

## **Preserving and saving Quichua language with software. The value of indigenous laboratory of Quichua-Spanish language in San Lucas (Ecuador)**

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**Abstract:** The paper aims to highlight the benefits of Quichua-Spanish language laboratory in San Lucas (Ecuador). The priority of intercultural bilingual education in Ecuador focuses on the right of indigenous population to receive learning education in their native language with the objective of preserving endangered indigenous languages. The language laboratory was built in 2018 and now it is a helpful tool for indigenous students to preserve their mother tongue and practice through software a new way of learning. Results of the study revealed that indigenous students and teachers are positively inclined to the use of language laboratory.

**Keywords:** Quichua, indigenous language, learning education, laboratory, intercultural bilingual education

### **1. Introduction**

Languages and cultures are disappearing and dying day by day. Language death occurs at a notably accelerated rate. It is difficult to determine the exact number of languages in the world, but there is a general consensus that half of the world's 7,000 languages will disappear by the end of the century. Most of the languages of the world are unsupported in government and education. Inside the communities, the loss

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of languages includes the loss of their sense of identity and also the loss of cultures as well as human rights (Skutnabb-Kangas and Phillipson, 1995).

As Mithun (1998) said, “The loss of languages is tragic precisely because they are not interchangeable, precisely because they represent the distillation of the thoughts and communication of a people over their entire history” Mithun (1998: 189). For many researchers, the loss of great number of languages represents an “intellectual catastrophe” (Zepeda and Hill, 1991: 135). People need to keep their languages alive, trying to bring up new generations of speakers and re-establishing traditions by maintaining a unique ethnic identity.

Crystal (2000) points out that a community must work to preserve and maintain their language at all the levels included educational system. School is a formal place where the children can improve their skills in their mother tongue. The school system has an important role besides the presence of the language in the home, see as a priority for the children development. It gives them the possibility to engage with literacy and to use the minority language alongside the dominant language. The result of the benefits of mother tongue in school can be an increase in a child’s self-confidence.

In education, if the minorities’ languages are part of the school system, they usually maintain a higher degree of vitality. UNESCO (2003) states that “Education in the language is essential for language vitality”. As Grenoble and Whaley (2006: 10) argue, “for sustaining vitality in a local language, all subject matter needs to be taught in the language, and pedagogical materials must be available to teachers and students.” Thus, in the formal educational process, the extent of literacy in a native language plays a crucial role for language vitality.

Why it is important for children to maintain and learn their native language? The native language is a part of their identity; it is the result of social interactions with others. According to Cummins (2001), research has suggested that mother tongue education has a very important role in children’s growth and development. Children who have solid mother tongue skills can accelerate the development of language proficiency in second language. Today, the reality is that indigenous children lose their native languages in the process of assimilation the dominant language of society and school.

In the Ecuadorian context, the priority of intercultural bilingual education focuses on the right of indigenous population to receive learning education in their native language with the objective of preserving endangered indigenous languages. Chireac and Devis (2017) suggested that school is the institution that must absolutely preserve the language and the identity of indigenous children. Therefore, the conservation of Quichua language, one of the most ancient and important language in Latin America, is a priority in Ecuadorian indigenous schools.

This paper aims to highlight the value of preserving the mother tongue of indigenous children from San Lucas (Ecuador) through the construction of Quichua-Spanish

language laboratory, an effective tool to cultivate Quichua language and to guarantee the indigenous children's right to education in their native language.

## **2. Language revitalization and Bilingual Intercultural Education in Ecuador**

In the Ecuadorian context, according to Housing Census in 2010, only 57.5% of children under the age of 12 communicate in their native language. Besides Spanish, in Ecuador, other two languages are official: Quichua and Shuar. The question is: what tools are effective to preserve and defend the ancestral languages, and with it the cultural heritage of its indigenous communities? In order to find out an answer to this question we must clarify the concepts of language revitalization, language loss and language maintenance.

As King (2000) highlights, *language revitalization* is “the attempt to add new linguistic forms or social functions to an embattled minority language with the aim of increasing its uses or users. More specifically, language revitalization, encompasses efforts which might target the language structure, the uses of the language, as well as the users of the language” King (2000: 23). The goals of language revitalization involve trying to maintain and protect the indigenous language from death. In the linguistic field, the task of documentation is the principal issue to create a language's grammar and vocabulary, aspects of language revitalization efforts.

Language revitalization engage the efforts of people and organizations working for the benefit of thousands of endangered or threatened languages. As Lachler, Snoek, and Aschenmeier (2017) pointed out, these efforts should preferably benefit and empower as many people as possible. Nevertheless, that participation in these efforts is often restricted to a minority of group members.

The term of *language loss*, in contrast, refers to the “gradual displacement of one language by another in the lives of the community members” and occurs “where there is a sharp difference in prestige and in the level of official support for the two (or more) languages concerned” (Dorian, 1982: 46).

Coronel-Molina and McCarty (2016) note that language shift from the indigenous languages to a dominant European language is an ongoing process connected with poverty, racism, linguisticism, and linguistic and cultural insecurity.

Another term used is *language maintenance* as an antonym for language shift. It describes a situation in which people continue to use their language even though the dominant language of the society has been making inroads. Actually, there are enormous numbers of the minority languages of the world where generations no longer know them and people no longer speak them.

Hinton, Huss and Roche (2018) explain that among all the terms employed in the research literature, *language revitalization* is now the most common term used for activities designed to maintain and to increase the presence of an endangered language in the indigenous communities.

It is very well known that in the Quichua-speaking communities of Ecuador, Spanish is considered to be the language of prestige and it is used for the main economic, political, educational and religious activities. Indigenous languages are considered “inappropriate for use in most public domains, having an extremely limited functional allocation” (King, 2001: 39). Nevertheless, the use of autochthonous languages is still present especially in rural spaces in domestic areas among families, as well as in rituals (Chireac and Devís, 2017). “Quichua continues to play a public, strategic role in the country; politicians use Quichua to gain votes; some religious organisations use it to increase members; and national television stations employ it to create sophisticated tourist-oriented advertisements” (Baldauf and Kaplan, 2007: 10).

In these conditions, it is urgent to preserve the native languages of the indigenous communities. Therefore, in Ecuador, the official political body representing all indigenous persons in Ecuador (CONAIE - Confederation of Indigenous Nationalities of the Ecuador) and other indigenous organizations have worked for language and education reform on two levels. First, indigenous groups demanded policy change regarding language and education at the national level. Second, indigenous groups began to implement their own native language literacy and education programs within their communities.

The Directorate of Bilingual Indigenous Intercultural Education (DINEIB) was established in 1989 and promotes and enforces the education quality in schools in areas in which the population is more than half indigenous. The mission of the DINEIB is to develop and guarantee the maintenance of the cultures and the use of native languages of indigenous nationalities through the implementation of the bilingual intercultural education in order to strengthen the education of the indigenous children. In 1993 the Ecuadorian government adopted the Model of Bilingual Intercultural Education as law. Concerning the use of indigenous languages, the state mandates that the schools ‘use the languages of the indigenous culture as the principal languages of education and Spanish as the language of intercultural relations’ (DINEIB, 1994: 23). Despite the implementation of bilingual intercultural education in many bilingual schools in Ecuador, it is generally not practised effectively (King and Benson, 2004). On one hand, many indigenous families want their children to receive education in Spanish and they are resistant to indigenous language education. Therefore, for them, bilingual education is the way to deny children access to social opportunities and employment. On the other hand, bilingual teachers feel insecure about their indigenous language skills. There are many Ecuadorian school teachers who believe that Quichua is useless in daily life and this indigenous language has an inadequate grammar and lexicon (Cotacachi, 1997). As we see, the factors that undermine the use of the indigenous language in education include the lack of qualified teachers and resources, the family attitudes towards the implementation of the indigenous language in school and different interpretations of key terms such as *interculturalism* and *bilingualism*.

In Ecuador, one of the major challenge is the training of qualified bilingual teachers. At the same time, there is a lack of laboratories in Quichua language in

schools, as a practical tool to preserve the mother tongue of indigenous children and practice through software implementation a new way of learning. The language laboratory can stimulate the indigenous students to preserve their mother tongue by acquiring easily the Quichua language. The idea of the construction of a laboratory in an indigenous context, San Lucas (Ecuador), is to learn languages and help students to use technology in order to communicate effectively and to develop their oral skills.

### **3. The relevance of the Quichua-Spanish laboratory in San Lucas (Ecuador)**

First of all, we explain the context in which the laboratory was built in 2018. San Lucas is an indigenous village situated at 50 km from Loja city in Ecuador. It is a village composed by 6.000 Saraguro indigenous people. Even most persons are illiterate in Quichua language, it remains largely an oral language. Quichua language is used in the community especially by only a limited number of elder members who have full competence in oral native language. In contrast, Spanish is the dominant language presently as the main language in indigenous homes and community.

In this difficult situation, it was necessary to take measures to achieve the goal of language revitalization at the educational level. For our research group it was fundamental to strengthen and multiply efforts. We believed that technology planning through building a language laboratory with computers and the development of educational materials could save Quichua language.

In 2017, we proposed the project *Construction laboratory of Quichua-Spanish language in San Lucas (Ecuador)* to the University of Valencia and we earned a financial grant (20.000€). The project was carried out with the active participation of indigenous peoples from San Lucas, teachers, indigenous students, researchers from the University of Valencia, the Private Technical University of Loja (UTPL), as well as other sectors of San Lucas village.

Generally, school, home, and the entire society play a pivotal role in language revitalization. As noted above, all these agents participated in the construction of the laboratory. The first step was to establish a robust contact with the researchers of the University of Loja which supervised all the laboratory works. The project started with a clear communication of the project objectives and the effort required to meet them. We need to know that the team could realistically execute the plan. We had an open dialogue with the indigenous leader of the San Lucas community about our plan, as well with the Ecuadorian architect, responsible with the design and construction of the laboratory. We worked hard to build a laboratory in one of the most remote indigenous community and bring it up to international standards.

The target groups of this laboratory are:

- 1600 indigenous children who currently attend normal Primary School and Secondary schools in San Lucas, as well as other indigenous children living in

other indigenous communities who need to learn and preserve their Quichua language and the education level;

- 73 teachers who instruct the indigenous children which belong to the Intercultural Bilingual Education System;
- the supporting administrative staff who facilitate the operation of the schools.
- parents in the San Lucas community who are interested in giving their children the opportunity of speaking and transmitting the Quichua language and education.

The laboratory includes 50 desktop computers, a digital blackboard, sound system, projector and books for the library with the objective of preserving Quichua language.

Images of the construction laboratory of Quichua-Spanish language in San Lucas (Ecuador), 2018:



#### **4. Conclusion**

The laboratory was a complex subject requiring close cooperation between indigenous community, architect, the University of Valencia and professors from the Private Technical University of Loja (UTPL). Many factors such as site selection, costs, materials of construction, services were considered carefully.

The electronic devices used in the laboratory can help indigenous students to acquire quickly and easily Quichua language, as well as Spanish language. The Quichua laboratory is designed to assist learners in the maintenance of native language oral proficiency, and cultural awareness. In short, the indigenous children can get the experience of having interaction with their mother tongue through the laboratory. Hence, the language laboratory has become the need to preserve Quichua language learning in the communication process.

In a multilingual and multicultural world, the computer lab remains the center for most computing activity in indigenous schools. The new model of integrating technology into the curriculum means that computers are on demand throughout the school day and in every aspect of human life.

The laboratory aims to make many indigenous children in San Lucas community for the coming years feel happy by providing a way to preserve their mother tongue and a high standard of education for all students.

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