QUECHUA LANGUAGE USE AND ATTITUDES IN CUSCO, PERU

A Thesis

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by

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ABSTRACT

This thesis investigates use and attitudes of the Quechua language in Cusco, Peru. The author created and administered a 57-item questionnaire to 189 participants at two different institutions with large college-age populations to assess Quechua use across a number of family and social domains, and the data was aggregated and presented for these domains across the sociolinguistic factors, including gender, age, class, religion, parent language, and subject area of study. The factors that were the strongest predictors of Quechua use for the participants of the study were both parents reported as speaking Quechua as their L1, the participant reporting their ethnicity as *quechua*, the participant being lower class, and the participant being a non-Catholic Christian denomination. These factors were also more closely correlated with the participant being a student of tourism. The participants who had a closer connection with Quechua also reported slightly more positive attitudes about the Quechua language.

BIOGRAPHICAL SKETCH

Mark Schneider has a Bachelor of Arts in Philosophy from the College of Wooster and a Master of Science in Education in Counseling from Northern Illinois University. He studied Spanish at Cornell University and participated in a 7-week intensive Quechua program at Centro Tinku in Cusco, Peru.

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LIST OF ABBREVIATIONS

bi-Q – Spanish-Quechua bilingual speaker who is Quechua dominant
bi-S - Spanish-Quechua bilingual speaker who is Spanish dominant
Q1 – Parent who is an L1 Quechua speaker
Q1-Q1 – Both parents are L1 Quechua speakers
Bi – Parent who is a bilingual Spanish-Quechua speaker
Bi-bi – Both parents are bilingual Spanish-Quechua speakers
None – Parent who does not speak any Quechua
None-none – Both parents who do not speak any Quechua
Fem = Female
Eng = Engineering
Tour = Tourism
P = Participant

CHAPTER 1

INTRODUCTION

1.1 Introduction

Despite Quechua being documented as having 8-12 million speakers, 4.4 million of whom reside in Peru, Peruvian Quechua still shares many contextual qualities of languages that are endangered (King & Hornberger, 2004). Language shift in Peru has been well-documented (Hornberger & Coronel-Molina, 2004), and the number of Quechua speakers has been on the decline since the Spanish *conquistadores*.

Although most of the literature about Quechua language shift focuses on rural areas where Quechua is most likely to be spoken, there is little investigation into how Quechua is used, if at all, in urban areas. Migration of Quechua-speaking people from rural to urban life has been written about extensively (de la Cadena, 1995), but there remain questions about how much the language continues on in daily life once these migrants become "urbanized." Additionally, Quechua was the lingua franca of the Incan empire not even 500 years ago, Cusco was the seat of that empire, and multiple attempts within the last 100 years have been made officialize and bring more prestige to Quechua both nationally and in Cusco, but there still remain questions about the current state of Quechua-use for the average *cusqueño.*

The Quechua language in the city of Cusco, although rarely heard openly spoken in the streets of the city of the Cusco, is still very much present. According to 2007 census data reported by the Instituto Nacional de Estadística e Informática of Peru, of the total population of the Cusco region (1,048,832) age 5 and above, 545,008 people learned Quechua in their childhood (51.96%), and of the total population of the city of Cusco (335,938) of age 5 and above, 61,183 people learned Quechua in their childhood (18.21%) (INEI, 2007). This number of Quechua speakers in the city of Cusco is not insignificant, and it warrants further investigation into how the language is being used, if at all, by these urban speakers.

The goal of this study is to better understand the present-day use of the Quechua language in the Cusco region in Peru, and more specifically in the city of Cusco itself. Before investigating further into the modern use of Quechua in Cusco, it would serve us well to learn more about the historical relationship

between Cusco and Quechua. The city and region of Cusco has had a long and complicated history of Quechua use that predates the Incan empire and informs the modern state of cusqueño Quechua.

In section 1.2, I will provide this necessary background information about Cusco, Peru, and the Quechua language. In section 1.3, I will present the research questions and hypotheses for this study, and in section 1.4, I will discuss the overall structure of the thesis.

1.2 Background information

1.2.1 Cusco and Peru

The geography of Peru consists of three main regions: the coast, the Andean *sierra*, and the Amazonian jungle. The coastal regions tend to be more urbanized and mostly Spanish speaking. The Spanish of the coast is known as *castellano ribereño*. The Andean regions are typically more rural and speakers of indigenous languages like Quechua and Aymara are more likely to inhabit these regions. The Spanish of this region is called *castellano ribereño*, and *interlecto* (a mix of Quechua and Spanish) may also be heard. The Amazonian regions consist of some urban, Spanish-speaking areas, and less-populated areas where a number of indigenous languages can be heard.

Cusco is a district made up of 13 provinces: Antabamba, Calca, Canas, Canchis, Chumbivilcas, Cusco, Espinar, Lares, la Convención, Paruro, Paucartambo, Quispicanchi, and Urubamba (seen in the map on the following page).

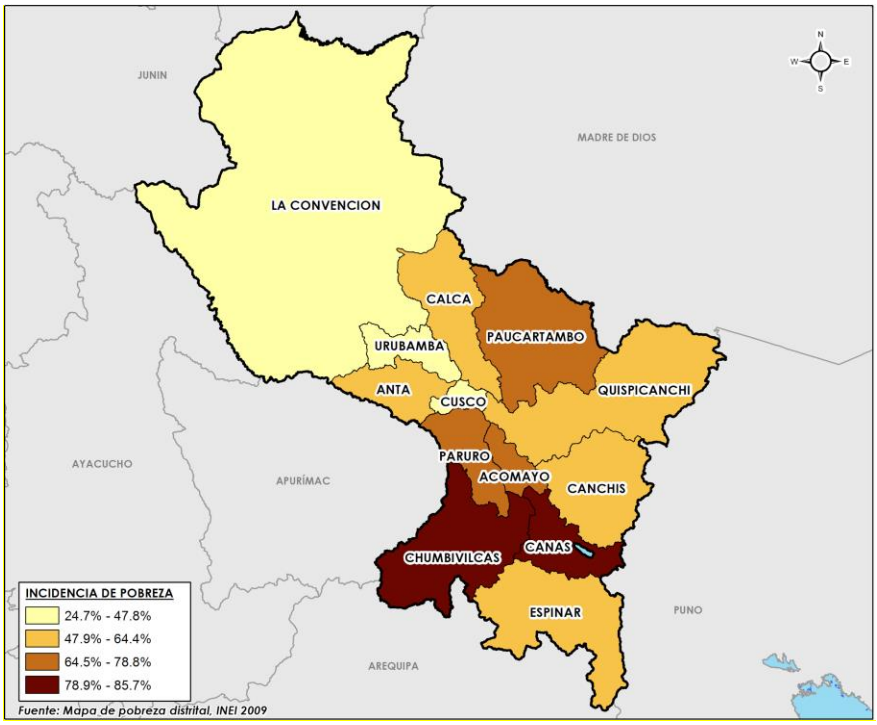

Illustration 1.1: Map of provinces of Cusco region by poverty rate, https://www.mef.gob.pe/contenidos/inv_publica//webs_dgpi/map_per/cusco.html

The City of Cusco itself is located in the Cusco province at 3,400 meters above sea level, and is divided into four districts: Cusco, Santiago, San Sebastián, and Wanchaq. Santiago and San Sebastián tend to be middle and lower classes, while Wanchaq is mostly upper-class. (Diez Canseco, 1997)

1.2.2 Quechua language

Quechua is estimated to be spoken currently by 8-12 million people, comprised of 4.4 million speakers in Peru, 2.2 million in Ecuador (more than 20% of the population), and 1.6 million in Bolivia (Rindstedt & Aronsson, 2002). Although the origin of the name "Quechua" is unknown, it is has possible roots from the Quechua word for a high-altitude, temperate zone -**qichwa* (*q*^{h}*iswa* in modern Cusco Quechua). The language in Quechua is most commonly called *runa simi* ('language of the people') (Adelaar, 2004). There is another variant of Cusco Quechua called *qhapaj'simi*, which has been cited as the form historically utilized by Incan nobility (Niño-Murcia, 1997). Quechua was originally a language

with a strong oral tradition, and an alphabet was later introduced by the Spanish (Howard-Malverde, 1997).

Quechua is generally categorized into two sub-groups, Quechua I, which is spoken in the Central Andean region and which includes the Quechua of Cusco, and Quechua II, which is spoken in northern and southern Peru, as well as Ecuador. Within each categorization there are individual dialects, which are not always all mutually intelligible. The differences between Quechua I and Quechua II are primarily lexical and morphological, resulting from a split in Proto-Quechua. Each variety also has within-group phonological variance, which has been explained as developments that occurred after the split from Proto-Quechua. (Adelaar, 2004).

1.2.3 Brief history of Quechua - pre-Incan to Modern Day

In order to understand Quechua's place in modern Peru, its degree of use, and current attitudes towards the language, it is useful to first understand some of the history of the language and how it arrived at its current status. From pre-Incan times until modern day, Quechua has seen a drastic rise and decline in use, as well as many fluctuations in the amount of prestige that society has afforded it.

Quechua I saw its regional spreading prior to the existence of the Incan Empire, and the spread of Quechua II is attributed to the Incas, who also introduced different dialects of Quechua to new regions (King & Hornberger, 2006). Because Cusco was the seat of the Inca Empire, many scholars historically have stated that Cusco was the birthplace of Quechua itself, although contradictory evidence has been found placing the likely origin of Quechua to be the coast and the *sierra* of Central Peru of Peru around 500 AD (Adelaar, 2004; Godenzzi, 1997).

Quechua was used as a lingua franca by the Inca Empire during its 80 years of growth (1450-1532 CE). When the Spanish arrived in 1532, they maintained Quechua as a subordinate language to Spanish for practical reasons (there were already many Quechua speakers) and also to fortify their domineering presence in the region. Because Quechua itself had already begun to threaten many smaller, local languages in the region such as Jaqaru and Uro-Chipaya, the Spanish did not want to be seen as

liberators of these languages, but as the dominatining presence above Quechua.[1] Cusco Quechua was the most-used Quechua dialect during Spanish rule (Adelaar, 2004), which the Spanish utilized for administrative purposes and for religious life. Priests used Quechua to spread Catholicism, translate religious texts and for religious ceremonies in church (Adelaar, 2004; King & Hornberger, 2006).[2]

Quechua continued as a lingua franca during Peru's colonial period, and still had prestige into the 17th century, where it was sometimes used to claim Inca heritage. However, Quechua began to see a decline in prestige in the 18th century, where indigenous rebellions against the Spanish Crown were quelled and Quechua, as well as other local indigenous languages, were banned in official domains. Quechua was still used during this time by the Catholic Church to continue to spread Catholicism in the region (King & Hornberger, 2006) until the beginning of the 18th century at which point Quechua ceased being used in religious texts. This period also saw Quechua gain symbolic significance for the petite bourgeoisie class, who used Quechua to claim Incan heritage (Niño-Murcia, 1997).

In 1821, Peru was liberated from Spanish rule. This turn produced a further decline in the prestige of Quechua, as any of the protections that were afforded to the language by the Spanish government were now gone. Peru, just like other Andean countries who had gained their independence from the Spanish, declared Spanish to be the country's official language (King & Hornberger, 2006).

At the end of the 19th century, *indigenismo*, a movement that began to raise awareness about the living conditions of indigenous peoples, began to spread through Latin America, and Cusco found itself as a cultural center for Andean *indigenismo*. In 1944, Faustino Espinoza Navarro, a Quechua-speaking actor, inaugurated the first *Inti Raymi*, a summer solstice festival that could be traced back to the Incas. Quechua was used and is still used at this festival, but of the variant used by Inca nobility called

[1] The disappearance of smaller, local languages by a slightly more powerful language after colonization is not uncommon and well-documented in other countries, such as Papua New Guinea (Mühlhäusler, 1996).
[2] Cultural dislocation can also occur with the replacement of indigenous religions with Catholicism and also as a result of the direct prohibition of speaking Quechua in schools as occurred in Argentina in the 20th century (Alderetes & Albarracín, 2004).

qhapaj'simi. The use of *qhapaj'simi* at *Inti Raymi* would later contribute to a division of what was considered "pure" Quechua and what was not (Niño-Murcia, 1997).

In 1975, Juan Velasco Alvarad, the president of Peru at the time, declared Quechua an official language of Peru of equal standing to Spanish, which increased visibility of the Quechua language in Peruvian society. The policy was reversed soon after, but it did result in Quechua receiving more notice in the public sphere, while bilingual schools started to appear in Peru, Ecuador, and Bolivia, and Quechua gained some higher prestige (King & Hornberger, 2006; Adelaar, 2004).

During the 1970s, Quechua also became a focus of academic interest in Cusco, and this initial focus on Cusco Quechua became a source of fallacies like Cusco being the birthplace of all Quechua, that Quechua was the original language of the Incas, and that the spread of Quechua could be completely attributed to the Inca Empire (Cerrón-Palomino & Kaulicke, 2010). In 1990, Faustino Espinoza Navarro, the founder of *Inti Raymi*, founded the Academia Mayor de la Lengua Quechua, which made the claim that *qhapaj'simi*, the Quechua of nobility, was the "pure" Quechua and the variety of Quechua that should be taught. This idea of linguistic purism also conferred more prestige on Quechua societally and in particular on this form of the Quechua language (Niño-Murcia, 1997). This notion of linguistic purism and the promotion of *qhapaj'simi*, while conferring more prestige on Quechua, has also been argued to have detrimental effects for those who use the less prestigious *runasimi* (Marr, 1999), resulting in speakers of *runasimi* who may consider their dialect of Quechua in some way not legitimate (Howard, 2004).

In the 1980s and 1990s, political instability and economic insecurity in Peru strongly affected rural, primarily Quechua-speaking regions of Peru, and subsequently many people from these communities migrated to coastal cities like Lima searching for a better life (Adelaar, 2004). Quechua speakers' desire for their children to learn only Spanish as a way to achieve social mobility led to a decline in intergenerational transmission of the language (Adelaar, 2004).

In 1993, the Peruvian Constitution declared Quechua again as one of the country's official languages, along with Spanish, Aymara, and other indigenous languages in regions where they were

prominently spoken, and this would later be reaffirmed by the 2003 *Ley de la Preservación y Difusión de las Lenguas Aborígenes* (Aboriginal Languages Protection and Dissemination Law). The year 2003 also saw the introduction of the *Ley General de Educación* (General Law of Education), which introduced bilingual and intercultural education into the entire Peruvian education system, guaranteeing students the right to learn in their mother tongue and have access to learning Spanish as a second language. (Godenzzi, 2008). There has been some success since the implementation of this law in bilingual schools primarily taught in Quechua, where Quechua-speaking children have been found to perform higher in math when compared to Quechua-speaking children who go to primarily Spanish-speaking schools (Hynsjö & Damon, 2016). There still remain challenges to Quechua-based education, such as teachers not wanting to teach in Quechua, parents not supporting Quechua in school, and a lack of education programs for teachers in intercultural and bilingual education. In response to the need for these programs, the University of San Simón in Bolivia has established a master's program in bilingual intercultural education) (Hynsjö & Damon, 2016; Hornberger & Swineheart, 2012a). More information about Quechua revitalization efforts can be found in the literature (Haboud, 2004; Hornberger, 1988; Hornberger, 1997; Hornberger, 1997a; Huaman, 2014; Luykx, 2004).

Quechua is seeing some use now in various media, including hip-hop (Hornberger & Swineheart, 2012) and radio (Cartagena Torrico, 2012). Quechua in media in Cusco is limited, however, to a few radio programs that broadcast to specific communities, but is otherwise not used in other media such as newspapers or magazines (Saroli, 2001). There have been more recent advancements in the visibility of the Quechua language, however, such as the election of native Quechua-speaking women to Peru's Congress who have spoken in Quechua to the legislature, the translation of Google's search engine and Microsoft Office to Quechua, and a 2006 modification to the Peruvian penal code about discriminatory practices to include linguistic discrimination. However, despite some of these more recent advancements in the visibility of the Quechua language in the public sphere, the language and its users still face discrimination for speaking it (Godenzzi, 2008).

1.3 Theoretical background

Turning to the theoretical background upon which the thesis will be approached, there are three main sociolinguistic variables that will inform my research questions: ethnicity (1.3.1), gender (1.3.2), and social class (1.3.3). These variables can interact with each other (Labov, 1990), are in many ways inextricably linked to each other in the literature about Quechua, and contribute to a more complete profile of social status for any one person in addition to having important implications for Quechua use. In this section, I will discuss each of these variables on their own as well as how they may interact with the other two. I will also briefly discuss age (1.3.4) and religion (1.3.5) as variables when considering instances of language shift, as well as language choice in a multilingual environment (1.3.6), an overview of language choice in Cusco (1.3.7), and implications of English education (1.3.8).

1.3.1 Ethnicity

Ravindranath (2015) notes that "Variationist sociolinguistic studies have traditionally taken a small set of social categories as straightforward, and sought to balance their sample of speakers with respect to these categories" (p. 248) and that defining these categories is not always straightforward, as is particularly the case for ethnicity, and suggests that researchers utilize "locally meaningful categories," (p. 248) particularly when working in non-Western contexts.

The ethnicities in Peru as surveyed and reported by the Instituto Nacional de Estadística e Informática are *nativo (aymara, quechua, amazónico), afrodescendiente (afroperuano, negro, mulato, zambo), blanco,* and *mestizo* (INEI, 2016; Rivera, 2009; Paredes, 2018). However, ethnicity in modern Peru has a complex history that dates back to the arrival of the Spanish and in the literature is typically noted as two distinct groups - *mestizo* and Indian (de la Cadena, 1995). The Indian ethnic group has been reported as being partly defined by cultural features (e.g., coca-chewing, traditional clothing, and Quechua-speaking) (Diez Canseco, 1997) and partly by location and work (e.g., rural, peasants, livestock raisers) (de la Cadena, 1995). De la Cadena (1995) describes a process called *mestizaje* (mixing), whereby someone whose ethnicity is Indian can become *mestizo* by taking on qualities more associated with

mestizos, such as moving to an urban location and speaking Spanish to become more *mestizo*. Historically, urban residence, employment, and lifestyle determined who was "non-Indian," and as such Cusco became a site of "de-Indianization." The participants in de la Cadena's study reported three different ethnicities - Indian, *mestizo*, and "in process," which were participants going through a transition from an Indian ethnicity to a *mestizo* one. This process of *mestizaje*, the ability to be "in process" from one ethnic group to another, creates a stronger association of language choice with ethnicity - Spanish is more strongly associated with being *mestizo*, and Quechua is more strongly associated with being indigenous.

1.3.2 Gender

There is some (seemingly) contradictory information in the literature - some literature would support a hypothesis that women are going to lead language shift where the standard form is more highly praised than the non-standard form, and that women utilize more standard forms than men. Meyerhoff (2011) describes this phenomenon in Principle I and more specifically in the sub-principle Ia, where she states that "Principle Ia generalises across variables where women seem to use more of the standard form than men do. However, it deals with cases where speakers are consciously aware of a change in progress, and the incoming variant is positively evaluated in the community...In these cases, women tend to use more of the innovative and positively evaluated variant than men do." (p. 220) This shift is also documented by Labov (2010), and is typically accounted for by the explanation that women tend to be the primary caregivers, and as such "In female dominated changes, girls and young women advance the change following a logistic incrementation function...while males do not participate further in the change but remain at the base level they acquired from their mothers" (p. 199). Principle Ia would suggest that women would then be less likely to use Quechua, as it is generally assigned a lower level of prestige. This could be the case for Quechua, which is often stigmatized (Hornberger & Coronel-Molina, 2004; Wölck, 1975) and thus would have lower prestige assigned to it than Spanish.

Additional support for this theory comes from Gal (1978), where she posits in her study of German-Hungarian bilinguals that "young women of the community are more willing to participate in social change and in the linguistic change which symbolizes it because they are less committed than the men to the traditionally male-dominated system of subsistence agriculture" (p. 2-3). Such an explanation could double for the case of young female Quechua speakers moving from rural to urban areas, as strict gender roles in agricultural life around work roles and norms that have advantaged men over women, such as land inheritance, have also been documented for Quechua-speaking rural populations (de la Cadena, 1995). Gal's study reported gender as the most significant factor for young women to choose German (the prestige language choice) over Hungarian in the age 14-34 group, as gender was the sole variable that overcame social network as a factor for language choice for that group of participants (more about this below in section 1.3.3 on social class).

There is, however, some reason to believe that women might be expected to use more Quechua than men, and this reason comes from some of the research previously done in communities in Ecuador and Peru that have a high number of Quichua (an Ecuadorian variation of Quechua) speakers. One such example was documented by Rindstedt and Aaronson (2002) in their study of Quichua use in a community in the Ecuadorian *sierra*, who reported that "there are only a few monolingual Quichua speakers left in [the community]. They are all old women...The oldest men, however, are all bilinguals who routinely employ both Spanish and Quichua in their daily interactions with other adults" (p.729-730). Rindstedt and Aaronson go on to report that the women in the study spoke to each other and to their husbands in Quichua, and the men spoke to their wives in a combination of Quichua and Spanish. Additionally, the men were overall using more Spanish, as many of them were migrant workers in areas where Spanish was the dominant language. From the same study, Rindstedt and Aaronson reported attitudes of one of the children in the study who associated Quichua with "Indianness, rural life, poverty, and femininity...and this is why he does not want to speak it. He does not want to be associated with the Quichua language or with the culture. Instead, he wants to speak Spanish, which has the reverse connotations – mestizo, maleness, urban life, paid work, progress" (p. 731).

1.3.3 Social class

In Gal's (1978) study of language choice by German-Hungarian bilinguals, where German was the language of prestige, Gal observes from her participants about language choice in a variety of social contexts (e.g., praying, with different family members, etc.) that "a person's own status, whether peasant, worker or some gradation in between, was not as accurate a predictor of his or her choices as the status of the person's social contact" (p. 8) because "The more peasants the individual has in her or his social network the greater the number of social situations in which that individual uses [Hungarian]" (p. 8). This factor proved to be more significant than even age, where "Older people who associate mostly with workers are closest in their language choices to people much younger than themselves, while very young people who associated mostly with peasants use more [Hungarian] than others their own age." (p. 9) The most notable exception was women age 14-34, where their social network did not make any difference in the amount of Hungarian being used - women in this age group spoke German equally regardless of whether their social network consisted of mostly peasants or mostly non-peasants. In Gal's study, it was young women who were most likely to be using the advanced forms towards the language shift. For men of the same age group, social network still played a large part in language choice, and those men age 14-34 whose social network consisted of more non-peasants spoke more German than those whose network consisted of mostly peasants.

This type of finding about language choice seems like it could be at odds with conventional wisdom about social class as a correlate for linguistic innovation, where phonological change (as an example) would be more likely to be a result of innovation led by lower-middle class or upper-middle class populations that disperses to lower- and upper-class populations (Labov, 1972; Meyerhoff, 2011). The implication is that someone with a social network more likely to be using the prestige language would be more likely themselves to use the prestige language - in other words, a member of a higher social class with more access to the prestige language would speak the prestige language more than someone in a lower class with less access to the prestige language. We would, however, anticipate

exceptions based on other sociolinguistic factors, namely age and gender, which have been noted as having other influencing effects on the use of the prestige language.

The assessment of social class poses some challenges, as the composition of variables that dictate class are not consistent across all cultures. As such, emic strategies have been utilized to create culturally appropriate measures of class within a given speech community (Abtahian et al., 2016). For the purposes of this thesis, participant class will be defined primarily by parent occupation (see Chapter 2, section 2.3.2 for more information).

1.3.4 Religion

Religion is a relatively unexplored sociolinguistic variable in the literature, but it is suggested by Yaegor-Dror in her 2014 article that it "may be independently correlated with language choice as well as language attitudes." (p. 579). Yaegor-Dror suggests that both a speaker's religious affiliation and also their degree of involvement in that religion can have implications for other linguistic factors. Yaegor-Dror also warns us of considering religion as a sole heritage variable when considering linguistic factors, as religion alone does not fully encapsulate other pertinent heritage factors such as family, ethnicity, and regional heritage that may have more significant implications for speaker linguistic diversity.

1.3.5 Age

Age groups can be an indicator of language change across generations (Tagliamonte, 2012). In Gal (1978), it was both the men and women age 14-34 who reported more use of German and more bilingualism than the older age groups in Gal's study when comparing age and social network internally across age groups (e.g., comparing younger men with mostly peasant social networks to older men with mostly peasant social networks clearly demonstrated that the younger men in this group spoke more German) (p. 10). Abtahian, Cohn, and Pepinsky (2016) found the same results in their study of Indonesian with younger speakers using local languages less and Indonesian more, and the authors write

that “As applied to situations of language shift, a decreasing probability of speaking local languages...across age groups is consistent with the occurrence of language shift.” (p. 151).

1.3.6 Language selection in a multilingual environment

In multilingual societies, the language with higher prestige used in formal contexts is sometimes referred to as the High variety language, while the language with lower prestige is referred to as the Low variety (Meyerhoff, 2011). Language selection in a multilingual environment, also known as code-switching, can be both based on these High and Low varieties, and can manifest in terms of language selection based on domain, the physical place or situation of the speaker, or addressee, the person to whom the speaker is addressing (p. 121), as well as the subject and the content of what the speaker is saying. Hornberger and Coronel (2004) write that in Lima, Quechua speakers have been noted to sometimes hide the fact that they speak the language, only using it for “jokes, vulgarisms, and intimate domains out of the public sphere” (p. 15). Hornberger and Coronel also note in the same article that in nonurban regions, Quechua is used more to highlight and value ethnic identity and is spoken more amongst community members, citing highland Ecuadorian Quichua as one example (p. 15). Hornberger and King (1997) note that Quichua is restricted to other domains and subjects by adults, namely “information that is deemed inappropriate for children, for intentional practice, and as overt expression of ethnicity in ritualistic practices (e.g. drinking ‘toasts’)” (p. 305). Additionally, while Spanish may be considered acceptable in all circumstances, Quechua may only be used with those trusted by the speaker to avoid being treated as “Indian” (Moles, 1974). Spanish is typically the language of public life, politics, administration, justice, and education, and Quechua is usually confined to private life (Gugenberger 1995).

1.3.7 Speakers in Cusco

In the day-to-day life in Cusco, there is a presence of Quechua that is tourism-based that is apparent in signs on shops, and another presence that is based on need for communication (e.g., signs in

banks that appear in both Quechua and Spanish). Daily business in supermarkets, shops, and public transportation is normally conducted in Spanish. In public spaces, Quechua would most likely be heard spoken in the outdoor markets by women vendors, many of who commute from rural areas to sell produce, and most likely would be heard used between vendors rather than between vendors and customers (although one may hear from time to time some of the Quechua affectionate terms such as *ñañay*, 'my sister,' or *turay*, 'my brother,' being spoken at these markets from vendors to customers).

Participants in the study are going to primarily be of one of three categories: Spanish monolingual speakers, Spanish-Quechua bilinguals who are Quechua-dominant (bilingual participants who list Quechua before Spanish in the questionnaires), and Spanish-Quechua bilinguals who are Spanish dominant (bilingual participants who list Spanish before Quechua in the questionnaires). Participant parent and grandparent backgrounds would include these three groups and could also include Quechua monolinguals.

1.3.8 English language education

According to studies by Niño-Murcia in the Peruvian Andes and affluent communities in Lima, participants in those studies have demonstrated attitudes that suggest that English is a way to gain social status and increase economic opportunities, and most participants stated that they would choose to learn English over Quechua (Niño-Murcia, 2003). When comparing this to some of the documented attitudes about Quechua, in Rindstedt & Aaronson's study about Ecuadorian Quichua, the participants expressed attitudes associating the Quichua language with being indigenous, rural life, and poverty (Rindstedt & Aaronson, 2002). As already stated in Section 1.3.1, there is documented desire to move away from rural life and associations of being indigenous (de la Cadena, 1995).

1.4 Research questions and hypotheses

1.4.1 Research questions

1. What sociolinguistic factors (ethnicity, gender, social class, age) are the strongest predictors of Quechua use?

2. In what domains (individual family members, friends, neighborhood spaces, religious spaces, and markets) are participants speaking Quechua the most?

3. Does studying the English language have any effect on participant attitudes about Quechua?

1.4.2 Hypotheses

Hypothesis 1. The sociolinguistic factors of ethnicity, gender, age, and socio-economic status will correlate with participant reports of Spanish-Quechua bilingualism in the following ways:

a. Participants who identify as Quechua for their ethnicity will report higher percentages of Spanish-Quechua bilingualism.

- Because native Peruvian ethnicities in the literature encompass many cultural features, language being one of them, I would expect that those who report their ethnicity as Quechua will be more likely to speak the Quechua language than those identifying as other ethnicities.

b. Male participants will speak more Quechua than female participants, based on previous literature about gender and language shift (see section 1.3).

- Because the studies and correlatives between gender and Quechua-use or bilingualism appear to be highly connected with certain features of gender roles within rural life and the specific transition from a rural to urban setting, for the (anticipated) primarily urban population in this study, I would expect the difference between men and women to follow more closely with populations

studied in other urban areas, with women leading the language shift to the standard forms.

c. The younger age group (18-19) will report less Quechua use than the older age group (28-45).

- From previous studies, it seems that age can be a contributing factor to the decision to use the prestige language choice, with younger generations using the prestige language more and older generations using it less. I would also expect, similar to the findings in Gal (1978), that social class will also play a defining role in the difference between the youngest male participants, but not as much in the youngest female participants.

d. Participants who may be grouped in a lower social class based on parent occupation will speak more Quechua than those who are grouped into a higher social class.

- These participants may have more interaction with family members who have more reasons to maintain Quechua and who are more likely to be still involved in communities where Quechua is more predominant (e.g., farming communities, merchants, artisans), so it would not be surprising that these participants are more likely to both know Quechua and continue to use it with family members (most likely parents and grandparents).

Hypothesis 2. Participants who report Quechua use will report the highest Quechua use with grandparents, the second highest use with parents, and the lowest use with siblings. Participants will also report higher scores for Quechua use at the markets.

- If younger generations are more likely to adapt the prestige language (Spanish, in this case) than older generations, it would make sense that participants who have knowledge of Quechua would be most likely to use Quechua when speaking with grandparents and less with parents. Grandparents would be most likely to speak the non-prestige language (Quechua, in this case), parents less likely, and their

children even less likely. I would also anticipate that participants would use the least Quechua with peers, such as siblings and friends. I would anticipate high use of Quechua at the markets due to the fact that many vendors at the markets are Quechua-speaking women from rural areas.

Hypothesis 3. The longer participants have studied English, the more negative attitudes they will have towards Quechua. More negative attitudes will also correlate with less Quechua use.

- Attitudes about English in the literature suggest not only that English would be considered a language of prestige, but when taking into account larger connections between language, ethnicity, and lifestyle, that English also could represent moving away from indigeneity. For these reasons, I would expect that the more English education that one receives, the more likely it is that positive evaluations of Quechua would decrease and positive evaluations of English would increase. It would also stand to reason that if positive evaluations about Quechua are lower, that the participants would try to use less Quechua.

1.5 Structure of thesis

This thesis will be divided into four additional chapters. In Chapter 2, I will cover the methodology used when gathering and analyzing the data. In Chapter 3, I will present the results from the study and analyze these results. In Chapter 4, I will discuss the results and their implications. In Chapter 5, I will provide my concluding thoughts and points of interest for future research, followed by references and appendices.

CHAPTER 2

METHODOLOGY

In order to address the research questions explored in this thesis, I developed a questionnaire and went to Cusco to administer it to 189 participants. In this chapter, I will discuss the population sample that I worked with in section 2.1. In 2.2 I will discuss how I collected the data and the instrument that I used. In 2.3, I will discuss the variables used in this study, and how these variables were coded in the analysis.

2.1 Population sample information

I collected the data from two different institutions: one private language institution in Cusco (referred to as PLI) that wished to remain anonymous, and from the Universidad Nacional de San Antonio Abad del Cusco Centro de Idiomas (from here on referred to as UNSAAC). These two locations were selected for their large number of students taking English language classes and also their large percentage of students in the 18-22 range, which is an understudied age group in the literature about Quechua. I wanted to know how much Quechua this youngest adult generation was speaking to get a better sense of the current state of Quechua with this age group, how much they are using it, and contemporary attitudes about Quechua, as the newest generation of emerging adults. I worked with staff at each institution to coordinate with English language teachers to collect the data from their classrooms.

Of the sample, 95 of the participants were from PLI, and 94 participants were from UNSAAC, making 189 participants total. Of those participants, 9 were discarded from the analysis (5 from PLI, 4 from UNSAAC). Four of the 9 were removed because their country of origin was not Peru, and the

remaining 5 were removed for not responding to enough questions or for providing strange answers (see Appendix A for details).

Of the 180 remaining participants in the population sample, the demographics can be seen in the table below:

Table 2.1: General demographics of population sample

General demographics of population sample		
Category	# of participants	% of total
Male	88	48.88%
Female	92	51.11%
Catholic	123	68.33%
Mestizo ethnicity	97	53.88%
Spanish-Quechua bilingual, Quechua dominant	55	30.55%
Spanish-Quechua bilingual, Spanish dominant	48	26.66%
No Quechua	77	42.77%

2.2 Data collection

The data was collected over the course of three days at the two locations, PLI and UNSAAC. The questionnaires were administered to students in English classes at the PLI by a staff member with whom the students were familiar and by the students' teachers at UNSAAC. The facilitator of the questionnaires would read the directions provided and hand out the questionnaires to the participants. The directions read by the facilitator and the survey were both in Spanish. Participants were informed by the facilitator about the nature of the research, that they could omit any information that they did not wish to include, and that they had to be at least 18-years-old to participate. The facilitator also informed participants that their identities would be kept confidential and anonymous in any analysis and write-up of the data. After the facilitator read the instructions, the participants were allowed to begin. Once the participants completed the questionnaires, I collected the completed questionnaires from the facilitators so that the students

would have no direct influence from me as a foreign researcher, considering how the researcher's identity can affect the results (Howard, 2007, p. 80).

2.2.1 The instrument

The instrument used to collect the data was a 57-item questionnaire (see Appendix B). The overall format of the questionnaire was inspired by Cohn et al.'s Multilingual Questionnaire (Cohn et al., 2013) and the length of the questionnaire was informed by recommendations from previous sociolinguistic work in Peru done by Parks and Parks (2010) on Peru's deaf community. The first page of the questionnaire included an introduction about the purpose of the study, informed participants that they could omit any information that they did not wish to include, and informed participants that by completing the questionnaire that they provided their consent to have the information collected used in further analysis. The first page also requested the day's date, the location at which the questionnaire was being completed, and an alias. The questionnaire was then split into the following sections:

Table 2.2: Questionnaire sections

Section I: Background	
Questions	**Topic**
1-10	Demographic questions about the participant (age, gender, ethnicity, etc.).
11-13	Participant's language background (L1, L2, L3), and where they learned that language (from family, in school, other)
14-15	Participant's English language background (how long they have been studying English and where they began studying English)
16-20	Participant's maternal side language background (mother and maternal grandparents), as well as some basic demographic information about their mother (occupation and location of birth)
21-25	Participant's paternal side language background (same format as 16-20)

Table 2.2 continued: Questionnaire sections

Section II: Use	
26-34	Participant rates what language they use with different addressees (from a 5-item scale of "Always in Spanish" to "Always in Quechua")
35-43	Participant rates what language the same addressees use with the participant (from a 5-item scale of "Always in Spanish" to "Always in Quechua")
44-48	Participants rate what language they use in different domains (e.g., at the market, at a neighborhood party, praying privately) using the same scale from 26-43. Questions set of questions and 35-48 were inspired by Baker's study on Welsh, which used the same format (Baker, 1992).
Section III: Attitudes	
49-54	Attitude questions about Quechua on a 5-point likert scale of agreement (5=strongly agree, 1=strongly disagree)
55-56	Attitude questions about English on the same 5-point likert scale
Section IV: Other	
57	Yes/no questions asking if the participant has internet access
Last page	There is a comment box for any other information that the participant wishes to include.

This questionnaire was granted an IRB exemption by Cornell University's Institutional Research Board. A facilitator script was also prepared to be read by the facilitators. The content of the script closely mirrors the instructions in the actual questionnaire. Both the English and Spanish versions of the script may be found in Appendix C.

2.3 Variables

There were two sets of variables that were utilized for this study. The Group A variables pertain to the research questions about Quechua use. The Group B variables pertain to the research questions about language attitudes about Quechua and English.

2.3.1 Dependent variables

The Group A dependent variables for this study are (1) participant reporting of being Spanish-Quechua bilingual, and (2) the amount of Quechua used in different domains. The domains that I looked at in terms of addressee for Quechua use were as follows:

- Speaking with parents (and separately with mother and father)
- Speaking with siblings
- Speaking with grandparents
- Speaking with extended family
- Speaking with friends
- At the market
- In neighborhood spaces (a combination of data from speaking with neighbors and neighborhood parties)
- In religious spaces (a combination of data from praying privately and church services, such as mass)

Each of the above variables were ranked by participants as "Always in Spanish," "In Spanish more than in Quechua," "Equally in Spanish and Quechua," "In Quechua more than Spanish," and "Always in Quechua." These answers were then coded as a score of 0-4 (0 = Always in Spanish, 1 = In Spanish more than Quechua, 2 = Equally in Spanish and Quechua, 3 = In Quechua more than in Spanish, 4 = Always in Quechua). There were times when a participant gave more than one answer for one of these questions. For these instances, the answer used to score the question was the answer with more Quechua (e.g., where a participant indicated "Always in Spanish" and "In Spanish more than Quechua," their score would be 1, for "In Spanish more than Quechua"). The reason for this is that, most likely, the participant either (1) Checked the first box before reading everything, then checked the second box or (2) felt that they did not speak enough Quechua with that person to warrant fully the "In Spanish more than Quechua answer" and wanted to indicate something in between. There were some answers where participants answered both "Always in Spanish" and "Always in Quechua." For these instances, it was clear that the participant

simply did not line up the items correctly, because it was always the case that the next answer was blank. It was also almost always that two answers like this were given for siblings, and the next answer, grandparents, was left blank. Because there were many instances of "Always in Spanish" for siblings and "Always in Quechua" for grandparents, it is reasonable to think that these participants meant to indicate "Always in Spanish" for siblings, and "Always in Quechua" for grandparents, but did not line up the items correctly. Under this assumption, these scores were corrected in the coding of the participant data.

The dependent variables (Group B) in this study are language attitudes about Quechua and English. There are six separate language attitude questions about Quechua and two about English.

(49) It's important to me that I know my parents' first language.

(50) It's important to me that I know my grandparents' first language.

(51) It's important to me that my children know my first language.

(52) I'm proud that Quechua is part of my heritage.

(53) I enjoy hearing Quechua spoken in public.

(54) It seems old-fashioned to speak Quechua.

(55) English is necessary to secure better employment.

(56) English is necessary to be part of a global economy.

Each attitude was ranked by participants on a 5-point likert scale, 5 being "strongly agree" and 1 being "strongly disagree." More information on language attitudes and measurement of attitudes can be found in the literature (Bell, 2013; Cotacachi, 1997; de Bres, 2011; Ishikawa & Morán Panero, 2016; Liebscher & Dailey-O'Cain, 2017; Nguyen & Hamid, 2016; Santello, 2015; Ubalde et al, 2017; Yamasaki, 2010).

2.3.2 Independent variables

The Group A independent variables used in this study are gender, religion, ethnicity, age, class, participant subject area, participant Spanish-Quechua bilingualism, and parents speaking Quechua. The Group B independent variables used in this study are participant report of being monolingual Spanish, bilingual Spanish-Quechua where Quechua is dominant, and bilingual Spanish-Quechua where Spanish is

dominant. Language dominance in bilingual Spanish-Quechua participants is interpreted as the language the person indicated first in the language use section of the questionnaire. The Group A variables are explained further below. The Group B variables do not require any further explanation.

Group A variables:

- Gender (male or female)
- Religion (participants could select from Catholic, Evangelical, Other [where participants could write in an answer], and None) - After coding the data, religion was binned into Catholic, Other Christian denomination (includes participants who selected Evangelical and who those wrote in Protestant and Christian), and None (which includes those participants who selected "None" and also who wrote in "Agnostic').
- Ethnicity (participants could select one or more than one of the following: mestizo, quechua, white, aymara, black, native, "other" [examples in the questionnaire given as Japanese or Chinese], or "I don't know") - After coding the data, ethnicity was binned into mestizo, quechua, mestiza & quechua, other (white, aymara, native, any combination of ethnicity, "I don't know"), and no response.
- Age (participants wrote in age) - After coding the data, age was binned into two age groups: 18-19 and 28-45.
- Class - Class was evaluated by parent occupation, and the categorizations were based on those used by Diez Canseco in her 1997 dissertation work. Diez Canseco uses a more complex methodology to assign class, based on not only occupation, but other variables such as education and what material constitutes the participant's house. However, as I do not have access to this information from the data collected, and because the majority of my participants were students (meaning that participant occupation cannot be used to measure class, as most of the participants are not working adults), I will be using parent occupation as the measure of class (the only other data point I have that would say something about class is whether or not the participant has access to the internet, but

nearly every participant said that they did, so it would not be a very good class-distinguisher in this case). Using both mother's and father's occupation, I distinguished between four classes - lower (L), lower-middle (LM), middle (M), and upper class (U). Artisans, farmers, taxi-drivers, laborers, and police officers were binned into the lower class (Diez Canseco bins police officers in the lower class, indicating that "their salary and social prestige are very low in Perú) (p.112). Office workers, such as administrators, accountants, and government office workers (expanded from Diez Canseco's categorization of clerks in the middle class), teachers, and *comerciantes* (small business owners), were binned into the middle class. Doctors, lawyers, engineers, architects, and scientists were binned into the upper class. There were also many mothers of participants whose occupations were reported as *ama de casa* (housewife). If this were the case, I based the participant class rating on the father's class. Some participants did not respond for one parent's occupation - if this was the case, the participant class was assigned based on the parent class for whom they did respond. If the participant did not respond for either parent occupations, the participant was not included in the participant sample for class. Participant class is broken down as follows:

Table 2.3: Methodology for assigning participant class

Class of participant	Class of parents (mother-father)		
Lower	L-L	Housewife-L	-
Lower-middle	M-L	-	-
Middle	M-M	Housewife-M	-
Upper	U-U	Houewife-U	U-M, M-U

There were 11 instance of U-U, and 9 instances of U-M or M-U. Because Housewife-U was categorized as upper class with only the father as the source of income,

it made sense to also categorize M-U as upper class, because the mother would be a second source of income in an M-U family.

The lower-middle class was a set of 21 participants who all had a mother in a middle-class occupation and a father as a lower-class occupation, with the exception of one participant whose father was of a middle class occupation and mother a lower class occupation. Because the number of participants in the set was significant and nearly all of the mother-father class formations were the same across the participants in the set, I treated the lower/middle class participants as a distinct class, rather than grouping them with the lower-class or middle-class groups. The lower-middle class sometimes patterned more with lower-class answers, sometimes more with middle-class answers, and sometimes between the two.

- Participant subject area (participants wrote-in their area of study) - Subject areas were binned as tourism, engineering, and other. Tourism and engineering proved as the most prevalent subject areas at both institutions.
- Participant Spanish-Quechua bilingualism - I only included participants in this variable who reported Quechua as a language learned from family. Participants who reported speaking Quechua but from another source (e.g., from school, from their spouse) were not included in this variable.
- Participant parents speaking Quechua - Mother speaking Quechua (coded as M1), father speaking Quechua (coded as F1), or both (coded as "both"). The question to acquire this data was "What is your mother's/father's first language?", where the participants selected Quechua only. Parent bilingualism was coded in the same way - Mother bilingual Spanish-Quechua (coded as M1), father bilingual Spanish-Quechua (coded as F1), or both bilingual Spanish-Quechua (coded as "both"). Excluded from this variable were instances where the parents were bilingual Quechua-Aymara (there was one instance of

this). The question to acquire this data was "What is your mother's/father's first language?", where the participants Quechua and Spanish.

- Year studying English – Participants select from 0-1 years, 2-3 years, or 4+ years.

There were some independent variables for Group A that I was planning to use but were not included in the results after a preliminary analysis of the completed questionnaires. One of these variables was the institution from where the data was gathered, and therefore all the data in the analysis in Chapter 3 will be presented as the sum of both PLI and UNSAAC. The reason that this variable was discarded was that the total 180 participants were split exactly 50/50 between both institutions, and the data was very close between both institutions across pretty much every variable (see Appendix D). Another variable that was discarded was location of origin, as this also did not yield interesting results (74% of participants were from the Cusco Region and of those participants, 78% were from the City of Cusco). This data also did not prove to be very meaningful, because in many cases, there was no way to know if the participant was from a rural or urban area if they were not from the City of Cusco, mostly putting "Other" for location of origin and "Other" for province. Even the write-in answers for "Other" usually did not yield particularly useful information, as there still was no way to determine the type of environment (urban or rural) that the participant come from within that province. There was also a fair amount of confusion among participant answers of what the questions about location of origin were asking, as participants sometimes interpreted the question about their province as their district or listed a location of origin and province that were at odds with each other. For these reasons, this variable was not analyzed further. Future studies on this topic would be well-advised to include a section first asking participants which district in Cusco they are from, and to have checkboxes for each district and a "not from Cusco" checkbox. For the province question, a complete list of all the provinces in Cusco with checkboxes would also be advised. I believe that this would have clarified for many participants what the questions were asking and would have provided more complete data about where each participant came from.

Level of education was also thrown out as a factor in the measure of social class, despite the fact that education can be a contributor to social class (Diez Canseco, 1997, p. 110-11). Because the data was

gathered from a language institution where the majority of the participants were college students and from a university, it was assumed that all participants were in college and as such had completed at least secondary school. The information gathered about participant goals for future employment as a stand-in for occupation as a way to measure class was also thrown out as a variable, as it did not provide enough meaningful data (many participants listed their fields of study to answer this question, as most of the participants were college students and not working professionals).

CHAPTER 3

RESULTS

3.1 Introduction

In this chapter, I present findings from the questionnaires that were completed by the 180 participants. The chapter is organized by the independent variables discussed in Chapter 2: gender, age, ethnicity, class, subject area, participant bilingualism, parent speaking Quechua, and parent bilingualism (parent speaking Quechua and parent bilingualism in this chapter are combined into "family background"). Each variable has its own section, where I present the basic data from the population sample and how the variable correlated with the amount of Quechua spoken in different domains and the average score (from 0-4) of Quechua spoken in each domain. If variables did not show a significant correlation, I only present the basic data demonstrating that there was no significant correlation. If variables do show an interesting correlation, I delve further into these variables by showing the data across different intersections with other variables. I begin with the overall demographic results in 3.2, gender in 3.3, age in 3.4, religion in 3.5, ethnicity in 3.6, class in 3.7, subject areas of participants in 3.8, family background in 3.9, responses to attitude questions and years of English study correlations with Quechua use in 3.10, and a chapter summary in 3.11.

3.2 Demographic results

The overall results of the two institutions, the Private Language Institution (PLI) and Universidad Nacional de San Antonio Abad del Cusco (UNSAAC), were ultimately aggregated because the numbers between PLI and UNSAAC were so similar across all the demographics. This was surprising, as when I selected these two institutions as possible partners for this project, I had anticipated the demographics being substantially different, particularly for age. However, the demographics were so similar (Appendix

D) that the variable of the institution was not investigated any further, and all data will be presented as combined data for both institutions. Out of the 180 participants in the sample, 90 are from the PLI and 90 are from UNSAAC.

Turning to the demographic factors, the first variable that I will look at is the number of participants who were bilingual Spanish-Quechua speakers. Below are the percentages overall of how many participants reported speaking Quechua as Spanish-dominant (bi-S) or Quechua-dominant (bi-Q). Language dominance was determined by which language participants wrote in first in the questionnaire (the few participants who checked Spanish and Quechua as their first language were included in the bi-Q group). Bi-Q and bi-S are those participants who reported speaking Quechua and also who reported acquiring Quechua from their family, as opposed to another source later in life (e.g., in school, from a spouse). If participants reported speaking Quechua but did not report a source from where they acquired it, they were grouped in with those participants who acquired Quechua from family. There were 7 participants were reported speaking Quechua from a source other than their family, and those seven participants were not included in bi-Q or bi-S.

Table 3.1: Total bi-Q and bi-S participants

Participant Quechua-speaking		
	#	% of Quechua speakers
bi-Q	54	30.00%
bi-S	45	25.00%
Quechua from non-family source	7	3.88%
No Quechua	74	41.11%
Total	180	99.99%

The table indicates that there were 99 participants in total who acquired Quechua from their family, and 7 participants who learned Quechua from another source. This means that 55% of the 180 participants reported Quechua as either bi-S or bi-Q. This is surprising, as I did not expect such high numbers of

Quechua speakers when surveying from the PLI and UNSAAC populations, as these institutions consist of mostly traditional college-age (18-22) students.

In addition to looking at the number of participants reporting as bi-S and bi-Q, I also looked at the overall percentages of Quechua spoken by participants across different domains for these 99 respondents. This data is calculated from participant answers to questions 26-34 in the survey, which ask participants about what language they use with different people (father, mother, siblings, grandparents, children, spouses, friends, and neighbors). Each question was answered by participants on a scale of 0-4 (0=Always in Spanish, 1=In Spanish more than Quechua, 2=Equally in Spanish and Quechua, 3=In Quechua more than Spanish, 4=Always in Quechua). The questions about Quechua use with children and spouses were two questions that were not included in the analysis, as most participants did not provide answers for these domains, and for those did provide answers, it was not always clear if the all the questions were really read by the participants (many of the "children" and "spouse" answers in the raw data were from those participants only spoke Spanish and checked "0" for every question having to do with these domains). The other domains included are from questions 44-48 about what language participants use in public spaces and were ranked on the same scale by participants. The religious space domain is an aggregate of answers to two questions (47) "What language do you use while praying privately?" and (48) "What language do you use at mass or other religious services?" The neighborhood spaces domain is an aggregate of participant answers to questions (43) "What language do you use when speaking with neighbors?" and (46) "What language do you use at a neighborhood party?"

Participants who did not respond to enough questions were omitted from the results section, but there were many participants who responded to most questions and only skipped a few, and these participants were still included in the results. The percentages of Quechua-speaking across different domains was calculated out of how many participants responded to the question about that specific domain. The overall percentages of participant Quechua-use for each of these domains can be found in table 3.2 on the following page:

Table 3.2: Percentage of total participants who spoke Quechua across domains assessed

Total participants % spoken Quechua in context *y*									
	P -> friends	P -> grandparents	P -> father	p -> mother	P -> siblings	P -> extended family	Religious spaces	At the market	Neighborhood spaces
%	14.70%	52.86%	38.23%	39.88%	19.31%	25.64%	16.11%	33.13%	25.55%

When looking at only family domains, the percentage of participants who used Quechua with grandparents was highest (52%), second highest with fathers and mothers (38% and 39%, respectively), and lowest with siblings (19%). Percentages reported at the market were also substantial (33%), as were neighborhood spaces (25%).

The scores given by participants who responded to the domain questions were also averaged for each domain. The table below presents the average score (0-4) of those participants who reported speaking some Quechua in the domains that were assessed. The average religious space scores and neighborhood score totals were divided by two, as both of these scores were an aggregate of two different questions, to keep them on a scale of 0-4:

Table 3.3: Total participants average language score of Quechua spoken across domains assessed

Total participants average language score (on a scale of 0-4) of those participants that spoke Quechua in context *y*									
	P -> friends	P -> grandparents	P -> father	P -> mother	P -> siblings	P -> extended family	Religious spaces	At the market	Neighborhood spaces
Score (0-4)	1.32	2.46	1.67	1.78	1.52	1.40	1.01	1.35	1.00

For the average language scores across family domains, participants had the highest average score when speaking with grandparents (2.46), the second highest with fathers and mothers (1.67 and 1.78, respectively), lower on siblings (1.52), and the lowest with extended family (1.40). The trend of siblings < parents < grandparents as far as percentages and scores is noteworthy here, as we will see this trend again later in other cross-sections of the data in this chapter (section 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9)

The demographic information for gender, age, class, ethnicity and subject area is covered in their respective sections below with more analysis of those factors.

3.3 Gender

Gender was anticipated as a variable that would have significant effect on the participants' use of Quechua, given that the literature has either a strong bent towards women being more likely to use Quechua or women leading changes in language shift (meaning that they would be less likely to speak Quechua). However, the dynamics discussed in the literature did not manifest in the initial review of the data.

The demographic results for gender are represented in table 3.4 below:

Table 3.4: Total participants by gender

Gender		
	#	%
Male	88	48.88%
Female	92	51.11%
Total	180	99.99%

The participant sample was surprisingly balanced at nearly 50/50 male/female. When gender was split into the bi-S (Spanish-Quechua bilingual with Spanish dominancy) and bi-Q (Spanish-Quechua bilingual with Quechua dominancy), the data yielded these results:

Table 3.5: bi-Q and bi-S participants by gender

Gender by bi-Q and bi-S				
	Male (out of 84)		Female (out of 89)	
	#	%	#	%
bi-Q	25	29.76%	29	32.58%
bi-S	20	23.80%	25	28.08%
No Quechua	39	46.42%	35	41.66%

Out of all the men (not including the 4 participants who spoke Quechua from a non-family source), ~46% did not speak Quechua, compared to ~41% for women. Looking at the percentage for bi-S and bi-Q, the numbers were not much different either. Women were bi-S at a rate of ~5% higher than men, and 4% higher than men for bi-Q. Overall, gender did not seem to have a significant effect on participant bi-S or bi-Q. The table below shows the percentage of male and female participants who reported speaking some Quechua in the domains assessed:

Table 3.6: Percentage of total participants by gender who spoke Quechua across domains assessed

Out of all participants surveyed of *x* gender, the percentage of those participants surveyed by that gender that spoke Quechua in domain *y*									
	P -> friends	P -> grandparents	P -> father	P -> mother	P -> siblings	P -> extended family	Religious spaces	At the market	Neighborhood spaces
Male	18.07%	45.45%	37.34%	38.55%	20.68%	29.87%	19.69%	34.14%	26.13%
Female	11.49%	47.50%	39.08%	41.11%	18.39%	21.51%	18.39%	32.22%	25.00%

Gender by itself did not seem to show a substantial correlation here. The only domains where there was a noticeable discrepancy between men and women was Quechua spoken with friends and extended family, but other than that, men and women mostly reported speaking about the same amount of Quechua. Below is the average score (0-4) for each domain for men and women:

Table 3.7: Participant gender average language score of Quechua spoken across domains assessed

Out of all participants surveyed of *x* gender, the average language score (on a scale of 0-4) of those participants surveyed by that gender that spoke Quechua in domain *y*									
	P -> friends	P -> grandparents	P -> father	P -> mother	P -> siblings	P -> extended family	Religious spaces	At the market	Neighborhood spaces
Male	1.26	2.57	1.67	1.81	1.50	1.39	1.00	1.35	1.00
Female	1.40	2.37	1.67	1.75	1.56	1.41	1.03	1.34	1.00

Again, gender did not seem to be a particularly significant factor in the overall scores of participants in different domains. Looking at gender as the only variable, this is surprising, as the literature tends to have fairly consistent reasons for one gender or another having a stronger tendency to lead the change in language shift (see Chapter 1.3.2).

3.4 Age

Age was another variable that was analyzed. The ages of participants ranged from 18-45, and the distribution of the age of the participants can be seen in figure 3.1 below:

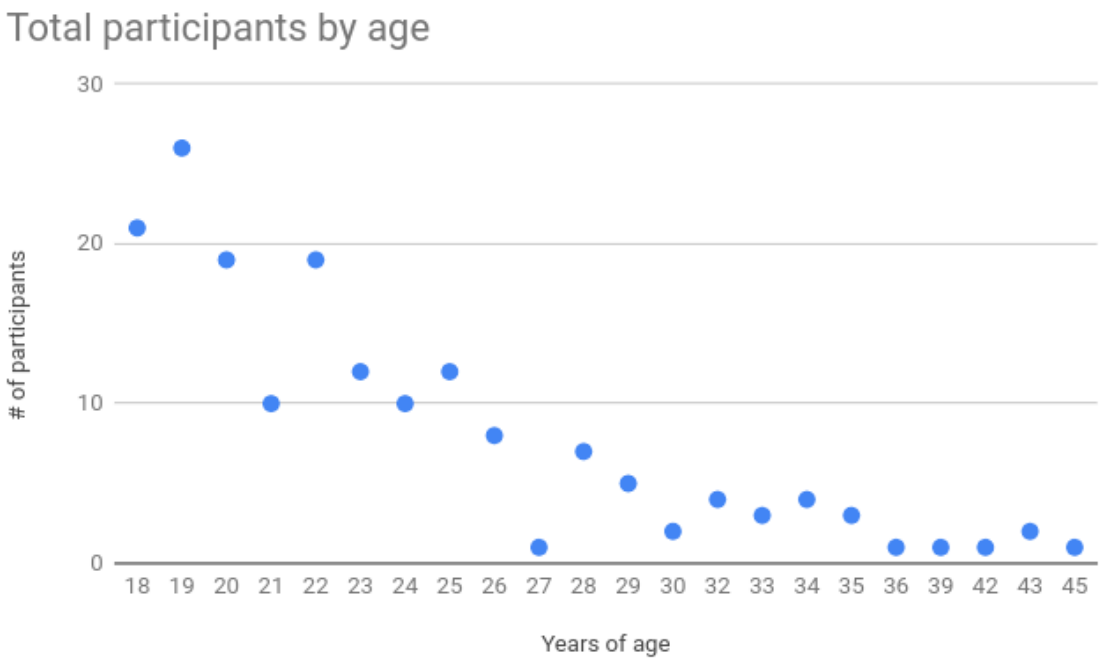

Figure 3.1: Age distribution of total participants

The distribution of the ages skewing strongly towards 18-22 years old is not surprising, as the goal of the study was to have a group of mostly traditional college-age students. After trying to group participant age ranges into a number of different bins, I divided the participant sample into two age groups: 18-19 and 28-45. Originally, I tried a smaller age range for the upper age group (35-45), but there were only 9 participants in that group. Table 3.8 on the following page shows the number of participants for the age ranges 18-19 and 28-45 and their distribution across bi-S (Spanish-Quechua bilingual, Spanish dominant) and bi-Q (Spanish-Quechua bilingual, Quechua dominant):

Table 3.8: bi-Q and bi-S participants by age

bi-Q and bi-S by age				
	18-19		28-45	
	#	%	#	%
bi-Q	11	23.40%	11	32.35%
bi-S	16	34.04%	8	23.52%
No Quechua	20	42.55%	15	44.11%
Total	47	99.99%	34	99.98%

The 18-19 age range group percentage was a little lower for bi-Q (23%) than the total, and the 28-45 age range group percentage was a little higher for bi-Q (32%) than the total, but the total amount of Quechua speakers of bi-Q and bi-S for each age range was consistent with the total for the entire population (55%). Although I would have expected a higher contrast in Quechua spoken between the two age groups, the contrast in bi-Q and bi-S speakers for both age groups is consistent with the hypothesis, where the 28-45 group was more strongly identified with bi-Q, and the 18-19 group was more strongly identified as bi-S. Age also did not show much difference for Quechua spoken across different family domains:

Table 3.9: Percentage of total participants by age who spoke Quechua across domains assessed

Age of participants % spoken Quechua in domain *y*									
	P -> friends	P -> grandparents	P -> father	p -> mother	P -> siblings	P -> extended family	Religious spaces	At the market	Neighborhood spaces
18-19	13.33%	47.50%	36.36%	36.95%	17.77%	27.50%	14.89%	27.65%	17.02%
28-45	12.50%	50.00%	32.25%	31.25%	19.35%	19.35%	20.58%	45.45%	26.47%

The difference in percentages for Quechua use with extended family mirrors closely the difference seen between male and female participants (29% and 21%, respectively). When we look at the male and female distribution across the age groups in table 3.10 on the following page, the numbers provide some clarity on these differences:

Table 3.10: Gender by age

Gender by age				
	Age 18-19		Age 28-45	
	#	%	#	%
Male	23	48.93%	12	35.29%
Female	24	51.06%	22	64.70%
Total	47	99.99%	34	99.99%

There were considerably more female participants in the 28-45 group (64%%) compared to the 18-19 group (51%), so it would make sense that for Quechua use with extended family, the 28-45 age group would more closely mirror the Quechua use seen for female participants. Below is the data on the average language scores for participants across domains by age:

Table 3.11: Participant age group average language score of Quechua spoken across domains assessed

Out of all participants surveyed of *x* age, the average language score (0-4) of those participants surveyed within that age group that spoke Quechua in domain *y*									
	P -> friends	P -> grandparents	P -> father	p -> mother	P -> siblings	P -> extended family	Religious spaces	At the market	Neighborhood spaces
18-19	1.33	2.57	1.62	1.58	1.37	1.45	0.85	1.30	1.56
28-45	1.00	2.50	1.90	2.30	1.83	1.50	0.85	1.40	0.77

There were some noteworthy differences between the age groups in the public space domains assessed, where the 28-45 group spoke more Quechua (45%) than the 18-19 group (27%) in religious spaces. The 28-45 group also spoke more Quechua (26%) than the 18-19 group (17%) in neighborhood spaces. For neighborhood spaces, the 18-19 group also had a score (1.56) of more than twice the score of the 28-45 group (0.77) for amount of Quechua spoken. The 28-45 group also reported a significantly higher score for speaking with mothers (2.30) when compared with the 18-19 group (1.58). However, because overall the percentages and language scores for family members were so similar across both age groups, age will not be explored further in this thesis as a variable. It is possible that if the age range were much broader (e.g., 18-70), that there may have been more of a consistent pattern in the data across all domains.

3.5 Religion

Religion was another variable that was analyzed. Of the total participants surveyed, 123 (or 68.33%) were identified as Catholic, and there were not enough participants associated with any other religion to make any other meaningful comparisons by specific religion. The full data is in the table below:

Table 3.12: Participants by religion

Participants by religion		
Catholic	123	68.33%
Evangelical	9	5.00%
Other - Christian	2	1.11%
Other - Protestant	1	0.55%
Other - Agnostic	1	0.55%
Other	14	7.77%
None	30	16.66%
Total	180	99.97%

Therefore, religion was analyzed across three categories: Catholic (123 participants), Other Christian denomination (referred in this section as "Other," and includes Evangelical, Protestant, Christian, and Other) (26 participants), and "No religion" (includes participants who reported not having any religion and participants who reported being agnostic) (31 participants). The numbers of participants by these religious categories by their bi-S (Spanish-Quechua bilingual with Spanish as the dominant language) and bi-Q (Spanish-Quechua bilingual with Quechuas as the dominant language) can be found in table 3.13 on the following page:

Table 3.13: bi-Q and bi-S participants by religion

Religion of participants by bi-Q and bi-S							
	Total						
	Catholic		Other		No religion		Total
	#	%	#	%	#	%	
bi-Q	37	30.08%	10	38.46%	7	22.58%	54
bi-S	31	25.20%	9	34.61%	5	16.12%	45
No Quechua	55	44.71%	7	26.92%	19	61.29%	81
Total	123	99.99%	26	99.99%	31	99.99%	180

The "Other" group reported the most Quechua spoken for bi-S (34%) and bi-Q (38%), and "No religion" reported the least amount of Quechua spoken for bi-S (16%) and bi-Q (22%). The most notable difference was the percentage of "No religion" participants who did not speak any Quechua (61%), compared to 44% for Catholic and 26% of "Other." Overall, "Other" had the highest percentages for Quechua-speaking, Catholic had the second highest, and "No religion" had the lowest percentages.

When looking at the three religious categories across the domains assessed, there were similar trends that emerged, seen in the table below:

Table 3.14: Percentage of total participants by religion who spoke Quechua across domains assessed

Religion of participants % spoken Quechua in domain *y*									
	P -> friends	P -> grandparents	P -> father	p -> mother	P -> siblings	P -> extended family	Religious spaces	At the market	Neighborhood spaces
Catholic	14.52%	51.85%	37.28%	40.33%	17.64%	26.36%	18.69%	31.03%	26.01%
Other	21.73%	76.19%	56.52%	50.00%	37.50%	45.00%	19.23%	44.00%	26.92%
No religion	10.00%	39.28%	27.58%	30.00%	12.90%	7.69%	3.22%	32.25%	22.58%

There were notable differences in in each religious group that appeared as trends across all domains. The "Other" group reported higher percentages of Quechua used in every domain, Catholic appeared as the

second highest percentage of Quechua used, and “No religion” was the lowest percentage of Quechua used. Most notable were the family domains - for grandparents, “Other” reported 76%, Catholic reported 51%, and “No religion” reported 39%. For mothers, “Other” reported 50%, Catholic reported 40%, and “No religion” reported 30% (father percentages were comparable). For siblings, “Other” reported 37%, Catholic reported 17%, and “No religion” reported 12%.

The language scores for these religious groups followed a similar trend, with “Other” reporting the highest scores for family domains, Catholic reporting the second highest scores, and “No religion” reporting the lowest scores:

Table 3.15: Participant religious group average language score of Quechua spoken across domains assessed

Out of all participants surveyed of *x* religion, the average language score (0-4) of those participants surveyed within that religion that spoke Quechua in domain *y*									
class	P -> friends	P -> grandparents	P -> father	p -> mother	P -> siblings	P -> extended family	Religious spaces	At the market	Neighborhood spaces
Catholic	1.29	2.58	1.65	1.72	1.47	1.37	0.95	1.36	1.04
Other	1.80	2.56	1.84	2.25	1.55	1.55	1.04	1.54	0.92
No religion	1.33	1.72	1.50	1.44	1.75	1.00	2.00	1.10	0.85

Grandparents did not show much difference between “Other” and Catholic (2.56 and 2.58, respectively), while “No religion” reported a score 1.72 for Quechua-use with grandparents. The scores for parents were more notable, with “Other” at 2.25 for the score for Quechua use with mothers, Catholic at 1.72 for the the mother domain, and “No religion” at 1.44 for the mother domain. The sibling scores did not show much difference between “Other” and “Catholic” (1.55 and 1.47, respectively), and were actually higher in this instance for the “No religion” participants (1.75) for those 12% of “No religion” participants who reported speaking Quechua with their siblings. It should also be noted that the 2.00 score for the religious spaces domain for participants who reported “No religion” was one participant who reported a score of 2.00.

Overall, the trends for language scores followed the trends for the percentages, where "Other" reported the highest scores, Catholic the second highest scores, and "No religion" the lowest scores. This trend will be discussed further in Chapter 4, section 4.3.

3.6 Ethnicity

Ethnicity was found to be one of the more significant variables in the questionnaire data for Quechua-use. The two primary ethnicities reported were *mestizo* and *quechua*, and every other ethnicity reported (*blanco, mestizo & blanco, mestizo & quechua, nativo, aymara, "I don't know"*) were binned as "other." The data on participant ethnicity before binning may be found in Appendix E.

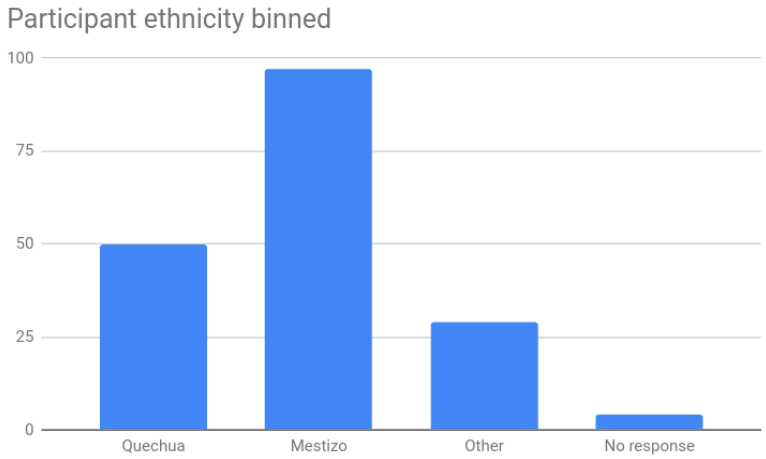

Figure 3.2: Participant ethnicity binned

Table 3.16: Total participants by ethnicity

Ethnicity of participants		
	#	%
quechua	50	27.77%
mestizo	97	53.88%
Other	29	16.11%
No response	4	2.22%
Total	180	99.98%

When looking at ethnicities of bi-S (Spanish-Quechua bilinguals who were Spanish dominant) and bi-Q (Spanish-Quechua bilinguals who were Quechua dominant) groups, the data revealed the following:

Table 3.17: bi-Q and bi-S participants by ethnicity

	bi-Q		bi-S		No Quechua	
	#	%	#	%	#	%
quechua	29	52.72%	10	22.22%	8	10.81%
mestizo	18	32.72%	23	51.11%	52	70.27%
mestizo & quechua	2	3.63%	6	13.33%	2	2.70%
Other	6	10.90%	6	13.33%	12	16.21%
Total	55	99.97%	45	99.99%	74	99.99%

The bi-Q participants correlated much more strongly with the *quechua* ethnicity, while the bi-S participants correlated more strongly the *mestizo* ethnicity. Those few who identified as both *mestizo* and *quechua* also had a stronger correlation with the *mestizo* ethnicity.

Looking at the two largest ethnic groups reported, *quechua* and *mestizo*, I then looked at the percentages of these two ethnicities that reported speaking some Quechua (scores 0-4) in the table below:

Table 3.18: Percentage of total participants by ethnicity who spoke Quechua across domains assessed

Out of all participants surveyed of *x* ethnicity, the percentage of those participants surveyed within that ethnic group that spoke Quechua in context *y*									
Ethnicity	P -> friends	P -> grandparents	P -> father	p -> mother	P -> siblings	P -> relatives	Religious spaces	At the market	Neighborhood spaces
quechua	40.42%	77.50%	65.21%	69.56%	53.19%	52.38%	32.00%	59.57%	52.00%
mestizo	5.43%	47.12%	27.95%	28.12%	7.44%	13.79%	10.30%	24.21%	17.52%

The percentages show between *mestizo* and *quechua* ethnicities show drastic differences, with *quechua* reporting percentages for all domains at rates of ~22-40% higher than those reported by *mestizo* participants. The data here for both ethnicities followed the trend of percentage of Quechua use with

siblings < with parents < with grandparents as seen in previous sections (3.2, 3.3, 3.4, 3.5). The following table shows the average scores of those participants who reported some Quechua:

Table 3.19: Participant ethnic group average language score of Quechua spoken across domains assessed

Out of all participants surveyed of *x* ethnicity, the average language score (on a scale of 0-4) of those participants surveyed within that ethnic group that spoke Quechua in context *y*									
Ethnicity	P -> friends	P -> grandparents	P -> father	p -> mother	P -> siblings	P -> relatives	Religious spaces	At the market	Neighborhood spaces
quechua	1.31	3.29	1.96	2.09	1.52	1.54	1.31	1.46	1.28
mestizo	1.00	1.95	1.38	1.44	1.57	1.16	0.65	1.13	0.64

The participants who identified *quechua* as their ethnicity reported not only significantly higher percentages of speaking Quechua across every single domain, but also reported higher scores for how much Quechua they were speaking in those domains. Interestingly, for those *quechua* participants, they reported very similar percentages for grandparents, mother, and father (62%, 60%, 64%, respectively), while the *mestizo* participants reported similar percentages for both parents, but much higher for grandparents. For the *quechua* participants, they also reported significantly higher scores for speaking with parents at 3.29 (as a reminder, a 4 would be always speaking in Quechua), and reported speaking as much Quechua with their parents (1.96 with fathers and 2.09 with mothers) as *mestizo* participants did with their grandparents (1.95). Of particular note in table 3.19 is that *quechua* participants reported double the average scores for Quechua use in both religious spaces and neighborhood spaces as *mestizo* participants.

3.7 Class

The class variable was analyzed as four separate classes - lower, lower/middle, middle, and upper, and was determined by the combination of the occupations of the participants' parents (refer to section 2.3.2 for the complete explanation of how each class was determined). The demographic results for class are represented in figure 3.3 and table 3.20 below:

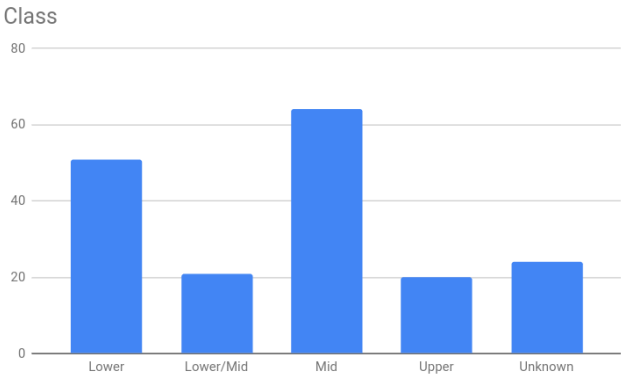

Figure 3.3: Total participants by class

Table 3.20: Total participants by class

Class		
	#	%
Lower	51	28.33%
Lower/Mid	21	11.66%
Mid	64	35.55%
Upper	20	11.11%
Unknown	24	13.33%
Total	180	99.98%

If participant class could not be formulated clearly based on the participant's answer(s) for parent occupation (or if parent occupation was not reported), the participants was binned in the "Unknown" category and will not be looked at any further in the analysis of class.

Comparing bi-S (Spanish-Quechua bilinguals who were Spanish dominant) and bi-Q (Spanish-Quechua bilinguals who were Quechua dominant) groups by class, the data revealed the following in table 3.21:

Table 3.21: bi-Q and bi-S participants by class

	bi-Q		bi-S		No Quechua	
	#	%	#	%	#	%
Lower	25	54.34%	11	26.82%	13	19.11%
Lower/mid	5	10.86%	6	14.63%	12	17.64%
Mid	13	28.26%	18	43.90%	31	45.58%
Upper	3	6.52%	6	14.63%	12	17.64%
Total	46	99.98%	41	99.98%	68	99.97%

The bi-S participants had a stronger correlation with middle class (43%), while the bi-Q participants had a stronger correlation with lower class (54%). Additionally, there was a higher percentage of bi-S lower/middle (14%) and bi-S upper class (14%) participants as there were bi-Q lower/middle (10%) and bi-Q upper class (6%) participants.

When analyzing the lower, lower/middle, middle, and upper class percentages for Quechua-use across the different domains, the data yielded the results in the table below:

Table 3.22: Percentage of total participants by class who spoke Quechua across domains assessed

Out of all participants surveyed of *x* class, the percentage of those participants surveyed within that class that spoke Quechua in context *y*									
class	P -> friends	P -> grandparents	P -> father	p -> mother	P -> siblings	P -> relatives	Religious spaces	At the market	Neighborhood spaces
Lower	23.40%	65.21%	53.06%	57.44%	34.69%	40.90%	21.56%	37.50%	39.21%
Lower/Mid	14.28%	52.63%	61.58%	42.85%	19.04%	25.00%	19.04%	33.33%	28.57%
Mid	11.47%	49.12%	27.11%	30.64%	13.11%	15.51%	15.62%	32.85%	18.75%
Upper	5.00%	26.31%	30.00%	25.00%	5.00%	13.33%	5.00%	22.22%	10.00%

Given this preliminary data, there was a very clear relationship between lower, middle, and upper class. Across every single domain, the percentage of Quechua use followed the trend of lower class > middle class > upper class. The lower/middle class group was almost in between the lower and middle classes to varying degrees, although it tended to pattern more closely with the middle class with some exceptions (e.g., neighborhood spaces put lower/middle right in between lower and middle class, as did mothers and

relatives). There was one major exception to this pattern in the domain of fathers, where lower/middle (61%) reported a higher percentage of Quechua use than lower class (53%).

The class data was also analyzed by the average language scores. The language scores (0-4, where 0=Always in Spanish and 4=Always in Quechua) of participants who reported speaking some Quechua are found in the table below categorized by class:

Table 3.23: Participant class group average language score of Quechua spoken across domains assessed

Out of all participants surveyed of *x* class, the average language score (0-4) of those participants surveyed within that class that spoke Quechua in domain *y*									
class	P -> friends	P -> grandparents	P -> father	p -> mother	P -> siblings	P -> extended family	Religious spaces	At the market	Neighborhood spaces
Lower	1.45	3.13	1.92	2.14	1.52	1.50	1.09	1.44	1.12
Lower/Mid	1.66	2.00	1.62	1.33	1.25	1.80	0.87	1.14	1.00
Mid	1.14	2.10	1.43	1.47	1.37	1.22	0.85	1.28	0.87
Upper	1.00	2.00	2.00	1.80	1.00	1.50	1.00	1.50	0.75

The trend that was previously noted in participant percentages (lower class > middle class > upper class) held true as well for the most part for participant language scores, where lower class participants had the highest scores of Quechua use, middle class had the second highest scores, and upper class had the lowest scores. There were some exceptions, such as upper class scores for fathers and mothers (2.00 and 1.80, respectively) being higher than the middle class scores for these fathers and mothers (1.43 and 1.47, respectively). These exceptions may be attributable to the lower number of upper class participants (20 participants total for upper class), and the even lower number of those participants who spoke Quechua with their fathers and mothers (6 and 5 participants, respectively). Those few upper-class participants who reported higher scores in those domains contributed more weight to those averages due to the low numbers of upper class participants who spoke Quechua.

3.8 Subject area

Participant subject area of study was another variable that was analyzed. The reason that subject area was analyzed as another variable was that there were two distinct groups (engineering students and tourism students) that had significant amounts of participants and stood out across both institutions (Private Language Institution and UNSAAC). All other subject areas reported by participants (administration, food industry, dentistry, natural sciences, math, economics, finances and accounting, law and human rights, liberal arts, education, architecture, art and music) were combined into one category "Other," as there was not a significant enough amount of participants in any of these other subject areas to warrant its own analysis (Appendix D). The number of participants in each group are seen in the table below:

Table 3.24: Total participants by subject area

Subject area		
	#	%
Engineering	34	18.88%
Tourism	40	22.22%
Other	92	51.11%
No response	14	7.77%
Total	180	99.98%

The "Other" category is included in all of the additional tables in this section, but because it is not a very meaningful category due to the extent of the subjects that it includes, we will not discuss it further.

Moving into further analysis by subject area, participants were analyzed by the number of bi-S (Spanish-Quechua bilingual with Spanish dominancy) and bi-Q (Spanish-Quechua bilingual with Quechua dominancy) for each subject area:

Table 3.25: bi-Q and bi-S participants by subject area

bi-Q and bi-S by subject area						
	Engineering		Tourism		Other	
	#	%	#	%	#	%
bi-Q	6	18.18%	18	47.36%	25	28.40%
bi-S	11	33.33%	7	18.42%	24	27.27%
No Quechua	16	48.48%	13	34.21%	39	44.31%
Total	33	99.99%	38	99.99%	88	99.98%

There was a significant difference between the engineering and tourism groups in the percentages of participants who spoke no Quechua (48% for engineering students and 34% for tourism students). Engineering students who did speak Quechua were more likely to be bi-S (33%) than tourism students (18%), and tourism students were more likely to be bi-Q (47%) than engineering students (18%). One might assume that there would have been a continuum of bi-Q, bi-S, and participants who do not speak Quechua across the subject areas, but the stark contrast in percentages between these groups suggests three distinct profiles of bi-Q, bi-S, and participants who do not speak Quechua.

Apart from the results in table 3.25 above, participant subject area did not produce very significant results upon further analysis. Table 3.26 below shows the percentages of participants (34 engineering students and 40 tourism students) in those subject areas who used Quechua across the domains assessed:

Table 3.26: Percentage of total participants by subject area who spoke Quechua across domains assessed

Out of all participants who study Tourism or Engineering, the percentage of those participants surveyed within that subject area that spoke Quechua in domain *y*									
Subject Area	P -> friends	P -> grandparents	P -> father	p -> mother	P -> siblings	P -> relatives	Religious spaces	At the market	Neighborhood spaces
Engineering	6.06%	48.38%	38.23%	41.17%	14.70%	30.00%	14.70%	36.36%	20.58%
Tourism	18.42%	45.94%	45.71%	45.94%	26.31%	27.77%	20.00%	35.89%	25.00%
Other	18.60%	51.11%	38.88%	40.00%	21.11%	25.97%	17.39%	34.09%	31.52%

Quechua-use with friends showed a large difference between Engineering students (6%) and Tourism students (18%), and parents and siblings showed higher rates for tourism students (45% for mothers and fathers, 26% for siblings) when compared to tourism students (38% for fathers, 41% for mothers, 14% for siblings), but the percentages for the rest of the domains were about the same and unremarkable between tourism students and engineering students.

When looking at the average language scores (0-4, 0=Always in Spanish, 4=Always in Quechua) across the domains for subject area, tourism students report higher scores for Quechua use across every domain:

Table 3.27: Participant subject area group average language score of Quechua spoken across domains assessed

Out of all participants surveyed of *x* subject area, the average language score (0-4) of those participants surveyed within that subject area that spoke Quechua in domain *y*									
class	P -> friends	P -> grandparents	P -> father	p -> mother	P -> siblings	P -> extended family	Religious spaces	At the market	Neighborhood spaces
Engineering	1.00	2.00	1.30	1.28	1.00	1.22	0.60	1.16	0.85
Tourism	1.42	2.88	1.81	1.94	1.60	1.70	1.00	1.42	1.15
Other	1.31	2.47	1.74	1.91	1.63	1.35	1.15	1.36	0.98

There are reasons in the rest of the data that help to explain why tourism students were overall reporting higher scores of Quechua use and are discussed more in Chapter 4 in section 4.4.

3.9 Family background

Family background was another factor that was analyzed. The factors that constituted family background were parent bilingualism (Spanish-Quechua) and monolingualism (Quechua only). The table below shows if the participant came from a family where only the mother spoke Quechua, only the father spoke Quechua, both spoke Quechua, or neither spoke Quechua (it should be noted that there were was one participant in the "Neither" group whose parents spoke Aymara, rather than Spanish), and if the participants were reporting Quechua use as bi-S (Spanish-Quechua bilingual with Spanish dominancy) or bi-Q (Spanish-Quechua bilingual with Quechua dominancy):

Table 3.28: bi-S and bi-Q by participant parents who speak Quechua

Participants who speak Quechua, data of their parents who speak Quechua								
	Mother only		Father only		Both		Neither	
	#	%	#	%	#	%	#	%
bi-Q	2	7.14%	1	14.28%	50	44.64%	1	2.94%
bi-S	9	32.14%	1	14.28%	31	27.67%	4	11.76%
Quechua other source	1	3.57%	1	14.28%	3	2.67%	2	5.88%
No Quechua	15	53.57%	4	57.14%	28	25.00%	27	79.41%
Total (out of 180)	28	15.55%	7	3.88%	112	61.66%	34	18.88%

I also looked at bilingualism of the parents of the participants in the sample. The table below shows families of participants where both parents speak Quechua, where only the mother speaks Quechua, where only the father speaks Quechua, and where neither speak Quechua. Additionally, the table shows the numbers of parents in those groups who are Spanish-Quechua bilingual (both parents, only the mother, or only the father).

Table 3.29: Amount of parent bilingualism reported by participants

Bilingual Spanish-Quechua families							
	Speak Quechua	Both bilingual	Mother bilingual	Father bilingual	% both bilingual	% only mothers bilingual	% only fathers bilingual
Both parents	112	52	7	17	46.42%	6.25%	15.17%
Mother only	27	-	18	-	-	66.66%	-
Father only	7	-	-	6	-	-	85.71%
Neither	34	-	-	-	-	-	-
No response	0	-	-	-	-	-	-
Total families speak Quechua	146	-	-	-	-	-	-
Total	180	-	-	-	-	-	-

Overall, fathers were more likely to be bilingual in contexts where both parents spoke Quechua (6.25% of mothers were bilingual compared to 15.17% of fathers) and also in contexts where only one parent spoke Quechua (66.66% of mothers compared to 85.17% of fathers). It should also be noted here that the question prompting this information was "What was your mother's/father's first language?" The parents who are included in the "bilingual" category are those for whom the participant checked both boxes, Spanish and Quechua. We could probably reasonably expect that for many of the parents who were selected as having Quechua as their L1 are also bilingual Quechua-Spanish.

Parent bilingualism was found to be a significant factor in the likelihood that the participant would speak Quechua. Specifically, there were correlations between family background and participant bi-Q (Spanish-Quechua bilingual with Quechua dominancy) and bi-S (Spanish-Quechua bilingual with Spanish dominancy). Bi-Q participants were much more likely to have parents with Quechua as their L1 (referred to after this point as Q1), while bi-S participants were more likely to have parents with Spanish and Quechua listed as their L1 (referred to after this point as "bi"). That same trend also holds for the relationship between bilingual parents and grandparents, where the bilingual parents were more likely to correlate with bilingual grandparents (bi), and Q1 parents were more likely to correlate with monolingual grandparents (mono).

Tables 3.30 and 3.31 show bi-Q participants and bi-S participants family trees and the parent language groups according to whether parents are Q1, bi, or neither, as well as the grandparent language group that produced the parents. In both tables, participants are represented on the Tier 1, parents on Tier 2, and grandparents on Tier 3.

Table 3.30: Family tree of bilingual participants who are Quechua-dominant

<table>
<tr><td>Tier</td><td colspan="16">Family tree of participants who speak Quechua as bi-Q</td></tr>
<tr><td>3rd</td><td>26 Q1</td><td>5 bi</td><td>26 Q1</td><td>5 bi</td><td>9 Q1</td><td>6 bi</td><td>9 Q1</td><td>5 bi</td><td>18 Q1</td><td>2 bi</td><td>20 Q1</td><td>2 bi</td><td>11 Q1</td><td>4 bi</td><td>11 Q1</td><td>5 bi</td></tr>
<tr><td>2nd</td><td colspan="4">34 Q1</td><td colspan="4">16 bi</td><td colspan="4">28 Q1</td><td colspan="4">14 bi</td></tr>
<tr><td>1st</td><td colspan="16">54 bi-Q</td></tr>
</table>

Table 3.31: Family tree of bilingual participants who are Spanish-dominant

Tier	Family tree of participants who speak Quechua as bi-S															
3rd	11 Q1	2 bi	9 Q1	3 bi	12 Q1	13 bi	11 Q1	12 bi	8 Q1	0 bi	8 Q1	0 bi	11 Q1	11 bi	13 Q1	11 bi
2nd	13 Q1				26 b				8 Q1				24 bi			
1st	45 bi-S															

In table 3.30 where high numbers of Q1 grandparents and low numbers of Bi grandparents produced more Q1 parents, and high numbers of Q1 parents and low numbers of Bi parents produced more bi-Q participants. In table 3.31, the opposite was true for bi-S participants, high numbers of Bi grandparents and low numbers of Q1 grandparents produced high numbers of Bi parents, and high numbers of Bi parents and low numbers of Q1 parents produced higher numbers of bi-S participants. From both tables, it is clear that Q1 through the family line produces more affiliation with Quechua, and bilingualism produces less affiliation with Quechua.

We can see similar correlations on participant bi-S and bi-Q in the table below, which looks at 87 participants who were bi-Q or bi-S and the Quechua language group of their parents (Q1-Q1=both parents Q1, Q1-Bi=one parent Q1 and one bilingual, Bi-Bi=Two parents bilingual, Bi-None=one parent bilingual and parent does not speak Quechua, None-none=neither parent speaks Quechua). Thirteen total participants were omitted from this table - eight because they had not responded to one or both questions about parent language, and five participants who reported their parent language group as Q1-None. Tier 1 is participant bi-Q or bi-S, and tier 2 is the parents of those participants.

Table 3.32: Family tree of all bilingual participants, parents only

Family tree of participant bi-Q and bi-S who came from Q1-Q1, Q1-B, B-B, and B-N families, where X-X is parent-parent (Q1=L1 Quechua, Bi=Bilingual, None=No Quechua)								
2nd	30 Q1-Q1		19 Q1-Bi		32 Bi-Bi		6 Bi-None	
1st	26 bi-Q	4 bi-S	12 bi-Q	7 bi-S	12 bi-Q	20 bi-S	2 bi-Q	4 bi-S

The Q1-Bi and Bi-None parents are not specified for which parent (mother or father) is Q1, bilingual, or None. The Q1-Bi families are all those where one parent is Q1 and one bilingual, and Bi-None are families where one parent was reported bilingual and one reported as not speaking any Quechua.

Table 3.32 above demonstrates again that there is a strong correlation of parent Q1 and participant bi-Q. More bilingualism in parents corresponds to an increase in participant association with Spanish (bi-S) and reduced association with Quechua (bi-Q). Q1-Q1 corresponds at rates of 15:13 for bi-Q and 15:2 for bi-S, Q1-Bi corresponds at rates of 19:12 for bi-Q and 19:7 for bi-S, Bi-Bi corresponds at rates of 16:6 for bi-Q and 16:10 for bi-S, and Bi-None corresponds at rates of 3:1 for bi-Q and 3:2 for bi-S (although it should be noted that the sample here is very small).

Despite such high correlations of rates between parent Q1 and participant bi-Q, this correlation did not seem to necessarily correspond with any increased use in Quechua for bi-Q participants. Looking at table 3.33 below, the percentages are mostly unremarkable when comparing bi-Q and bi-S participants:

Table 3.33: Percentage of total participants by bilingual language dominancy who spoke Quechua across domains assessed

Out of all bi-S and bi-Q participants, percentage of those participants surveyed that spoke Quechua in domain *y*									
	P -> friends	P -> grandparents	P -> father	P -> mother	P -> siblings	P -> extended family	Religious spaces	At the market	Neighborhood spaces
bi-Q	28.84%	66.66%	61.22%	68.00%	40.38%	45.65%	24.07%	49.01%	50.00%
bi-S	20.51%	85.00%	60.97%	59.09%	23.25%	40.00%	26.66%	48.83%	22.22%

There is a notable discrepancy between percentages for grandparents, which is the opposite of what I would have expected, as bi-S (80%) reports speaking Quechua in higher percentages than bi-Q (66%). However, bi-Q participants reported speaking on average more Quechua with grandparents:

Table 3.34: Participant Quechua-bilingual group average language score of Quechua spoken across domains assessed

Out of all bi-S and bi-Q participants, the average language score (on a scale of 0-4) of those participants surveyed that spoke Quechua in domain *y*									
	P -> friends	P -> grandparents	P -> father	P -> mother	P -> siblings	P -> extended family	Religious spaces	At the market	Neighborhood spaces
bi-Q	1.33	3.23	1.90	2.17	1.57	1.57	1.34	1.40	1.03
bi-S	1.37	2.32	1.40	1.42	1.20	1.21	0.70	1.28	1.20

The other notable number is neighborhood percentages and religious space language scores. bi-Q reports more than twice the percentage (50%) of Quechua usage than bi-S does (22%) for neighborhood spaces, although their language scores were comparable for this domain (1.03 bi-Q compared to 1.20 for bi-S). For religious spaces, the percentage was the about the same for each group (49% of bi-Q and 48% of bi-S), but bi-Q reported more than twice the average score for Quechua use than bi-S (1.34 for bi-Q compared to 0.70 for bi-S).

Notably, the rates at which parents and grandparents spoke to these two groups were also very similar:

Table 3.35: Percentage and language scores for participants by bilingual language dominancy by parental domains only

	Father -> p	Mother -> p	Grandparents ->p	Father -> p	Mother -> p	Grandparents ->p
bi-Q	64.70%	70.00%	75.60%	1.69	1.94	2.64
bi-S	64.10%	66.66%	91.89%	1.28	1.46	2.55

The percentages were almost equivalent for parents and grandparents speaking Quechua to the bi-Q and bi-S participants. The noticeable difference is between language scores for parents, where mothers of bi-Q participants had an average score of 0.50 more than mothers of bi-S participants, and bi-Q fathers had an average score of 0.41 more than fathers of bi-S participants.

Whether the parents were reported as Q1, Bi, or None, and the combinations thereof, did have a correlation with Quechua use as seen in the table below:

Table 3.36: Percentage of total participants by parent language group who spoke Quechua across domains assessed

Out of all participants surveyed, the percentage of those participants surveyed with the parent combination that spoke Quechua in domain *y*									
	P -> friends	P -> grandparents	P -> father	p -> mother	P -> siblings	P -> extended family	Religious spaces	At the market	Neighborhood spaces
Q1-Q1	39.39%	80.00%	71.87%	69.69%	36.36%	51.72%	34.28%	47.05%	45.71%
Q1-Bi	17.39%	55.00%	52.17%	52.17%	30.43%	21.73%	20.00%	33.33%	28.00%
Bi-Bi	12.00%	62.22%	38.46%	41.17%	23.07%	31.11%	11.53%	38.00%	30.76%
Bi-None	5.00%	50.00%	30.00%	40.00%	5.00%	16.66%	4.76%	36.84%	14.28%
None-None	0.00%	13.79%	6.45%	9.37%	3.22%	3.44%	6.25%	10.00%	6.25%

Parents being Q1 had the highest correlation with Quechua use, and Bi parents had the second highest correlation of Quechua use. These trends were both true for nearly all domains with exceptions like Bi-Bi for extended family and grandparents being higher than Q1-Bi, but for the domains of parents and siblings, this trend held true. Additionally, being Q1 and Bi had additive effects, where Q1-Q1 participants spoke more Quechua than Q1-Bi, spoke more than Bi-Bi, etc.

These trends also held true for the language scores across the domains (0-4, 0=Always in Spanish, 4=Always in Quechua):

Table 3.37: Participant parent language group average language score of Quechua spoken across domains assessed

Out of all participants surveyed, the average language score (0-4) of those participants surveyed with the parent combination that spoke Quechua in domain *y*									
	P -> friends	P -> grandparents	P -> father	p -> mother	P -> siblings	P -> extended family	Religious spaces	At the market	Neighborhood spaces
Q1-Q1	1.38	3.37	1.86	2.37	1.50	1.66	1.41	1.50	1.18
Q1-Bi	1.00	2.63	1.58	1.66	1.42	1.20	0.80	1.50	0.92
Bi-Bi	1.33	2.14	1.40	1.47	1.58	1.28	0.66	1.15	1.28
Bi-None	1.00	1.80	1.33	1.16	2.00	1.33	2.00	1.28	0.66
None-None	0.00	1.25	1.00	1.00	1.00	1.00	1.00	1.00	0.50

The participants with Q1-Q1 parents reported the highest average scores, the participants with Q1-Bi parents reported the second highest scores, the participants with Bi-Bi parents reported the third highest

scores, Bi-None reported the fourth highest scores, and None-None reported with the lowest scores. These results will be discussed further in Chapter 4, section 4.8.

3.10 Language attitudes and years of English study correlations with Quechua

The final variable that was analyzed was participant attitudes about Quechua and English. There were seven statements about attitudes (questions 49-56) at the end of the questionnaire, and the participants ranked on a Likert scale of 1-5 (1=strongly disagree, 5=strongly agree) about how much they agreed with the statement. Of the total of 180 participants, there were 24 participants who were omitted from the language attitude data because they either did not answer any of the questions, or they answered 5 for every question, leading me to believe that the may not necessarily have read all of the questions. There were 156 participant answers used the language attitude data. The table below shows the average of scores for questions 49-56 for these 156 participants:

Table 3.38: Participant average scores for attitude questions (1=strongly disagree, 5=strongly agree)

Average language attitudes of 156 participants	
Question	Average score
(49) "It's important to me that I know my parents' maternal language."	4.60
(50) "It's important to me that I know my grandparents' maternal language."	4.41
(51) "It's important to me that my children know my maternal language."	4.37
(52) "I'm proud that Quechua is part of my heritage."	4.64
(53) "I like hearing Quechua spoken in public."	4.19
(54) "It seems old-fashioned to speak Quechua."	1.52
(55) "English is necessary to gain better employment."	4.18
(56) "English is necessary to be part of the global economy."	4.37

The data of the 156 participants was also analyzed by whether the participants were bi-Q (Spanish-Quechua bilingual, Quechua dominant), bi-S (Spanish-Quechua bilingual, Spanish dominant) or None (does not speak any Quechua). Two participants were further omitted for not fitting into bi-S, bi-Q or No Quechua (they were two participants who had learned Quechua from a non-family source):

Table 3.39: Participant average scores for attitude questions (1=strongly disagree, 5=strongly agree) by bi-Q, bi-S, and None (154 participants)

	Average score		
Question	bi-Q	bi-S	None
(49) "It's important to me that I know my parents' maternal language."	4.95	4.51	4.43
(50) "It's important to me that I know my grandparents' maternal language."	4.80	4.37	4.09
(51) "It's important to me that my children know my maternal language."	4.79	4.25	4.42
(52) "I'm proud that Quechua is part of my heritage."	4.76	4.65	4.66
(53) "I like hearing Quechua spoken in public."	4.48	4.39	3.96
(54) "It seems old-fashioned to speak Quechua."	1.82	1.44	1.50
(55) "English is necessary to gain better employment."	4.35	3.97	4.26
(56) "English is necessary to be part of the global economy."	4.33	4.13	4.52

When the data was analyzed by bilingual Quechua speakers (bi-Q and bi-S) against the participants who spoke no Quechua (None), the bi-Q group scored the highest for questions 49-53 for agreement to positive statements about Quechua. Specifically, for questions (49) "It's important to me that I know my parents' maternal language" and (50) "It's important to me that I know my grandparents' maternal language", there was a pattern of bi-Q scoring the highest, bi-S scoring the second highest, and None scoring the lowest. For question (53) "I like hearing Quechua spoken in public," bi-Q and bi-S clustered around the same average (4.48 and 4.39, respectively), while None averaged considerably lower (3.96).

Average scores for (56) “English is necessary to be part of the global economy” showed a larger difference between the through groups, with bi-Q at 4.33, bi-S at 4.13, and None at 4.52. These results will be discussed briefly in Chapter 4 in section 4.8.

To address hypothesis 3 (Chapter 1, section 1.4.2), participant attitudes were evaluated across the number of years that they had been studying English. There were 149 participants included in this part of the analysis, as 7 participants of the 156 above did not provide answers to how many years they had been studying English. The analysis yielded the results in table 3.40 below:

Table 3.40: Attitudes of participants by years studying English (149 participants)

Attitudes of participants by years studying English (149 total participants)			
	Years studying English, average score		
Question	0-1 years	2-3 years	4+ years
(49) “It’s important to me that I know my parents’ maternal language.”	4.50	4.66	4.11
(50) “It’s important to me that I know my grandparents’ maternal language.”	4.25	4.23	4.33
(51) “It’s important to me that my children know my maternal language.”	4.16	4.42	4.20
(52) “I’m proud that Quechua is part of my heritage.”	4.65	4.58	4.66
(53) “I like hearing Quechua spoken in public.”	4.15	4.24	3.50
(54) “It seems old-fashioned to speak Quechua.”	1.46	1.64	2.00
(55) “English is necessary to gain better employment.”	3.94	4.13	3.66
(56) “English is necessary to be part of the global economy.”	4.32	4.15	4.33

My hypothesis was that as participants studied more English, that positive attitudes about Quechua would decrease. This did not prove to be the case. For question 50, the attitudes across all groups (0-1 years, 2-3 years, and 4+ years) were similar, with 4+ years being at the highest score of agreement at 4.33. For

question 52, all groups scored about the same level agreement, with 4+ years also being at the highest at 4.66. Scores did increase in agreement about the negative statement about Quechua for question 54, with scores of 1.46, 1.64, and 2.00 for the 0-1 year group, 2-3 years group, and 4+ years group, respectively. If we look at the distribution of bi-Q, bi-S and no Quechua speakers in these groups of English study, it is not what we would expect:

Table 3.41: Participant bi-Q and bi-S by years studying English (149 participants)

Parent Quechua-speaking by gender for *quechua* participants only						
	0-1 years		2-3 years		4+ years	
	#	%	#	%	#	%
bi-Q	21	30.43%	17	25.75%	4	28.57%
bi-S	20	28.98%	18	27.27%	3	21.42%
No Quechua	28	40.57%	31	46.96%	7	50.00%
Total	69	99.98%	66	99.98%	14	99.99%

The bi-Q group in table 3.41 has the highest agreement with the negative statement in question 54, so we might expect that the 4+ year group would have a higher percentage of these participants as well. However, the 4+ group has the highest percentage of participants who do not speak Quechua (50%), a group that had scored the lowest agreement to question 54. This could mean that it is the 4+ years of studying English that may be the pertinent variable. The 4+ year group also scored the lowest agreement on the positive statement in question 53, at 3.50. The data suggests that the participants in the 4+ year group, when compared to the 0-1 year group and 2-3 year group, does demonstrate more negative attitudes about Quechua. However, because number of participants in the 4+ year group is small (only 14 participants, compared to 69 participants and 66 participants in the other groups), it does not seem that anything conclusive can be said. Additionally, the 2-3 year group actually had a higher agreement to the

positive statement in question 53 than the 0-1 year group, so a clear pattern by years studying English cannot be established.

Moving towards the question about if the attitudes of those groups has any correlation with Quechua use, the Quechua use of the three groups, 0-1 years, 2-3 years, and 4+ years were analyzed in the tables below:

Table 3.42: Percentage of participants who spoke Quechua across domains assessed by years of studying English

Out of all participants surveyed of *x* years studying English, the percentage of those participants surveyed that spoke Quechua in domain *y*									
	P -> friends	P -> grandparents	P -> father	p -> mother	P -> siblings	P -> extended family	Religious spaces	At the market	Neighborhood space
0-1 years	13.51%	56.75%	35.89%	37.17%	18.18%	26.86%	15.85%	33.76%	25.60%
2-3 years	14.86%	50.79%	40.00%	43.05%	17.56%	25.71%	16.00%	30.13%	28.00%
4+ years	6.66%	35.71%	31.25%	31.25%	18.75%	7.69%	12.50%	33.33%	12.50%

Table 3.43: Participant average language score of Quechua spoken across domains assessed for participants by years of studying English

Out of all participants surveyed of *x* years studying English, the average language score (on a scale of 0-4) of those participants surveyed that spoke Quechua in domain *y*									
	P -> friends	P -> grandparents	P -> father	p -> mother	P -> siblings	P -> extended family	Religious spaces	At the market	Neighborhood spaces
0-1 years	1.40	2.26	1.78	1.79	1.92	1.50	1.07	1.38	0.92
2-3 years	1.09	2.65	1.53	1.74	1.23	1.22	0.87	1.36	0.83
4+ years	1.00	3.00	1.80	1.80	1.00	2.00	1.75	1.80	1.25

The 4+ year group, the group with the most negative attitudes about Quechua, had the lowest percentage of Quechua use. However, this group also had the highest percentage of participants who reported not speaking any Quechua (50%), so this is not surprising. There was a consistent pattern of the 2-3 year group reporting lower scores of Quechua use than the 0-1 year group, which is surprising and may have suggested a pattern here. However, when we look at the 4+ year group, the group with the most negative attitudes, this group had the highest scores for Quechua use across most domains. Because there did not

seem to be any clear and consistent pattern between attitudes of Quechua corresponding to Quechua use, this will variable will not be discussed further.

The variable of years of English study showed some patterns that correlated with attitudes about Quechua for question 54. However, this pattern was not consistent for other statements about Quechua, either negative or positive, and the variable did not show to be significant.[3]

3.11 Summary

There were a few variables that showed consistent patterns of correlation with higher Quechua use. The variable of gender was not a significant variable, which was surprising given the sociolinguistic literature on gender. Age was another variable that was expected to have significant differences but did not show to be significant for the participants sampled. Religion was a significant variable, and the non-Catholic Christian participants reported the highest Quechua use. Ethnicity also proved to be a significant variable, with the *quechua* ethnicity reported the highest Quechua use. Class was another significant variable, with the lower class participants reporting the highest Quechua use. Subject area also demonstrated some correlation with Quechua use, with tourism students reporting using more Quechua. Family background showed to be highly significant, with participants who reported parents who were L1 Quechua speakers having the highest correlation with participant Quechua use. If participants spoke Quechua, they were also more likely to have overall more positive attitudes about Quechua than those who spoke no Quechua. Years of English study did not show to have any impact on attitudes about Quechua, and negative attitudes about Quechua did not show any strong correlation with the amount of Quechua spoken.

[3] The data was also looked at for Quechua use by years studying English while controlling for parent language group. No significant correlations were found when controlling for this variable. The data may be found in Appendix G.

CHAPTER 4

DISCUSSION

4.1 Introduction

Having already reviewed the major findings from the data, this chapter will turn to some of the more interesting findings where there were clear patterns of Quechua use between distinct groups, as well as possible reasons why these patterns may exist. This chapter will be divided into the overall trends of Quechua use across the major family domains (grandparents, parents, and siblings), the trend of non-Catholic Christian denominations using more Quechua than Catholic and those who reported having no religion in 4.3, the trend of tourism students speaking more Quechua than engineering students in 4.4, findings about ethnicity in 4.5, findings about class in 4.6, findings about ethnicity in 4.7, discussion of family background in 4.8, and a summary in 4.9.

4.2 Overall trends in Quechua use in family domains

The overall trend for Quechua use for the domains of grandparents, parents, and siblings across all variables was that participants used the most Quechua with grandparents, less Quechua with parents, and the least Quechua with siblings (see section 3.2). This trend was predicted in the hypothesis and is consistent with the generational decline in use of the Quechua language. As the oldest generation, it would make sense that participants are using more Quechua with their grandparents, as their grandparents are the most likely to speak the language and the most likely to be either monolingual in the language or use Quechuas as their primary language. Parents overall are more likely to be bilingual, and therefore participants are less likely to use Quechua with them. Participants are least likely to speak Quechua with their siblings, which makes sense because their siblings are more akin to peers, so there should not be any differences in generation that would make Quechua use more necessary, and they would be more likely to communicate in the lingua franca of Spanish.

4.3 Religion

Religion was one variable that showed patterns of Quechua use that were significantly different across all three religious categories assessed (Catholic, Other Christian denominations, and "No religion"). The Other Christian denominations (referred to here as "Other"), scored the highest percentages and language scores for all the domains, Catholic scored the second highest, and "No religion" scored the lowest. The reasons for this discrepancy became clear when the religious groups were analyzed across some of other factors already established as predictors for Quechua use: *quechua* ethnicity, Q1-Q1 parent group (both parents indicated as Quechua as their L1), and being lower class.

When looking at religion by ethnicity, the "Other" religious group was the one group that showed a larger percentage of *quechua* participants than *mestizo* participants:

Table 4.1: Quechua ethnicity and mestizo participants by religion

Participants by religion and ethnicity				
	quechua		*mestizo*	
	#	%	#	%
Catholic (out of 123)	34	27.64%	70	56.91%
Other (out of 26)	12	46.15%	8	30.76%
No religion (out of 31)	4	12.90%	19	61.29%

Quechua participants for "Other" were 46% of the group, while *mestizo* were 30%. This was the only group where there were more *quechua* participants than *mestizo participants*. "No religion" had *quechua* participants at 12% of the group and *mestizo* 60%, and Catholic participants had *quechua* at 27% of the group and *mestizo* at 56%. The extremes of "Other" having the highest *quechua* to *mestizo* ratio and "No religion" having the lowest makes sense with the data of how much Quechua is spoken for those groups, and why "Other" would speak the most Quechua, and "No religion" would speak the least Quechua. This

same trend was seen for every other predictor. We will see a similar trend in the data on religion by class in the table below:

Table 4.2: Participant religion by class

Participant religion by class						
	Catholic		Other		No religion	
	#	%	#	%	#	%
Lower	37	30.08%	10	38.46%	4	12.90%
Lower/Mid	16	13.00%	0	0.00%	5	16.12%
Mid	43	34.95%	7	26.92%	14	45.16%
Upper	14	11.38%	2	7.69%	4	12.90%
Unknown	13	10.56%	7	26.92%	4	12.90%
Total	123	99.97%	26	99.99%	31	99.98%

"Other" had the highest percentage of lower class participants (38%) compared to all other religions, and also the lowest percentage of middle class participants (26%). "No religion" had the least amount of lower class participants (12%) and the highest amount of middle class participants (45%), and Catholic was somewhere in the middle, with 30% lower class and 34% middle class.

When the data on religious groups was split by parent language group, the same trend emerged, as seen in table 4.3 on the following page:

Table 4.3: Participant religion by parent language group

Parent language background by religion						
	Catholic		Other		No religion	
	#	%	#	%	#	%
Q1-Q1	23	19.65%	7	31.81%	5	19.23%
Q1-Bi	21	17.94%	3	13.63%	1	3.84%
Bi-Bi	36	30.76%	8	36.36%	8	30.76%
Bi-None	14	11.96%	4	18.18%	3	11.53%
None-None	23	19.65%	0	0.00%	9	34.61%
Total	117	99.96%	22	99.98%	26	99.97%

"Other" had the highest Q1-Q1 percentage (31%), and "No religion" had the highest None-None (neither participant reported to speak Quechua) at 34%. Notably, the percentages for Catholic and "No religion" were the same for the other categories, except for Q1-Bi (one parent reported as L1 Quechua, one parent reported as bilingual), where Catholic was at 17% and "No religion" was at 3%.

The variables of *quechua* ethnicity, lower class, and Q1-Q1 (three variables established to have correlations with more Quechua use) being at the highest percentages for the "Other" religious group and the lowest percentages for the "No religion" group are strong indicators that these are the primary reasons for the difference in Quechua use across the religious groups of the participants. When controlling for each other variable (ethnicity, class, and parent language group), the data is unfortunately too small to really see if religion has an impact within a specific ethnic, class, and language group. However, the data was analyzed across the *quechua*, lower class, and Q1-Q1 group, which had the most participants when selected out by this many variables (5 participants are *quechua*, lower class, and Q1-Q1 and "Other"

religion, 6 are Catholic, and 1 is "No religion), to determine if there was any difference across religious groups when controlling for the variables of ethnicity, class, and parent language group:

Table 4.4: Percentage of quechua ethnicity, lower class, Q1-Q1 parent group participants by religion who spoke Quechua across domains assessed

Religion of *quechua,* lower-class, Q1-Q1 participants % spoken Quechua in domain *y*									
	P -> friends	P -> grandparents	P -> father	p -> mother	P -> siblings	P -> extended family	Religious spaces	At the market	Neighborhood spaces
Catholic	66.66%	100%	60.00%	75%	50.00%	60.00%	50.00%	60.00%	66.66%
Other	60.00%	100%	100%	100%	100%	75.00%	20.00%	80.00%	60.00%
No religion	100%	100%	100%	100%	100%	n/a	0.00%	100%	100%

Table 4.5: Quechua ethnicity, lower class, Q1-Q1 parent group participants by religion average language score of Quechua spoken across domains assessed

Out of all *quechua,* lower-class, Q1-Q1 participants surveyed of *x* religion, the average language score (0-4) of those participants surveyed within that religion that spoke Quechua in domain *y*									
class	P -> friends	P -> grandparents	P -> father	p -> mother	P -> siblings	P -> extended family	Religious spaces	At the market	Neighborhood spaces
Catholic	1.25	4.00	2.33	3.33	1.33	1.66	2.00	1.33	1.62
Other	1.66	3.60	2.00	2.80	1.60	2.33	1.00	1.75	1.00
No religion	2.00	2.00	2.00	2.00	2.00	n/a	0.00	1.00	1.50

The percentages in table 4.4 do not really tell us anything, for the most part. There are some differences between Quechua use with mothers for "Other" (100%) and Catholic (75%), between Quechua use with fathers for "Other" (100%) and Catholic (60%), and between Quechua use with siblings for "Other" (100%) and Catholic (50%), which follow the trend seen in other data for "Other" using more Quechua than Catholic (while the one participant here of "No religion" reported 100% for each of those domains). The language scores do not follow the trend, and no significant patterns really emerged.

It would be interesting to see with a larger sample if there were any patterns between religious groups when controlling for these other variables, but at the moment, it seems more likely that it is the other variables (*quechua* ethnicity, Q1-Q1 parent language group, and lower class) that are stronger predictors for Quechua use than religion. It could also be that participants who were *quechua*, lower class,

and had Q1-Q1 parents tended to be more associated with other Christian denominations. This is interesting, especially when considering the long history that the Catholic Church has with Quechua in Peru, we might have expected that those participants who were more aligned with factors associated with Quechua use would also be more closely affiliated with the Catholic Church.

4.4 Subject area

Across the variable of subject area, tourism students were found to speak more Quechua than engineering students (section 3.8). The reason that this was the case became obvious when both these student groups were divided by ethnicity, class, and parent language groupings:

Table 4.6: Tourism students by ethnicity, by class, and by parent language group

Tourism students by ethnicity			Tourism students by class			Tourism by parent language group		
	#	%		#	%		#	%
quechua.	16	40.00%	Lower	11	27.50%	Q1-Q1	12	32.43%
mestizo	19	47.50%	Lower/mid	0	0.00%	Q1-Bi	9	24.32%
Other	3	7.50%	Mid	18	45.00%	Bi-Bi	11	29.72%
No response	2	5.00%	Upper	3	7.5%	Bi-None	3	8.10%
			Unknown	8	20.00%	None-None	2	5.40%
Total	40	100%	Total	40	100%	Total	37	99.97%

Table 4.7: Engineering students by ethnicity, by class, and by parent language group

Engineering students by ethnicity			Engineering students by class			Engineering by parent language group		
	#	%		#	%		#	%
Quechua.	4	11.76%	Lower	8	23.52%	Q1-Q1	5	17.24%
Mestizo	22	64.70%	Lower/mid	6	17.64%	Q1-Bi	4	13.79%
Other	7	20.58%	Mid	11	32.35%	Bi-Bi	10	34.48%
No response	1	2.94%	Upper	6	17.64%	Bi-None	3	10.34%
			Unknown	3	8.82%	None-None	7	24.13%
Total	34	99.98%	Total	34	99.97%	Total	29	99.98%

The strongest predictive factors for speaking Quechua (lower class, *quechua* ethnicity, and Q1-Q1 parent language) were more prevalent at higher percentages for the tourism students, and lower percentages for the engineering students.

4.4.1 Subject area by gender

Subject area produced some additional results that were noteworthy when the variable was analyzed by gender. In Chapter 3, we established that there was a gender gap when looking at the data by subject area, where men and women were equally represented in tourism, but women were underrepresented in engineering. These were the number of participants by gender of each subject area (I have left in the “no response” and “Other” participants to give the complete picture):

Table 4.8: Subject area of participants by gender

	Male participants by studies		Female participants by studies	
Studies	#	%	#	%
Eng.	27	30.68%	7	7.60%
Tourism	20	22.72%	20	21.73%
Other	33	37.50%	59	64.13%
No response	8	9.09%	6	6.52%
Total	88	99.99%	92	99.98%

When engineering student Quechua use across domains was divided by gender (Appendix F), it showed some interesting correlations where women engineering students used more Quechua than men, but because the number of women engineers (7 participants) was too small, this is not discussed further in this chapter.

When tourism students were split by gender in the domains assessed for Quechua use, it produced the table below:

Table 4.9: Percentage of tourism students by gender who spoke Quechua across domains assessed

Out of all participants who study Tourism, the percentage of those participants surveyed within that subject area by gender that spoke Quechua in domain *y*									
Subject Area	P -> friends	P -> grandparents	P -> father	p -> mother	P -> siblings	P -> relatives	Religious spaces	At the market	Neighborhood spaces
Tourism male (20 participants)	31.57%	52.94%	58.82%	55.55%	36.84%	44.44%	30.00%	52.63%	35.00%
Tourism female (20 participants)	5.26%	50.00%	33.33%	36.84%	15.78%	11.11%	10.00%	20.00%	15.00%

Tourism seemed to have a correlation across a number of domains for men speaking considerably more Quechua. For male students of tourism, they had a 20% higher rate of Quechua-use for speaking with their fathers, 19% for speaking with their mothers, 21% for speaking with siblings, 33% for speaking with

relatives, 20% higher rates of use in religious spaces, 32% higher rates of use at the market, and 25% higher rates of use in neighborhood spaces. These results are surprising, as the percentages for these domains for men and women overall are similar, and the percentages for these domains for tourism compared to Engineering are also fairly similar. The percentages of tourism students are also not much different than the total percentages across the domains assessed, showing overall slightly higher rates, but as substantial as the difference between male and female tourism students:

Table 4.10: Percentage of tourism students by gender compared to total participants who spoke Quechua across domains assessed

Total participants % spoken Quechua in domain y compared to tourism students in domain y									
	P -> friends	P -> grandparents	P -> father	p -> mother	P -> siblings	P -> extended family	Religious spaces	At the market	Neighborhood spaces
Total	14.70%	52.86%	38.23%	39.88%	19.31%	25.64%	16.11%	33.13%	25.55%
Tourism students	18.42%	45.94%	45.71%	45.94%	26.31%	27.77%	20.00%	35.89%	25.00%

There appears to be something in the cross-section of gender and tourism students where being male is much more closely correlated with higher rates of speaking Quechua than being female.

The reason for this gender difference in percentage of Quechua use reported being higher for male tourism students than female tourism students can be attributed to the data on ethnicity. When looking at the data of ethnicity by subject area, the data yielded the following results:

Table 4.11: Subject area of participants by ethnicity

Ethnicity of participants by Tourism studies		Ethnicity of participants by Engineering studies	
	#		#
Quechua	16	Quechua	4
Mestizo	19	Mestizo	22

Quechua ethnicity students were much more likely to be tourism students than engineering students. For *mestizo* participants, they were represented about equally for both subject areas. This data helps us understand better why tourism students were overall reporting higher percentages of Quechua-use than engineering students, and why male tourism students specifically were more likely to report higher

percentages of Quechua-use than female tourism students. We already know that *quechua* ethnicity participants were reporting overall higher percentages than *mestizo* participants, and within the *quechua* ethnicity, men were reporting higher percentages than women. If there were more *quechua* tourism students than engineering students, it makes sense that tourism students would report higher Quechua use. It also stands to reason that if tourism students are more likely to report *quechua* ethnicity, and if *quechua* men were reporting more Quechua use than *quechua* women, that male tourism students would be more likely to use Quechua than female tourism students. Interestingly, we also see those male *quechua* tourism students reporting higher rates of Quechua-use than their Engineering counterparts:

Table 4.12: Quechua ethnicity male participants by subject area

Male participants of *quechua* ethnicity by studies		
Studies	#	%
Eng.	3	12.00%
Tourism	10	40.00%
Other	9	36.00%
NR	3	12.00%
Total	25	100.00%

Although the numbers of participants become very low when the data is specified to this extent across three variables (ethnicity, gender, and subject area), it is interesting to note, and may actually be explainable by the next variable, class, in this chapter. The reason why *quechua* men were speaking more Quechua than *quechua* women is discussed in section 4.6.1.

4.5 Class

Lower class participants overall reported higher Quechua-use than middle class participants. A possible explanation for this could be parents' place of origin. Although the data from the questionnaires does not give very good data about participant place of origin or parent place of origin, it is possible that these lower class participant parents are coming from the hills of Cusco or more rural areas in the Cusco province and region, where communities may be more likely to be using Quechua. The data that we have on this from the questionnaires in regard to place of origin is not specific enough to know the affluence of the area from which the parents are coming (the province data does not say very much in terms of the kind of community the participants are coming from), so it cannot be known for sure. Middle class participants are probably more likely to have parents coming from the City of Cusco or to have parents who may have relocated to the City of Cusco. An interesting possibility for future studies would be to look at the amount of Quechua use of those who recently have moved into the City of Cusco from more rural areas, and to see how much Quechua use they use compared to those in rural areas and those who have lived in the urban areas for more generations.

The divisions of class also showed higher percentages of lower class participants who came from Q1-Q1 (both parents reported as speaking Quechua as their L1) parent backgrounds than any of the other classes, as seen in table 4.13 on the following page:

Table 4.13: Class by parent language group

Parent Quechua-speaking by class (numbers of participants)								
	Lower		Lower/mid		Mid		Upper	
	#	%	#	%	#	%	#	%
Q1-Q1	19	39.58%	2	10.00%	10	17.85%	1	5.55%
Q1-Bi	9	18.75%	4	20.00%	5	8.92%	3	16.66%
Bi-Bi	13	27.08%	7	35.00%	17	30.35%	6	33.33%
Bi-None	5	10.41%	1	5.00%	7	12.50%	6	33.33%
None-None	2	4.16%	6	30.00%	17	30.35%	2	11.11%
Total	48	99.98%	20	100%	56	99.98%	18	99.98%

The largest number of Q1-Q1 participants were lower class (39%), and the largest number of middle class participants were either Bi-Bi (35%) or None-none (30%). The Q1-Q1 parent background has already been established as having a strong correlation to increased Quechua use (section 3.9), so it is not surprising that there were also a larger number of participants with this language background in the lower class group.

4.5.1 Class by ethnicity

When the variable of ethnicity was applied to the data for class, it yielded the results in table 4.14 (also included are the totals for each class for comparison's sake). Only lower and middle class were analyzed by ethnicity, as the samples were too small for the *quechua* ethnicity for upper class and lower/middle class. However, table 4.14 does show that the percentages of lower class *quechua* participants was much greater than lower class *mestizo* participants, and middle class *mestizo participants* had a much higher percentage than middle class *quechua* participants. In short, participants who identified

as *quechua* ethnicity were much more likely to belong to the lower class, and *mestizo* participants were much more likely to belong to the middle or upper class:

Table 4.14: Class by ethnicity

Numbers of participants for class by ethnicity				
	quechua		*mestizo*	
	#	%	#	%
Lower	25	56.81%	21	24.41%
Low/Mid	5	11.36%	12	13.95%
Mid	12	27.27%	41	47.67%
Upper	2	4.54%	12	13.95%
Total	44	99.98%	86	99.98%

Table 4.15: Percentage of mestizo and quechua ethnicity participants by class who spoke Quechua across domains assessed

Out of all mestizo and *quechua* ethnicity participants surveyed of *x* class, the percentage of those participants surveyed within that class that spoke Quechua in domain *y*									
class	P -> friends	P -> grandparents	P -> father	P -> mother	P -> siblings	P -> extended family	Religious spaces	At the market	Neighborhood spaces
Lower total	23.40%	65.21%	53.06%	57.44%	34.69%	40.90%	21.56%	37.50%	39.21%
Lower mestizo	5.00%	52.38%	33.33%	33.33%	10.00%	20.00%	14.28%	9.52%	23.80%
Lower *quechua* (out of 25)	43.47%	64.00%	64.00%	68.00%	56.00%	55.00%	28.00%	63.63%	52.00%
Mid total	11.47%	49.12%	27.11%	30.64%	13.11%	15.51%	15.62%	32.85%	18.75%
Mid mestizo	7.50%	44.44%	22.50%	24.39%	5.00%	10.25%	12.19%	31.70%	14.63%
Mid *quechua* (out of 12)	36.36%	66.66%	50.00%	58.33%	50.00%	40.00%	33.33%	50.00%	50.00%

Notably, the lower class *quechua* participants reported much higher rates of Quechua use than the lower class *mestizo* participants, sometimes at rates as high as ~30-45% when looking at parents, siblings, and

extended family. The middle class *quechua* participants percentage of Quechua use actually patterned pretty closely with the lower class *quechua* participants, differing only be ~10-14%. Overall, the pattern of percentage of Quechua use seemed to be the following:

Lower class *quechua* > middle class *quechua* > lower class *mestizo* > middle class *mestizo*

Given this trend, it seems that *quechua* ethnicity was a stronger factor in the amount of Quechua spoken than class was, although class did play a role within ethnic groups in percentages of Quechua spoken. The jump from lower *mestizo* to middle *mestizo* was also about the same percentage difference as the *quechua* participants, with about ~10% across all domains, with the strange exception of the market, where reports of Quechua use actually increased 20%.

The average language scores across ethnicity and class showed similar trends as the percentages:

Table 4.16: Quechua and mestizo ethnicity participants by class average language score of Quechua spoken across domains assessed

Out of all participants surveyed of *x* class, the average language score (0-4) of those participants surveyed within that class that spoke Quechua in domain *y*									
class	P -> friends	P -> grandparents	P -> father	P -> mother	P -> siblings	P -> extended family	Religious spaces	At the market	Neighborhood spaces
Lower total	1.45	3.13	1.92	2.14	1.52	1.50	1.09	1.44	1.12
Lower mestizo	1.00	2.63	1.71	2.00	1.00	1.25	0.66	1.00	0.70
Lower quechua (out of 25)	1.50	3.37	2.00	2.23	1.64	1.63	1.21	1.42	1.38
Mid total	1.14	2.10	1.43	1.47	1.37	1.22	0.85	1.28	0.87
Mid mestizo	1.00	1.68	1.33	1.30	2.00	1.25	0.60	1.15	0.66
Mid quechua (out of 12)	1.25	3.00	1.66	1.71	1.50	1.25	1.25	1.50	1.08

Lower *mestizo* spoke less Quechua on average than lower *quechua* participants, and middle *mestizo* spoke less than middle *quechua* participants. The figures below show more clearly the relationship between the

scores for lower *mestizo*, lower *quechua*, middle *mestizo*, and middle *quechua*. Figure 4.1 shows the averages of all nine domains, and figure 4.2 shows the the averages of each individual domains:

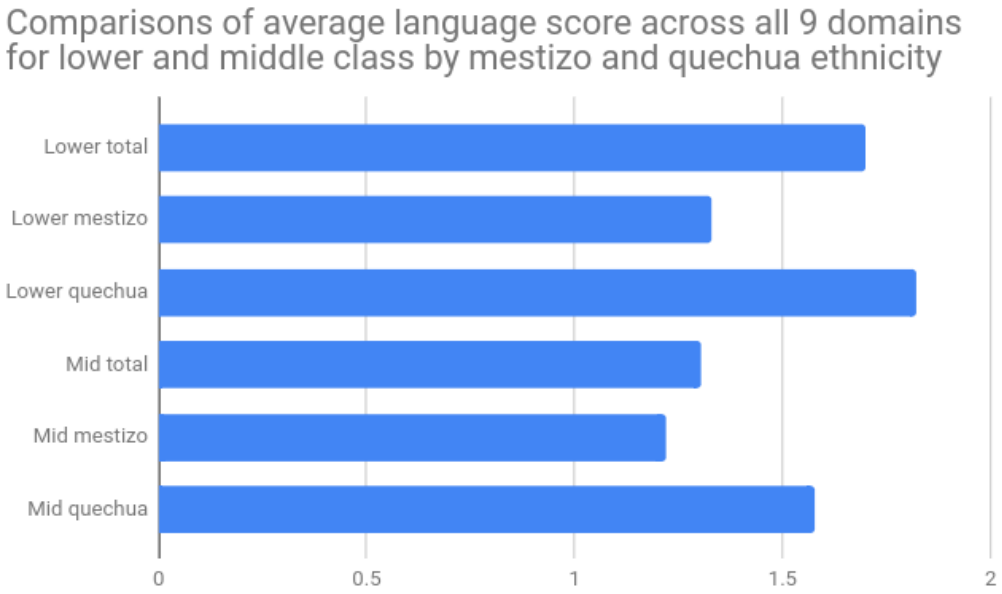

Figure 4.1: Comparison of average language score across all 9 domains for lower and middle class by mestizo and quechua ethnicity

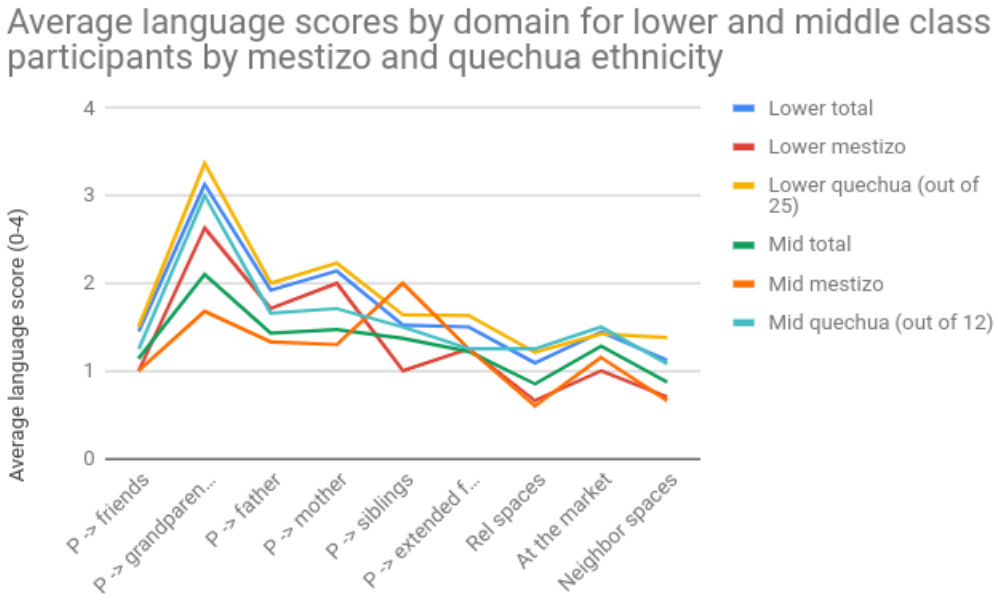

Figure 4.2: Average language scores by domain for lower and middle class participants by mestizo and quechua ethnicity

The trend mostly was lower *quechua* with the highest language scores, followed by middle *quechua*, then lower *mestizo* and middle *mestizo.* The blip in figure 4.2 for middle *mestizo* for siblings is due to the fact that middle *mestizo* only had two participants out of 38 report using Quechua with siblings, and both of those participants gave a score of 2.00.

4.6 Ethnicity

Ethnicity was the largest predictor for the amount of Quechua use by participants. This was actually very surprising, because ethnicity seems to be a more recently defined social factor in Peruvian culture. The *quechua* ethnicity was also often most correlated with having two Q1 parents and being categorized as lower class based on parent occupation. These correlations actually may also give us more insight into where these participants are coming from, because most of the lower class parent occupations are occupations more likely to be practiced in rural areas (e.g., artisans, farmers), where communities will be more likely to speak Quechua. The *quechua* ethnicity is then really an ethnicity applied after the fact - in other words, the self-identification of being *quechua* is more likely a descriptor for participants of where they are coming from and the language used in their family and community, so the correlation between the *quechua* ethnicity and speaking Quechua is almost redundant, since the self-identified ethnicity is most likely selected because of the high Quechua use, rather than the other way around. This is especially apparent when looking at *quechua* and *mestizo* ethnicity by their parent language groups in table 4.17 on the following page:

Table 4.17: Parent language group by ethnicity

Parent language group by participant ethnicity				
	mestizo		*quechua*	
Q1-Q1	13	14.28%	19	39.58%
Q1-Bi	10	10.98%	12	25.00%
Bi-Bi	30	32.96%	13	27.08%
Bi-None	18	19.78%	2	4.16%
None-None	20	21.97%	2	4.16%
Total	91	99.97%	48	99.98%

The largest number of *mestizo* participants (32%) come from Bi-Bi families (both parents reported as bilingual), and the largest number of *quechua* participants (39%) came from Q1-Q1 families.

It is also not very surprising to have seen such a difference in the amount that participants used Quechua across family domains when they came from two parents who were reported as Q1 versus two parents reported as bilingual. It would make sense that if participants came from a household where both parents are using more Quechua, that those participants would be be more strongly associated with the Quechua language and consequently would be more likely to self-identify as *quechua* for their ethnicity.

It is interesting that *quechua* was the ethnicity selected by so many participants to describe this identity, especially when paired with some of the participant comments from the *quechua* ethnicity (the translations are my own, and comments are transcribed as they were written):

- "Viva el Quechua ¡Kausachun Quechua!" *quechua* participant, learned Quechua from their spouse, None-none parent group, lower/middle class
    - 'Long live Quechua! Long live Quechua [in Quechua]!''

- “La gente no debería perder la identidad”, *quechua* participant, bi-Q (Spanish-Quechua bilingual, Quechua dominant), Q1-Q1 parent group, lower class
    - ‘People should not lose their identity.’
- “Que se revalore más el quechua, ya que es parte de nuestra identidad cultural” *quechua* participant, bi-Q, Bi-Bi parent group, lower class
    - “Hopefully Quechua is valued again, since it is part of our cultural identity.”
- “Creo que el idioma Quechua deberia ser revalorada y exigir más importancia en nuetro ambito social y todos deberian saber’ *quechua* participant, bi-Q, Bi-Bi parent group, lower class
    - ‘I think that the Quechua language should be valued again, be more important in our society, and everyone should know it’
- “Me encanta mi idioma Quechua.” *quechua* participant, bi-Q, Bi-None parent group, lower class
    - ‘I love my Quechua language.’

From these comments, there is clearly a sense of pride in the language, a link between the language and cultural identity, and a belief in the cultural importance of the language. The comments were all from bi-Q speakers of the language, with the exception of the participant who learned Quechua from their spouse. The *quechua* ethnicity seems to really be, in some sense, a comprehensive positive identification with the language and traditional culture. This is consistent with some of the data found about language attitudes towards Quechua by the bi-Q population (section 3.10), which overall was slightly more positive than the bi-S participants and those who spoke no Quechua.

Similar themes also appeared in comments from *mestizo* participants:

- “El idioma Quechua es importante en nuestra historia y sociedad pero tambien hoy en día se promueve en la educación” *mestizo* participant, learned Quechua in school, Bi-Bi parent group, middle class

    - ‘The Quechua languages is important in our history and society, but also today it’s promoted in education
- “El idioma quechua ha sido discriminado por muchos años, solo en estos años se le está dando el valor que merece. Es un idioma dulce, deberíamos aprenderlo! “ *mestizo* participant, does not speak Quechua, Bi-None parent group, middle class
    - ‘The Quechua language has been discriminated against for many years, and just in these past years it’s getting the respect that it deserved. It’s a beautiful language, and we should learn it!’
- “Es importante que todos, en la ciudad del Cusco hablen el idioma materno de nuestras antepasados, ya que es bueno conocer nuestra identidad y cultura” *mestizo* and *quechua* participant, bi-S (Spanish-Quechua bilingual, Spanish dominant), Bi-Bi parent group, high class
    - ‘It’s important that everyone in the city of Cusco speak the mother language of our ancestors, because it’s good to understand our identity and culture”
- “Deberíamos inculcar mas nuestro idioma en Peru ya que asi vamos a estar orgullosos de nuestro y no avergonzamos “ *mestizo* participant, does not speak Quechua, Bi-None parent group, lower/middle class
    - ‘We should teach our language more in Peru, because that way we will be proud of our language and not embarrassed’

For *mestizo* participants, comments tended to be positive but rather than indicating a sense of pride in the language, leaned more towards themes of desire for the language to be used, taught, and learned more in Peruvian society. These participants had less association with speaking Quechua (the most was one bi-S participant), one learned Quechua in school, and the others did not speak the language at all.

Despite some of the positive comments about Quechua use, the overall trend seen in the data on domains where Quechua is spoken points towards a language shift, and the most drastic difference in rate of language shift can be seen when comparing the rates of Quechua use between *mestizo* and *quechua*

participants. *Mestizo* participants showed the most drastic difference in Quechua used with parents to Quechua used with siblings:

Table 4.18: Percentage of participants by ethnicity who spoke Quechua across domains assessed

Out of all participants surveyed of *x* ethnicity, the percentage of those participants surveyed within that ethnic group that spoke Quechua in domain *y*									
Ethnicity	P -> friends	P -> grandparents	P -> father	p -> mother	P -> siblings	P -> extended family	Religious spaces	At the market	Neighborhood spaces
quechua	40.42%	77.50%	65.21%	69.56%	53.19%	52.38%	32.00%	59.57%	52.00%
mestizo	5.43%	47.12%	27.95%	28.12%	7.44%	13.79%	10.30%	24.21%	17.52%

This data suggests that the *mestizo* participants are undergoing a considerably more rapid language shift than the *quechua* participants are, when comparing the rates of Quechua use between parents and siblings for the respective ethnicities. The amount of Quechua being spoken also provides some interesting insights:

Table 4.19: Participants by ethnicity average language score of Quechua spoken across domains assessed

Out of all participants surveyed of *x* ethnicity, the average language score (on a scale of 0-4) of those participants surveyed within that ethnic group that spoke Quechua in domain *y*									
Ethnicity	P -> friends	P -> grandparents	P -> father	p -> mother	P -> siblings	P -> extended family	Religious spaces	At the market	Neighborhood spaces
quechua	1.31	3.29	1.96	2.09	1.52	1.54	1.31	1.46	1.28
mestizo	1.00	1.95	1.38	1.44	1.57	1.16	0.65	1.13	0.64

This shows that of the *mestizo* participants who use Quechua, on average, are speaking at nearly a score of 2 (Equally in Spanish and Quechua) with grandparents, meaning that their ability with the Quechua language is sufficient to the point where half of their conversations can be had in Quechua. This in and of itself is interesting, because it means that for *mestizo* participants who speak Quechua, on average, had this level of spoken knowledge of the Quechua language.

This table also demonstrates a rapid language shift for *quechua* participants not in the percentage of Quechua used, but in the amount used. With grandparents, *quechua* participants who spoke Quechua reported an average score of 3.29 (somewhere between speaking in more quechua than Spanish and

always speaking in Quechua), which suggests that they are fairly proficient with the language. However, when we look at these scores for siblings for *quechua* participants, the average drops to a 1.52 (somewhere between speaking in Spanish more than Quechua and speaking equally in Spanish and Quechua). This is a much greater drop in speaking than the *mestizo* participant across these domains. This suggests that although *quechua* participants have higher percentages of speaking Quechua with siblings, they are de-selecting actual Quechua use to a higher degree than *mestizo* participants. Interestingly, they are de-selecting Quechua to nearly the point that *mestizo* participants speak Quechua with their siblings.

The reason why this might be is that there may be more social incentive for *quechua* participants to decrease their use of the Quechua language to equal their Quechua-speaking *mestizo* counterparts. If Quechua use is viewed as a marking of lower social class, either by these participants or broader Peruvian society, the *quechua* participants stand to gain more social mobility by decreasing its use in those domains where language shift seems to be most rapid (with friends and siblings). Some of the comments by participants do support such an analysis:

- "Lamentablemente creo que el quechua estás condenado a ir a muriendo pues el español ha desplazado totalmente a esta lengua y en lugar de poder aplicable el ingles ha cobrado mucha relevancia por lo que para fines practicos una persona que solo habla español y tiene para elegir como 2da lengua quechua inglés optará por la segunda" -*mestizo* participant, does not speak Quechua, None-None parent group, middle class
    - 'Unfortunately, I think that Quechua is condemned to fade away because Spanish has completely displaced it and instead of having applicability, English has gained more relevance for practical purposes. A person who only speaks Spanish who has to pick a second language will pick learning English over Quechua.'
- "Creo que los idiomas que consideramos "maternos" con el tiempo irán desparaciendo. No es bueno ni malo simplemente es parte del paso del tiempo." -*aymara* participant, no Quechua (and no Aymara), None-none parent group, lower/middle class

    - ‘I think that languages that we consider ‘mother tongues’ with time will disappear. It’s not good or bad, just a part of the passage of time.’

- “El idioma quechua actualmente se esta perdiendo ya que en la capital todos hablan el español, los hablantes de quechua adquieren este como segundo idioma y ya no hay identidad, existe verguenza por parte de ellos y ya no desean hablar el quechua ya que son vistos como burla, etc.” -*quechua* participant, bi-S, Q1-Q1 parent group, lower/middle class
    - ‘The Quechua language is actually being lost because in the capital because everyone speaks Spanish, Quechua speakers acquire Spanish as a second language, there is no identity, and there is embarrassment on behalf of Quechua speakers who do no want to speak Quechua because they will be seen as a joke.’

These comments touch on some of the observations already discussed in the literature about embarrassment related to knowing Quechua and fear of being seen as a joke for speaking Quechua, etc. There does not seem to be a outright rejection of Quechua (or other indigenous languages) in these comments; rather, they are observations of realities of the use of these languages that are either not being learned for negative associations with them, preference for languages like English that carry more social prestige, or the passage of time. The comments suggest that participants are resigned to the gradual fading away of Quechua as something that is happening and inevitably will continue to happen, much in contrast to some of the participant comments discussed earlier, that appeared positive about the language and also more hopeful about its future. There was no common ethnicity shared by these participants (one *mestizo,* one *aymara*, and one *quechua*), but there was a pattern in the overall association with the language. The *mestizo* participant no Quechua, the *aymara* participant spoke no Quechua and no Aymara, and the *quechua* participant marked Quechua as bi-S, which is a weaker association for the Quechua language for the *quechua* ethnicity.

4.6.1 Ethnicity by gender

When gender was considered as a variable on top of ethnicity, it produced some noteworthy results, which are presented in this section. Gender was a factor more for the *quechua* ethnicity than *mestizo* ethnicity. *Quechua* men reported greater percentages of Quechua use across all domains than their female counterparts:

Table 4.20: Percentage of quechua ethnicity participants by gender who spoke Quechua across domains assessed

Out of all participants of Quechua ethnicity surveyed of *x* gender, the percentage of those participants surveyed within that ethnic group that spoke Quechua in domain *y*									
Ethnicity	P -> friends	P -> grandparents	P -> father	p -> mother	P -> siblings	P -> extended family	Religious spaces	At the market	Neighborhood spaces
Male	50.00%	80.00%	75.00%	76.19%	60.00%	60.86%	47.05%	69.56%	60.00%
Female	30.43%	75.00%	54.54%	66.66%	45.45%	42.10%	33.33%	50.00%	44.00%

Table 4.21: Percentage of mestizo ethnicity participants by gender who spoke Quechua across domains assessed

Out of all participants of Mestizo ethnicity surveyed of *x* gender, the percentage of those participants surveyed within that ethnic group that spoke Quechua in domain *y*									
Ethnicity	P -> friends	P -> grandparents	P -> father	p -> mother	P -> siblings	P -> extended family	Religious spaces	At the market	Neighborhood spaces
Male	7.31%	38.46%	22.50%	26.82%	6.97%	15.78%	9.09%	23.25%	18.18%
Female	3.92%	54.16%	32.07%	30.18%	7.84%	12.24%	11.32%	25.00%	16.98%

Quechua men reported ~15-20% more for nearly every domain assessed than *quechua* women. The exception was for grandparents, where the percentages were only 5% apart. For *mestizo* participants, reports fluctuated somewhat between which gender reported more Quechua use, and mostly the percentages were about the same. The main exceptions were for grandparents and fathers, where *mestizo* women reported ~10-14% higher rates of Quechua use than their male counterparts. For both *mestizo* and *quechua* participants, the scores of Quechua-use were about the same for both genders within each ethnicity.

The notable difference between male *quechua* participants using more Quechua than their female counterparts and female *mestizo* participants using more Quechua than their male counterparts can most likely be explained by the patterns of how much Quechua parents and grandparents were using with these participants:

Table 4.22: Percentage and average language score of quechua and mestizo ethnicity participants by gender who spoke Quechua across mother, father, and grandparent domains

Out of all *mestizo* & *quechua* participants by gender, the percentage of those domains surveyed within that class that spoke to the participants in Quechua and language scores for those domains						
class	Father -> p	Mothe -> p	Grandparents ->p	Father -> p	Mothe -> p	Grandparents ->p
mestizo male	37.50%	38.09%	48.57%	1.06	1.18	1.88
mestizo fem	41.50%	43.39%	67.39%	1.40	1.43	1.96
quechua male	70.83%	86.36%	88.88%	1.76	2.05	2.81
quechua fem	56.52%	66.66%	81.81%	1.69	1.75	2.94

The data demonstrates that for *quechua* male participants, their parents were using Quechua with them at percentages ~15-20% more than their female counterparts, and their parents were also speaking to them in Quechua more often (only 0.7 more for fathers, but 0.20 more for mothers). For grandparents for *quechua* participants, they only spoke to male participants ~7% more than females, and to females at a higher score at 0.13 more.

For *mestizo* participants, their parents spoke to females at slightly higher rates than males, but not much higher (~4-5%), but grandparents spoke at rates much higher for females than males, at ~19%. Fathers and mothers of *mestizo* participants spoke significantly more Quechua to females than males, with scores of 0.34 higher for fathers and scores of 0.25 higher for mothers. Grandparents speaking to participants also had scores of 0.8 higher for female participants than male participants.

These results are the opposite of what I would have expected given the literature on gender and ethnicity. If we consider the *quechua* ethnicity and the Quechua language being associated with lower social mobility and more "Indianness," the literature would suggest that woman would be more likely to

be the ones within that ethnicity who would be using more Quechua, and men would be the ones who are in positions to have more social mobility within that ethnicity. Subsequently, with *mestizo* being connected with those who have already achieved some social mobility by identifying as *mestizo*, we would also expect that *mestizo* women would be more likely to be leading language shift in that ethnicity and using less Quechua. However, the data shows that it is very much the opposite, where *quechua* woman and *mestizo* men seem to have less exposure to Quechua and to use it less. Interestingly, the percentages within the *quechua* and *mestizo* ethnicities are also much different, with *quechua* seeing more much larger gaps between the genders for percentage of Quechua used, and *mestizo* seeing smaller gaps in percentages larger gaps in amounts used.

There is a likely explanation for this gender gap that can be drawn from the data. We already have observed that parents of *quechua* males are speaking more Quechua to those participants than the parents of *quechua* females, but an explanation remains to be seen for why this would be. Woman in the *quechua* ethnicity are leading the language shift to Spanish at a much a higher rate than men, and they are also being selected less to maintain the language by parents. For those in the *mestizo* ethnicity, the rates slow down a lot, and men are leading the shift only slightly more than women and are only exposed to Quechua at percentages slightly less than women.

I looked at the class for these participants to determine if this may have been an influencing factor. Table 4.23 on the following page reveals the class of these participants:

Table 4.23: Participants by ethnicity and gender by class

Gender x class x ethnicity, number of participants											
	Lower		Lower/mid		Middle		Upper		Unknown		
	#	%	#	%	#	%	#	%	#	Total	Total - unknown
mestizo male	8	20.51%	7	17.94%	19	48.71%	5	12.82%	5	44	39
mestizo fem	13	27.08%	6	12.50%	22	45.84%	7	14.83%	5	53	48
quechua male	12	57.14%	1	4.76%	6	28.57%	2	9.52%	4	25	21
quechua fem	13	56.52%	4	17.39%	6	26.08%	0	0.00%	2	25	23

For *quechua* participants, they were almost identical for male and female, with the exception of the lower/middle class. For *mestizo* participants, there was a ~7% difference between lower class for males and females. This may have been an explanation for why females were reporting only slightly higher percentages for Quechua use for *mestizo* ethnicity. To determine whether or not class was a factor for *mestizo* reports of parent and grandparent Quechua use with participants, the table below was created to show *mestizo* participants with all lower class participants omitted:

Table 4.24: Percentage and average language score of mestizo ethnicity participants by gender who spoke Quechua across mother, father, and grandparent domains, excluding lower class participants

Out of all *mestizo* participants by gender without lower class, the percentage of those domains surveyed within that class that spoke to the participants in Quechua and language scores for those domains						
class	Father -> p	Mother -> p	Grandparents ->p	Father -> p	Mother -> p	Grandparents ->p
mestizo male	37.50%	41.17%	44.44%	1.08	1.21	1.58
mestizo fem	42.50%	40.00%	60.60%	1.23	1.25	1.70

Table 4.25: Percentage and average language score of mestizo ethnicity participants by gender who spoke Quechua across mother, father, and grandparent domains, including lower class participants

Mestizo participants by gender including lower class						
mestizo male	37.50%	38.09%	48.57%	1.06	1.18	1.88
mestizo fem	41.50%	43.39%	67.39%	1.40	1.43	1.96

The percentages changed only a little when the lower class participants were excluded from the sample, and the percentages did not change in the predicted pattern (percentages went up for fathers, down for mothers, and down for grandparents). The language scores all went down by ~0.15 when the lower class participants were excluded, so it's clear that the higher number of lower class females did influence the totals to some extent. However, although the scores went down, the relationship between scores for men and women mostly stayed the same, with the exception of mothers. It seems that class cannot explain, or at least cannot fully explain, the discrepancies in the data between genders within ethnicities.

Class was first identified as a possible explanation for the gender gap, but the numbers of *quechua* males and females by class was nearly identical:

Table 4.26: Quechua ethnicity male and female participants by class

quechua male class			*quechua* female class		
	#	%		#	%
Lower	12	48.00%	Lower	14	56.00%
Lower/Mid	1	4.00%	Lower/Mid	3	12.00%
Mid	6	24.00%	Mid	6	24.00%
Upper	2	8.00%	Upper	0	0.00%
Unknown	4	16.00%	Unknown	2	8.00%
Total	25	100%	Total	25	100%

The most likely explanation of this discrepancy between genders in the *quechua* ethnicity is the number of *quechua* males who also reported Q1-Q1 parents (both parents reported as Quechua as their L1), a variable that we have already identified as leading to higher rates of Quechua use. When the

quechua ethnicity is looked at on its own by parent group and gender, the data yields the following results:

Table 4.27: Quechua ethnicity male and female participants by parent language group

Parent Quechua-speaking by gender for *quechua* participants only				
	quechua male		*quechua* female	
Q1-Q1	13	52.00%	6	24.00%
Q1-Bi	4	16.00%	8	32.00%
Bi-Bi	6	24.00%	7	28.00%
Bi-None	1	4.00%	1	4.00%
None-None	0	0.00%	2	8.00%
Q1-none	1	4.00%	1	4.00%
Total	25	100%	25	100%

The table above shows how the difference between the numbers of Q1-Q1 *quechua* males compared to *quechua* females, where 52% of *quechua* males had Q1-Q1 parents, while only 24% of *quechua* females had Q1-Q1 parents. When looking at the percentages of Quechua use for *quechua* males and females while taking into account the variable of parent Quechua-speaking composition (Q1-Q1, Q1-bi, etc.), we can see clearly that the trend of males being spoken to in more Quechua is not actually present (keeping in mind that there will be fewer participants in the sample below who have parent combinations that are not Q1-Q1, so the percentages seen below for Q1-Bi, Bi-Bi, and Bi-None will be for smaller numbers of participants):

Table 4.28: Percentage of quechua ethnicity male and female participants compared to total participants by parent language group who spoke Quechua in father and mother domains

Total			*quechua* male			*quechua* female		
	P -> father	p -> mother		P -> father	p -> mother		P -> father	p -> mother
Q1-Q1	71.87%	69.69%	Q1-Q1	76.92%	76.92%	Q1-Q1	83.33%	83.33%
Q1-Bi	52.17%	52.17%	Q1-Bi	50.00%	33.33%	Q1-Bi	66.66%	71.42%
Bi-Bi	38.46%	41.17%	Bi-Bi	83.33%	80.00%	Bi-Bi	42.85%	71.42%
Bi-None	30.00%	40.00%	Bi-None	100%	100%	Bi-None	0.00%	0.00%
None-None	6.45%	9.37%	None-None	0.00%	0.00%	None-None	0.00%	0.00%

This tells us that the gender gap observed between *quechua* males and *quechua* females in regard to amount of Quechua spoken is purely a result of the composition of the sample of *quechua* participants, and it just so happened that *quechua* males had more Q1-Q1 parents than *quechua* females. Class also was identified at as a possible explanation for the gender gap, but the numbers of *quechua* males and females by class was nearly identical.

4.8 Family background

The participant family background and if the parents were reported as L1 Quechua (Q1), bilingual (Bi), or not speaking Quechua (None) was another significant predictor of Quechua use. If participants who had Q1-Q1 parents (both parents reported as Q1), they reported speaking more Quechua than participants coming from Q1-Bi (one parent Q1, one parent Bi) parents, Bi-Bi parents (both parents Bi), Bi-None (one parent Bi, one parent None), and None-None (neither parents speak Quechua). It is not very surprising that two Q1 parents would produce children who use more Quechua in family domains, but it is interesting how having two Q1 parents is also associated with being more likely to self-identify as *quechua ethnicity*, suggesting a strong association with the Quechua language as an identity. This association also seems like a positive one, evident from the Q1-Q1 participant comments in section 4.6, who exhibit a sense of pride in the language and culture.

To further explore this positive association between Q1-Q1 participants and the Quechua language, I also looked at Q1-Q1, Bi-Bi, and None-none participant averages for answers to the attitude questions. The attitude questions were ranked on a scale of 1-5 (1=strongly disagree, 5=strongly agree), and the results are in table 4.29 below:

Table 4.29: Participant average scores for attitude questions (1=strongly disagree, 5=strongly agree) by Q1-Q1, Bi-bi, and None-none parent groups

	Average score		
Question	Q1-Q1	Bi-Bi	None-none
(49) "It's important to me that I know my parents' maternal language."	4.72	4.41	4.42
(50) "It's important to me that I know my grandparents' maternal language."	4.75	4.22	4.15
(51) "It's important to me that my children know my maternal language."	4.84	4.21	4.42
(52) "I'm proud that Quechua is part of my heritage."	4.95	4.67	4.66
(53) "I like hearing Quechua spoken in public."	4.47	4.18	4.05
(54) "It seems old-fashioned to speak Quechua."	1.66	1.29	1.83

The Q1-Q1 participants were notably higher in their scores than the Bi-Bi and None-None participants for questions 49-53 (meaning that they agreed more with the positive statements about Quechua). However, the Q1-Q1 participants also scored higher than Bi-Bi participants for (54) "It seems old-fashioned to speak Quechua" (1.66 for Q1-Q1 compared to 1.29 for Bi-Bi and 1.88 for None-None).[4]

The reasons for the higher scores for 49-53 by Q1-Q1 participants may be attributed to the sense of pride in the Quechua language and culture previously suggested. It is noteworthy that the Q1-Q1 scores were also higher for the negative statement about Quechua being old-fashioned. This finding may be

[4] The Q1-Q1 participants also scored lower than the Bi-Bi and None-none groups for questions 55-56 about the importance of English. Although I was not able to determine exactly why this was the case, I explore the data further in Appendix H.

consistent with the theme seen in some other participants comments discussed in 4.6 about Quechua being a language that is going away or being replaced by Spanish, rather than a negative opinion about the language.

4.9 Summary

When the data was analyzed across two variables, having two parents who were L1 Quechua, identifying as *quechua* ethnicity, being from a lower class, and being from a non-Catholic Christian religion were all predictors of higher Quechua use. Additionally, these variables were highly connected, as there were more participants who identified with *quechua* who also had two parents who spoke L1 Quechua, more of these participants in the lower class group, and more of these participants in the non-Catholic Christian religion group. There were also more of these participants who were tourism students. The interconnectedness of these variables suggests a distinct profile of the participants in the study who were more likely to use Quechua.

CHAPTER 5

CONCLUSION

For this study, 189 participants were given a 57-item questionnaire that assessed Quechua use across a number of family and social domains as well as attitudes about the Quechua and English languages. Of the 189 participants, 180 were used for the analysis of the data. The participant answers to the domain questions and attitude questions were analyzed by the variables of gender, ethnicity, religion, age, parent language (family background), and class. Gender and age had no clear correlations with Quechua use, while *quechua* ethnicity, lower class, other (non-Catholic) Christian denominations, and both parents speaking Quechua as their L1 showed significant correlations with participant Quechua use across the domains that were assessed.

Overall, the participant who was the most likely to speak Quechua had two parents who spoke Quechua as their L1 and worked lower class occupations. These factors meant that the participant was more likely to identify as *quechua* as their ethnicity, and was more likely to study tourism. This participant was also more likely to be part of a non-Catholic Christian denomination. There was another type participant who came from two parents of middle-class occupations who both spoke Quechua-Spanish as bilinguals. This participant was more likely to identify as *mestizo*, and equally likely to study engineering or tourism. This participant was also more likely to be Catholic. What is surprising is the amount of Quechua use among these middle class, mestizo participants with two bilingual Spanish-Quechua parents, who are ostensibly the majority of the participants. This really shows us that, although there are factors with a stronger predictor for more Quechua use, some Quechua use is still predicted for these middle-class, mestizo, majority participants, who are not really discussed in the literature, but do exist as a distinct group. They are most likely to use the Quechua language with their grandparents, less likely to use Quechua with parents, and considerably least likely to use Quechua with their siblings.

Although the attitudinal data gathered in this study was a little questionable in terms of its reliability due to the large number of participants that answered in only the extremes, the data on attitudes in Chapter 3 (see section 3.10) does tell us that participants had positive attitudes towards the Quechua language, which is consistent with some of the most recent findings on Quechua attitudes in Cusco investigated by Manley (2008). Manley suggested in her article that the positive attitudes found in her sample population were most likely due to the type of person who was attracted to the locations where the study was conducted (non-profit agencies that staffed many Quechua speakers and worked with primarily Quechua-speaking migrants) (p. 340), but it could be that attitudes, at least in Cusco, are beginning to become overall more positive towards the Quechua language, or that at the very least that there is social pressure to express positive feelings towards the Quechua language.

There were some surprises in the analysis of the data, as well, such as gender not being a significant predictive factor, although we would have expected the opposite from some of the literature on the subject (Meyerhoff, 2011; Labov, 2010; Rindstedt & Aaronson, 2002). Gender in the literature has been discussed as either men or women usually leading language shift (the reasons of which are discussed in Chapter 1 section 1.3.2), and a discrepancy in Quechua use between the genders was expected in this study. However, both genders reported very similar Quechua use (section 3.3), and even the discrepancies between genders that were found were easily explained by other, more prominent factors, such as parent L1, which were consistently linked to higher Quechua use (section 3.9).

5.1 Addressing Hypotheses

The three hypotheses that were posited in Chapter 1 are addressed below:

Hypothesis 1. The sociolinguistic factors of ethnicity, gender, age, and socio-economic status will correlate with participant reports of Spanish-Quechua bilingualism in the following ways:

a. Participants who identify as Quechua for their ethnicity will report higher percentages of Spanish-Quechua bilingualism

- This hypothesis was supported. The participants who identified as *quechua* ethnicity did show stronger correlations with Quechua use.

b. Male participants will speak more Quechua than female participants, based on previous literature about gender and language shift (see section 1.3).
    - This hypothesis was not supported. Both male and female participants reported similar amounts of Quechua use across nearly all domains. Gender did not appear to be a significant factor for the participants in the study.
c. The younger grouping of age (18-19) will report less Quechua use than the older age group (28-45).
    - This hypothesis was largely not supported. There were some domains (at the market, with neighbors) that did show the 28-45 group speaking significantly Quechua, but there was no pattern across all domains, and some domains (extended family) where the 18-19 group reported more Quechua use. Overall, Quechua use across domains was similar for both age groups.
d. Participants who may be grouped in a lower social class based on parent occupation will speak more Quechua than those who are grouped into a higher social class.
    - This hypothesis was supported, and the variable of class was significant. There was, overall, a clear and consistent pattern of lower class participants using more Quechua, middle class participants using Quechua, and upper class participants using the least Quechua.

Hypothesis 2. Participants who report Quechua use will report the highest Quechua use with grandparents, the second highest use with parents, and the lowest use with siblings. Participants will also report higher scores for Quechua use at the markets.

- This hypothesis was supported. Participants did show consistently that they used the most Quechua with grandparents, the second highest with parents, and the least with siblings. This makes sense, as the grandparents would be the most likely to speak Quechua, and the siblings the least likely.

Hypothesis 3. The longer participants have studied English, the more negative attitudes they will have towards Quechua. More negative attitudes will also correlate with less Quechua use.

- This hypothesis was not supported. Years studying English did not show any clear and consistent pattern with attitudes about Quechua, and Quechua attitudes did not show any pattern with actual Quechua use.

5.2 Improvements to future questionnaire

The biggest improvement to be made for future research would be to specify more clearly for the participants when asking about location of origin. This question should include multiple parts, one asking about the specific district where the participant is from in Cusco and listing all the districts by name. The second part should ask what province they are from and should list the provinces in the Cusco region. This would help to solve the problem of participants knowing the difference between districts, provinces, and regions, and also would provide more useful and specific data by asking participants to select the specific province or region that they are from, rather than asking them to write in their province (which many participants did not do). Considering that Quechua use is mostly associated with more rural areas (de la Cadena, 1995; Keihäs, 2014), it would be crucial to have as much specific information in the future about the location of origin of the participants as possible.

5.3 Major findings

The major findings of this study were the distinctive profiles that began to emerge in the data. One profile was that of someone who had two parents who were L1 Quechua speakers, was bilingual Spanish-Quechua and Quechua dominant, lower class, a non-Catholic Christian denomination, identified

as *quechua* ethnicity, and studied tourism. There was another profile of someone who had two parents who were Spanish-dominant bilingual Spanish-Quechua speakers, was bilingual Spanish-Quechua and Spanish dominant, middle class, Catholic, identified as *mestizo* ethnicity, and studied either tourism or engineering. Finally, there was a third profile of someone who had two parents who were Spanish monolingual, did not speak any Quechua, was of middle to upper class, no religion, identified as *mestizo* ethnicity, and studied engineering.

These three profiles did not emerge from drastically different environments, but rather were all found in the same English classrooms in Cusco. The existence of these three profiles challenges the existing narrative in literature about Quechua about an urban Peruvian identity and a rural one, where the urban one is disconnected from the Quechua language and traditional culture, and the rural one is steeped in it. These three profiles demonstrate that within an urban setting, there are distinctive identities that correlate with the preservation of the Quechua language in family and public settings. The data examined in this thesis also shows that regardless of the identity, some Quechua use was always reported. Although there were individuals who reported no Quechua use across any variable that was studied, there was also some percentage of participants across any variable who reported using some Quechua in the domains that were assessed.

Additionally, the data about attitudes demonstrates that, for the participants in the study, there were either mostly positive attitudes about the Quechua language, or a social pressure to demonstrate positive attitudes. It is unclear from the data alone what this means in the larger body of literature about attitudes about Quechua in Peru. These attitudes may have something to do with the generation of 18-22-year-olds that were the majority of participants in this study, it may have something to do with the region and the history of the language in the region as well as the efforts to revitalize Quechua and the image of Quechua, or it may it may have something to do with any other number of unknown factors. However, the data does bring up questions about what current attitudes this generation has about Quechua in parts of the country that have been demonstrated by past literature to have negative attitudes about the language.

5.4 Areas for future research

Some areas for future research, given the results of this study, would be to investigate further into the *mestizo* middle-class of Cusco and Peru. These are most likely majority groups in Peru that are very accessible for research, but very little is known about them in terms of their direct, personal connection to the Quechua language, their knowledge of the language, and if they use the language in any functional way in their day-to-day lives with family members. It would be interesting to look into this group for different urban centers in the Cusco region and across Peru to see what the distribution of Quechua-use looks like across this group. The coast, the *sierra*, and the jungle may present very different results based on the rate of Quechua loss in those areas, historical use of Quechua in the region, and maybe other, unknown factors. It would also be interesting to do a similar study across language domains for Aymara speakers in city centers closer to regions known to have higher Aymara use and to see if the generational transfer for Aymara is similar to that of Quechua or not. Further research could also be done in regard to national attitudes about Quechua, and if explicit stigmatization and negative attitudes about Quechua are either declining or becoming less socially acceptable.

Much remains to be understood about the distribution of Quechua use across Peru and the Andes, its speakers, the amount of knowledge of the language compared to the degree of how much it is actually used, and what all of this means for the future of the language.

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APPENDICES

Appendix A – Participants omitted from analysis

The following participants were omitted from the full analysis of the data:

Table A.1 – Participants omitted from analysis

Participant #	**Reason**
2	Did not answer 18-20, 23-57
43	Weird data - stated raised by son who speaks Russian
65	No clear answer for languages spoken (put other, other, other)
153	No response to sex
184	Said he was from Jupiter

Additionally, the following participants were also omitted from the analysis due to their non-Peruvian place of origin:

Table A.2 – Participants omitted from analysis for country of origin

Participant #	**Location of origin**
74	Argentina
76	Brazil
120	Italy
189	Colombia

Appendix B – Questionnaire (English and Spanish versions)

Language Questionnaire

This questionnaire is part of a research project conducted by researchers at Cornell University in the United States. Thank you for your willingness to fill out this questionnaire so that we can better understand how Peruvians communicate in their everyday lives, the languages that they use, and their attitudes. The questionnaire is anonymous; we ask you to please provide an alias/pseudonym here.

If there are questions that you do not want to answer, you may skip those questions. If you have any additional input or information you may enter this in the comment box provided on the last page. There are no right or wrong answers, and your answers to this questionnaire will not have any impact on your grade in this class. The information we are collecting is strictly for research purposes only.

By completing this questionnaire, you are providing consent for the researcher to use the information provided for academic purposes, such as writing and publication. We will keep your identity strictly confidential.
If you have any questions or comments, please send us an email at ms3226@cornell.edu or give them to the person administering the questionnaire.

Alias: _____
Location where questionnaire was completed: _____
Date this questionnaire was completed: _____

Personal background

1	**Age:** _____
2	**Sex:** ☐ male ☐ female
3	**Ethnicity (select all that apply):** ☐ mestizo ☐ quechua ☐ blanco ☐ aymara ☐ negro ☐ nativo ☐ otra (pj., japonés, chino) _____ ☐ no sé
4	**Religion:** ☐ Católico ☐ Evangélico ☐ Otra _____ ☐ Ninguna
5	**Location of origin:** ☐ City of Cusco ☐ Other _____
6	**Province of origin**: ☐ Cusco province ☐ Other province _____
7	**How long have you lived in the city of Cusco?** ☐ 0-1 years ☐ 2-4 years ☐ 5+ years
8	**Who did you live with growing up (select all that apply)?** ☐ Mother ☐ Father ☐ Grandmother ☐ Grandfather ☐ Other_____ If you selected "other," what is the first language of that person? ☐ Spanish ☐ Spanish and Quechua bilingual ☐ Quechua ☐ Other (e.g., Aymara)
9	**Field of study: _____**
10	**Future occupation: _____**

Language information

11	**First language** ☐ Spanish ☐ Quechua ☐ Other (e.g., Aymara) _____ • Where did you learn this language? ☐ From family ☐ School ☐ Other _____
12	**Second language (if applicable)** ☐ Spanish ☐ Quechua ☐ Other (e.g., Aymara) _____ • Where did you learn this language? ☐ From family ☐ School ☐ Other _____

13	**Third language (if applicable)** ☐ Spanish ☐ Quechua ☐ Other (e.g., Aymara) _____ • Where did you learn this language? ☐ From family ☐ School ☐ Other _____

English language experience

14	**How long have you studied English?** ☐ 0-1 years ☐ 2-3 years ☐ 4+ years
15	**Where did you first begin studying English?** ☐ Primary school ☐ Secondary school ☐ University ☐ Other _____

Information about mother's side of family

16	**What is your mother's first language?** ☐ Spanish ☐ Spanish & Quechua bilingual ☐ Quechua ☐ Other (e.g., Aymara) _____
17	**Where is your mother from?** **Location of origin:** ☐ City of Cusco ☐ Other _____ **Province of origin**: ☐ Cusco province ☐ Other province _____
18	**What is your mother's occupation?** _____
19	**My mother's mother spoke (select all that apply):** ☐ Spanish ☐ Quechua ☐ Other (e.g., Aymara) _____
20	**My mother's father spoke (select all that apply):** ☐ Spanish ☐ Quechua ☐ Other (e.g., Aymara) _____

Information about father's side of family

21	**What is your father's first language?** ☐ Spanish ☐ Spanish & Quechua bilingual ☐ Quechua ☐ Other (e.g., Aymara) _____
22	**Where is your father from?** **Location of origin:** ☐ City of Cusco ☐ Other _____ **Province of origin**: ☐ Cusco province ☐ Other province _____
23	**What is your father's occupation?** _____
24	**My father's mother spoke (select all that apply):** ☐ Spanish ☐ Quechua ☐ Other (e.g., Aymara) _____
25	**My father's father spoke (select all that apply):** ☐ Spanish ☐ Quechua ☐ Other (e.g., Aymara) _____

In which language do YOU speak to the following people?

		Always in Spanish	In Spanish more often than Quechua	In Spanish and Quechua equally	In Quechua more often than Spanish	Always in Quechua
26	**Father**					
27	**Mother**					
28	**Siblings**					
29	**Grandparents**					
30	**Spouse**					
31	**Children**					
32	**Relatives (aunts, uncles, cousins)**					
33	**Friends**					
34	**Neighbors**					

In which language do the following people speak <u>to you</u>?

		Always in Spanish	In Spanish more often than Quechua	In Spanish and Quechua equally	In Quechua more often than Spanish	Always in Quechua
35	**Father**					
36	**Mother**					
37	**Siblings**					
38	**Grandparents**					
39	**Spouse**					
40	**Children**					
41	**Relatives (aunts, uncles, cousins)**					
42	**Friends**					
43	**Neighbors**					

Which language do YOU use:

		Always in Spanish	In Spanish more often than Quechua	In Spanish and Quechua equally	In Quechua more often than Spanish	Always in Quechua
44	**At the market**					
45	**At a party with family**					
46	**At a party with neighbors**					
47	**Praying privately**					
48	**At mass or other religious services**					

Language attitude questions

Please select your agreement with a check (√) with each statement on a scale of 5-1, five being strongly agree, 1 being strongly disagree:

		Strongly agree				**Strongly disagree**
		5	**4**	**3**	**2**	**1**
49	It's important for me to know my parents' first language					
50	It's important for me to know my grandparents' first language					
51	It's important for my children to know my first language					
52	I am proud that Quechua is a part of my heritage					
53	I enjoy hearing Quechua spoken in public					
54	It seems old-fashioned to speak Quechua					
55	English is necessary to gain better employment					
56	English is necessary to be part of a global economy					

Other questions

57	**Do you have access to the internet?** ☐ Yes ☐ No

Any other information that you want to include?

Thank you

Encuesta de Idiomas

Esta encuesta es parte de un proyecto de investigación de estudiantes de posgrado de Cornell University en los Estados Unidos. Buscamos comprender mejor cómo se comunican los peruanos en la vida cotidiana, los idiomas que usan y sus actitudes hacia ellos. La encuesta es anónima, por lo que le pedimos que, por favor, utilice un nombre falso y no su nombre real. Gracias por su colaboración.

Si hay preguntas que usted prefiere no responder, puede omitirlas. Si tiene información adicional que quiere compartir, puede hacerlo en el recuadro de comentarios que se encuentra en la última página. No hay respuestas correctas o incorrectas y sus respuestas no afectarán su nota en esta clase. La información que estamos recogiendo es exclusivamente para el propósito de la investigación.

Al responder esta encuesta, usted nos autoriza a utilizar la información obtenida para usos académicos, tales como ensayos y publicaciones. Mantendremos su identidad confidencial en todo momento.

Si usted tiene preguntas o comentarios, por favor mándenos un correo electrónico a ms3226@cornell.edu o comuníquelos a la persona que administra la encuesta.

Nombre falso: _____

Ubicación en donde se ha hecho esta encuesta (ej., universidad, instituto de idioma):

_____

Fecha de hoy día: _____

Información personal

1	**Edad:** _____
2	**Sexo:** ☐ hombre ☐ mujer
3	**Etnia (puede elegir más de uno):** ☐ mestizo ☐ quechua ☐ blanco ☐ aymara ☐ negro ☐ nativo ☐ otra (ej., japonés, chino) _____ ☐ no sé
4	**Religión:** ☐ Católica ☐ Evangélica ☐ Otra _____ ☐ Ninguna
5	**Lugar de nacimiento:** ☐ Ciudad de Cusco ☐ Otra _____
6	**Provincia de nacimiento**: ☐ Provincia de Cusco ☐ Otra provincia _____
7	**¿Por cuántos años Ud. ha vivido en Cusco?** ☐ 0-1 años ☐ 2-4 años ☐ 5+ años
8	**¿Con quién Ud. creció? (puede elegir más de uno)** ☐ madre ☐ padre ☐ abuelo ☐ abuela ☐ otro _____ Si eligió "otro," ¿Cuál es el primer idioma de esa persona? ☐ español ☐ español y quechua bilingüe ☐ quechua ☐ otro (ej., aymara) _____
9	**Carrera profesional:** _____
10	**¿En que se desarrollará Ud. profesionalmente después de terminar los estudios?:** _____

Información de idiomas

11	**Idioma materno** ☐ español ☐ quechua ☐ otro (ej., aymara) _____ • ¿Dónde Ud. aprendió este idioma? ☐ de familia ☐ en escuela ☐ otro_____
12	**Segundo idioma (si lo habla)** ☐ español ☐ quechua ☐ otro (ej., aymara) _____ • ¿Dónde Ud. aprendió este idioma? ☐ de familia ☐ en escuela ☐ otro_____

13	**Tercer idioma (si lo habla)** ☐ español ☐ quechua ☐ otro (ej., aymara) _____ • ¿Dónde Ud. aprendió este idioma? ☐ de familia ☐ en escuela ☐ otro_____

Experiencia con el idioma inglés

14	**¿Por cuántos años Ud. ha estudiado inglés?** ☐ 0-1 años ☐ 2-3 años ☐ 4+ años
15	**¿Dónde Ud. empezó estudiar inglés?** ☐ primaria ☐ secundaria ☐ universidad ☐ otro_____

Información familiar lado materno (si no conoce la respuesta, omita la pregunta)

16	**¿Cuál es el primer idioma de su madre?** ☐ español ☐ español y quechua bilingüe ☐ quechua ☐ otro (ej., aymara) _____
17	**¿De dónde es su madre?** **Lugar de nacimiento:** ☐ Ciudad de Cusco ☐ Otra_____ **Provincia de nacimiento**: ☐ Provincia de Cusco ☐ Otra provincia _____
18	**¿Cuál ocupación tiene su madre?** _____
19	**La abuela (lado materno) de usted hablaba (puede elegir más de uno):** ☐ español ☐ quechua ☐ otro (ej., aymara) _____
20	**El abuelo (lado materno) de usted hablaba (puede elegir más de uno):** ☐ español ☐ quechua ☐ otro (ej., aymara) _____

Información familiar lado paterno (si no conoce la respuesta, omita la pregunta)

21	**¿Cuál es el primer idioma de su padre?** ☐ español ☐ español y quechua bilingüe ☐ quechua ☐ otro (ej., aymara) _____
22	**¿De dónde es su padre?** **Lugar de nacimiento:** ☐ Ciudad de Cusco ☐ Otra_____ **Provincia de nacimiento**: ☐ Provincia de Cusco ☐ Otra provincia _____
23	**¿Cuál ocupación tiene su padre?** _____
24	**La abuela (lado paterno) de usted hablaba (puede elegir más de uno):** ☐ español ☐ quechua ☐ otro (ej., aymara) _____
25	**El abuelo (lado paterno) de usted hablaba (puede elegir más de uno):** ☐ español ☐ quechua ☐ otro (ej., aymara) _____

¿En cuál idioma habla <u>USTED</u> a las siguientes personas? (si algo no se aplica, omítalo)

		Siempre en español	En español más que quechua	Igual en español y quechua	En quechua más que español	Siempre en quechua
26	**padre**					
27	**madre**					
28	**hermanos**					
29	**abuelos**					
30	**esposo/esposa**					
31	**hijos**					
32	**parientes (tíos, primos)**					
33	**amigos**					
34	**vecinos**					

¿En cuál idioma hablan las siguientes personas <u>A USTED</u>? (si algo no se aplica, omítalo)

		Siempre en español	En español más que quechua	Igual en español y quechua	En quechua más que español	Siempre en quechua
35	**padre**					
36	**madre**					
37	**hermanos**					
38	**abuelos**					
39	**esposo/esposa**					
40	**hijos**					
41	**parientes (tíos, primos)**					
42	**amigos**					
43	**vecinos**					

¿Cuál idioma habla <u>USTED A</u> las siguientes personas? (si algo no se aplica, omítalo)

		Siempre en español	En español más que quechua	Igual en español y quechua	En quechua más que español	Siempre en quechua
44	**En el mercado**					
45	**En una fiesta de familia**					
46	**En una fiesta de su vecindad o barrio**					
47	**Rezar en privado**					
48	**En la misa o otros servicios religiosos**					

Actitudes de idiomas

Por favor elija Ud. con un check (√) para cada oración en una escala de 5 a 1, donde 5 es "totalmente de acuerdo" y 1 es "totalmente en desacuerdo."

		Totalmente en acuerdo				Totalmente en desacuerdo
		5	**4**	**3**	**2**	**1**
49	Es importante para mi que yo sepa el idioma materno de mis padres.					
50	Es importante para mi que yo sepa el idioma materno de mis abuelos.					
51	Es importante que mis hijos sepan mi idioma materno.					
52	Estoy orgulloso que el quechua es parte de mi herencia.					
53	A mi me gusta escuchar quechua en público.					
54	Parece anticuado hablar quechua.					
55	Inglés es necesario para conseguir empleo mejor.					
56	Inglés es necesario para estar una parte de la economía global.					

Otras preguntas

57	**¿Ud. tiene acceso al internet?** ☐ si ☐ no

¿Hay algo más que quiere incluir?

Muchas gracias a usted.

Appendix C – Facilitator script (English and Spanish versions)

Questionnaire Facilitator Script

Thank you for your time today in completing this questionnaire as part of a research project at Cornell University. The answers that you provide will be used as data in a master's thesis for a linguistics graduate student who is studying Quechua in daily life in Cusco.

Please follow the instructions provided on the questionnaire – if you are unsure of a question or do not know what it is asking, that is okay, please just answer the best you can. You may also skip any question that you do not want to answer for any reason.

Your answers will remain completely anonymous in any write-up or analysis of the data, we only ask that you provide an alias or pseudonym for the researcher to be able to refer to any data provided. Please do NOT use your real name on this questionnaire.
Your completion of this questionnaire is in no way connected to your evaluation or grade in this English class, and your teacher will not see your answers. The questionnaires will be handed to the researcher after the class.

We are interested in learning more about your experiences with the Quechua language. There are no right or wrong answers to any of the questions in the questionnaire.
When you have completed the questionnaire, please turn it in face down at th
e front of the classroom.
Please begin now.

Texto para facilitadores de la encuesta

Gracias por su tiempo para completar esta encuesta que es un componente de una investigación de Cornell University. Sus respuestas que proveen se van a usar en datos para un proyecto de tesis de un estudiante posgrado de lingüística que estudia quechua en la vida cotidiana de Cusco.

Por favor siga las instrucciones dadas en la encuesta. Si no sabe como responder a una pregunta, por favor no conteste. Si una pregunta no se aplica, por favor omítala.
Sus respuestas se quedarán completamente anónimas en cualquiera análasis. Por favor ponga un nombre falso en la primera página - NO debe utilíce su nombre real en esta encuesta.
Sus respuestas se quedarán completamente anónimas y no son en ninguna manera conectadas con su nota de este curso de inglés. Las encuestas serán entregadas al investigador después de completar.

Al investigador le interesa aprender du sus experiencias con el idioma quechua. No hay respuestas correctas ni incorrectas para las preguntas de la encuesta.

Cuando usted ha terminado la encuesta, por favor entréguelo bocabajo en frente de la sala.
Ahora ustedes pueden empezar.

Appendix D – Demographic information for both institutions

Table D.1 – Gender of participants by institution

Gender of participants						
	PLI		UNSAAC		Total	
	#	%	#	%	#	%
Male	43	47.77%	45	50.00%	88	48.88%
Female	47	52.22%	45	50.00%	92	51.11%
Total	90	99.99%	90	100%	180	100%

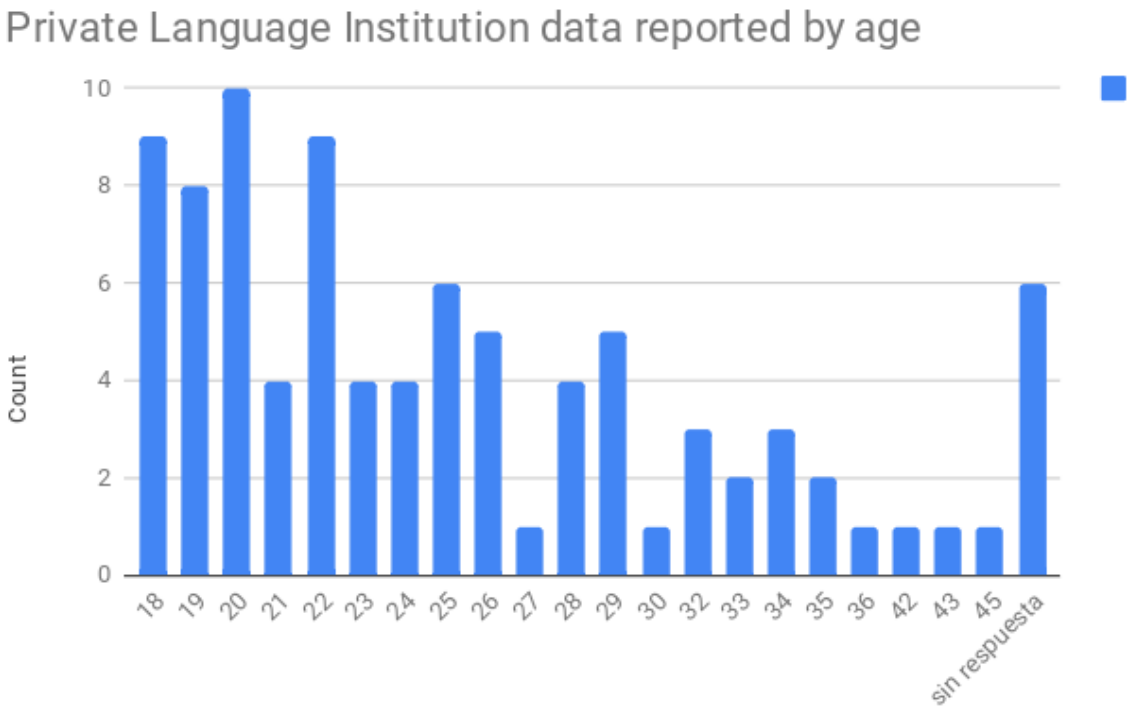

Figure D.1 – Age of participants from Private Language Institution

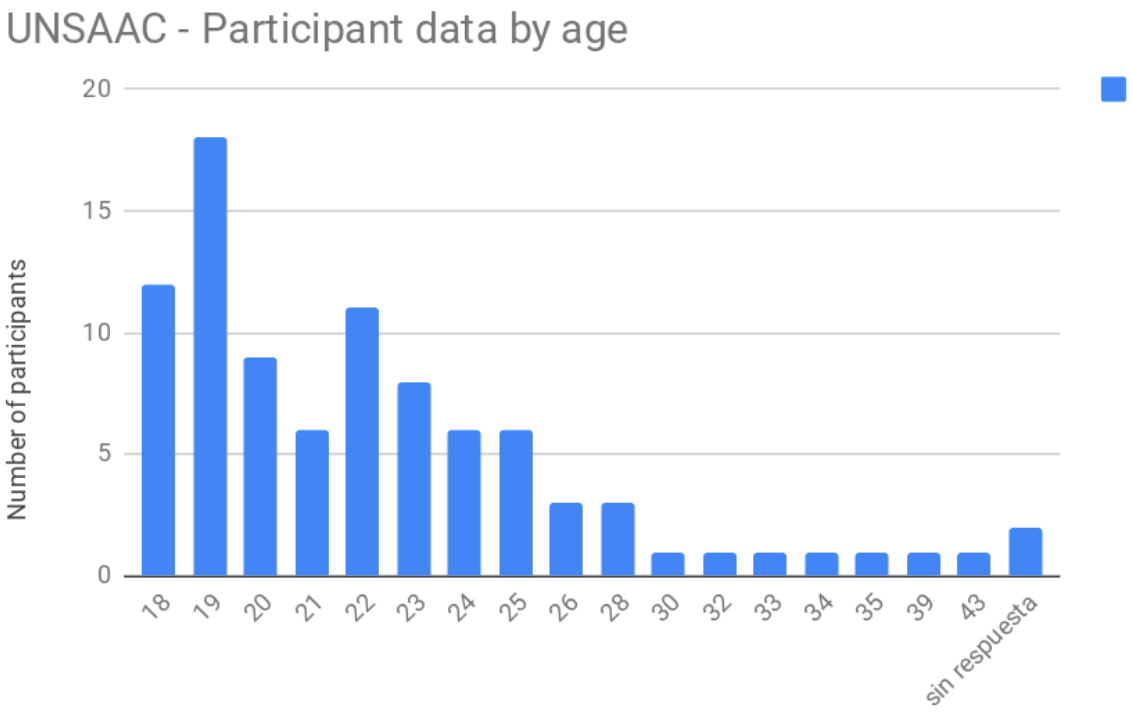

Figure D.2 – Age of participants from Universidad Nacional de San Antonio Abad del Cusco

Table D.2 – Ethnicity of participants by institution

Ethnicity of participants						
	PLI		UNSAAC		Total	
Ethnicity	#	%	#	%	#	%
Aymara	1	1.11%	1	1.11%	2	1.11%
White	4	4.44%	2	2.22%	6	3.33%
Mestizo	45	50.00%	52	57.77%	97	53.88%
Mestizo & Quechua	4	4.44%	6	6.66%	10	5.55%
Mestizo & White	0	0.00%	1	1.11%	1	0.55%
Native	1	1.11%	1	1.11%	2	1.11%
Quechua	27	30.00%	23	25.55%	50	27.77%
Other	0	0.00%	2	2.22%	2	1.11%
I don’t know	5	5.55%	1	1.11%	6	3.33%
No response	3	3.33%	1	1.11%	4	2.22%
Total	90	99.98%	90	99.97%	180	99.96%

Table D.3 – Religion of participants by institution

Religion of participants						
	PLI		UNSAAC		Total	
Religion	#	%	#	%	#	%
Catholic	55	61.11%	68	75.55%	123	68.33%
Evangelical	5	5.55%	4	4.44%	9	5.00%
Other - Christian	1	1.11%	1	1.11%	2	1.11%
Other - Protestant	1	1.11%	0	0.00%	1	0.55%
Other - Agnostic	0	0.00%	1	1.11%	1	0.55%
Other	9	10.00%	5	5.55%	14	7.77%
None	19	21.11%	11	12.22%	30	16.66%
Total	90	99.99%	90	99.98%	180	99.97%

Table D.4 – Level of English class of participants by institution

Basic or Advanced English class						
	PLI		UNSAAC		Total	
Level	#	%	#	%	#	%
Basic	50	55.55%	46	51.11%	96	53.33%
Advanced	40	44.44%	44	48.88%	84	46.66%
Total	90	99.99%	90	99.99%	180	99.99%

Table D.5– Region of origin of participants by institution

Location (by region) of origin of participants						
	PLI		UNSAAC		Total	
Location	#	%	#	%	#	%
Cusco region	65	72.22%	69	76.66%	134	74.44%
Other region	8	8.88%	9	10.00%	17	9.44%
Unknown	16	17.77%	12	13.33%	28	15.55%
No response	1	1.11%	0	0.00%	1	0.55%
Total	90	99.98%	90	99.99%	180	99.98%

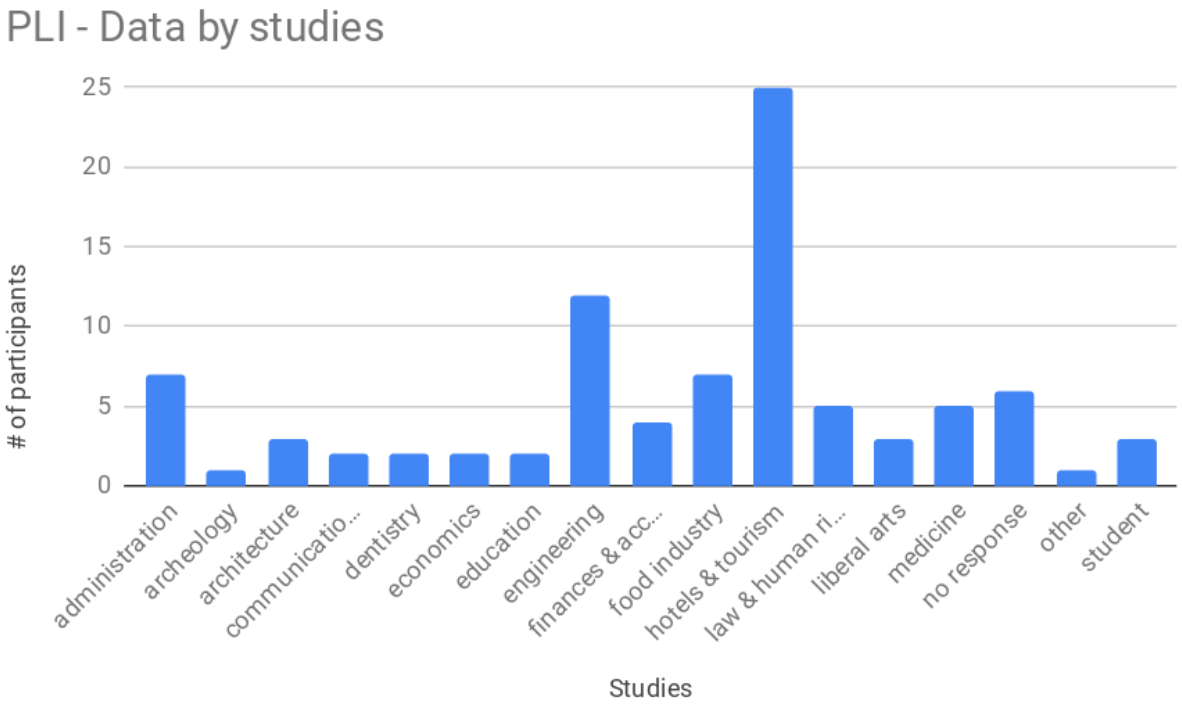

Figure D.3 – Subject area of participants from Private Language Institution

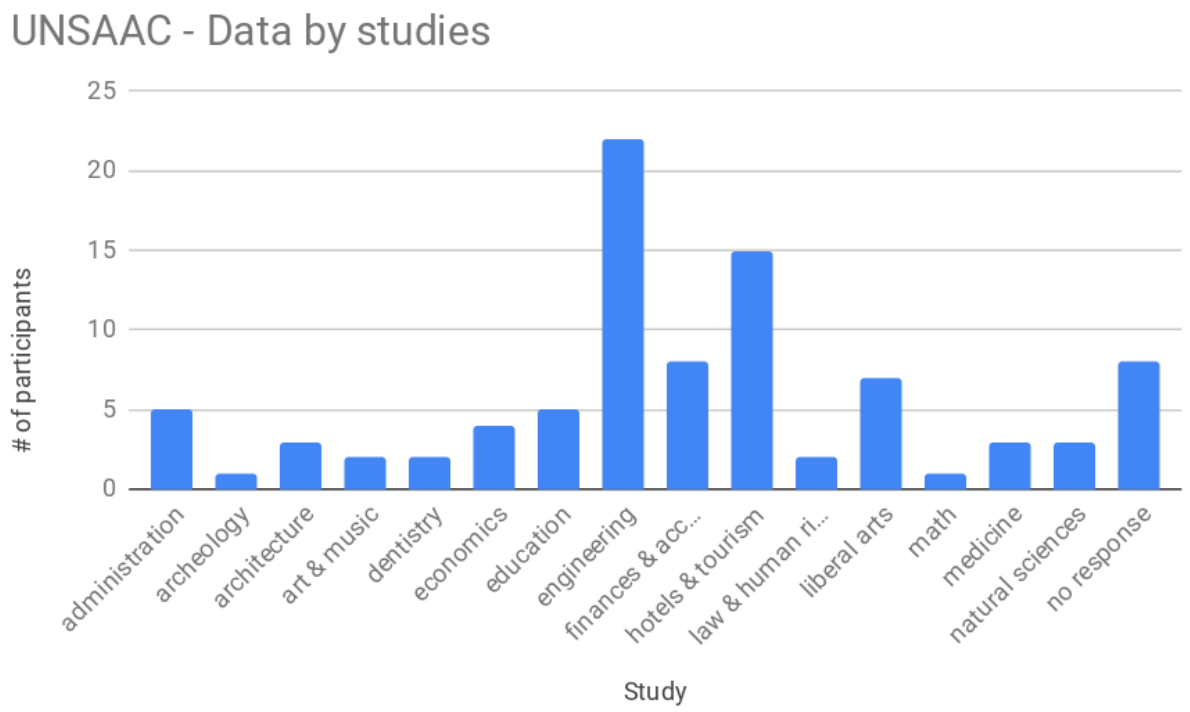

Figure D.4 – Subject area of participants from Universidad Nacional de San Antonio Abad del Cusco

Table D.6– Participant reporting speaking Quechua by institution

Total participants who speak Quechua						
	PLI		UNSAAC		Total	
	#	%	#	%	#	%
No Quechua	36	40.00%	41	45.55%	77	42.77%
Quechua from family	47	52.22%	42	46.66%	89	49.44%
Quechua from other source	7	7.77%	7	7.77%	14	7.77%
Total speak Quechua	54	60.00%	49	55.55%	103	57.22%
Total	90	99.99%	90	99.98%	180	99.98%

Table D.7– Participant reporting speaking Quechua as bi-Q or bi-S by institution

Participants who speak Quechua, data of whether they speak it as bi-Q or bi-S						
	PLI		UNSAAC		Total	
	#	%	#	%	#	%
bi-Q	30	55.55%	25	51.02%	55	53.39%
bi-S	24	44.44%	24	48.97%	48	46.60%
Total	54	99.99%	49	99.99%	103	99.99%

Appendix E – Participant ethnicity before binning

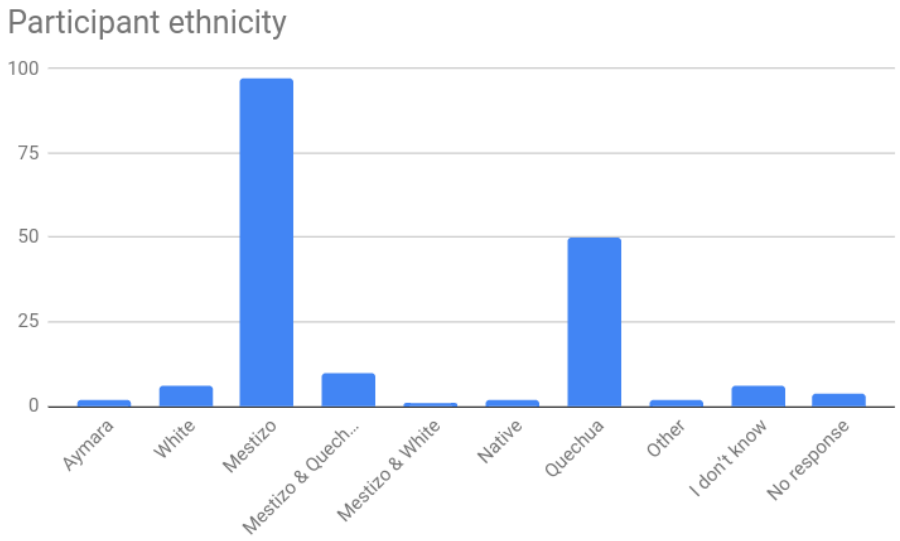

Figure E.1– Total participant ethnicity before binning

Table E.1– Total participant ethnicity before binning

Ethnicity of participants		
Ethnicity	#	%
Aymara	2	1.11%
White	6	3.33%
Mestizo	97	53.88%
Mestizo & Quechua	10	5.55%
Mestizo & White	1	0.55%
Native	2	1.11%
Quechua	50	27.77%
Other	2	1.11%
I don't know	6	3.33%
No response	4	2.22%
Total	180	99.96%

Appendix F – Engineering and tourism students by gender

Table F.1 – Percentage of participants who speak Quechua by gender and subject area (Engineering and Tourism only)

Out of all participants who study Tourism or Engineering, the percentage of those participants surveyed within that subject area by gender that spoke Quechua in domain *y*									
Subject Area	P -> friends	P -> grandparents	P -> father	p -> mother	P -> siblings	P -> relatives	Religious spaces	At the market	Neighborhood spaces
Eng male	7.69%	40.00%	33.33%	37.03%	14.81%	25.00%	14.81%	30.76%	18.51%
Eng female	0.00%	83.33%	57.14%	57.14%	14.28%	50.00%	14.28%	57.14%	28.57%
Tour male	31.57%	52.94%	58.82%	55.55%	36.84%	44.44%	30.00%	52.63%	35.00%
Tour female	5.26%	50.00%	33.33%	36.84%	15.78%	11.11%	10.00%	20.00%	15.00%

(# of participants: eng male = 27, eng female = 7, tour male = 20, tour female = 20)

Appendix G – Language attitudes by years studying English

To verify that it was the parent language group and not the years of studying English that was the cause for the differences in agreement in questions (53) and (54), I isolated the group of participants who had studied English for 0-1 years by the parent language group in table G.1 below:

Table G.1: Participant parent Quechua-speaking group of participants studying English for 0-1 years

Attitudes of participants studying English for 0-1 years			
	Average score		
Question	Q1-Q1	Bi-Bi	None-None
(53) "I like hearing Quechua spoken in public."	4.08	4.18	4.58
(54) "It seems old-fashioned to speak Quechua."	1.20	1.59	1.83

When the participants studying English for 0-1 years were evaluated by the parent language groups, the same trend emerged for question (54), where None-None participants had a slightly stronger agreement than the Q1-Q1 and Bi-Bi (both parents bilingual) groups. Unexpectedly, the None-None group also had the higher agreement with (53), where we would have expected Q1-Q1 to have the highest agreement.

On the other hand, when I isolated the participants who studied English for 2-3 years, (53) followed the trend that we would have expected, where Q1-Q1 had the most agreement, but Q1-Q1 also showed the most agreement for (54):

Table G.2: Participant parent Quechua-speaking group of participants studying English for 2-3 years

Attitudes of participants studying English for 2-3 years			
	Average score		
Question	Q1-Q1	Bi-Bi	None-None
(53) "I like hearing Quechua spoken in public."	4.84	4.43	4.41
(54) "It seems old-fashioned to speak Quechua."	2.57	1.26	1.90

The data, when isolated by how many years the participants were studying English, does not show any consistent trend in terms of which groups (Q1-Q1, Bi-Bi, None-None), have the most agreement with statements (53) and (54), nor does the data show a trend between the 0-1 year group and the 2-3 year group (e.g., Q1-Q1 reports high scores in the 2-3 year group for (53), but also higher scores for (54)). Overall, it does not seem any clear correlation could be drawn between the amount of years studying English and attitudes about the Quechua language.

Appendix H – Language attitudes by parent language group

Table H.1: Participant average scores for attitude questions (1=strongly disagree, 5=strongly agree) by Q1-Q1, Bi-bi, and None-none parent groups

	Average score		
Question	Q1-Q1	Bi-Bi	None-none
(55) "English is necessary to gain better employment."	3.90	4.18	4.31
(56) "English is necessary to be part of the global economy."	3.90	4.40	4.63

The Q1-Q1 scores for English attitudes are surprising and difficult to account for. It looks almost to be the inverse of the relationship between tourism and engineering students:

Table H.2: Engineering and tourism student average scores for attitude questions 55 & 56 (1=strongly disagree, 5=strongly agree)

	Average score	
Question	Tourism	Engineering
(55) "English is necessary to gain better employment."	4.30	3.80
(56) "English is necessary to be part of the global economy."	4.40	4.19

Tourism students score higher here questions about the value of English, which is not surprising, as their subject area and career paths would most likely require English. However, this does not explain the correlation between the Q1-Q1 score for question 55 and the engineering score for question 55, as there were considerably more Q1-Q1 participants who also studied tourism:

Table H.3: Number of tourism and engineering participants in Q1-Q1, Bi-Bi, and None-none parent language groups

Parent language group by subject area		
	Tourism	Engineering
Q1-Q1	12	5
Bi-Bi	11	10
None-none	2	7

It may be that for those participants coming from Q1-Q1 backgrounds where parents were using more Quechua, that the most obvious "next step" language for social status is, based on their family background, is Spanish, as opposed to English. If we think about what parents teach children about what

they need to get ahead in the world, Q1 parents may be imparting to their children more so that Spanish is what they need, based on the parents' own experience. This is all completely conjecture, of course, and there may be other findings that could explain this discrepancy found in the data.