

The Effects of a Bilingual Education Program on Attitudes Towards Quechua: The Case of Puno, Peru*

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Abstract

Since the arrival of the Spaniards in what is now Peru, the Quechua language has been thought to be a stigmatized language, its use mostly confined to the home and rural community. Education until the 1970s was primarily monolingual in Spanish, with little regard for the country's indigenous languages. In the late 20th century, two programs—the Experimental Bilingual Education Project (PEEB) and its successor, the Intercultural Bilingual Education Program (EBI)—were implemented, with a partial objective of restoring pride in indigenous languages. While the stigmatization of Quechua is a topic of controversy, new data does seem to indicate an increase in positive attitudes towards Quechua in the public sphere. This paper reviews the existing literature on attitudes towards Quechua and implements several Fisher Exact tests on data for these attitudes.

1 The Quechua Language and a Brief History of Bilingual Education in Peru

Quechua is one of the primary indigenous languages of Peru, as well as that of several other South American countries. Quechua was spoken in the central coast and highlands of Peru as early as 500 A.D., and reached its apogee in the 14th and 15th centuries, when it became the official language of the Inca Empire (Godenzzi 1997). The arrival of the Spanish in the 16th century introduced the Spanish language to the continent, where it quickly assumed dominance over other languages (ibid). In 1993, only 16.5% of the population indicated Quechua as their mother tongue (Cerrón-Palomino 2003a; INEI 1993). This percentage, however, is much greater in the region of Puno¹, where over 43% of the population claimed Quechua as their L1. The percentage of Quechua speakers in each province of Puno ranges from 84.6% in central Lampa to 0.6% in Yunguyo, a primarily Aimara-speaking province that borders Lake Titicaca and Bolivia (INEI 1993; see map on page 12).²

Native Quechua speakers have traditionally led a marginalized existence in Peru, with limited access to resources, surviving on subsistence farming and cultivation of livestock (Hornberger 1997). Puno mirrors the characteristics of the Quechua-speaking population overall; it is one of the poorest departments in Peru and has one of the highest illiteracy rates (22%; INEI 1993). Less than one in three *puneños* over 18 have finished secondary school, and there is a high rate of grade repetition and school desertion (Steckbauer 2000; INEI 1993).

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¹Peru is divided into regions (formerly known as departments, and similar to U.S. states), which are in turn divided into provinces, then districts.

²Puno's indigenous languages are Quechua and Aimara, and both have been the focus of bilingual programs in the department. For the purposes of this paper I will be focusing on Quechua speakers.

These characteristics signal a need for educational reform that takes into account the particularities of the Quechua-speaking population. Efforts were cultivated in this area as early as the beginning of the 19th century (Cueto and Secada 2001). An educational reform law was passed in 1972, which established a policy for bilingual education. Officialization of the Quechua language followed in 1975; however, little action was taken to implement bilingual education programs, and for several years the laws existed on paper and not in practice (Escobar 1977; Zuñiga 1979).

In place of government support, private funding propelled the first bilingual programs in Peru. The Summer Institute of Linguistics, an evangelical group committed to translating the Bible into every known language, began transitional bilingual education programs in the Amazon in the 1953 (Larson 1981; Montoya 1990). In 1977 the Experimental Bilingual Education Project (PEEB) was implemented in Puno. Funded by the German Technical Cooperation Society (GTZ), PEEB's goals were to provide students with instruction in their mother tongue, allowing them to develop literacy in their L1 (Quechua or Aimara) before learning their L2 (Spanish). Therefore, it was designed as a maintenance bilingual program, parting from the transitional bilingual programs that were developed in the Amazon. The PEEB program also charged itself with "safeguarding" the Quechua/Aimara speaker:

... afirmando sus particularidades, devolviéndole la palabra y la capacidad para expresarse de manera libre y espontánea, rescatando su autoestima, respeto a sí mismo y a sus ancestros y, finalmente, generando en él seguridad personal.

[... affirming his particularities, returning to him his word and the capacity to express himself in a free and spontaneous manner, rescuing his self-esteem, his self-respect and that of his ancestors and, finally, generating in him personal security.] (López 1991: 180)

The controversy surrounding the assumption of lost pride and stigmatization of Quechua will be discussed below. The founders of the PEEB program, however, clearly felt that these psychosocial elements were important to take into account when creating a bilingual education program.

The PEEB program continued until 1988. An eight-year transition period eventually led to the development of the Intercultural Bilingual Education Program (EBI) (Steckbauer 2000; Ministry of Education 2003). EBI has similar goals to PEEB, but on a national scale; it aims to implement maintenance bilingual education programs in all schools in order to restore pride in indigenous languages and culture and, it is hoped, improve school performance and equalize opportunities for indigenous peoples in Peru (Ministry of Education 2003; Cueto and Secada 2003). Approximately 11% of primary school age children in Peru are currently enrolled in an EBI program. EBI also conducts a program for younger children; 5% of Peru's children ages 3-5 are enrolled in this "Initial Education" program. Neither PEEB nor EBI has conducted bilingual education programs at the secondary school level.³

The philosophy and results of these bilingual programs, as well as their impact on the communities they serve, have been somewhat mixed. However, recent studies from Puno and nationally seem to indicate that attitudes about indigenous languages, Quechua in particular, are high for school-age students (Cueto and Secada 2001; Cueto et al. 2003). Are these positive attitudes a result of the EBI program, or merely the first empirical evidence that Quechua is no longer the stigmatized language that many insist it is? Does EBI lead to improved attitudes about Quechua, thus removing its traditional stigma? I will attempt to answer the latter question in this paper. The literature will show that Quechua does appear to be more firmly stigmatized in the public sphere of work and education. My hypothesis is that the inclusion of Quechua in the public sphere via EBI has led to an increase in positive attitudes towards the language.

³Primary school for Peruvian children begins at age six and continues through age 12. Secondary school continues through age 16, at which point students can join the labor force or begin university or technical college.

Part 2 of this paper reviews the concept of Quechua stigmatization. Part 3 gives a theoretical base for the purposes of this paper, defining the concept of public and private spheres. Part 4 describes the sample and outlines the methods used for data analysis. Part 5 analyzes the findings, discusses the implications, and offers recommendations for future research.

2 Controversies Regarding the Stigmatization of Quechua

Wasillaypi qhishwaqa. Iskwyllapi kastillanu.

In my house, Quechua. In school, Spanish.

— A native Quechua speaker in Puno. Cited by Hornberger (1989: 112).

The underlying assumption of the PEEB and EBI programs is that indigenous languages such as Quechua have traditionally been stigmatized, and that bilingual education should remove this stigma and restore pride in the language. Zuñiga (1979: 247) states that “[Los] comuneros de habla indígenas [en el Perú] . . . muestran una mayor disposición a valorar más la lengua y cultura hispanas, dada su conciencia sobre el peso que éstas tienen en la sociedad nacional [Speakers of indigenous languages [in Peru] . . . show a greater disposition towards valuing Hispanic languages and cultures, given their knowledge about the weight that these have in national society],” while Godenzzi (1992: 66) asserts that most Quechua speakers “[tienen] una actitud de rechazo hacia su lengua [[have] an attitude of rejection towards their language].” The literature speaks often about Quechua and other indigenous languages being traditionally less valued than Spanish, even by the speakers of these languages.

Hornberger (1989: 124) says that this stigmatization is often seen in the negation of knowledge of Quechua, and that “incluso en las comunidades uno escucha ocasionalmente a un comunero negarlo, aunque los circunstancias y las observaciones nos proporcionan evidencias en contra [even in [Quechua speaking] communities one will occasionally hear a community member deny it [their knowledge of the language], even though the circumstances and observations give us evidence to the contrary].” Another example of this negation can be seen in evaluations of census data collection; Hornberger (1997: 221, 232) notes that census figures “notoriously under-report Quechua speakers for a variety of reasons, including the low prestige of Quechua,” but blames the census takers, saying that many count as Spanish-speaking “those minimally able to speak Spanish” and do not inquire as to other languages.

One reason given for the stigmatization of Quechua and other indigenous languages is the belief that these languages have supposedly not been able to keep up with the times, linguistically speaking, in the face of modern inventions. This ties in with a definition of diglossia used by Ferguson (1959) and others, in which two coexisting languages are specialized by function (cited by Romaine 1995). Filmer (2003: 264), discussing Kachru’s theory of linguistic viability, states that “In the presence of an overwhelmingly powerful language [e.g., Spanish in Peru], there is pressure to abandon less powerful languages *whose functional domains are often more restricted.*”

Most literature for the Peruvian case shows an assumption of this type of diglossia. Zuñiga (1979: 263) asserts that for national and international communication “es un hecho que el castellano ofrece más posibilidades que el quechua [it is a fact that Spanish offers more opportunities than Quechua],” while Godenzzi (1992: 70) affirms that “la lengua quechua no cumple funciones en el ámbito público, formal u oficial: está circunscrita a lo informal y doméstico [the Quechua language does not function in the public, formal or official sphere, it is limited to the informal and domestic].” Jung and López (1988: 45) state that as Spanish dominance advances, the indigenous language “se repliega, se restringe el número de funciones que ésta cumple al interior de la sociedad indígena [folds into itself, restricts the number of functions that it carries out inside indigenous society].” López (1991: 184) says that bilingual education for Quechua and Aimara speakers should re-arm speakers of indigenous languages with the confidence and creativity to

“abordar situaciones intelectivoexpresivas [sic] nuevas ... para las cuales ni el quechua ni el aimara se encuentra ahora equipados ... [approach intellectual-expressive situations ... for which neither Quechua nor Aimara are currently equipped].”

We should note that Ferguson’s theory of diglossia and the existing literature overlook the fact that a language is always capable of inventing new words, as outlined by De Saussure’s theory of the arbitrariness of signs (1916). The scope of this paper is too limited to offer a complete review of theories on linguistic innovation. In the case of Quechua, however, new words have been invented fairly recently, e.g., *rikchay chaski* (lit. “virtual messenger”) for email and *yuyayuk anta* (lit. “knowledgeable machine”) for computer. Ample evidence of Quechua borrowing from Spanish also exists, with words such as *tiyu* (tío, uncle) and *semana* (week), both of which are now acceptable elements of the Quechua lexicon. Since all languages have the capacity to invent new words and borrow, stating that Quechua cannot develop the capacity to express new concepts without the help of a bilingual program belies an assumption that does not correspond with linguistic theory. Despite this, studies in Peruvian Quechua, as described above, mostly concur that the language in its current state is limited.

Another reason given for the stigmatization of Quechua is that knowledge of the language—and, as a perceived consequence, the failure to learn the dominant language, Spanish—is seen as an obstacle to integrate into “official” Peruvian society (Castillo 1982; Hornberger 1989; Rockwell 1989). Hornberger (1989: 295) notes vehement community opposition to the PEEB program in Puno, reporting that many community members saw bilingual education as an “atraso [step backwards].” Portes (1998), in an article on social capital, discusses how its absence can restrict access to upward mobility. Inglehart and Woodward (1992) support Portes’ theory from a linguistic perspective, pointing out several examples in which a minority language group suffered from blocked social mobility unless they were willing to learn the dominant language. In the Peruvian case, social capital could be defined as fluency in Spanish, with a monolingual Quechua speaker possessing an absence of this social capital and therefore a restriction of his or her social mobility. The subjects interviewed by Hornberger felt that bilingual education would slow down their access to Spanish and its resulting social mobility.

Inglehart and Woodward, however, also indicate that social mobility based on language is closely linked with a country’s economic and political development. Puno, as seen in the introduction, is one of the poorest regions in Peru, indicating that there are many other variables to take into account when explaining its inhabitants’ marginalized status. For example, Cueto and Secada (2001) find a great deal of evidence of educational inequality in Puno, including fewer actual school days and school hours for rural versus urban schools and low quality pedagogical practices in rural schools, which offer little opportunity for active student participation.

Further evidence of Quechua stigmatization, as indicated by proponents of PEEB and EBI, is the amount of parental and community resistance to bilingual education programs overall. López (1991) discusses the vehement opposition of communities to PEEB, while Zuñiga (1979: 257) speaks of a “drástico rechazo [drastic rejection]” of a similar experimental bilingual program in Ayacucho. Rockwell (1989: 144) says that many parents rejected the bilingual education program “porque el quechua ellos ya lo saben [because they already know Quechua],” while Hornberger (1989: 294) says parents believed that bilingual education “confundía a los alumnos y demoraba su aprendizaje ... que de todas maneras no había ningún sentido en aprender a escribir quechua ... [was confusing to students and delayed their learning ... that in any case there was no sense in learning to read or write Quechua].” The proponents of the PEEB and EBI programs assert that parental resistance is due to a lack of education on the benefits of bilingual education and that the parents are “mal informados [badly informed]” as to these benefits. (López 1991; Cueto and Secada 2003: 21).

However, qualitative investigation of parental resistance indicates that it is not necessarily directly correlated with a feeling of Quechua as inferior to Spanish. Castillo (1982: 125-7), in a study conducted among Quechua speakers in the Andes of Northern Peru, concluded that “las reacciones negativas de los bilingües quechua-castellanos hacia el quechua ... no implica[n] nece-

sariamente deslealtad a su lengua ni tampoco insolidaridad [sic] al grupo étnico al cual pertenecen [negative reactions of Quechua-Spanish bilinguals towards Quechua . . . do not necessarily imply disloyalty to their language or a lack of solidarity to the ethnic group to which they belong],” noting that Quechua received high marks on affective scales in previous studies. Castillo also found that Quechua-Spanish bilinguals in the region tended to use Quechua in their communities and at home, and attempted to maintain contact with other Quechua-speaking groups in the country, indicating significant efforts towards maintenance of the language outside of the school environment.

Hornberger (1989: 306) found similar results in Puno, stating that although Quechua speakers “están relativamente despreocupados acerca del futuro de su lengua, también están firmemente convencidos de que sería imposible que ella desaparezca [are relatively unpreoccupied with the future of their language, they are also firmly convinced that it would be impossible for it to disappear].” Rockwell (1989: 157), after several conversations with parents, discovered that the community’s perception regarding Quechua was that “tiene asegurada su reproducción y finalidad a través de las redes cotidianas informales de convivencia [its reproduction and finality is assured through informal daily networks of communication].” According to both Hornberger and Rockwell, Quechua is viewed as the language of the home and community (*ayllu*), and Spanish the language for outside the community. However, some blending of these spheres is taking place (Hornberger 1997: 221).

Moreover, recent data indicates that parental resistance has dissipated substantially. Despite Cueto and Secada’s 2003 assertion that parental resistance continues towards EBI programs, their 2001 survey data show that an overwhelming 85.4% of parents with children in EBI schools at least partially agree with the statement “Bilingual education would be beneficial for my child” ($n = 123$) while, interestingly enough, 87.8% of parents with children in non-EBI schools also at least partially agree with the statement ($n = 131$; see Table 1).

Perhaps over ten years of EBI programs in the region has had the desired effect in “informing” parents about its benefits. Another possibility is that the evidence of parental resistance was purely anecdotal in nature and never empirically analyzed. Most of the previous evidence comes from qualitative studies, and the differences between quantitative and qualitative research must be taken into account. More research is necessary to determine if an evolution in parental opinion with respect to bilingual education has indeed taken place in Peru.

The stigmatization of Quechua, therefore, does not appear to be generalizable to all linguistic domains. We could, however, put forth the hypothesis that Quechua has been stigmatized in the public sphere. The quotation at the beginning of this section shows the dichotomy of Spanish/Quechua, urban/rural, and public/private which, according to Hornberger and others, is very clear in the Quechua speaking community. Jung and López (1988: 44-45) support this assessment, commenting that most indigenous languages in Peru have been “reducidas hoy a la condición de vernáculas *utilizadas casi exclusivamente en el ámbito familiar y comunal . . . con pocas posibilidades de uso formal-institucional* [reduced today to the condition of vernaculars used almost exclusively in the family and community spheres . . . with few possibilities for formal-institutional use].”

Thus, Quechua speakers in Puno at the outset of the PEEB program may have been reluctant to fuse the carefully delineated borders of public and private languages. Hornberger (1989) also notes an overall suspicion of outside-funded programs, which were numerous and yet quickly erased in Puno after their allotted few years of funding. Many studies of the PEEB program, including those by Hornberger (1989), Godenzzi (1992) and López (1991), emphasize that the program was implemented by GTZ members and Lima academics without including the input of community and family members. The program was therefore viewed by its participants as something outside of the *ayllu*. Not only did this cause an obvious resistance, but it effectively kept the schools in the public sphere, where a private language (Quechua) was not used by the community. Interviews with Quechua speakers clearly show an idea that academic activities such

Table 1: 2001 Parental Attitudes towards Bilingual Education in Puno

	No EBI	EBI
	The household head agrees with the statement that bilingual education would be beneficial for her/his children	The household head agrees with the statement that bilingual education would be beneficial for her/his children
No, don't agree	12.2%	14.6%
Partially agree	26.0%	41.5%
Agree	61.8%	43.9%

as reading are not feasible in Quechua: “Kastillanu liyinaypaq, qhishway parlanaypaq [Spanish is for reading, Quechua for speaking],” says one respondent (Hornberger 1989: 128).

The Quechua speaker's concept of schools as public spaces requiring the public language persists to this day. Data from Cueto and Secada (2001) show that students in Puno overwhelmingly use Spanish in school with their teachers and peers (see Table 2). At home, however, the blending indicated by Hornberger (1997) is occurring, as students may use a combination of both languages with their parents.

In sum, while the literature does not make a clear case for the overall stigmatization of Quechua, it does appear that Quechua is stigmatized in the public sphere, where activities such as school require the public language of Spanish. Part 3 will more closely examine the theory of public and private spheres, and show how both the literature and recent data support this division for Quechua and Spanish.

Table 2: 2001 Language Use Among Students

	Spanish	Quechua	Aimara	NP	Spanish & Quechua
Language used the most by the student to communicate with her/his parents	42.6%	46.8%	—	—	10.6%
Language used the most by the student to communicate with her/his grandparents	16.0%	73.0%	—	4.6%	6.5%
Language used the most by the student to communicate with her/his siblings	69.8%	16.4%	0.4%	0.4%	13.0%
Language used the most by the student to communicate with her/his peers	51.0%	32.7%	0.8%	0.8%	14.8%
Language used the most by the student to communicate with her/his teacher	79.8%	3.8%	0.4%	0.4%	15.6%

3 Public and private spheres in the usage of Spanish and Quechua

The hypothesis to be tested in this paper makes the following assumptions, which are supported by the literature reviewed above. First, Quechua has been and remains a language mostly confined to the private sphere. This has been shown in research by Castillo (1982), Hornberger (1989), and Rockwell (1989). Second, schools in Peru are public establishments, where the dominant, public-sphere language is spoken. This is evident in the history of Peruvian education, which has traditionally been monolingual in Spanish and remains so for 89% of the population (Ministry of Education 2003). Third, a question posed about a private language in a public setting should elicit a negative response, as explained by Hornberger (1989, 1997) and anecdotal evidence from the Ministry of Education regarding community members and evaluations of census data collection.

Based on these assumptions, a positive response to the statement “I like speaking in Quechua” posed to an individual in a public school setting should indicate a positive attitude regarding Quechua in the public sphere. A positive attitude, moreover, would indicate an absence or lessening of the stigma of Quechua in this particular sphere.

The concept of public and private spheres is taken from Fishman’s (1965; 1972, cited in Hudson 1989) theory of linguistic domains, in which “the choice of language in a bilingual community varies from domain to domain,” and the use of one linguistic variety is deemed more appropriate than the use of another variety, given certain factors (Hudson 1989; Moreno 1998). These domains are conceived of as “congruent combinations of a particular kind of speaker and addressee, in a particular kind of place, talking about a particular kind of topic” (Hudson 1989: 80). With respect to the literature, while most studies on Quechua domains refer to which places the language is spoken (e.g., home or school), recent survey questions focus on to whom Quechua is spoken; both factors are taken into account for the purposes of this paper. Overall, the language spoken to parents and grandparents is assumed to be the language of the private sphere, while the language spoken to peers, teachers and siblings is assumed to be the language of the public sphere. The use of the public sphere language among siblings is supported by other literature on bilingualism, including Lin and Stanford (1983); Kulick (1992); Dorian (1981); Rindsted and Aronsson (2002), for the case of Ecuadorean Quichua; and others.

As discussed in Part I, one of the goals of the EBI program is to restore pride in indigenous languages. For the purposes of this paper, I will confine this restoration of pride/positive attitude to the public sphere. This attitude in turn is restricted by the data to a primary school setting. Parts 4 and 5 will discuss the results of a test to see whether or not bringing Quechua into this sphere has had a positive impact on student attitudes towards the language.

4 Description of the Sample and Methods

Data for this study was taken from a 2001 survey on student performance in the Puno region, which was conducted by GRADE (Group of Analysis for Development), a research center located in Lima, Peru (i.e. Cueto and Secada 2001). This cross-sectional study of schools focused on the provinces of Puno, San Román, Huancané, El Collao, Melgar, and Azángaro (see map on page 12), making an effort to take into account a wide variety of urban and rural areas, types of schools, and levels of poverty. Therefore, larger schools in the capitals of provinces were chosen intentionally to represent the variety of regions (north, south, etc.), while smaller schools in the capitals of districts and smaller towns were selected randomly. The study was also designed so that half of the small-town schools selected belonged to EBI, and half had a monolingual curriculum. While this is obviously not representative of the country’s experience with bilingual education programs, it was an important characteristic of the sample for the purposes of this analysis. To obtain a somewhat longitudinal perspective, students from both 4th and 5th grades

were included in the sample. One head of household per family was interviewed at the school; teachers and principals were also interviewed.

The objective of the original survey was to measure academic achievement in rural and urban areas by students in both bilingual and monolingual education programs. Cueto and Secada (2001) state the following regarding their data:

We will present data on the functioning of EBI schools, comparing them with non-EBI schools in the same contexts. This should not be taken as indications of the impact of the program, given that we do not have a proper design with either a baseline or random assignment, but we expect the data will be useful to officers in charge of the program who would like to improve the design or quality of implementation (7).

Therefore, in order to test the effect of EBI schools on student attitudes towards Quechua using this data, it is important to define the Ministry of Education's criteria for selecting schools for the EBI program. The hypothesis for this paper would be invalid if, for example, one of the Ministry's criteria was whether or not a community was receptive to having an EBI program in their schools. Cueto and Secada (2001: 8) indicate that "Language is used as a criteria [sic] to define if EBI will be implemented in a region." However, in a footnote on the same page they say, "The criteria for making a school EBI are not clear," and they reiterate this message in a later paper (Cueto and Secada 2003). In a correspondence with Santiago Cueto, he states that "general statistics with respect to the number of speakers of indigenous languages" are the only criteria used for implementing an EBI program in a particular region (personal communication, October 28, 2003).

Furthermore, Cueto and Secada (2003: 20) assert that the implementation of an EBI program is decided independently of the community, and that neither parents nor administrators are consulted about the possibility. "El padre y madre de familia tienen la opción de enviar su hijo o hija a otra escuela, pero dado que en los contextos rurales esto a menudo supone una hora o más de caminata adicional, esta posibilidad no es realista para la mayoría [The mother or father of the family does have the option to send their child to another school, but given that in rural contexts this implies an hour or more of additional walking, this possibility is not realistic for the majority]." It appears that whatever criteria are used by the Ministry of Education, the support of the community is not one of these. Even parents who may not support the EBI program are often forced to send their children to EBI schools due to geographical constraints.

Correspondence with Flormarina Guardia Aguirre, Coordinator of Management and Social Participation in the Directorate of Intercultural Bilingual Education, confirms that statistics on speakers of indigenous languages are the main criteria for determining whether or not an EBI program will be implemented in a given region in Peru. Priority is given to those areas where 70-80% of the population has an indigenous language as their L1. Individual schools are then selected for EBI "empíricamente [empirically]" within these regions; prioritizing those "con mayor problemas de accesibilidad geográfica a los ciudades capitales de provincia o departamento [with major problems of geographical accessibility to the provincial or regional capital cities]" (personal communication, November 4, 2003).

It is not known what "empirically" means in this context; further communication with the Ministry of Education indicates that local authorities in charge of selecting the schools do not have a scientific method in mind when doing so (personal communication, December 20, 2003). It is clear from the data that not all rural districts where 70-80% of the population speaks Quechua have an EBI program. Cueto and Secada (2001: 8) indicate that "Usually, EBI and non-EBI schools are located very near each other but only some multigrade schools are EBI. The other multigrade schools are non-EBI . . . schools." Furthermore, "Local teachers comment that only multigrade schools with less than four teachers are EBI, but this is not always the case" (ibid).

It appears, therefore, that some other criteria must come into play for final selection of EBI schools, even if this is merely the discretion of the local Ministry of Education representative.

However, given that the known criteria are based on language statistics and geographical accessibility, the hypothesis of this paper should be testable from the available data, as long as a subsample is selected from the data using the same criteria and an assumption is made that the remaining criteria are not based on positive attitudes towards Quechua or the EBI program. This assumption appears to be supported by the known criteria, as well as the literature on parental and community resistance to bilingual programs in Puno and anecdotal evidence from the Ministry of Education.

In order to test the impact of EBI schools on student attitudes towards Quechua, the statement “Me gusta hablar en Quechua [I like speaking in Quechua]” was selected from the survey, and responses were compared for EBI and non-EBI schools in rural districts where 70-80% of the population spoke Quechua (see Table). The Fisher Exact Test, a nonparametric test for small proportions of samples consisting of independent qualitative variables, was then used to test the hypothesis. Directional tests were used to increase statistical power, with the direction favoring EBI schools. Data and p-values for the tests are outlined in Tables 3 and 4. Three tests were used, given the presence of an ambiguous response and the necessity of a 2×2 table for a Fisher Exact Test. Part 5 will discuss the ambiguous response and the tests’ attempts to prove the hypothesis by assigning different proportions of this response to the other two responses.

Table 3: Data for Fisher Exact Test

The Student Likes to Speak Quechua	EBI Schools	Non-EBI Schools
1. Yes, a lot (Mucho)	35x	37
2. Yes, but not much (Poco)	67	59
3. No (Nada)	09	29
Total	111	125

$$H_0: p_{YEBI} \leq p_{YNOEBI}$$

(A lesser or equal proportion of EBI students responded positively to the statement)

$$H_1: p_{YEBI} > p_{YNOEBI}$$

(A greater proportion of EBI students responded positively to the statement)

Where p = proportion of respondents and Y = Yes

5 Analysis and Discussion

Responses to the statement “I like speaking in Quechua” were “mucho” (yes, a lot), “poco” (yes, a little or yes, but not much) and “nada” (not at all). For this analysis it was important to interpret the “poco” response as correctly as possible, as it seemed to possess both negative and positive connotations. My interpretation of the “poco” response was that it still indicated some positive feelings towards speaking Quechua, and that “nada” was the only response that clearly indicated a negative attitude towards Quechua. However, to increase the robustness of the overall conclusion, a test was performed in which the “poco” responses were assigned 50% to the positive “mucho” response and 50% to the negative “nada” response.

For the statement, “I like speaking in Quechua,” when a significant percentage (70%) of the “poco” responses were assigned to the positive “mucho” response, or when the “poco” response was thrown out entirely, the Fisher tests showed a statistically significant increase in positive responses for EBI schools versus non-EBI schools, with low p-values (.00898 and .04029) for these

results, against a Type I error rate of .05. This indicates that EBI schools may have contributed to an increase in positive student attitudes with respect to Quechua in the public sphere (see Table 4).

Table 4: Results of Fisher Exact Tests for data

Test	p-Value against $\alpha = .05$	Conclusion
Frequencies for Response 2 (poco) thrown out, only Responses 1 (mucho) and 3 (nada) considered	0.00898	Subsample data fits in rejection region. Reject Ho.
Frequencies for Response 2 (poco) assigned 50% to Response 1 (mucho), 50% to Response 3 (nada)	0.11623	Subsample data does not fit in rejection region at $\alpha = .05$. Do not reject Ho.
Frequencies for Response 2 assigned 70% to Response 1, 30% to Response 3	0.04029	Subsample data fits in rejection region. Reject Ho.

This possibility is a hopeful one, especially in the wake of some recent negative empirical literature regarding achievement for EBI students. According to studies by Cueto and Secada (2001, 2003), students in EBI schools do not show improved performance in any discipline compared to non-EBI students, and their rate of grade repetition and school desertion is at the same level, and often exceeds, that of non-EBI schools.⁴ The chance that EBI schools may be at least fulfilling their goal of restoring pride in indigenous languages is a positive sign, and may indicate that more time is needed for students to continue to gain confidence before the achievement gap is closed.

However, four important caveats must be discussed. First, there is a possibility that populations with a higher percentage of Quechua speakers automatically have more positive attitudes towards speaking Quechua in the public sphere. Remember that one of the criteria for implementing EBI schools is a high percentage of Quechua speakers in the community. However, as indicated above, the subsample included a relatively equal number of responses from both EBI ($n = 125$) and non-EBI ($n = 111$) students from rural districts with a high percentage of Quechua speakers. Therefore, this possibility has been accounted for by the subsample selection.

Second, the Fisher tests in which 50% or more of the “poco” responses were assigned to the negative “nada” response were closer to the expected values of the null hypothesis; therefore, from these tests we could not assume that EBI schools led to an increase in positive attitudes. The conclusion that the presence of EBI schools could contribute to an increase in positive attitudes towards Quechua in the public sphere must rest on the assumption that the “poco” response is at least 70% positive at an alpha of 5%. However, given that the null hypothesis was rejected even when the “poco” responses were thrown out entirely, it is likely that this assumption holds for the subsample.

Third, when analyzing the data we must also question whether or not Quechua is stigmatized at all in these communities. My assumption is that it is stigmatized in the public sphere, and this appears to be supported by the literature. Census evaluations and data for Quechua use in the school show that Quechua is stigmatized and Spanish is favored in the public domains of education and work. On the other hand, the recent data showing overwhelming parental support

⁴It should be noted that Cueto and Secada’s study emphasizes a correlation between these variables and EBI schools; therefore, it cannot be said that these results are caused by presence in an EBI or non-EBI program.

for the EBI program—a startling evolution given previous reports—indicate that Quechua may no longer be stigmatized at all. More research is needed as to when this evolution in public opinion towards EBI schools took place.

Finally, the data from this survey was limited with respect to linguistic attitudes. A different survey focusing more closely on linguistic attitudes, such as Cueto et al.'s (2003) study on Peruvian national attitudes towards indigenous languages, would include several more questions in order to more accurately assess these attitudes for EBI and non-EBI students.

In conclusion, the Quechua language, traditionally stigmatized in the public sphere in Peru, may be losing its stigma in this particular sphere, at least for students in bilingual programs. A subsample of student responses regarding attitudes towards Quechua, selected to mirror the Ministry of Education's criteria for Bilingual Intercultural Education (EBI) programs as closely as possible, shows a significant amount of positive responses regarding Quechua in EBI versus non-EBI schools. This may indicate that the EBI program has had an effect on increasing positive attitudes towards Quechua in the public sphere. Although the results of these tests could offer some positive feedback to the recently criticized EBI program, and especially to the program's goal of removing the stigmatization of Quechua, more research is necessary before we can completely conclude that EBI schools lead to an increase in positive attitudes towards Quechua. The evolution in parent and student attitudes towards bilingual education should be studied, the criteria for EBI selection must be more clearly defined, and a new survey more closely focused on attitudes towards Quechua, with data for both EBI and non-EBI students, should be implemented.

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Figure 1: Map of Puno. Source: Instituto Geográfico Nacional del Perú

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