Tlanextli encountered the same challenge.

Pues ya asisten a cursos de verano y en el curso de verano por las enseñanzas lo que es náhuatl moderno o el náhuatl que realmente nosotros actualmente hablamos y el náhuatl clásico que viene siendo el náhuatl más antiguo es la forma en que se trabaja en cuestión a la enseñanza. [Well, they participate in summer courses and in the summer course teaching is modern Nahuatl or Nahuatl that we actually speak right now and Classical Nahuatl which is ancient Nahuatl and the focus of the work in terms of teaching.]

As an indigenous member, he was aware of the fact that he was a native speaker who at one time was much like many other native speakers in his community because he did not know how to write his own language. He was not given literacy training in Nahuatl during his time in the public school system and his literacy skills were not gained until he began working at the institute. Much of this development came from the work he and Ichtaca did in creating materials for the institute as well as their classroom.

From Materials to Classroom Design

Within the institute, Ichtaca and he were engaged in multiple projects that include

…el trabajo consiste en desarrollar un plan curricular en este momento un plan curricular lo de nosotros tengamos un material base de enseñanza náhuatl…hacemos audio videos diálogos infinidad de cosas para enseñar el náhuatl esto los hacemos…el plan curricular consiste en la elaboración de

unidades y capítulos con sus respectivas actividades y actividades y materiales de trabajo... […work consists of creating a planned curriculum at this point a planned curricular that we need to have the material to teach Nahuatl…we are making audio video dialogues for an infinity of things to teach Nahuatl all of this we do….the planned curriculum consists of the elaboration of units and chapters with their respective activities, general activities and materials to work…]

Through the work with the institute, he was trying to completely change the system of teaching from that of what he saw being done with languages like English and French at his university. His work with this curriculum formed a basis for many of the activities he participated in throughout the workday and many of the finished products were for his use in the classroom.

As he gained more experience with teaching, he also spent much of his time devoted to developing different ways of reaching his students that included games, dynamic activities, and modeling by the instructor. He believed a successful classroom needed to have materials that were in hand to teach and he took on this responsibility to create his own materials as part of his job at the institute:

...uno de ellos es por ejemplo cuando los alumnos hemos visto ciertos vocabularios y no se acuerdan yo no tengo que repetirles por ejemplo (ximitotia) es como decir bailar...yo con mi mitad empiezo a bailar (ximitotia) no pues está bailando no puede (ximitotia) significa el está bailando ese tipo de dinámicas estamos haciendo... […One of them for example is when the students have seen some of the vocabulary and they don't remember I don't need to repeat for example (*ximitotia)* which is like saying dance…with my hips I begin dancing

(*ximitotia)* if I am not dancing it can't be (*ximitotia)* which means dancing. This kind of dynamic activity we are doing…]

Because he was teaching what he considered to be a new language in that many of the students have only had limited exposure to it, he searched for ways of teaching that would not tire his students and that would allow them to leave each class feeling content with the material they have seen. He strived to make sure his class was not unorganized and that his teaching did not make his students feel tired and exhausted.

Ichtaca worked on many of the same projects as Tlanextli. In her current position as an instructor at the institute, she was responsible for completing a number of tasks. Her time was split between working with students in various capacities

venían alumnos hasta de Estados Unidos a recibir el curso de náhuatl en los cursos de verano… yo tenía un grupo este en [EEUU] de larga distancia. Trabajaba por Skype daba clases… [students come from the United States to take Nahuatl courses in summer time…I had a group from United States at a distance. Working through Skype giving clases…]

She also was working in a group on the various goals for the institute:

estamos haciendo un diccionario para nuevo ingreso para ese tiempo…haciendo este un trabajo…donde cortamos audios… haciendo un poquito de nuestra bibliografía… también terminando el currículo del plan para el curso de verano…y ya me encargo de eso de hacer el material…yo empiezo a hacer mi propio plan, no. [we are making a dictionary for new interns for that time…doing this work…where we are cutting audio files…doing some of our biographies…we

are also finishing the planned curriculum for summer courses…and I'm in charge to make material…I start to make my own plan.]

All of this work involved dealing with ambiguity and required incorporating creativity as well. Wurm (1999) discussed the notion that bi- and multilinguals experienced new and, often contradictory, events that helped them develop into more tolerant and generally more curious educators. As this work was ongoing, these indigenous educators were also making decision about their classrooms with a focus on using Nahuatl-only.

Nahuatl-Only, Basics & Translations

For many of the students, they were interested in learning about the modern variety for various purposes. With these students in mind, Ichtaca and Tlanextli focused heavily on Nahuatl in their courses as Tlanextli described:

> *como maestro yo tengo una responsabilidad de que ellos aprenden puro náhuatl porque porque tengo un ingreso de ellos...ellos están pagando por ese curso…* [as a teacher I have the responsibility to make sure they learn pure Nahuatl why why because I have an income from them…they are paying for that course…]

Since they chose to use Nahuatl to give instructions, they avoided the use of Spanish, though they were not above using Spanish when necessary for purposes of understanding.

Tlanextli also ensured his teaching started with the basics and steadily increased so that any level of student was able to truly learn the language:

> *…entonces yo sí tengo que presentar material y explicarles ahí desde el principio hasta el final. Es decir empezamos con lo básico de saludos y todo eso conforme los alumnos vayan este hablando y familiarizando ya con el náhuatl un poco vamos aumentando el cómo te diría los ejercicios como principiantes intermedio*

y avanzado para realmente ya aprender la lengua así como un idioma y actualmente esos está viendo… [so I need to present the material and explain to them from the beginning until the end. For example, we start with basic greetings and everything that the students need to be speaking and familiarization with Nahuatl and little by little we increase the, how do I tell you, all the exercises like beginners, intermediate and advanced levels to be sure they really learn the language like a language and right now they doing that…]

He believed they needed to learn the language as a language rather than as a subject like history or mathematics. When teaching, he tried to use Nahuatl for the majority of the time unless there was a word that his students really did not understand. His use of Spanish was always after his initial use of movements, gestures or images and only if that did not help them understand the concept. At times, he would use Spanish to help with understanding and he began to learn English as well because he was encountering students that did not always know how to speak Spanish. He believed that using English may also help with the understanding of certain points. However, he tried to use Nahuatl only and he began to model and enforce this approach because he found that in the beginning of his teaching that much of his class time was spent on answering questions like "what does this mean?" or "how do you say this?"

Ichtaca maintained a very similar policy in her classroom.

…Para poder, para que ellos entiendan mejor…trato de hablar el más el náhuatl aunque ellos se quedan así como hay que me estás diciendo verdad…yo siempre trato de utilizar el náhuatl es es el chiste para que ellos entiendan. […To make sure they understand better…I try to speak the more Nahuatl I can even if they

look like what is she saying right…I always try to use Nahuatl because that's the point so that they can start learning.]

While she preferred to use Nahuatl with her students, she understood that Spanish needed to be used sometimes in order to help students understand some abstract grammatical notions. However, she was careful to use Nahuatl as much as she could because she believed her students would only learn if they were exposed to language.

Their Nahuatl-only policy had other benefits because there were times they found it problematic to explain things to students in Spanish or English. Many times, there were no direct translations available for certain words or concepts. In other examples, the words/phrases may have meant something different in different situations. They struggled with this fact as instructors because sometimes they were not able to provide a coherent explanation for certain words/phrases and they were left using other ways of describing what was meant. In some instances, much of their choices were different because they spent a majority of their time teaching online, which called for an understanding of that environment and its characteristics.

Working with the Online World

The structure and format for the classes at a distance differed greatly from the summer intensive experience and Tlanextli and Ichtaca had a lot of work to complete because

…son clases personalizadas…Por ejemplo, estoy trabajando con un grupo (en EEUU) de tres personas tres alumnos enseñándoles en Nahuatl son alumnos ya avanzados yo estoy trabajando más porque ya conocen mucho…también estoy trabajando un grupo vinieron aquí a (Ciudad en Mexico) en el curso de verano y

que quieren seguir practicando el náhuatl quieren seguir aprendiendo más entonces es ahí donde intervienen las clases individuales... […the classes are personalized…For example I'm working with a group in (the United States) of three people three students teaching them Nahuatl. They are already advanced and I'm working more because they know more…I'm also working with a group that came here to (city in Mexico) in the summer courses and they want to continue practicing Nahuatl. They want to continue learning more, so that is where the personalized classes come from…]

When working online, his preference was to work with only two or three people so that he was able to interact at a more intimate level with his students. This smaller class size helped him have enough time so that each student could do what he was asking. Many times, he needed to send work to his students before and after the classes because they had to puzzle through complicated Nahuatl phrases or grammatical features:

bueno en cuestión a la raíz a la gramática nosotros les enviamos un un archivo donde ellos analizan analizan la gramática la raíz de la palabra como se divide la palabra o cómo está compuesta la palabra…entonces ya nos vamos a un ejemplo de la palabra tratamos de dividirla qué es lo que significa lo dividimos y de cuantas partes está compuesto. [Well in the question of the grammatical roots we send a file were they start to analyze the grammatical roots of the word how the word is divided or for example how the word is composed…then we do an example of the word and we try to divide it into what it means and what those parts mean and how many parts the word is made of.]

While he tried to operate his classes at a distance as if he was in a face-to-face situation, Ichtaca had a slightly different description of her experience teaching online. In fact, she had a preference for face-to-face classrooms, even though much of her teaching experience happened in online environments:

> *de larga distancia pues también hay otras formas para poder dar la clase por ejemplo…sólo se necesita de pensar un poco no, pensar muy bien cómo se puede aplicar no, la clase de larga distancia como en vivo también hay muchas maneras.* [from a distance, well there are other ways to teach the class for example…we only need to think a little more, think about it very well how we can apply the class, no? The class online or in person there are many ways.]

Even with this preference, Ichtaca was successful at her online teaching and she found she enjoyed herself:

> *Me gusta el programa Skype porque puedo ver mis alumnos sus movimientos de lo que hacen pero también porque puedo compartir archivos del material que vamos ver en transcurso de la clase. También pues tengo ventajas a usar el Skype porque de alguna manera los alumnos aprenden no?* [I like the Skype program because I can see my students their movements what they are doing and I can share materials, files that we are going to see during the class. I have too so many advantages when I use Skype because in different ways the students learn, right?]

One area she found enlightening was that she was able to work with people from all over the world. She usually interacted with students for around two hours a week with individuals by meeting through Skype computer-to-computer. In most lessons, there was audio as well as video and she could follow specific plans that were used for beginning

level learners or she could negotiate a curriculum with her more advanced level students. She normally worked alone with a group of students from 2 to 4 members who were all in the same room and therefore needed to share a camera and computer. Because they spent so much time in online environments, both educators found there were problems inherent in working at a distance.

The Trouble with Technology

Both Tlanextli and Ichtaca encountered challenges and difficulties with the use of technology. For example:

> *y a larga distancia por el Skype es más difícil para mí porque… se pierde más tiempo se puede decir…muchos tienen que ir volteando la Cámara para ir viendo a cada uno de ellos para ver cómo lo van haciendo, si lo hacen bien, si lo dicen bien…Dar clases de gramática a larga distancia, es muy difícil porque no veo realmente como dividen las palabras y se tarda uno en traducirlo y también porque no se cuenta con suficiente material.* [and at a distance with Skype it is more difficult for me because…we lose time you can say…everyone has to turn toward the webcam to start looking at each other to see how they are doing , if they are doing it right, if they are saying correctly…teaching grammar classes at a distance is very difficult because I don't really see how they divide the words and it takes a long time to translate it and because we also don't have enough material.]

While these challenges only created disruptions in the flow of the class, there was one challenge that completely impeded progress:

solo cuando cuando falla el internet…como que a partir de año y medio para acá en adelante esté si ha fallado un poco… [only when when the internet fails…about one year in a half ago it started to fail a little more…]

Tlanextli encountered many of the same issues and he tried very hard to ensure that any distance learning experience mimicked a classroom environment so that it felt as if they were in a room together. He accomplished this through the use of the audio and video tools available in the programs he used. Unfortunately, there were many times when the video connection was lost and he felt that he was not able to deliver the material in the same way as he would if that connection had still been available.

Another challenge he faced with technology was tied to hardware issues. In some instances, he developed materials that were of such a large file size that they created problems for the hard disk capacity within the institute. These large file sizes would inadvertently slow down some of the machines and was especially true when he was editing audio and video files for use in his teaching.

One challenge that was not necessarily a technology issue was in the logistics of working at a distance:

me acaba de pasar un alumno de [EEUU] yo quiero trabajar contigo los días sábados a tal hora llevamos dos sábados que me espero y nada. No más me dice no tuve tiempo no pude llegar pues ahí muestra muestra interés en aprender pero no el interés muy muy abstracto como si cómo no si puedo voy y si no puedes me ha pasado ahora con uno de estos. [It just happened that a student from the (US) told me I want to work with you on Saturdays and at that time I waited twice and nothing. He only told me I didn't have time to make it online and there he showed

his interest in learning, but it was very very abstract as if I can't go I won't. This has happened to me one of these times.]

While he was challenged by this situation, he explained that this attendance issue was an isolated event:

> *entonces los de [EEUU] siempre están ahí a tiempo están listos para empezar si todos las tareas que unos se les encarga las tienen las mandan un día antes incluso para yo poder checarlo y darle los comentarios y la clase.* [So, those from the (US) are always there, they are ready on time to start with all the homework they were given and they even send it one day before so that I can check it and give my comments and the class.]

As Ichtaca and Tlanextli worked in virtual environments for much of the year, they were actively involved in the summer intensive program. This program required copious amounts of time in a traditional classroom and these educators would compare their experiences against each one.

Difference? Online & Face-to-Face

Tlanextli noted that his classroom differed based on the method of delivery:

> *...bueno en cuestión de la enseñanza lo hacemos en dos formas en el verano que es encuentro físico es decir maestro alumno es una y la otra es cuestión aprendizaje a distancia que utilizamos los instrumentos de Skype...* [well with respect to the questions of learning we do it in two ways. in the summer we meet in person with student/teacher is one and the other way is learning at a distance where we utilize the tools in Skype…]

The classes in the summer were intensive and he spent much of his time developing materials to ensure that course was successful because

> *...si antes empezábamos con cinco aumentó ocho a 10 a 15 y hasta el 2010 tuvimos 25 alumnos casi 25 alumnos no pasaditos casi 25 alumnos pueden entonces pensamos tenemos que hacer algo estable ya algo más sólido...* […yes, before we began with five and it increased to 8 to 10 to 15 and up to in 2010 we had 25 students almost 25 students or maybe a little more than 25 students so we started to think we have to start to make something more stable something more solid…]

He also tied his teaching and development to daily life because he believed this connection made the language relevant and useful to his students. This focus was important because he participated in the homestay portion of the experience

> *porque han ido los alumnos del [instituto] hasta mi casa a visitar incluso hubo la fortuna de que el [doctor] platicara con mi Papa y ahí él le explicó todo lo que hacíamos aquí.* [Because some of the students of the institute were visited my home even I have the fortune that the Doctor talk to my dad and there he explained everything we do here.]

For students in the intensive program, Tlanextli noted that they had a number of advantages available

> *...pues se le otorgaba un tutor o un asesor para para aclarar sus dudas este en que ya tenga ya como clase personalizada es decir nosotros damos clases en el verano supongamos que tenemos 20 alumnos y somos siete maestros siete instructores siete instructores en náhuatl cada instructor agarra o le tocan le*

asignan tres estudiantes o dos para asesorarlos qué quiere decir esto por ejemplo en la clase no entendí muy bien lo que me dijo el maestro von con mi asesor para preguntarle que me explique más a fondo qué es lo que significa... [we assigned tutors and advisors to clarify their questions in a personalized class. I'm saying we teach the classes in the summer and maybe we have 20 students and like 7 teachers or instructors 7 instructors in Nahuatl and each one is assigned two or three students for tutoring which means for example in the class I don't understood very well what the teacher said I can go with my advisor to ask to for more explanations more deeply what that means…]

Having access to a tutor was something Tlanextli was looking to develop for his classes at a distance.

While there were many differences, his experience teaching was similar in either environment. In terms of classroom management, he tried to never begin a class directly rather he spent time examining things from a previous class session or using some kind of small dynamic activity to begin the current session. He was always attuned to his students and their actions, movements and body language, though it was difficult sometimes at a distance to see if students understood the material:

porque por distancia es difícil porque no estás ahí en el cuarto con ellos. si es difícil pero al menos me he dado cuenta cómo se quedan en su suspenso como que se quedan pensativos pues eso a mí me da la impresión sin verlos diríamos personalmente me da la impresión de que algún no está quedado claro de que algunos estén teniendo eso lo que yo presiento de cómo que se quedan así pensativos de cómo como dudosos. [because online is difficult because you are

not with them in the room. Yes, it is difficult but at least I noticed when they are like in suspense as if they are left thinking or thoughtful, well that's my impression, the impression they give me without seeing them they give me the impression that something is not clear as if they are left thinking or doubtful.]

Many times he needed to have the camera focus on each individual person to make sure his students were with him and understanding the material.

Ichtaca found that she received much enjoyment and satisfaction from teaching classes whether online or face-to-face. However, she developed a preference for working with students around her:

pues si estaría enfrente de un grupo, sería mejor no…se puede una clase por ejemplo no sólo es estar en grupo, estar el en salón o en una aula que los alumnos estén sentados…yo pienso que es más práctico estar frente al grupo no, un grupo donde estemos todos juntos… [Well if we stay in front of a group it is better no…we can teach the class for example without only being in the group, being in the classroom or in the room with everyone seated…I think it is more practical to be in front of the class, no? One group where we are all together…]

Reaching Success: Not for Privileged Only

As Ichtaca continued to teach in both environments, she found either one brought about similar results: *"se lleva un poquito más de tiempo pero se aprende igual…"* [take a little more time but they learn the same] Her belief went against some current research on the development of oralcy. Ng, Yeung and Hon (2006) discussed the difficulties in a speaker achieving a high level of proficiency using distance learning only. Blake, Cetto and Pardo-Ballester (2008) also discussed achieving similar results for students engaged

in learning a language during one year of coursework (in a traditional, hybrid or distance learning format). In many cases, Ichtaca taught classes for beginning level students and that may account for her observations. Another factor in student achievement may be linked to the commitment held by the students and educators.

All of her teaching was undergirded by an underlying set of ideas and beliefs that made up her teaching philosophy. Ichtaca believed everyone could succeed because

> *aunque algunos piensan que el éxito está reservado para unos pocos privilegiados, en realidad puede ser alcanzado por todo aquel que determinadamente siga unos sencillos pasos que permite alcanzar...* [Even though some think that success is reserved for only a few privileged ones, in reality it can be reach by everyone that is determined to follow some simples that allow it to be reached...]

This path to success involved *"metas claras, para eso hay que tener claro el camino a seguir para alcanzar el éxito, disciplina, entusiasmo entre otros."* [clear goals for that we need to have a clear path to follow in order to continue reaching for success, discipline, enthusiasm among other things] She also believed in learning from her own experiences:

> *Como siempre he dicho de los errores he aprendido más ¿Por qué? porque es allí donde yo le tengo que echarle más ganas.* [Like I always say, from mistakes I have learned the most. Why? Because it is there that I need to give more effort.]

Within the daily activities of her classroom, she sought to involve her students in the process because

> *ambos vamos en un mismo camino…siempre cuando yo doy clase con un alumno este siempre nos entrevistamos no pues más o menos que quieres ver…de todas*

maneras van a aprender tanto los alumnos como tú en este caso… [Both of us are on the same path…whenever I give class with a student we always interview each other, no? With more or less what you want to learn…in any event, they are going to learn as much as you do in this case…]

Tlanextli also developed his own philosophy in terms of student commitment. Part of his philosophy rested on the idea that his students had to make a commitment to learn the language that was as strong as his commitment to teach the language:

...ellos le interesa estudiar pero no se esfuerzan en sacrificar una hora más para aprenderlo no más nos dicen yo quiero aprender inglés pero no tengo tiempo digo yo quiero aprender del náhuatl era no tengo tiempo eso no es cierto porque si uno quiere aprender busca la manera de aprender y acomodarse a la hora que el instructor pueda impartir la clase… [they are interested in learning, but they don't make the effort to sacrifice one hour more to learn instead they tell us we want to learn English but I don't have time I mean I want to learn Nahuatl but I didn't have time, but that's not true because if you want to learn you find the way to learn and work out the time that the instructor can teach the class…]

He believed students needed to make the time necessary to succeed and that if they really wanted to learn they would find that way. He also had a very strong work ethic that he expected from his students. In other words, he expected his students to value the education they were receiving as much as he valued the education he was giving. He was troubled

...cuando el alumno no se esfuerza en aprender, es decir, el alumno no le dedica el tiempo adecuado para la clase, lo que conlleva una desnivelación con los

compañeros. […when the student doesn't make any effort to learn, I mean, the student doesn't dedicated enough time to the class and that causes an unbalance with the classmates.]

Seasoned, Bright & Positive Educators

With so much experience between them, Ichtaca and Tlanextli grew as educators over the years. For instance, Ichtaca's beliefs and experiences led her on a path of development where she grew into her role as an educator from humble beginnings:

yo tenía tenía mucho miedo enfrentarme al mundo a una ciudad porque vengo de una comunidad a pasar una ciudad pues si yo tenía mucho miedo no…cuando fue mi primer experiencia este, pues en ese momento no se si era pena o no podría yo hablar no no, me imaginaba como iba ser la clase…yo ayudándole a mi compañera pues casi yo no hablaba y me decía mi compañera pues ahora sigues tú porque ya te toca a ti… [I had a lot of fear facing the world because I came from a small community to be in a city, so yes I was afraid…when it was my first experiences, well at that moment I don't know if it was shyness or, I couldn't talk, no? I imagined how the class would be…I was helping my coworker, well I could barely speak and my coworker said now it is your turn because your are up…]

Her nervousness would pass as she gained more experience:

todo esos nervios que estaban en mi todo quedó atrás, desde ahí yo ya empecé a agarrar mucha confianza, dar dar la clase hasta actualmente este, estamos aquí con el Náhuatl. [all that anxiety that was in me, everything moved back, since then I started to have a lot of trust in giving class and now we are here with Nahuatl.]

Both of my participants have become seasoned educators with bright and positive futures ahead of them. In the next chapter, I detail the experiences of a different speech community. The differences were not solely related to language, but to levels of experience. These Nahua educators had years of experience working with large groups in traditional classrooms and with small groups at a distance. Not only were these differences part of the individual educators' lived experiences, but they also had the included support (and reinforcement of curriculum development) from the institute. Their years of experience and institutional support contrasted heavily with my Mayan indigenous educators who had less than a year strictly working at a distance for a newly formed university. These educators were balancing multiple obligations that included studying, pursuing multiple languages (English, French and Yucatec Maya), and completing additional side projects. I detail the experiences of these educators in the next chapter.

Chapter 6: Kanik, Siis & Ts'íikil, the Mayans

In chapter 4, I addressed my main question in this traditional phenomenological study (Creswell, 2007) and, in this chapter, I answer my sub-questions that I used to expand my understanding of this phenomenon for the Mayan speech community. These sub-questions helped me to develop a deeper understanding through the identification of themes, categories and concepts.

a. What elements constitute the Mayan educators' perspective on teaching?

b. What factors influence their perspectives?

c. What are their discoveries about teaching their endangered language and culture to these speakers?

In chapter 5, I detailed my analysis of the Nahua participants from their interviews, writing prompts and artifacts and I follow the same procedures for the Mayans in this chapter. I unpack their composite description with a particular emphasis on each individual Mayan participant and their individual experiences teaching their language and culture at a distance. My analysis included the interview transcripts, the writing prompts and the artifacts for each participant. For these educators, the artifacts included their contributions to the collaboration in the network (the member page, assignment blog, and comment walls).

For this speech community, I worked with three participants: Kanik, Siis, and Ts'íikil. These participants were a joy to work with and were unique in many ways. After

working with all three of them and, with their permission, I chose their pseudonyms based on some unique characteristics that emerged during the interview project. Before I present my analysis of their experience, I explain my pseudonym choices and provide some background on my work with these creative educators.

Kanik, a Mayan Word Meaning *Learn*

Kanik (a young woman in her early twenties) was very interested in working with me, but her schedule did not allow for much interaction until two semesters after she had completed working with the collaboration. We would work together for a few months throughout the summer and she would fill me in on her goals for the future, which are rooted in education. She would tell me that she planned on becoming a teacher once she finished with her degree in language and culture and that her work with the collaboration was fantastic practice for her future career. While it was a positive experience for her, she struggled very much with her English level and many times she felt like she was not able to explain herself very well, especially when she was required to speak or chat with the students. However, she felt she was successful when she was given the opportunity to write her explanations. This preference for the written word fit with her abilities as a writer. In fact, she planned on writing about the Mayan culture in order to publish her work in the future.

During my time interviewing her, I could feel the energy she had for discussing her culture and experiences with teaching. It was clear to me that she had a passion for education and I searched for a word that captured that essence. For that reason, I chose **Kanik** as a pseudonym because it meant *learn* in her language. She told me that her future plans would include helping other students in her university learn to use the

network and to become participants in the collaboration, which I found as a mark of stewardship commonly found in teachers. In reviewing the work she shared, I saw evidence that she understood what it took for another person to learn something about her culture because her explanations were very clear and thorough. Her clarity and thoroughness originated in her preparedness through her studies. Kanik was enrolled in a program dedicated to the study of language and culture where she was able to use all of her languages. She was a multilingual speaker with Mayan, Spanish, English and French abilities.

Part of her identity was deeply tied to the Mayan culture and its language. She hoped that working with this collaboration would help the students in Florida understand her people in a different way. Kanik said "For example, in the case of the Maya culture, it's think that is lower culture [to other cultures including the culture of her ancestors]." She believed that many people looked at Mayans as a great culture whose people lived 500 years ago. She wanted her students to know that even though some say her culture is in danger of vanishing, she believed it was transforming and evolving.

Siis, a Mayan Word Meaning *Cool*

During my time working with these indigenous educators, I was not prepared to hear one of them tell me that they found it difficult to learn and think in their mother tongue. I would encounter this perspective with Siis (a young man in his early twenties). He would tell me that his parents did not pass the language along to him because they would only speak Yucatec Maya with other adults and never with the children in the house. He would also explain to me that, at this point in his life, he found it easier to use and think in English then to use Yucatec Maya. This fact became apparent during my

time interviewing him. Siis began the interview in English and almost never deviated from his English-use, except when searching for an occasional word like insecurity or vanishing (which he was translating from Spanish-not Yucatec Maya). He had this way about him that came across as very confident and very collected that made interviewing him a challenge because I was not sure what to say next sometimes. He was very forthright in telling me about the difficulties he experienced with the collaboration and he was also very forthright in talking about the ways he felt it could be improved so that there was more interaction between him and the students in Florida, especially in terms of practicing speaking.

It was not just the fact that he composed himself so well in the interviewing process, but it was also the uniqueness of his responses that led me to seek his permission to use *Siis* as his pseudonym. He needed to explain to me that the word means *cool* in the sense of temperature in Yucatec Maya, but I wanted to use it in the idiomatic way it is used in English to refer to something having very positive and first-rate qualities about it. He would eventually grant me permission to use this pseudonym in this way and he would be the only Mayan participant to talk about his language in a specific way. He would explain to me that he considered himself Mayan, but that he actually spoke Yucatec Maya, which was one of more than thirty kinds of Mayan languages spoken today. He would also be the only Mayan participant to tell me that he did not feel prepared to teach his culture and language because of the break in transmission that happened when his parents no longer passed along the language and culture. Even with this doubt, he began to engage in a variety of other projects that could help him connect to his culture and language while sharing and spreading the same to others. Over the

summer, he began to work on a project for putting together a radio station that would focus on elements of the Mayan culture that could include language, dance and music.

He was passionate about culture and its importance. Siis said "We are all the same…humans in all our ways, ours cultures aren't so different…" His focus on equality was important, but it was also rooted in his belief about sharing knowledge. He believed he that "All cultures have knowledge to share with the rest of the world…" and that everyone also had a responsibility to maintain their own culture while learning about other cultures at the same time.

Much like Kanik, Siis believed languages were instrumental to economic prosperity. He talked about the benefits of learning more languages (especially English). He said "…people whose learn two or more languages have more opportunities to get a good job." He contrasted this position with monolingual speakers who may not have any pride in multilingual abilities. This idea of benefits was an important part of his identity and he believed that "as more languages you speak you should be more and more pride because you know the hard work that you did to learn it."

Ts'íikil, a Mayan Word Meaning *Courage*

Ts'íikil (a young man in his early twenties) volunteered to be a part of my project very early on and he was one of the more productive members within the collaboration. I would often find him using the chat function in the network to learn more about how to navigate in the network and to talk to the Florida students about themselves. While he was an intermediate level English learner, he struggled very much with fluency, so I found his willingness to engage with me and the other students in the collaboration to be very courageous. He also attempted to complete the interviews with me using English

only, but, many times, he found he was not able to express himself fully using English. During our interview, we bantered back and forth about learning languages and he was very interested in improving his own English level. My favorite moment with Ts'íikil was when he asked me if I understood his English. I quickly commented to him that I thought his English was very good and that he was doing well in the interview. He surprised me by saying that I was lying to him. I had to chuckle as I explained why I was laughing. I told him that based on the fact that he was able to kid me about our interaction and he knew the word 'lying' was evidence for how well he knew the English language. In consultation with him, I chose his pseudonym, Ts'íikil, because I found him to be full of courage in the way that he threw himself into working with me and, more importantly, with the students. Ts'íikil means *courage* in Yucatec Maya and it was a name that captured an essence about him.

Through the artifacts, the writing prompts and the emic voice of all three Mayan participants, I unpack their composite universal description using the themes that emerged as an organizing device. These themes were visually represented in figure 4.3 and include the collaboration description, the technology challenges, the language and culture challenges, the portal developments and the results or future endeavors. I developed these themes following the analysis steps and focusing on these educators' experiences teaching their language and culture online. The discussion that follows is organized around these themes.

The Portal: Exciting yet Frustrating

The collaboration existed in a virtual space hosted in a Ning-powered socially created network. In figure 6.1, I provide a screenshot for the initial opening page that

each member encountered upon joining. This screenshot was also used in the manual that students and educators had access to during their time with the collaboration. The underlying assumption for this collaboration was that this portal supported the educators' needs and provided a space learning. As Langhort (2009) noted people tended to gravitate towards computers and were not hesitant to ask questions of individuals working collaboratively. In this way, the portal was an appropriate choice because many educators and learners appeared to have a preference for collaboration simply because of the portal's design.

Figure 6.1. Main page in the Ning network screenshot. All of the content was sorted into text boxes in columns with some areas that were member generated and others that were not. There was an activity feed that updated any new content generated by members as well as a space for members and their posted content.

As the screenshot in figure 6.1 showed, there were a number of ways in which this collaborative technology was utilized. First, students were able to work at interactions while being around the computers in a face-to-face environment (many times, the educators worked together in computer laboratories at their universities). Second, the educators and the students worked through their computers while being at a distance from each other. In this manner, the computer acted as a mediator for connecting

the geographically distinct entities and served as the anchor for this type of collaborative environments (English & Yazdani, 1999). Third, given the advances in current computer software technologies, the platform acted as a 'member' in the collaborative group (Anson, 1999). It was a member in that it was the location where any and all interactions occurred.

Kanik's experience of teaching her Mayan culture through the portal was one of positive, yet frustrating, qualities. For her interactions she described them as "...very good and exciting...a good experience for me...in fact, this experience I like, I liked..." Her interactions involved numerous outlets: "sometimes I chat...practice my English and writing, listening and sometimes speaking because I did a recording in the portal." Using mainly English throughout, Kanik interacted with the Florida students through the Ning portal by completing various tasks with postings, blog listings, chat rooms and audio recordings. This multi-modality approach found in this virtual classroom required a new set of communicative tools. Godwin-Jones (2006) and Chen, Belkada and Okamoto (2004) discussed a number of virtual environments with more than one channel used to communicate. As each channel was added, participants in both studies found the complexity increased. The complexity in this collaboration was further increased because the common language across the network was English (a language Kanik and the other educators were in the process of learning). Not only did the participants need to use English to communicate in the network, they also needed to navigate through the built-in language of the interface, which was English.

While there were many areas of importance within the network, most of the educators would visit their 'My Page' space primarily. This space (see figure 6.2)

included a space for a picture, a list of tools like email or messages, an activity feed and a list of content (e.g. number of entries in the blog, comments posted, etc.).

Figure 6.2. Member main page in the Ning network screenshot. Each individual member had their page with a personal activity feed in the middle column, a set of tools on the left side and the network activity feed on the right. Members were able to post their own pictures. In some cases, members used a picture of themselves while others chose something representative of themselves (as this screenshot shows a scorpion in place of a member's image).

Kanik's main focus was to share her culture and she commented on her enjoyment: "...I like share all about my culture...I talked about the customs...different Mayan rituals..." Ts'íikil's acknowledged the same focus "because they are and me interchange experience and cultures" through the NING platform. Much like Kanik, he had the opportunity to complete conversations through the chat tool. The presence of this chat tool made the network into a synchronous platform during those times when it was engaged. Alvarez-Torres (2001) noted the pressures with real-time meant there was little time to think, plan, or edit any message sent. These educators would note this difference when they discussed their preference for posting material asynchronously in the blog or as comments on the "My Page" walls.

Ts'íikil also responded to a number of assignments that asked him to share his ideas on culture, which were then posted in the blog tool. The experience involved using English-only: *"nunca fue en espanol, todo en ingles…"* [it was never in Spanish, everything in English]. For these educators, using English was not without difficulty. As they were in the process of learning English, they were also required to use it in order to be understood. As Francis and Ryan (1998) stated "It is in Mexico perhaps more than in any other Latin American country that English evokes such a wide range of postures reflecting profound sociolinguistic and cultural conflicts." (p. 26). These educators had opportunities for using their language, though they also needed to learn Spanish to be a part of greater Mexican society. Now, this collaboration required them to engage in yet another language. While they used English for the most part, Ts'íikil was able to teach a little bit of his language:

> *...como decia algo en Maya. Yo les decia alguna frases, alguna palabra fue eso mas gran interaccion tanto ella tanto yo aprendimos mas en esta interaccion.*
>
> […how you say something in Mayan. I told them about some phrases, some word that was the most interaction she as much as me had. we learned more in this interaction.]

He taught about his Mayan culture and included things like food, clothing and customs, which he approached them as being different from Mexican culture. Much of his interaction was posted into a blog in essay form. Ducate and Lomicka (2008) discussed the impact these microblogs were having on interaction within groups (microblogs are blogs contained within a network). In their study on using Weblogs in French and German language classes, Ducate and Lomicka concluded that reading blogs in the target

language could increase students' language ability and enhance their cultural understanding. While writing blogs, students could focus their attention on both the contents and language forms, which could help upgrade their writing skills. Furthermore, the interaction with readers will bring new ideas to students and contribute to their critical thinking. In short, the blog project fostered both ownership and creativity, allowed students to experiment with language, facilitated expression in a relaxed environment, and provided students with a window into the target culture that the textbooks did not provide.

While this network did not have a real time editing function between participants (except in the few reported cases of chatting), the blog area did contain a comment and organizational feature. Within this organizational feature, there were submissions from everyone (student and educator) in one location (see figure 6.3). Under each blog submission there was a space for comments. Participants were able to comment on the blog entries and some interactions occurred within this comment function with participants posting and responding in an asynchronous and written conversation.

Figure 6.3. Blog area in the Ning network screenshot. Much of the interaction occurred within this blog area. Members were able to upload their files into the network where all

members were able to read and post comments on each entry. This screenshot shows the overview of the blog entries, which is a redacted version. Members needed to click on the continue link to read the full entry.

Siis describes his interactions with the students from Florida as a productive and good experience "…it was a big opportunity to practice my English..." and he was able to better judge his current level with using English "...because I have ideas about my English level…I don't like to speak a lot. I am a shy person and [speaking off mic to get a translation on *inseguridad* [insecurity]] and I wasn't confident." He found he was able to share his culture to the students. "…I think that my favorite part of teaching Mayan Culture to them is that I can share my culture with people who are interested in my culture, and in this way I can help people to know more about my culture…" He felt that the students were interested in learning about him. He found that by comparing the different aspects of his culture and the cultures from the students in Florida he was able to learn about the similarities between the cultures and he learned so much about those similarities and what they share in common "…and also when we compared aspects that are similar between our cultures, because I think that we learnt too much about what are the similarities that we have in common."

This network was modeled on a foundation of cooperative learning through technology. The combination of cooperative learning and the use of technology led to many advantageous outcomes just as reported in earlier studies like English and Yazdani (1999) and Brandon and Hollingshead (1999). In using cooperative learning, these educators were able to increase opportunities for student interaction and for ownership in projects. Additionally, by adding technology to cooperative learning, the educators and students developed more positive attitudes toward technology, learned how to use both

software and hardware, reached higher levels of achievements, and promoted social interaction (Johnson & Johnson, 2008). This social interaction existed because the students and educators felt that they could reach their goal only if the others with whom they were linked with also reached their goals. Everyone involved, therefore, promoted each others' efforts to achieve the goal, which meant that positive interdependence resulted in promotive interaction.

This virtual space was full of opportunities for interaction and provided a number of outlets for sharing knowledge (mostly in written form and in English-only). Because of its asynchronous nature, the educators needed to wait until the students posted material and they also needed to wait for comments or other feedback. They also needed to access the internet at their university as well as endure slow connections at times in order for the interaction to succeed. While all of the educators had comparable positive experiences with sharing their culture, the virtual space had its own set of challenges.

Barriers, Slow Speeds & Missed Opportunities

For Kanik, technology became an issue early on:

> My background about the use technology is a few bad because I am not very good for using of all the programs of computer...I think that the internet can be a disadvantage because I not all the time have the internet...It's a few slow. It's slow the internet and its complicate to work with the internet in the university.

While she was interested in participating, she found it difficult to work around the slow connection speed at the university. Additionally, she needed to use the Internet only when she was on campus and not actively in classes. Lastly, she needed to use her supervising

professor as a resource for helping her with a number of the tasks in the collaboration, which added another barrier to her time spent using the tools.

While relying on her supervising professor was a barrier at times, there were also other options available that Kanik and the other educators utilized to succeed. By collaborating (as Ts'ĭikil did through the chat or by Kanik utilizing her supervising professor, the group experience was supportive and enable learning to occur in multiple ways (Newman, Johnson, Webb & Cochrane, 1997). At the same time, these educators found they were on the path to developing deeper connections to technology tools. In Kanik's case, her difficulty with 'technology literacy' (Bloch, 2008b) was exacerbated by the integrated nature of the network. With all of features combined, the challenges in using the network increased, especially when the dropdown menus, buttons and tools were all in English. The slow connection speed also created further difficulties because many of the features in the network required photographs or graphics to load in order to identify their function.

Siis was disappointed sometimes when he felt like the students were not really interested in what he told them. Many times, his perception was the students were not interested because of the asynchronous nature of their interactions. While, he was able to write a lot about his culture and post this information into the network, he did not have the opportunity to talk to students about this and he was looking for more interaction, so that he could learn more. "…we couldn't find students from Florida connected in Ning when we logged in Ning." In many cases his students wrote that the traditions he talked about in the blog were really interesting "…some students asked me about some rituals we practice and I explained it to them and they said me that they like it…" but they really

did not inquire further. “I wrote an essay about traditions, but I didn't have the opportunity to talk with the students about it…they wrote that the traditions are really interesting, but they didn't ask something about it.”

He believed the interaction would have been more beneficial if he had been able to encounter students in the chat function when he logged on. “When I was logging into the account there was no people connected and I only read and write.” He was able to encounter students on two occasions. “I used [the chat function] twice. Twice because I couldn't find people in the chat.” During one of these times, he was able to talk about a specific holiday that he celebrates in his community. “…we talked about a holiday that we celebrate in Mayan communities.”

Because of the virtual nature of the interaction, technology was definitely a factor in the educators’ success. However, these educators found another area to be much more problematic and it was something they encountered every time they needed to participate in the network. Their own abilities in English would be the most important factor in how they perceived their successes with the students.

Understanding Culture, Language & Each Other

In sharing her culture, Kanik was able to learn about the culture of the Florida students: "I always thinking that share my culture is not just Maya culture because the culture is very interesting in this interaction in both cultures there are many interesting." In fact, her favorite part in the interaction was "...when [Florida students] talk me about their culture, too...and when I read other essays that are post." Kanik found herself enjoying the interactions where culture was the focus. She found many of the posts

interesting and relevant to her studies (especially in developing her English reading abilities).

However in sharing her culture, she found there were a few challenges: "...I feel frustrate because in this explain I use many words in Mayan language because I didn't know how do you say this words in English..." She struggled quite a bit with her level of English and she identified a number of weaknesses during the collaboration. In many ways, she felt she could attribute her struggles to not being able to use English much outside of the classroom.

Since most of her daily life involved using Yucatec Maya "...in my home I talked the Maya language with my family...when I go at downtown I speak just Maya...in the university almost more students speak Maya, so I speak Maya more..." She used Yucatec Maya so much that she had difficulty making the transition from Yucatec Maya speaker to English speaker when she needed to explain culture to the students in Florida. Her use of Yucatec Maya outside of the experience and her learner status with English led her to feel "...it was a few difficult because sometimes I don't know how do you say some words or how do you write some words." She was not the only Mayan educator to run into difficulty with translation, but her words pointed to a more profound struggle with English than that of Siis or Ts'íikil. Lastly, her experience differed from her colleagues because she also had trouble explaining herself and her culture with writing: "..when I write essays although that is a bit difficult for me..."

As a language learner, she struggled with a number of the tasks that she needed to accomplish through her English abilities. Much of the interaction relied on the written word; whether it was in the form of a blog or a chat. In terms of teaching her Mayan

culture, she needed to write essays and post comments in the portal. This portion of the process contained feelings of frustration because she had difficulty explaining certain Mayan customs, rituals and traditions through the use of English only. Many times, she felt the students didn't understand those rituals and customs because she could not find the appropriate words and felt she was neither providing explanations that were very well done nor very clear. Underlying her experiences and that of the Mayan educators were the concepts of culture without full knowledge of the language from which they originated. Could the students in Florida ever understand the ideas, traditions or concepts without speaking Yucatec Maya? For the educators, the question becomes "is it possible to teach culture without that knowledge?" These questions were more integral to the position facing Siis and his journey.

Siis had similar experiences, though he faced an additional challenge. He had difficulty in teaching culture because he was not sure that he understood and knew enough about Mayan culture to teach it. "I think that I have a good knowledge about this thing but I think that I need to read more about this…I didn't know very well the Maya culture but I know little things about this." He did not speak Yucatec Maya, but he was able to understand the language since he grew up listening to his mother and father speak Yucatec Maya.

> …My parents speak Maya and know Maya culture but they didn't teach me this knowledge and now I start to learn this all the culture and to speak Maya. I can understand Maya language but I can't speak it and I think that now I'm not prepared to teach Maya culture.

Because he was unable to speak or think in Yucatec Maya very easily, he felt that he was not prepared to teach Mayan culture and he believed he only knew little things about the language and culture. As he struggled with his own knowledge in Mayan culture, he still believed everyone can teach his or her own culture "…everyone can teach his own culture. All people are able to do this, but if you don't believe it you can't do it."

Again the issue of abilities with English played an important part in the experience: "there is a barrier, this barrier is that the English. The English. At the beginning is, it's some thing a difficult for me-" Ts'íikil also needed to learn about the culture of students in Florida and in the US in general. For example he learned about Indian reservations:

> *hay reservaciones- son reservation indians. Y yo cuando, creia que en EEUU no hay, no habia ese tipo de personas*, [there are reservations – Indian reservations. And when, I didn't believe that in the US there aren't, there weren't this type of persons.]

This fact was a concept he was not familiar with prior to engaging in the collaboration. He had no idea that this type of person existed and he connected with this realization because he identified with being an indigenous person within a larger country. Using the findings from Freng, Freng and Moore (2009), this type of interaction falls under the category of student initiative. In this case, Ts'íikil found a connection between his own identity and that of another group in the US. Using Charleston's model of American Indian education, this type of connection enters the "Quasi Native approach" whereby learning is focused on relating personal experiences with that of other groups. Ts'íikil also took on some leadership from this connection (another element in this approach)

because he would use this information to engage more deeply with the participants in the portal.

He was motivated to learn more about the students in Florida because he is from a very small rural community without access to very many foreigners, so by being able to have contact with outsiders he found himself with more motivation for continuing to study. This opportunity was rich and allowed him to

> *tener contexto contacto con otras personas de fuera y cuando mi familia escucho eso que me dijo como que se sorprendió y pues es una forma de donde me motivara hacía que de seguir estudiando.* [to have contact with other foreigners and when my family heard what I said they were so surprised and umm it's one of the ways in which I was motivated toward continuing to study.].

He was able to give the students in Florida the chance to know

> *nuestra cultura que otro lugar en el mundo existe otra cultura como la nuestra y darles a conocerle asi que sepan que existen otras culturas en el mundo. Y que tengo algo más en su conocimiento.* [our culture like other places in the world there exist other cultures like ours and to give them some knowledge where they can know that other cultures exist in the world. And that I have something more in my knowledge base].

Regarding language use, he would echo many of the same comments from Kanik and Siis. Ts'íikil found he needed to be able to use English in order to participate fully in the experience, but he felt his own English level was not sufficient enough. He questioned his own abilities in English and talked about English being the only barrier that he had in working with the students from Florida. It was difficult for him to get rid of

this barrier on the first day that he came into the portal because he met a student through the chat function. During their interaction he had difficulty chatting with this student because of his English. His struggles with the language did not occur at the same level of intensity when he needed to write essays because he felt he could write better. Even though it was difficult overall he felt like he was able to express himself in the written form. In general, he enjoyed interacting with the students because he was able to show his culture to others and provide them with a different perspective on what it was to be Mexican. He was also intrigued by the notion that he could take people down paths they did not know in terms of learning about the Mayans. He was also satisfied with being able to share this knowledge with the students.

English occupied a curious position within the context of this collaboration. As Francis and Ryan (1998) noted that "the general relationship between Spanish and English is altered in predictable ways by the local sociolinguistic imbalances between Spanish and the indigenous language." (p. 27). While there may be lingering negativity toward Spanish (much like occurred with the Nahua educators), English occupied a more positive place. These educators saw English as a language of wider communication and of prestige. It was also the language of entertainment in the forms of music, television and movies. While they had many difficulties with using English, none of the educators mentioned wanting the collaboration to be in Spanish. The only exception to this idea was with the few educators who wanted to focus more on Mayan. Instead of language, the bulk of the activity centered around culture.

The idea of culture went both ways for Ts'íikil because he found himself learning new things about others that he did not know. He was very motivated by a number of

things from within the experience. First as a student of English, he was excited to be given the chance to practice and interact with students who speak English from the US. Second, he was also excited to have the opportunity to work with people from afar because of his location in a rural and small town in Mexico.

With his desire to understand the Mayan culture, Siis compared the students' work to his own work in order to look at culture at a more practical level. He struggled with this idea of culture as a concept that could be shared and taught because he questioned his own preparation as well as his abilities. Much of his need to understand came from being immersed in a Mayan speaking community, but not being given the tools necessary to participate fully in the same, especially in terms of being taught the Mayan language. The very individuals who did not pass the knowledge along to him also told him that in order to teach these things he needed to know more about his own culture.

For Siis, much of his energy was spent on struggling with the fact that he did not speak Mayan very well. During this study, he had reached a point in his coursework where he needed to make a decision on whether to study Mayan or English as a major. He was confused by this choice because when he tried to speak Mayan he had a lot of problems and felt he was unable to think in Mayan. These difficulties were not present with his English studies. His abilities with English were not common as Maxwell (2012) noted that many Mayan speakers in the US encountered difficulty with learning English, especially in academic subjects. Siis differed from many of these US cases because he received public education in Spanish and English from a very young age, which made learning English at the university easy and comfortable for him. For all of my

participants, Siis was the only one to indicate that there was difficulty with the home language. In contrast, the Nahuas were very comfortable with the modern variety of their language and only struggled with Classical Nahuatl. For the other Mayans, they discussed using Yucatec Maya within their homes, communities and at the university. In this way, Siis was unique with his language proficiency.

Since much of the interaction occurred within the portal, these educators spent much of their time developing the course material offline. During this time, they worked through their issues with English and the difficulties in translating concepts because these issues were within their control. The portal itself was not within their control and they encounter a number of areas where more development or improvements were needed.

Development: Pictures & Contacts

Because of the flexibility in designing the portal, Kanik found that the portal itself could be improved upon by allowing the use of photographs within the essays. She believed these photographs may help the students understand those points she struggled to explain in the written form. She also wanted to see an additional section devoted to photographs and videos. This section could be separate from the class activities and might be a space where everyone could post photographs of items related to culture that need some sort of visual to make them understood. She felt this type of interaction was missing and it might have helped everyone engage more in the interaction.

Ts'iikil was interested in improving the classroom activities rather than the portal itself. He felt the interactions and activities mostly focused on surface culture like food, dress, and customs. However, he was looking to interact more with teaching some things about the language and he felt strongly about needing to teach more things so that the

students knew more about the language. He felt that most of the experience was spent on general things in terms of culture and that the language was never touched. He was interested in developing more contact with the students and teaching them more about his language. He wanted to focus on words or common expressions like "what's your name?" or "where are you from?" and "how old are you?" in order to give the students the chance to immerse themselves in not only the culture but the language as well.

Future after Reflection

Upon reflection of their journey in the collaboration, these educators found they had begun to develop future plans. For instance, Ts'íikil indicated that many of his family and friends found it surprising that he had the opportunity to work with students from the US. They told him this opportunity would be good for his future and it would serve him later on because

> *es algo bueno para para mi futuro para contacto con otras personas como en este caso personal de Estados Unidos y que me serviría en un futuro en cuanto mis estudios.* [it's something good for for my future to have contact with other people like in this case people from the US and that it would serve me in the future with my studies.]

Though he was not sure of his future:

> *no se decirle todavía pero creo que en el futuro se ve tal vez sera un maestro más el que enseñar a éste en la lengua maya no sólo eso creo que tal vez el inglés o el francés…* [I can't tell you yet but I believe that the future looks maybe like I'll be a teaching better said the one who teaches ummm in the Mayan language not only that I believe that maybe English or French…].

He believed he may one day become a teacher and that one of his duties will not only be to teach the Yucatec Maya language but he would be interested in teaching English or French. This experience also gave him the chance to not only interact with languages at a local level but with people from other places who are also interested in learning about Mayan culture and language.

Much like Ts'íikil, Kanik had future plans that involved a career in education. After completing one semester with the collaboration, she found that she was interested in helping new students in her university with the collaboration, especially in using the Ning portal. This collaboration served as an opportunity for her to practice teaching, which was beneficial to her because she was interested in becoming a teacher for children. Education was not the only goal she had because she would like to pursue writing with a focus on Mayan culture in future publications like books in Spanish.

As Siis continued to grow in understanding his culture, he found he was able to share the traditions and customs of his people in a number of different ways. In the semester after completing the collaboration Siis began a project in developing an internet radio broadcast with some of his peers.

> …yes, some of my partners take a seminar about radio in native language. How to make radio with Maya language, Nahuatl, for native language or languages…And we start to think how to apply this knowledge and we decided to use the Internet for making a radio in Mayan language.

He was currently leading this project that will ultimately broadcast radio in Mayan as well as other native languages in Mexico.

> …we were to design a project about it…We are finding money to start with that and when I return to (home) my partners and I, we are going to work with the radio we are to apply all of the knowledge and we are going to start to transmit the culture and the language.

He was interested in spreading Mayan cultural knowledge and that of other indigenous groups in the hopes that other people would spread this knowledge to other parts of the world so that his culture was known. Siis would unconsciously exercise his stance toward the universality of indigenous issues by working to preserve his language and culture through control and self-determination (Hamley, 2001). He believed that if people did not want to teach about the Mayan culture, then the culture would disappear. He found his motivation in a balance of disseminating information about his own culture as well as his own desire to learn more about whom he was and who his people were.

Ts'íikil , Siis and Kanik worked diligently on teaching their language and culture while engaged in learning an additional language (English). This collaboration was in addition to completing the requirements for their own studies. As my analysis shows, they were active members in the collaboration and were fervently trying to teach the Florida students about their culture and language. Many times, they faced obstacles with their abilities in English, Internet connection speeds and locating students in the collaboration. However, they found ways of working through these obstacles and reported that they learned as much as about the Florida students as they did about themselves. Their achievements were not surprising as Wurm noted:

> It is not surprising that bi- and multilinguals tend to be more capable, and faster than monolinguals in finding solutions to unexpected small problems in their

> daily lives. This is also because bi- and multilinguals are usually to some extent bi- and multicultural and experienced in dealing with contradictory situations. This makes them more tolerant towards new situations and with their generally greater curiosity, enables them to learn, and like to learn, new experiences. (Wurm, 1999, p. 58)

In one case, Siis would find that the interaction made him look at the idea of culture in a new way. He was determined to share specific things about his culture and he was surprised to find out about the similarities in the culture of the Florida students and his own. Unfortunately, he was left wanting more and indicated he wanted more time with the collaboration coupled with more direct student interaction. In another case, Ts'íikil learned about reservations in the US and he was shocked to discover that there were indigenous members who were restricted to specific areas. He thought this type of situation only existed in Mexico. Lastly, Kanik learned about the importance of holidays in the US, which she contrasted with holidays in Mexico (national ones and holiday specific to Mayan culture). She was surprised to find out that some holidays happen on different dates in the US from the dates she was familiar with in Mexico. This type of growth occurred because she was actively engaged in sharing her own culture and found herself learning as much a she shared.

There was much research on the advantageous outcomes of using computer supported collaborative learning (Johnson & Johnson, 1999; Romance & Vitale, 1999; Papstergious, 2009) and this collaboration was no different. The Mayan educators discussed how the cooperation and technology led to them to experience higher achievement and greater productivity along with more effective learning in terms of the

generation of ideas and solutions. They were also able to facilitate greater transfer from one learning situation to another (Johnson & Johnson, 1999). As students learning English, this combination of cooperative learning and technology led them to feel they had more control over their own learning (Romance & Vitale, 1999). Finally, the use of this collaboration helped them develop more relationships and social presence (Papastergiou, 2009). All of these advantageous outcomes also resulted in an unique experience for them as educators as well as language learners.

In this chapter, I provided the individual experiences of the Mayan educators with this phenomenon. These educators discussed their challenges and successes with the portal and their students in Florida and I presented this information using their emic voice. In the next and final chapter, I discuss the implications of this work, the possibilities for further research and the conclusions I drew.

Chapter 7: Implications, Further Study & Conclusion

My intention for this chapter is to provide implications for the results of this qualitative approach. I intend to organize these implications based on the literature review gaps I identified in figure 2.4 where I sought to answer three gaps concerning how these indigenous educators (1) saw themselves and their experiences, (2) used technology for teaching a language, and (3) perceived their journey in becoming language teachers. I also provide a number of areas where further study is warranted and I include suggestions for other possible lenses to continue exploring this phenomenon. Lastly, I conclude the dissertation with an overview of my research process and a final quote from one of my participants.

Implications

In many cases the differences between my two speech communities were so unique that even the phenomenological essence required separate treatment. I find that much of the implications I pulled from this study also required separate treatment. I begin with my Nahua educators and how they saw themselves in the experience. I follow those observations with a discussion on my Mayan educators. I continue this separate focus for the remaining two literature gaps identified (i.e. how they use technology for language and culture teaching and how they perceive their journey in becoming language/culture educators).

Educators of all kinds.

The Nahua educators saw themselves and their experiences as ones of experienced educators looking back on the challenges and successes of teaching their language for so many years. Many of the challenges that these educators faced in their journey can be traced to the perceived low value of the language for its speakers and for monolingual Spanish-speaking Mexicans. This low prestige was one factor in explaining the treatment they received in the school system as well as in the greater Mexican society. Historically speaking, the prestige attached to a language group can change in a relatively short period of time as Dorian noted:

> Because the standing of a language is so intimately tied to that of its speakers, enormous reversals in the prestige of a language can take place within a very short time span…Today Nahuatl and Quechua are low prestige speech forms within the regions where they are spoken, and each is under some threat from still expanding Spanish. (Dorian, 1998, p. 4)

Ichtaca and Tlanextli discussed the effects of this low prestige on their own experiences growing up in Mexico. The low prestige also existed in the way the language was labeled a failure without any economic or professional value. Grenoble and Whaley discussed this idea further by stating one of the many fundamental causes "for the disappearance of a human language is well known. Speakers abandon their native tongue in adaptation to an environment where use of that language is no longer advantageous to them (1998, p. 22). Based on their own accounts, Ichtaca and Tlanextli wrestled with their language and its use. Their choice to leave their language behind almost solidified until these earlier negative experiences contrasted heavily with their most recent experiences through the

work they are doing at the institute. As Wurm noted "…increasing awareness of the need for language management procedures, which include raising speakers' self-esteem and regard for their own language as a means of self-identification…" (1991, p. 17) and within a very limited period of time, they began to reevaluate how they perceived their own language. Much of this change occurred because of their contact with outsiders like students and scholars in the US and Europe. These outsiders did not seem to approach Nahuatl in a negative manner. In fact, I studied the experiences of students and scholars in the US and they consistently reported positive opinions and reactions to the language and its speakers (De Felice, 2012). Not only did they report positive feelings towards the language, they actively sought out more opportunities for working with this language for many different reasons that included professional and academic. These participants discussed their experiences, thoughts, and feelings with learning Nahuatl and they began with their first encounter and ended with their current state in their language-learning journey. In addition to those descriptions, I found these participants shared two underlying motivations for studying this language: 1) using the Nahuatl language for specific purposes and 2) using Nahuatl as a connection to an historical or cultural past. Both of these motivations were driven by a higher purpose in ensuring the survival of speakers of this language group. Many of these students and scholars would work with the institute during the summer intensive courses or through online sessions.

The Mayan educators saw themselves and their experiences as ones of beginning educators engaged in one of many tasks. Their experience was linked to a collaboration between two partner universities and it was something they completed in addition to finishing their studies, working on their English language skills, and pursuing

requirements for their degree. It was also temporary in nature as many of these educators worked with the collaboration for only a semester or two before they moved onto other coursework or projects. Their commitment to or identification with being a language educator was quite different. Additionally, their time with the collaboration was more linked to gaining experience for future endeavors than on developing more time or experience with it.

Control? How it differs.

Educators in both speech communities utilized technology to meet their professional and academic goals. For the Nahuas, their challenge lied in learning to navigate a virtual classroom that occurred in real time and was conducted through Skype. For the Mayans, their challenges lied in understanding how to best share their culture through an asynchronous socially mediated network. In many ways, their experiences with technology were more similar than other aspects of their experience. All of them began using technology without much exposure to basic computing or the programs they used to teach. They also worked with a similar student population in terms of ethnicities and, in many cases, education level with much of their clientele being college-aged students. The difference between the two speech communities lied in the control they had over the technology.

Ichtaca and Tlanextli explained they were given complete control over how they used technology in most cases. They were able to utilize a technology that was familiar to them and to that of their students. They were also able to incorporate other technology tools to help them achieve their classroom goals, which included sharing files through e-mail as well as developing teaching strategies that made use of the various channels

available. Lastly, they were involved in creating much of the material they used in the classroom. The integrative nature for their activities at the institute were mutually reinforcing and gave them greater understanding of and input into the learning process

Kanik, Siis, and Ts'íikil explained that they had very little control over the technology chosen and did not have any familiarity with the platform. They also had a number of limitations in terms of using technology because of the difficulty in connecting to the Internet. Since their interactions were mostly asynchronous, they used the platform more as a storage space and less as a teaching tool. While they used a number of different technologies (blogs, comment walls, and email), these tools were almost exclusively asynchronous. The platform allowed for the use of chatting in real time, but there were very few instances of students being online at the same time as the educators. Since these educators spent much of their time utilizing technology, it became an important element in their journey. All of these differences in technology were also driven by the nature of the programs, which had fundamental differences in the way they were structured, organized and run. Additionally, these educators' journeys involved many other facets that included an understanding of the institutions they worked for or interacted with and a look into the secrets that kept their journeys going.

Survival of the fittest: Their secrets?

For the Nahua educators, their journey involved a key component that cannot be emphasized enough. Without the inclusion of the institute as part of their journey, these educators stories would be very different. During their time studying, working, and teaching for the institute, they were able to reevaluate their own stances toward their language and culture and to discover new paths for them. Crawford (1996) discussed the

notion of language shift (in this case, returning to the indigenous language) as being difficult to impose from outsiders (whether from Spanish-speaking Mexican entities or other non-Mexican influences like programs in the United States or the United Nations). As these educators explained, the institute did not impose. Rather it was a partnership that was mutually beneficial for the administration at the university as well as for the indigenous members. This institute may serve as a model for future attempts by other language groups to document and begin revitalizing their languages.

For the Mayan educators, they perceived their journey as one in which they reconnected or reaffirmed their passion for engaging in projects that benefit their language and culture. In many cases, the process of becoming a language and culture teacher was surprising to them and others in their speech communities given the unique nature of their home languages. While they did not have as strong of an influence from an institute like the Nahuas did, their language was in a much different position. In a sense, they did not have as much to protect or fight for since there were numerous advantages available to them. They were involved in the creation of a new university that offered courses in their home language. These educators could choose to study Yucatec Maya as a major, which was something not available to many Nahuas. Their temporary experience with the collaboration was just one of many projects and activities that they were engaged in. Lastly, their journey had just begun and they approached this collaboration as building experience for their future because many of them inspired to careers in education.

One clear implication that was true for both speech communities was the idea that for these languages and groups to survive, these speakers are needed to maintain more than just their home language. Clearly, the speakers needed to learn Spanish in order to

survive within the geographic boundaries where they are from and it appeared as if they also needed to learn English. Dorian summed up this view succinctly by stating "the long-term maintenance of a small language implies not just the persistence of one language but the enduring coexistence of two or more" (Dorian, 1998, p. 17) and these educators demonstrated their willingness to endure coexistence whether by force (in the case of Spanish) or by choice (in the case of English).

In both speech communities, these educators were engaged in successful projects that may influence the future of their language's survival. Since many attempts have failed (as documented by Hornberger & King, 1991; Nettle & Romaine, 2000; Ruiz, 1992; Wurm, 1991), I summarize four main reasons for why attempts do not succeed (Dauenhauer & Dauenhauer, 1998) and I use these four reasons to illustrate how the indigenous educators in this study are succeeding. First any situation where a weaker culture takes on a stronger culture, the odds are not encouraging for that weaker culture to succeed. In the case of Nahuatl and Mayan, both of these speech communities have suffered through oppressive domination for the past 500 years. During this period, much has transpired within Mexican society, government, and the world-at-large. As both speech communities continue to negotiate their position within Mexico, they continue to exist (many times in embattled conditions) and, in many cases, prosper. Their continued existence points to them already "beating those odds."

Second, efforts to revitalize or preserve a language often happen too late. Again, in both cases these language groups have had decades of concentrated efforts that are now bringing fruition and even greater successes that may be attributed to the influence of technological advances. In the case of the Nahuas, the university program has more

than a decade of growth and success. Though the university is located in a different region of Mexico, the members in the program have developed close-knit relationships with the community. For the Mayans, their university is the culmination of years of work between the community and its members. Given the stability and unique position for speakers of Yucatec Maya, this university offers its students the chance to earn a degree while taking classes in Yucatec Maya, which is an achievement not found in many language revitalization efforts.

Third, many grass-root efforts embark on reversal and restoration without acknowledgment or awareness of language acquisition or language transmission research. In this case, the two speech communities have engaged in efforts backed or supported by universities. In other words, these grass-root efforts originated with the support of the indigenous members, their community and the institutions they partnered with. As Dauenhauer and Dauenhauer (1998) indicated these universities have the resources for helping to develop pedagogy and curriculum that take into account language acquisition theories and sound best practices for educational development.

Fourth, many revitalization efforts have been introduced and maintained in a haphazard fashion. With the support and guidance from a number of individuals at various universities and the indigenous educators own educational achievements, these current efforts are not haphazard in any aspect. All of these reasons point to the continuation of the institute and the collaboration, which means there a number of areas where future research may be appropriate.

Looking more closely: Observations, differences & struggles.

By engaging in a description of a rather broad phenomenon, I found I developed more questions than answers, though I succeeded in narrowing the possibilities for future questions. First, this phenomenological study engaged the participants through interviewing and other individual created materials. In many ways, this limited the understanding of the phenomenon to that of the lived experience of those individuals. While this focus is clearly the underlying point behind phenomenology, I found myself asking questions throughout the process where utilizing participant observation or even naturalistic observations may have been more appropriate in helping me understand the phenomenon. Many times, my participants described interactions with their students that seemed to suggest more learning was occurring than I have seen in my own time as a language educator. I do not mean to imply that my participants were exaggerating their student's progress. Rather, I found there was a disconnect between what my participants told me they were teaching and the description of their lesson's objectives. For instance, the Nahua educators told me about the interaction that occurred during a lesson on teaching basic vocabulary for body parts. During these sessions, Tlanextli and Ichtaca mentioned their students used Nahuatl exclusively during the lesson (including communicating with each other). I would like to see this interaction between their students, especially with the language they used to achieve the class goals. In order to better understand these educators' perspectives, I would like to attend one of their virtual classes as a participant as well as an observer sitting next to them while they are working at the institute or on the collaboration.

I was also interested in exploring more about their experiences with the differences between teaching online and face-to-face. Ichtaca and Tlanextli discussed in great detail the challenges and experiences they faced with teaching the intensive summer courses versus teaching the online virtual sessions. They also discussed the difficulty they had in taking some of their favorite activities from a traditional classroom and converting them to an online format. They were very interested in focusing on the environment and bringing students on location and that was something they mentioned as being difficult to re-create online. Along the same lines, I would also like to explore more fully the differences between teaching asynchronously and synchronously. Many of the Mayan educators discussed their preference for interacting with the students synchronously and were dismayed over how little interaction there was asynchronously. I wonder if their preference for interacting with students is only an educator preference and not something shared by the students. To answer that side of the question, I would need to engage in research with the students from Florida and their experiences. If these Florida students indicated a preference for synchronous interaction, that may provide more evidence for the limitations with their attempts at asynchronous education.

Lastly, I worked with participants who had mostly positive experiences and successes with their teaching and I would be interested in working with participants who struggled with teaching their language and culture or were not able to participate. I believe that hearing about their experiences may help to clarify some ways that the institute and collaboration could be improved on. Having both perspectives would allow the administrators of both projects to make informed decisions about the progress and directions of current and future work.

Phenomenology as a Jigsaw Puzzle

In looking back over the course of my journey with this study, I found I engaged in a series of steps that led me to the creation of the phenomenological essence (or the universal description using terminology from Moustakas, 1994 and Creswell, 2007). I provide a visualization of these steps in figure 7.1 in the form of a metaphor loosely based on the idea of building a puzzle.

I began the process by considering a number of different areas that I represent in the form of boxes linked to specific themes or ideas. For example, I considered language learning, use of technology, endangered languages, educator training, among others. During my time with coursework, time in the field, and reading vast amounts of literature, I moved into the next step in my journey. I created a formal document in the form of a proposal that linked all of those various ideas from that first step into a bound phenomenon that focused on the indigenous educators' lived experiences with teaching language and culture online. From within this bound system, I began to recruit participants and spent time listening to their perspectives, beliefs and descriptions. I also read their responses to my questions and I put their spoken words into transcriptions.

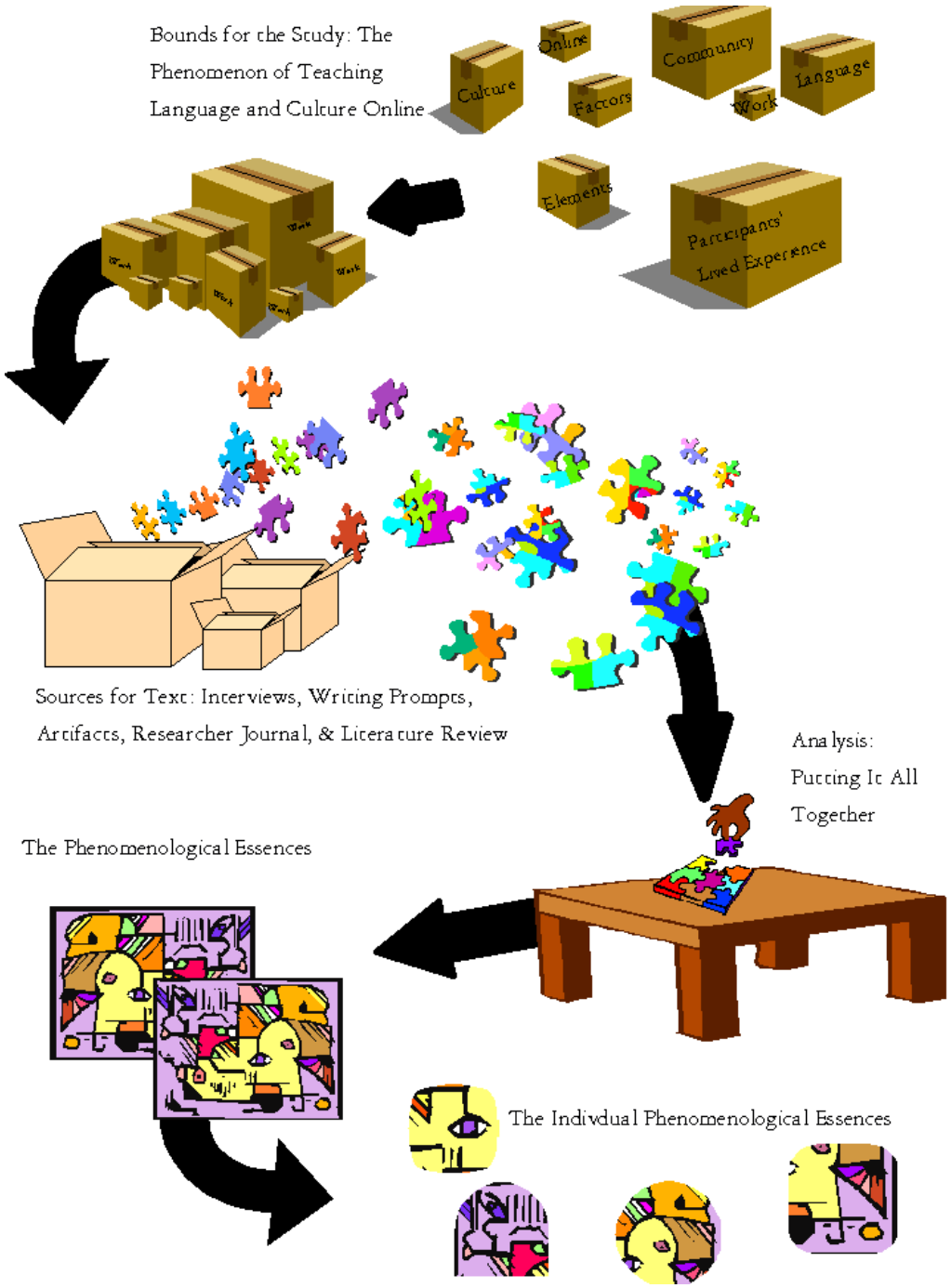


Figure 7.1. My visualization of research process. As I neared the end of the research journey, I began to visual each step I took. I use the metaphor of puzzle building to show what the process looked like. This figure shows the process from start (bounding the various pieces of the phenomenon) to finish (analyzing the themes, categories and concepts from the universal description). Clip art taken from © 1997-2004 Riverdeep Interactive Learning Limited, and its licensors. All rights reserved. Broderbund is a registered trademark of Riverdeep Interactive Learning Limited.

This creation of text brought me to the next step in my journey that I represent in figure 7.1 as the opening of those boxes that contain a multitude of various puzzle pieces. These pieces were full of different colors and different sizes, which is very different from a traditional puzzle. In many ways, this metaphor of creating a puzzle was appropriate for describing the process I went through. However, the metaphor breaks down with the idea that all of the pieces for the puzzle originated in one box. This idea of one box and uniform pieces was much too simple of a metaphor to account for all of the text my participants generated. I modified figure 7.1 to expand the metaphor into the idea that my analysis was the equivalent of taking multiple puzzles of different sizes and pictures and creating a new final puzzle in the shape of the essence of their lived experience.

As I found there were many similarities as well as differences between my participants, I began to see that the essence I found did not fit neatly into one puzzle. Instead, I found myself creating two distinct completed puzzles that overlapped and shared many of the same colors and areas within the final pictures. Continuing with my visualization, I found myself with two separate complete puzzles on the table.

While the main goal behind a phenomenological analysis is that essence or universal description, much of the understanding comes from the analysis of the individual characteristics or pieces of that final essence. The last step I completed in this journey was to discuss how those little sections or pieces told as much about the experience as did that entire essence.

This phenomenological process was a satisfying experience and one way of engaging in my own development as an educator and researcher while also giving me the opportunity to become an active participant in the lives of others. From the first moment I

encountered the Nahuatl language so many years ago, I have looked for ways of understanding the experiences of individuals who speak a language that is in danger of disappearing within a short number of generations. Given this fact, my journey with the Nahua and Mayan educators could have been a story of despair or sadness, but these educators told me an entirely different story about what it means to be an educator of an endangered language. They depicted a situation in which they have taken control of their futures by utilizing the technology in front of them and are engaging with people from all over the world who are interested in their language and their stories as well.

This transcendental phenomenological process gave me the tools necessary to document and describe the process these individuals went through and it showed me the never-ending nature of learning to understand the experiences of others. The more time I spent working with these educators, the more passion and respect I came to have for my own profession and for the students I work with. In fact, I was not prepared for the unbridled enthusiasm and motivation I found with these indigenous educators and it gave me pause when I found myself fretting over the latest high-stakes testing results or the latest pronouncement on how unsuccessful our school systems are. These educators gave me the courage to keep engaging with my preservice teachers, to keep imploring them to be the voice for their language learners of all kinds, and to enjoy my time in the classroom whether virtually or otherwise because it is perfectly acceptable to be passionate about language education and it is an important and worthy enterprise.

Working with these educators also made me reevaluate my own status as an English language speaker. While I have abilities in other languages, my life essentially revolves around English. I use it in my daily, academic and professional life. It is also the

language of my thoughts, feelings and experiences. This reliance on it differs from that of these indigenous educators because they can utilize their language in a way I am unable to as Ostler discussed:

> But what of us, the unfortunate native speakers of successful imperial languages like English, French, Spanish, Russian or Chinese, who have no domestic language of our own to keep safe our more intimate discourse with family, friends and fellow-poets? We shall never share the sheer spaciousness of domain, known by speakers of small languages, who can move from their home language out into world-speak, but return when they seek something at a scale more adapted to human life. (2001, p. 352)

As many of these educators indicated, they paid a very high price for having this one privilege available to them. In fact, many of these educators have found themselves in positions where they were forced to consider leaving behind their language. In fact, one of these educators has reached a point where he needs to make a choice. Siis can choose to reconnect with Yucatec Maya or he can leave it behind to study English, Spanish and French. These languages that Ostler noted may be successful in the imperial sense, but will not offer Siis that connection to his home culture. If Siis ultimately chooses the imperial languages, he will be one of many who felt the pressure to give up their language and as Hale noted "[Language loss] is part of a much larger process of loss of cultural and intellectual diversity in which politically dominant languages and cultures simply overwhelm indigenous local languages and cultures, placing them in a condition which can only be described as embattled" (1992, p. 1). Whatever Siis chooses, he knows the feeling of being embattled all too well. For my other participants, they have made

different choices and continue to work with their languages and cultures. (I would like to note that Siis spoke eloquently about his parents not passing down the language and culture and I found this fact to be influential in his difficulty choosing whether or not to continue studying Mayan.)

As I began my dissertation with the words of my participant Tlanextli, I would like to leave the well-deserved privilege of closing my work to another participant, Ichtaca. She and all my participants had a profound influence over me and I think she can best close this dissertation with the following quote on one of her favorite teaching activities. I chose this quote from her because it demonstrates the deep connection between language, culture and teaching that I found in all of the educators. It also demonstrates the difficulty in teaching some aspects of culture in an online format, which she particularly struggled with as do I in my teaching.

> *Bordado conocida en nahuatl "tlapohuaulli." Este tipo de bordado se hace en el transcurso del curso de verano y esto consiste en enseñarles a los alumnos a que aprendan a contar y a la vez bordar, pero sobre todo que los alumnos empiecen a comunicarse entre ellos mismos y a preguntar como se dice, por ejemplo la tela, aguja, arriba, abajo, entre otros. Esto es muy hermoso porque también muestro un poco de la cultura de mi lengua nahuatl. Y el bordado que les enseño aprendí con mis abuelos y mis padres en la (comunidad)."*
>
> [Embroidery known in Nahuatl as "tlapohualli." This type of embroidery is done during the summer course and it consists of teaching the students how to learn to count and at the same time embroider, but above all else, the students start to communicate between themselves and ask how do you say for example the cloth,

the needle, up, down, among other things. This is very beautiful because it also demonstrates a little of the culture of my language Nahuatl. And the embroidery that I teach them I learned from my grandparents and my parents in the community].

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Appendices:

Appendix A: List of Interview Questions for Mayan Indigenous Educators

	Questions in English then Spanish / Preguntas en ingles después español
1.	Can you tell me a little about your educational background?
	¿Puedes comentar un poco sobre tus antecedentes educativos?
2.	How would you describe your work with the students from the university in Florida?
	¿Cómo describirías tu trabajo con los estudiantes de la universidad de Florida?
3.	Could you describe your interaction with the students from the university in Florida?
	¿Cómo describirías tu interacción con los estudiantes de la universidad de Florida?
4.	What attracted you to teaching Mayan culture to the students from the university in Florida?
	¿Qué te cautiva a la enseñanza de la cultura maya a los estudiantes de la universidad de Florida?
5.	What encourages you to work as a Mayan-culture educator for the students from the university in Florida?
	¿Qué te motiva trabajar como educador de la cultura maya para los estudiantes de la universidad de Florida?
6.	Is there anything that served as a barrier in terms of becoming a Mayan-culture educator for the students from the university in Florida?
	¿Hay algo que te haya desmotivado o alguna barrera en respeto a ser educador de la cultura maya para los estudiantes de la universidad de Florida?
7.	What were the reactions from your families/peers/friends in response to become a Mayan-culture educator for the students from the university in Florida?
	¿Cuáles fueron las reacciones de tu familia, tus compañeros, tus amigos sobre tu decisión a ser educador de la cultura maya para los estudiantes de la universidad de Florida?
8.	What information or advice would you offer to others who are interested in teaching Mayan culture to the students from the university in Florida?
	¿Cuál información o cuales consejos darías a otros que tienen ganas de enseñar la cultura maya para los estudiantes de la universidad de Florida?
9.	What do you hope to achieve by teaching the Mayan culture to the students from the university in Florida?
	¿Qué esperas realizar o lograr con la enseñanza de la cultura maya para los estudiantes de la universidad de Florida?
10.	What plans do you have for the future for teaching the Mayan culture to the students from the university in Florida?
	¿Cuáles son los planes que tienes a futuro con la enseñanza de la cultura maya para los estudiantes de la universidad de Florida?

Appendix B: List of Interview Questions for Nahua Indigenous Educators

	Questions in English then Spanish / Preguntas en ingles después español
1.	Can you tell me a little about your educational/teaching background?
	¿Puedes comentar un poco sobre tus antecedentes educativos o de enseñanza?
2.	How would you describe your current job?
	¿Cómo describirías tu actual trabajo?
3.	Could you describe your typical day?
	¿Cómo describirías tu día cotidiano?
4.	What attracted you to teaching the Nahuatl language to speakers of other languages or people of other nationalities?
	¿Qué te cautiva a la enseñanza del idioma Nahuatl a los hablantes de otros idiomas o personas de nacionalidades diferentes?
5.	What encourages you to work as a Nahuatl language educator for speakers of other languages or people of other nationalities?
	¿Qué te motiva trabajar como educador del idioma Nahuatl para los hablantes de otros idiomas o personas de nacionalidades diferentes?
6.	Is there anything that served as a barrier in terms of becoming a Nahuatl language educator for speakers of other languages or people of other nationalities?
	¿Hay algo que te haya desmotivado o alguna barrera en respeto a ser educador del idioma Nahuatl para los hablantes de otros idiomas o personas de nacionalidades diferentes?
7.	What were the reactions from your families/peers/friends in response to become a Nahuatl language educator for speakers of other languages or people of other nationalities?
	¿Cuáles fueron las reacciones de tu familia, tus compañeros, tus amigos sobre tu decisión a ser educador del idioma Nahuatl para hablantes de otros idiomas o personas de nacionalidades diferentes?
8.	What information or advice would you offer to others who are interested in teaching the Nahuatl language to speakers of other languages and people of different nationalities?
	¿Cuál información o cuales consejos darías a otros que tienen ganas de enseñar el idioma Nahuatl para hablantes de otros idiomas o personas de nacionalidades diferentes?
9.	What do you hope to achieve by teaching the Nahuatl language to speakers of other languages and people of different nationalities?
	¿Qué esperas realizar o lograr con la enseñanza del idioma Nahuatl para hablantes de otros idiomas o personas de nacionalidades diferentes?
10.	What plans do you have for the future for teaching the Nahuatl language to speakers of other languages and people of different nationalities?
	¿Cuáles son los planes que tienes a futuro con la enseñanza del idioma Nahuatl para hablantes de otros idiomas o personas de nacionalidades diferentes?

Appendix C: List of Writing Prompts for Mayan Indigenous Educators

	Writing Prompts in English then Spanish / Tareas Escritas en ingles después español
1.	What are your favorite parts of teaching Mayan culture to the students from the university in Florida?
	¿Cuáles son tus partes favoritas de la enseñanza de la cultura maya a los estudiantes de la universidad de Florida?
2.	What are your least favorite parts of teaching Mayan culture to the students from the university in Florida?
	¿Cuáles son tus partes menos favoritas de la enseñanza de la cultura maya a los estudiantes de la universidad de Florida?
3.	Can you share one of your favorite moments teaching Mayan culture to the students from the university in Florida? What happened? Please explain.
	¿Puedes compartir uno de tus momentos favoritos de la enseñanza de la cultura maya a los estudiantes de la universidad de Florida? ¿Qué paso? Por favor explicar.
4.	Can you share one of your least favorite moments teaching Mayan culture to the students from the university in Florida? What happened? Please explain.
	¿Puedes compartir uno de tus momentos menos favoritos de la enseñanza de la cultura maya a los estudiantes de la universidad de Florida? ¿Qué paso? Por favor explicar.
5.	How would you describe your background in technology? How competent are you with using computers to teach Mayan culture to the students from the university in Florida?
	¿Cómo describirías tus antecedentes con la tecnología? ¿Qué tan buenas son tus habilidades con las computadoras en la enseñanza de la cultura maya a los estudiantes de la universidad de Florida?
6.	What computer or technology training have you had in teaching Mayan culture to the students from the university in Florida? If you didn't receive any training, could you describe how have you learned to use the computer or technology?
	¿Qué tipo de entrenamiento tienes sobre computadoras o tecnología has tenido con la enseñanza de la cultura maya a los estudiantes de la universidad de Florida? ¿Si no has recibido ningún tipo de entrenamiento, como has aprendido a usar la computadora o tecnología?
7.	What is your favorite part of using Ning to teach Mayan culture to the students from the university in Florida?
	¿Cuáles son tus partes favoritas del uso del programa Ning en la enseñanza de la cultura maya a los estudiantes de la universidad de Florida?
8.	What is your least favorite part of using Ning to teach Mayan culture to the students from the university in Florida?
	¿Cuáles son tus partes menos favoritas del uso del programa Ning en la enseñanza de la cultura maya a los estudiantes de la universidad de Florida?

Appendix D: List of Writing Prompts for Nahua Indigenous Educators

	Writing Prompts in English then Spanish / Tareas Escritas en ingles después español
1.	What are your favorite parts of teaching Nahuatl to speakers of other languages or people of other nationalities?
	¿Cuáles son tus partes favoritas de la enseñanza del idioma Nahuatl a los hablantes de otros idiomas o personas de nacionalidades diferentes?
2.	What are your least favorite parts of teaching Nahuatl to speakers of other languages or people of other nationalities?
	¿Cuáles son tus partes menos favoritas de la enseñanza del idioma Nahuatl a los hablantes de otros idiomas o personas de nacionalidades diferentes?
3.	Can you share one of your favorite moments teaching Nahuatl to speakers of other languages or people of other nationalities? What happened? Please explain.
	¿Puedes compartir uno de tus momentos favoritos de la enseñanza del idioma Nahuatl a los hablantes de otros idiomas o personas de nacionalidades diferentes? ¿Qué paso? Por favor explicar.
4.	Can you share one of your least favorite moments teaching Nahuatl to speakers of other languages or people of other nationalities? What happened? Please explain.
	¿Puedes compartir uno de tus momentos menos favoritos de la enseñanza del idioma Nahuatl a los hablantes de otros idiomas o personas de nacionalidades diferentes? ¿Qué paso? Por favor explicar.
5.	How would you describe your background in technology? How competent are you with using computers to teach Nahuatl to speakers of other languages or people of other nationalities?
	¿Cómo describirías tus antecedentes con la tecnología? ¿Qué tan buenas son tus habilidades con las computadoras en la enseñanza del idioma Nahuatl a los hablantes de otros idiomas o personas de nacionalidades diferentes?
6.	What computer or technology training have you had in teaching Nahuatl to speakers of other languages or people of other nationalities? If you didn't receive any training, could you describe how have you learned to use the computer or technology?
	¿Qué tipo de entrenamiento tienes sobre computadoras o tecnología has tenido con la enseñanza del idioma Nahuatl a los hablantes de otros idiomas o personas de nacionalidades diferentes? ¿Si no has recibido ningún tipo de entrenamiento, como has aprendido a usar la computadora o tecnología?
7.	What is your favorite part of using Skype to teach Nahuatl to speakers of other languages or people of other nationalities?
	¿Cuáles son tus partes favoritas del uso del programa Skype en la enseñanza del idioma Nahuatl a los hablantes de otros idiomas o personas de nacionalidades diferentes?
8.	What is your least favorite part of using Skype to teach Nahuatl to speakers of other languages or people of other nationalities?
	¿Cuáles son tus partes menos favoritas del uso del programa Skype en la enseñanza del idioma Nahuatl a los hablantes de otros idiomas o personas de nacionalidades diferentes?

Appendix E: Informed Consent to Participate in Research

Informed Consent to Participate in Research. Information to Consider Before Taking Part in this Research Study.
IRB Study # eIRB#6484

Researchers at the University of South Florida (USF) study many topics. To do this, we need the help of people who agree to take part in a research study. This form tells you about this research study.
We are asking you to take part in a research study that is called:
A Phenomenological Study of Teaching Endangered Languages: Perspectives from Nahuatl and Mayan Educators
The person who is in charge of this research study is Dustin De Felice. This person is called the Principal Investigator. You may also reach Dustin at *the University of South Florida, Phone: (813) 974-1576 or email: ddefelic@mail.usf.edu*

Keep in mind, other research staff may be involved and can act on behalf of the person in charge. In order to participate, you will need to be interviewed through the internet. You will be able to participate at any computer with internet access and the application Skype.

Statement of Person Obtaining Informed Consent
I have carefully explained to the person taking part in the study what he or she can expect.
I hereby, to the best of my knowledge, certify that when this person acknowledges agreement, he or she understands:

- 1) What the study is about. 2) What procedures will be used. 3) What the potential benefits might be. 4) What the known risks might be.

_____ _____

Printed Name and Signature of Person Obtaining Informed Consent Date

_____

Printed Name of Person Giving Informed Consent

Appendix E: (Continued)

Acuerdo de Consentimiento para Participar en la Investigación. Información de pensar antes de Participar en la investigación.
Numero de estudio IRB # eIRB#6484

Los investigadores de la universidad USF (University of South Florida) estudian muchos Temas. Para lograr esto , necesitamos la ayuda de personas que están de acuerdo en participar en la investigación. Este documento les da información sobre esta investigación.
Le pedimos su participación en esta investigación que se llama:
Una investigación fenomenológica de la enseñanza de los Idiomas en Peligro: Perspectivas de los maestros mayas y nahuas. A Phenomenological Study of Teaching Endangered Languages: Perspectives from Nahuatl and Mayan Educators
La persona encargada de la investigación se llama Dustin De Felice. Dustin tiene la posición que se llama El Investigador Principal. También, Ud. puede comunicarse con Dustin en la universidad USF por teléfono: *(813) 974-1576 o por correo-electrónico: ddefelic@mail.usf.edu*

Tenga presente que otros investigadores podrían estar involucrados en la investigación y pueden trabaja en nombre del individuo encargado. A fin de participar, necesitara cumplir entrevistas atrás vez de la red. Ud. puede participar con cualquier computadora que tenga acceso a la red y el programa Skype.

Declaración del Individuo Obtenido Acuerdo de Consentimiento
Yo le he explicado cuidadosamente al individuo participante en esta investigación sobre las expectativas de este tema.
Por este medio y a mi entender, yo certifico que esta persona esta acuerdo y consciente de lo antes mencionado:

- 1) Sobre la investigación. 2) Sobre los procedimientos. 3) Sobre los beneficios de participación. 4) Sobre los riesgos posible.

_____ _____

Nombre en Molde y la Firma del Individuo obteniendo Acuerdo de Consentimiento Fecha

_____

Nombre en Molde del Individuo dando Acuerdo de Consentimiento

Appendix F: Member Check Forms

Dear _____,

Thank you for an enjoyable and insightful interview. Attached please find a draft copy of the verbatim transcripts of the interview. Please review the transcription for accuracy of responses and reporting of information. Please feel free to contact me via email at dustindefelice@yahoo.com should you have any questions.

Thank you again for your willingness to participate in this study.

Sincerely,

Dustin De Felice

Querido/a _____,

Le agradezco por la entrevista agradable y de perspicacia. Yo puse una versión de la entrevista al pie de la letra en este corre. Por favor, examina la transcripción para ver la exactitud de las respuestas y la información. Usted puede estar en contacto conmigo por correo dustindefelice@yahoo.com por cual quiera pregunta que usted tenga.

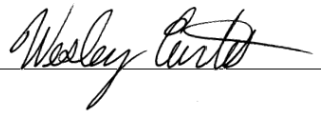
Una vez más, quiero agradecerle por su participación en este estudio.

Atentamente,

Dustin De Felice

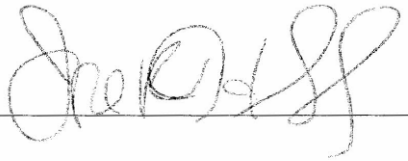
Appendix G: Peer Reviewer Forms

I, Wesley Curtis, have served as a peer reviewer for "A Phenomenological Study of Teaching Endangered Languages Online: Perspectives from Nahuatl and Mayan Educators" by Dustin De Felice. In this role, I have worked with the researcher throughout the study in capacities such as reviewing transcripts, evaluating text analysis procedures and assisting in emerging issues.

Signed: 

Date: 20/July/2012

I, Jose Sanchez, have served as a peer reviewer for "A Phenomenological Study of Teaching Endangered Languages Online: Perspectives from Nahuatl and Mayan Educators" by Dustin De Felice. In this role, I have worked with the researcher throughout the study in capacities such as reviewing transcripts, evaluating text analysis procedures and assisting in emerging issues.

Signed: 

Date: 19 July 2012

Appendix G: (Continued)

I, Elizabeth Visedo, have served as a peer reviewer for "A Phenomenological Study of Teaching Endangered Languages Online: Perspectives from Nahuatl and Mayan Educators" by Dustin De Felice. In this role, I have worked with the researcher throughout the study in capacities such as reviewing transcripts, evaluating text analysis procedures and assisting in emerging issues.

Signed: _____
ELIZABETH VISEDO

Date: 09/06/2012

Appendix H: Excerpt from My Researcher Reflective Portfolio

On October 21, 2011 I began my first pilot study interview session with Tlanextli, a Nahuatl indigenous educator. I was interested in developing a pilot study to gain more experience with interviewing as well as testing out my interview questions that I had developed to guide my semi structured format. Since many of the indigenous educators I will work with speak Spanish as well as their native language, I developed the study questions in both English and Spanish. As the date for my first interviewing session neared, I realized I was missing a key question to get the conversation started about the background for the educator, especially in terms of what his or her experience has been with teaching languages. I quickly drafted up an opening question that was meant to give me a chance to investigate more about the educational experiences as well as the professional experiences my participants might have had. As I was doing the translation, I became stuck on the word *background* in Spanish. I consulted with a number of print-based dictionaries as well as some Internet sources and they referred me to the phrase "antecedentes penales." I was on uneasy with this phrase because I recognized that term as being more closely related to a cognate in English that has to do with the law. Because of my hesitation, I decided to consult a native speaker and I would ask her to confirm that the term for background in Spanish is what I found. My native speaker confirmed that a translation for that word would be "antecedentes penales." After having received confirmation, I added this question and its translation into my list of interview questions. On the day of the interview, I began with this question.

Can you tell me a little about your background?
¿Puedes comentar un poco sobre tus antecedentes penales?

Tlanextli was quiet for a moment and then he started to tell me a number of stories that did not match my intention with the question. I did not want to interrupt him, so during a natural break in one of his stories I asked him to tell me how those experiences had led him to where he was now in his education and teaching. From this point on, the interview returned to a closer match of my expectations to the questions I had. Upon completion of the interview that day, I got in touch with my native speaker and talked with her about what had happened during the interview. I would learn that because I had asked for the translation for the term *background* without providing more details that I had inadvertently chosen the wrong translation for what I was asking. I was then directed to provide clarity to the question in English as well as in the Spanish translation. I made the following changes to the question and I learned a very important lesson that day.

Can you tell me a little about your educational/teaching background?
¿Puedes comentar un poco sobre tus antecedentes educativos o de enseñanza?

I learned that I needed to pay closer attention to the language I use to make sure it matches the intentions I have in the languages I use.

Appendix I: Study Timeline

April 2nd	Date of proposal meeting.
April 15th	Connect with Mayan indigenous educator to begin data collection.
May 1st	Connect with Nahuatl indigenous educators to begin data collection.
May-July	Transcribe interviews as they occur.
Early Summer	Begin data analysis/crafting of phenomenological essence.
Late Summer	Rewrite of proposal with topic-based format including new chapters.
Early Fall	Make preparations for defense in early December.
Late Spring	Plan for meeting graduation deadlines in Spring for May commencement.

Appendix J: Certificate of IRB Authorization

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Dustin De Felice** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 03/06/2012

Certification Number: 882969

http://phrp.nihtraining.com/index.php

Certificate of Completion

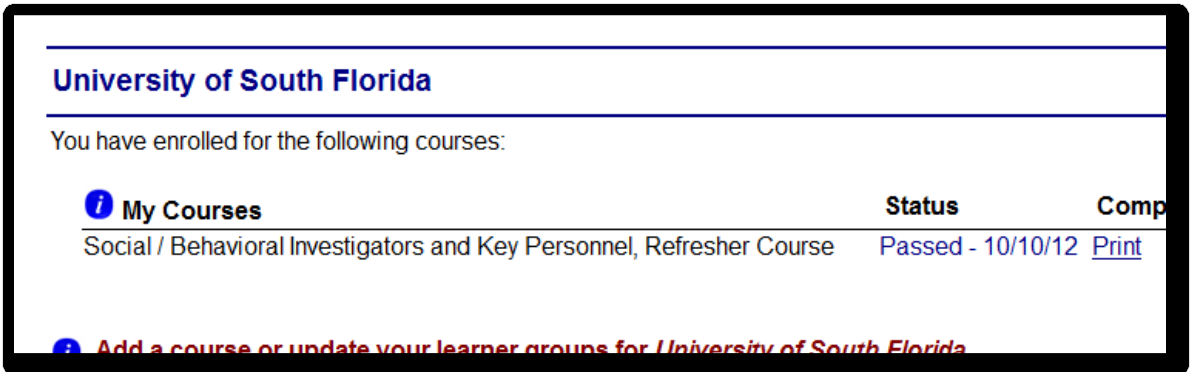
Dustin De Felice

Has Successfully Completed the Course in

CITI Social & Behavioral Human Research

On

Sunday, November 07, 2010



University of South Florida

You have enrolled for the following courses:

My Courses	Status	Comp
Social / Behavioral Investigators and Key Personnel, Refresher Course	Passed - 10/10/12	Print

Add a course or update your learner groups for *University of South Florida*

Appendix K: Text Analysis for First Cycle

First cycle coding: In Vivo for Sub-Questions (Saldaña, 2009).

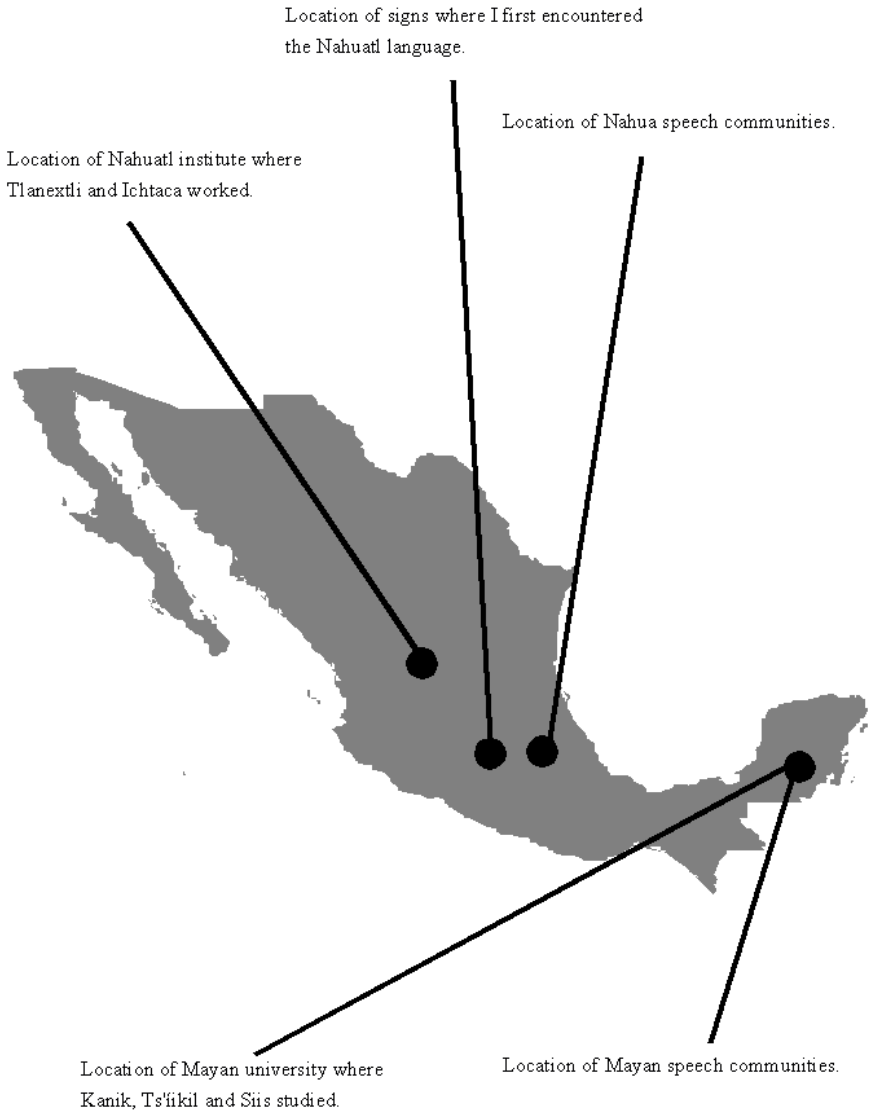
Well, my favorite parts of teaching Mayan culture are the food, the clothes, and a little of the language, I (1) like to teach about my culture to other people, more if treat of foreign people.	1 "LIKE TO TEACH"
One thing I don't like to do is to talk about (2) people look like, because I don't want to give a bad image about the other people and I never have made that, and maybe I don't know very well people look like.	2 "PEOPLE LOOK LIKE"
My favorite moment was to teach a little of the language, because (3) always I connected in that page, I found an student of Florida and with her sometimes she ask me about words in Maya and I tell you as she can say it some words but (4) putting the meaning Maya to English.	3 "ALWAYS I CONNECTED" 4 "PUTTING THE MEANING"
Yes, had an occasion when I mentioned something about "cenote" and the student asked me, what is that? And I (5) tried to explain her, and I was sure she didn't (6) understand me, the detail here I knew how say "cenote" in English, then told me you can say "waterhole" she going to (6) understand you. This is my least favorite moment, because although I knew it, in Spanish but I (7) couldn't to explain it, in English.	5 "TRIED TO EXPLAIN" 6 "UNDERSTAND YOU/ME" 7 "COULDN'T EXPLAIN IT"
I like the technology, but sometimes I know use it very good, however I am not so bad and I can to (8) manipulate almost all the tools, and I think I am not bad but neither good, I think I (9) am so-so. I am some good, because I could communicate me for middle of that page, I used the "blog post", the chat, and the e-mail, all these for teaching Mayan Culture.	8 "MANIPULATE TOOLS" 9 "AM SO-SO"
The main were the "blog post". Almost never I explained me as to use a computer, but I (10) like to explore the things and (11) tools for knowing, in this case that I did.	10 "LIKE TO EXPLORE" 11 "LIKE TO EXPLORE TOOLS FOR KNOWING"
The mains are the "chat" and the "e-mail".	
I don't know, I think have not anything least favorite, because Ning have all complete its tools, I saw have for posting pictures, videos, links, have chat, e-mail. Ning is excellent for working. Also I liked because (12) all is in English, which help me to learn more.	12 "ALL ENGLISH"

Appendix L: Text Analysis for Second Cycle

Second cycle coding: Focused Coding for Sub-Questions (Saldaña, 2009)

Category: ALL ABOUT TEACHING	
I (1) like to teach about my culture to other people, more if treat of foreign people.	1 "LIKE TO TEACH"
I tell you as she can say it some words but (4) putting the meaning Maya to English.	4 "PUTTING THE MEANING"
And I (5) tried to explain her,	5 "TRIED TO EXPLAIN"
she didn't (6) understand me,	6 "UNDERSTAND YOU/ME"
she going to (6) understand you.	6 "UNDERSTAND YOU/ME"
although I knew it, in Spanish but I (7) couldn't to explain it, in English.	7 "COULDN'T EXPLAIN IT"
Category: TECH STATUS	
because (3) always I connected in that page,	3 "ALWAYS I CONNECTED"
and I can to (8) manipulate almost all the tools,	8 "MANIPULATE TOOLS"
I think I am not bad but neither good, I think I (9) am so-so.	9 "AM SO-SO"
I (10) like to explore the things	10 "LIKE TO EXPLORE"
I (10) like to explore the things and (11) tools for knowing,	11 "LIKE TO EXPLORE TOOLS FOR KNOWING"
Category: TBD….	
One thing I don't like to do is to talk about (2) people look like,	2 "PEOPLE LOOK LIKE"
Also I liked because (12) all is in English, which help me to learn more.	12 "ALL ENGLISH"

Appendix M: Locations in Mexico Mentioned Throughout Dissertation.



About the Author:

Dustin De Felice has successfully pursued his Ph.D. and has more than a decade in the Adult Education field. In his previous life, he was an ESL Instructor at a number of community-based organizations in the Chicagoland area including the Albany Park Community Center where he served as the director of the Citizenship Preparation program. In his academic life, he holds a B.A. from Northeastern Illinois University in Speech Communication with a minor in Spanish and Linguistics. He also earned an M.A. in Linguistics with a concentration in TESL from the same esteemed institution. Over the years, he has also dabbled in fiction writing and classroom workbooks. His work can be found at http://www.smashwords.com/profile/view/dustindefelice and on Barnes & Noble.com at http://www.barnesandnoble.com/c/dustin-de-felice

His current research interests include the development of community/teacher based materials aimed at increasing literacy and/or documentation of endangered languages; the use of Nahuatl or Mayan as a language/culture of instruction through distance learning and the perspectives and experiences of indigenous educators and their life work. His work with a native speaker of the Nahuatl language is available and he is always willing to share a copy of his multimedia CD, where you are able to hear the language once used as the lingua franca throughout Mexico and still spoken today by roughly one million speakers. Dustin De Felice can be reached at: dustindefelice@yahoo.com