The management of rural remote teaching in Bilingual Intercultural Spaces

Jacqueline Oyarce-Cruz – Universidad Nacional Mayor de San Marcos   0000-0003-4445-1092
Doris Elida Fuster-Guillén – Universidad Nacional Mayor de San Marcos   0000-0002-7889-2243
Hugo David Calderón-Vilca – Universidad Nacional Mayor de San Marcos   0000-0002-1177-4947
Alonso Estrada-Cuzcano – Universidad Nacional Mayor de San Marcos   0000-0001-5039-1108
Jesús Flores-Vivar – Universidad Nacional Mayor de San Marcos   0000-0003-1849-5315

Correspondencia a través de **ORCID**: Hugo David Calderón-Vilca   **0000-0002-1177-4947**

Abstract: Problems and manifestations of Bilingual Intercultural Spaces (BIS) in rural areas of Peru as a consequence of social isolation due to Covid-19, are addressed and it seeks to stablish the ways non-face-to-face teaching process is managed. The study is focused on the Peruvian Amazon native communities in which the emergency educational program, "I learn at home", created by the Peruvian government in the context of the current global pandemic, is taught. The methodology is based on the interpretive paradigm with a qualitative approach, case study as design. It used the semi-structured interview technique and the questionnaire as an instrument. The sample includes interviews with eleven teachers of Intercultural Bilingual Education corresponding to Asháninca, Shipibo Conibo, Nomatsiguenga and Yanesha cultures. For data processing, the NVivo software was used, which allowed the identification of follow-up, accompaniment, feelings of commitment, adversity, and integration. The conclusions of the study highlight that the monitoring and accompaniment of teachers from a BIS perspective are essential to achieve non-face-to-face learning in contexts affected by Covid 19, and there is evidence of inattention from educational authorities in rural areas of such cultures.

Keyword: Intercultural communication

La gestión de la enseñanza rural a distancia en los Espacios Interculturales Bilingües

Resumen: Se abordan las problemáticas y manifestaciones de los Espacios Interculturales Bilingües (BIS) en zonas rurales del Perú como consecuencia del aislamiento social por el Covid-19 y se busca establecer las formas de gestionar el proceso de enseñanza no presencial. El estudio está enfocado en las comunidades nativas de la Amazonía peruana en las que se imparte el programa educativo de emergencia "Aprendo en casa", creado por el gobierno peruano en el contexto de la actual pandemia mundial. La metodología se basa en el paradigma interpretativo con enfoque cualitativo, estudio de caso como diseño. Se utilizó la técnica de la entrevista semiestructurada y el cuestionario como instrumento. La muestra incluye entrevistas a once docentes de Educación Intercultural Bilingüe correspondientes a las culturas Asháninca, Shipibo Conibo, Nomatsiguenga y Yanesha. Para el procesamiento de datos se utilizó el software NVivo, que permitió identificar seguimiento, acompañamiento, sentimientos de compromiso, adversidad e integración. Las conclusiones del estudio destacan que el seguimiento y acompañamiento de los docentes desde la perspectiva del BIS son fundamentales para lograr aprendizajes no presenciales en contextos afectados por el Covid 19, y se evidencia desatención por parte de las autoridades educativas en zonas rurales de tales culturas

Palabra clave: Comunicación intercultural

Introduction

Global education in times of Covid 19 brings with it challenges that are unavoidable, especially a reliance on Information and Communication Technologies (ICT). The educational model is developed through the interface of computer monitors, and with the absence of signs and signals such as gestures, gaze or complicity, typical of human communication and of a constitutive practice of culture (Martin-Barbero , 1987). Its characteristic is the abundance of information resources mediated by technology (Oliveira-Soares, 2019) and, in this context of a pandemic, "with immediate needs for

new structural and pedagogical arrangements" (Moura-Vieira, Luderitz-Hoefel, & Réal-Collado, 2021). Peru, a country characterized by a wide cultural diversity, with 49 native languages in addition to Spanish as the hegemonic language, education and, specifically, the teaching-learning process is carried out through the emergency educational program "I learn at home" (Minedu, 2020), in which more than six million schoolchildren take part. It is transmitted in Spanish and in nine original languages: Quechua (with its derivations Collao, Chanka, Central), Aymara, Shipibo, Ashaninka, Awajún, Yanesha and Shawi (Andina, 2020). The intercultural spaces analyzed are characterized by having limited educational infrastructure in addition to other factors such as little or no internet connectivity due to the geography of the country, which becomes the main obstacle (Ramos, 2020); inefficient electrical interconnection systems, limited incomes that determine the limited economic capacity of the population to keep the radios (battery-operated) or televisions active that allow the aforementioned educational program to be tuned in.

The program "I learn at home" is broadcast on the internet, as well as on 355 local radio stations and on the Peruvian national radio and television system, TV-Peru (Ministry of Education, 2020). These educational resources mediated by ICT require not only infrastructure and connectivity but also a permanent exercise of imagination and additional empathy from the intervening agents (teachers, technicians, administration staff, parents, and students) to achieve the mechanism that allows the development of classes with relative success. The uniqueness lies in the experience of overcoming difficulties with innovative communication systems that emerged in the same communities and agents: parents and teachers of Intercultural Bilingual Education.

In the rural areas of the Peruvian Amazon in which this study is focused, it is observed that, given the lack of material and technological resources to follow the program with relative success, teaching is being redefined, that is, the "set of knowledge, principles, ideas, etc. that are taught to someone" (Real Academia Española, 2014).

On the contrary, a dialogic and participatory process is taking place where, given the lack of material conditions to symbolically implement the teaching-learning process, it generates its own ways based on a collective construction and creation through symbolic exchange and flow of meanings, which leads to understand it as a process of Educommunication, which is understood as "a widely extended discipline in the Ibero-American context, which includes a broad conceptual understanding of the relationship between communication media, technologies and education" (Duran-Becerra & Tejedor-Calvo, 2017, p. 264), in which "the community, collaboration, participation become substantial" (Barbas Coslado, 2012, Matheus & Quiroz, 2017; Oliveira, 2019), especially when "the work of rural areas teachers have been remarkable because they have made an effort to locate parents to convince them that their children continue studying under this new education modality"(Ramos, 2020).

In the study area, an experience that can be understood as educommunicative is revealed since the process "attends the political and cultural dimensions of communicative practices, which means exploring how power relations and hierarchies are altered in the spaces where they are they negotiate the meanings of the technologies, their content and the involved processes" (Matheus & Quiroz, 2017, p. 162). This educational experience has an approach based on people rather than technological devices and requires active agents who take part of symbolic universes building that generate among the participants teachers, students, parents, local authorities, the possibility of creating meanings. The intercultural approach, then, becomes an essential condition of this process. For Chanona, Alcalá Del Olmo & Leiva (2020, p. 213) "Interculturality as a process, journey and social and pedagogical

development, acquires different meanings and epistemological orientations and practical application depending on the sociocultural context where we place ourselves" as it is the case of Peruvian Amazon rural areas.

According to official reports, in Peru, almost five million people speak indigenous languages. There are 48 spoken languages throughout the Peruvian territory, and 21 of them are at risk of disappearing (Ministry of Education, 2018). According to the report of the database of indigenous or native peoples (Ministry of Culture, 2021), Quechua is the second most widely spoken language after Spanish, followed by Aymara. The population speaking in other languages within Peruvian territory is integrated into a written and spoken system in Spanish. This situation affects the circulation of an own way of expression, since it turns them into marginal languages, affecting consequently the culture itself. Therefore, it is necessary to propose that the improvement of the education quality was related to an approach including indigenous and rural populations with a commitment to Bilingual Intercultural Education (BIE). In this context, "It is urgent to align the teachers training, designing a permanent systematic model to meet their particular requirements in order to improve their pedagogical practice" (Centeno-Caamal, 2021).

In Peru, teachers are the main social actors in this BIE policy implementation process. Teachers are active, refuting, and innovative interpreters of these policies (Valdiviezo, 2009) although, many times, they do it intuitively (Valdiviezo, 2010); however, they are a key element in revitalizing the native languages use (Hornberger, 2014). Therefore, it is necessary to deepen the discourse on interculturality and the application of policies inside and outside the educational system (Aikman, 2012) because BIE development has generated language planning processes in countries where little attention had been paid to such issues. (López, 2020).

Objective

The aim of the research is to reveal the own manifestations in the Bilingual Intercultural Spaces in social isolation by Covid-19 to determine the ways in which the non-face-to-face teaching process is managed. We study the case of the native communities of the Peruvian Amazon in which the emergency educational program created by the Peruvian Government is taught in the contexto global of pandemic, under the name "I learn at home". This is a case study approached from the interpretive paradigm with a qualitative approach.

Blended learning and digital connection in diverse contexts

In 1996, Jacques Delors, former president of the European Commission of the EU (1985-1995), warned that it was necessary to be prepared to face the challenge that New Information and Communication Technologies (NICT) were bringing to education, affected by tensions "between the long and short term". The "tensions" referred to by Delors had as aspects the ephemeral and instantaneous, which determine that people focus on immediate problems. At the same time, he proposed that a "patient, concerted and negotiated reform strategy was necessary which is precisely the case of educational policies" (Delors et. Al., 1996, p. 17). Along this path, the ICT irruption has caused so severe changes in such short periods of time that, although it was expected, "this age change event surprises because of the speed it has been introduced in almost all areas and aspects of contemporary society life" (Flores-Vivar, 2008, p. 55). But the pandemic caused by the covid19 unexpectedly accelerated the entire process and required immediate adaptation to the logic of digital technology. This adaptation of technology and its infrastructure on a global scale occurs assuming the risk large Latin American majorities that do not have connectivity to the network.

In Peru, at the end of 2019, only seven million users of around 30 million inhabitants (INEI, 2020) had access to the internet from fixed connections (OSIPTEL: Supervisory Agency for Private Investment in Telecommunications, 2020). More than 95% of Peruvians have at least one telecommunications service (OSIPTEL: Supervisory Agency for Private Investment in Telecommunications, 2020). Only Lima, the capital, has 48% connectivity (INEI, 2019) and, throughout the country, there is a greater trend to use mobile phones for connection to the network.

To carry out the educational plan with no face-to-face attendance, as a consequence of the social isolation generated by the pandemic, the communications supervisory entity Osiptel, approved additional and temporary measures for the public telecommunications services including "attention to telecommunications public service requirements to facilitate tele-education" (Board of Directors Resolution 00045-2020-CD / OSIPTEL, 2020, March 31). Peruvian government authorized the signing of agreements with national or international organizations to promote provision support of non-face-to-face or remote educational services (Emergency Decree 033-2020, 2020, March 27).

Although it is true that the literacy rate in Peru has improved in the first two decades of the millennium, according to the Household Survey (Table 1), the rate has decreased from 8.2% in 2008 to 5.6% in 2018 Although, the differences between urban and rural literacy remain at a rate that exceeds 10% for the same period of years (National Institute of Statistics and Informatics, 2019). This difference has increased among people with Spanish as their mother tongue (4.8% in 2008 and 3.3% in 2018) and people who have a native language as their mother tongue (22.6% in 2008 and 15.5% in 2008). The tangible examples are Quechua, Aymara or Amazonian languages (National Institute of Statistics and Informatics, 2019); Probably the cause of these illiteracy rates in native language speakers is the Spanish preponderance in formal education (Oyarce-Cruz, Medina Paredes & Maier, 2019).

Peruvian government has joined the initiatives and strategies of other developing and developed countries that are committed to promoting education by / for / from / and through the media, mainly audiovisual, in order to not go back in its population literacy advances in this global pandemic situation.

Table 1. Illiteracy Rates in Peru.

PERU: ILLITERACY RATE IN POPULATION OF 15 AND MORE YEARS OLD, BY GEOGRAPHIC AREA, 2008-2018

(Percentage of total population of 15 and more years old in every area)

Geographic área	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total	8.2	7.6	7.4	7.1	6.2	6.2	6.3	6	5.9	5.9	5.6
Type of residence											
Urban	4.5	4.2	4	4	3.3	3.5	3.7	3.6	3.7	3.5	3.4
Rural	19.5	18.3	18.3	17.4	15.9	15.8	15.7	14.8	14.6	14.9	14.5
National región											
Coast	4.5	4.1	4.2	3.9	3.2	3.2	3.3	3.1	3.2	3.1	3
Highland	14.5	13.6	13.3	12.7	11.2	11.2	11.3	10.8	10.5	10.3	9.9
Jungle	9	8.2	7.4	7.7	7.2	7.4	7.5	7.2	7.5	7.5	7.3

Source: National Institute of Statistic and Informatic (2019). 2008–2018 Education Indicators.

In this context, many researchers have warned of the barriers and obstacles that current educational models imply, therefore "it appears the necessity to develop strategies to

educate society, in general, to face the future demands that are already present" (Aguaded, 2012, 261). these educational policies have not been accompanied by adequate resources and teacher preparation, resulting in significant shortcomings in the collaboration between Indigenous communities and preschools. CCurrently, those future demands are those which determine strategies that assume precisely enhancing the technological infrastructure. Digital technology then becomes the basis for adapting curricular content to a unique social reality. First, it is about understanding a new pedagogy based on techno-edu-communicational, that is, using information and creating content with new technologies, with a new programming language, which will be broadcasted through virtual interfaces generating new learning experiences. The experience place is - and will be - "cyberspace" (Castells, 2018; De Kerckhove, 1995), which essence is in everyday virtuality experience. The virtuality phenomenon that supports education in pandemic times (this research study object) occurs throughout Latin America, a region where "pre-Columbian cultural matrices, fully colonial ingredients, processes of undeniable modernity and postmodernity features coexist. Latin American cultures articulate, in their historical condition, multiple fates" (Martín-Barbero, 2000, p. 119).

It should be noted that this educational process under the Non-face-to-face model is being carried out within the framework of the United Nations 2030 Agenda, of which Peru is one of the signatory countries. In this sense, the national educational policy understands that "Education is a human right and a force for sustainable development and peace." Every 2030 Agenda goal needs education to train all people with the knowledge, skills and necessary values that will allow them to live with dignity, to build their own lives and to contribute to the societies where they live (Organization of Nations United, 2021); Implementation of this objective is essential for the development of a country (Martínez Lirola, 2020).

Methodology

The research focuses on the interpretive paradigm. It is focused on the meanings of actions and lived experiences of Bilingual Intercultural Spaces (BIS) teachers, and on the study oriented on the meanings of human actions and social life in the midst of a dynamic reality (Gil, León and Morales, 2020). The case study seeks to understand the teacher in contexts and teaching scenarios in times of pandemic through a holistic qualitative approach and based on the methodology of multiple case studies.

a) The case study in the management of learning in non-face-to-face environments

The case study method is a method of experience whose collected data become valuable when passing through rigorous qualitative processes of analysis, reflection, and debate among who are being researched, in order to objectively explain particularities, development and the causes that originate such situations. The multiple case study allows a comprehensive description and deepening of each case to make the comparison afterwards (Greene & David, 1984; Bañuls Campomar, 2017; Soto & Escribano, 2019)

Following the case study phases (Jiménez-Chaves, 2012), First: Selection and definition of the case, here the cases of bilingual teachers in non-face-to-face teaching were chosen. In this stage, cases are selected, areas and contexts are identified. The people or cases under investigation are a source of information that allows describing the problem and directing the research objectives. Second: Preparation of a list of questions, identifying the problems by making a contextual route of situations and causes so that, from this, questions (what, who, where) were formulated to the researcher. At the

beginning, a general question is asked and then different specific questions as information or data collection route. Third: Data sources location: Data were obtained by observing, asking or examining. Data collection techniques and instruments were selected such as the survey, interview, documentary review to obtain data, everything under the researched and the case perspective. Fourth: Analysis and interpretation greater emphasis stage from the qualitative perspective, whose purpose is to use the information collected, analyzed and applied in the field or context, establishing cause-effect relationships as much as possible related to what has been observed.

This study is not totally analyzed under work methodologies or parameters, which is its relative difficulty. After establishing the links, explanations between the contents, characters, functions, situations, facts and events of our analysis, it is possible to consider its generalization or export to other similar cases and Fifth: To prepare the report, we had detailed descriptions of the most relevant events and situations according to the event chronology. It also explains how all the information has been collected to extrapolate the reader to the context and thereby provoke a reflection on the case.

b) Description of the sample

The study sample is made up of eleven teachers of BIE Bilingual Intercultural Education from the Asháninkas, Shipibo Conibo, Nomatsiguengas and Yaneshas cultures. They were chosen for the study by a non-probabilistic "snowball" sampling, chain or reference sampling according to the medium of interest, in this case, bilingual teachers. To protect the identity of the teachers, pseudonyms were assigned (Female Educator, instructor, teacher, pedagogue, female advisor, teacher, female mentor, monitor and tutor) oriented to the activity they perform.

c) Data processing

Analysis tools were used like NVivo software, and for verification, manual categorization. In this process, general lessons learned are identified using qualitative information which is complemented with some questionnaire descriptions to strengthen the results. The collected information helped to establish patterns and meaningful categories that were reviewed again in light of the evidence. Conclusions were based on the patterns emerging from this analysis.

Results

Teaching in bilingual institutions in times of pandemic was given based on the model proposed by the Peruvian Government through the "I learn at home" program. It was implemented with their own strategies and developed by the same BIE teachers of study locations.

a) Identified difficulties in the teaching-learning process in bilingual institutions

Teachers from bilingual institutions show difficulties in basic use, of technological resources management for teaching, little access to the media, limited or no access to Internet.

The teacher's state:

Female Educator: it was difficult for me to use technological tools. It has been a challenge for me. It has been the will and attitude of each one of us (paragraph 1), Instructor: I do not handle well these tools. Where I am working, I do not have internet nor electricity to

use these tools (paragraph 1), Teacher: I have had many difficulties. I do not have these technological tools. I have used other means. (Paragraph 1), Teacher: The "I learn at home" strategy has been new to us. We did not know technological tools. We did not know how to use the cell phone (mobile) resources. And the lousy internet connectivity in the central jungle made it difficult to work with students. Many did not have a radio, internet, nor a cell phone. (paragraph 2)

Families in the rural areas which are part of the studied cases, have scarce economic resources, do not have electricity, nor prior knowledge of ICT, which determines difficulties in the learning process of their children. Participants state:

Pedagogue: Parents do not have access to the majority and little access to the new ICT resources (paragraph 1). In some cases, we have had achievements but in others not due to lack of connectivity, they do not have electricity, radio, or cell phones (or mobiles). Female advisor: the children did not have radio, television and by a long shot they could have internet to enter the web page and see the contents of "I learn at home" that were there. They have no technological tools, they have no knowledge to use them. (Paragraph 5)

Due to difficulties and deficiencies, the "I learn at home" program is taught in Spanish and in the period studied, there were no versions in their native languages (Asháninka, Shipibo Conibo, Nomatsiguenga and Yanesha). Broadcasting schedules were not appropriate to the parents' local customs, who accessed the program through the radio (Fig. 1). Participants state:

Teacher: in the case of "I learn at home" schedule, it did not consider the parents' schedules because of the work they do (in agriculture) (paragraph 2), Female advisor: the greatest difficulty is that the classes of the program "I learn at home" were in Spanish and the communities' children did not understand anything. There is a long way to work on the native language (paragraph 5).
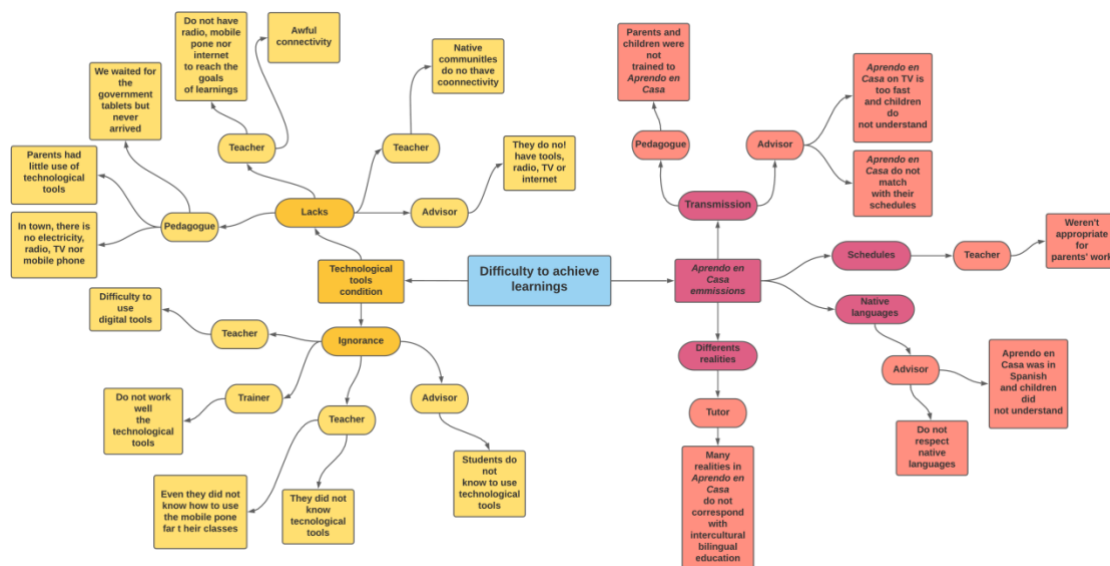

Figure 1: Difficulties in teaching-learning process in bilingual institutions

Source: Own elaboration referred to cases narrated by teachers, where difficulties are observed in the teaching-learning process in non-face-to-face environments during lockdown times due to COVID-19.

b) Teachers' experiences in teaching in non-face-to-face environment

Teachers and parents actively took part of the process and even they formed collective support groups to finance activities that generated educational resources (Fig. 2). The participant's state:

> Teacher: I have moved to the same community, talk to the children, do the classes under the trees (paragraph 1), Pedagogue: to achieve the learning, teacher has to carry copies according to the planning. We are working with the radio, but most part with copies (paragraph 3), Teacher: We, the teachers carry the material to the communities, the state has recognized the work we did. We have been war teachers. We have stayed in communities for up to three days. (Paragraph 2), Female teacher: I told the parents that I was going to do face-to-face classes at my home on Mondays, Tuesdays and Wednesdays since those days the Pangoa radio program of my district broadcast it (paragraph 4) Female advisor: I have had to make the personal calls. Mondays to first grade students, Tuesdays to second grade students to teach (paragraph 3) Female Tutor: holding meetings with parents, raising awareness so that they can get the basic cell phone because it was necessary for them to develop classes and through calls (paragraph 1), Monitor: I had a cell phone, but without recharging. They had to leave home to make the calls and send their evidence (paragraph 3). Teacher: An individualized home visit has been made, respecting the protocols. There are parents who have bought their radio, Teacher: I met with the parents to see the forms. We bought the solar panel with the parents, we bought the printer, to print the students' work. So at the end of the year, we managed to have electricity. Small speakers with USB input were purchased. "I learn at home" messages are recorded and listened to at home again (paragraph 4).

Figure 2: Teachers' experiences in no face-to-face environment.

Note: Own elaboration related to cases of teachers who tell experiences in the teaching process in lockdown times because of COVID-19.

c) Learning in bilingual schools despite adversity

Despite of adversity and lack of infrastructure in bilingual institutions (Fig. 3), learning related to customs and traditions of pueblos was achieved. The symbolic expressions of local cultures became part of the resignification process from the teaching strategies taught by the BIE teachers. The participant's state:

> Tutor: This year we have dedicated to work weaving. They weave canvases, baskets, palm trees, and then on this basis, students do their exercises with explanations, they write and share with their classmates (paragraph 6), Instructor: We work the use of tools and learning projects by inserting the communal schedule guided by the community wise men with ancestral knowledge about their own technological tools: manufacture of bows and arrows, mats, baskets, according to the students' reality (paragraph 3), Preceptor : We have a way of making the children rejoice: we create songs, stories and riddles typical of the place and from that I carry out my classes. (Paragraph 5). Female teacher: For example, in mathematics, we add or subtract, we used pebbles, chapitas (bottle caps). We made sales to recognize prices, coins, it has always been a experiential class. We made chapana with the children, they brought the supplies themselves. In math, the arrival time, the kilo, weight, how tall are you. (Paragraph 5). Monitor: The context of their reality and their sociolinguistic characterization, also taking into account the materials to be used according to their reality and context (paragraph 3), Instructor: In my section they are studying in their mother tongue, thus the students will be learning effectively (paragraph 6).
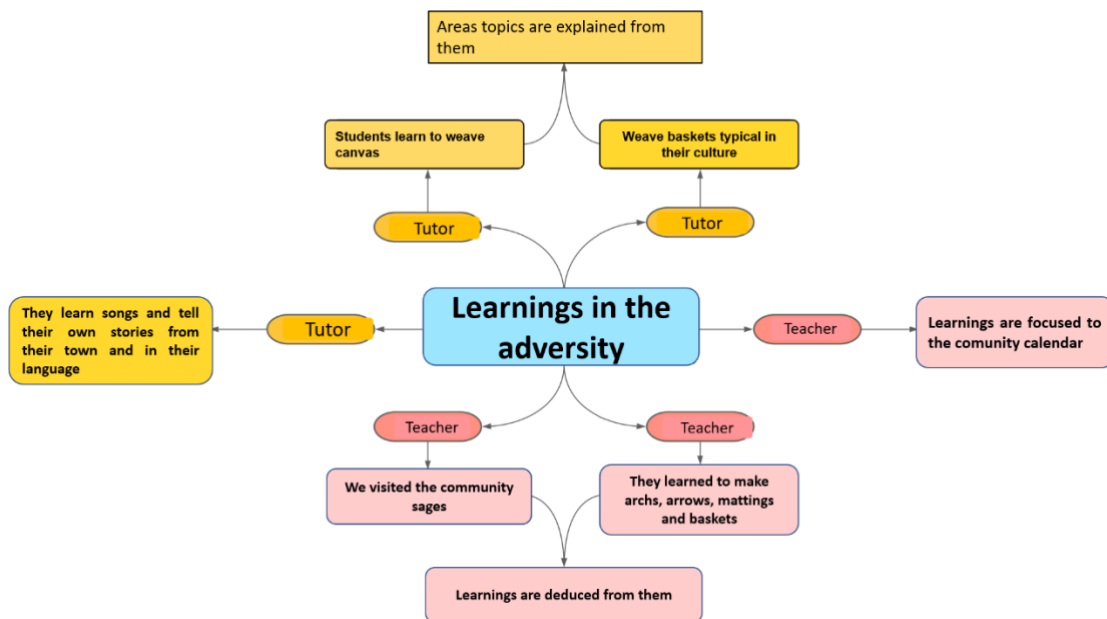

Figure 3: Learnings in bilingual educational institutions in in despite of adversity

Note: Own elaboration focused on cases told by bilingual teachers in relation to learn despite adversity.

Discussion

Teachers from bilingual institutions still show difficulties in the basic use and management of technological resources for teaching in the non-face-to-face system. The state of emergency in which the national educational program is being taught in pandemic contexts "with immediate needs for new structural and pedagogical arrangements" (Moura-Vieira, Luderitz-Hoefel, & Réal-Collado, 2021) determined that the Peruvian State should include temporary measures for the provision of public

telecommunications services and thus facilitate what they called "tele-education" (Res. N ° 00045-2020-CD / Osiptel). But even having authorized the signing of agreements with national or international organizations to promote " support for the provision of non-face-to-face or remote educational services" (Emergency Decree No. 033-2020 - March 27, 2020), these measures did not reach the Amazonian populations that were part of the study.

BIE teachers - whose activity in improving quality education is essential (Unicef, 2019) - and parents all together developed their own strategies to safeguard students' education. An educommunication process was produced, where horizontal designs that involved civil society actors were used, and the participation of all agents from the same cultural core was consolidated, "community, collaboration, participation become substantial" in this process (Barbas, 2012; Matheus & Quiroz, 2017; Oliveira, 2019) and as Ramos (2020) stated "the work of teachers in rural areas has been remarkable because they have made an effort to locate parents to convince them for their children to continue studying under this new form of education ".

Although families in rural areas do not have electrical connection, technological equipment and information and communication, they have very little economic resources. All of this turns   difficult their children learning process. They worked according to the autonomously proposals generated by the BIE teachers, and they were able to follow the "I learn at home" program. It should be remarked that this was broadcast on the internet and on 355 local radio stations and on the Peruvian national radio and television system, TV-Peru (Minedu, 2020).

During the study period, the "I learn at home" program was in Spanish, there were no versions in their native languages (Asháninka, Shipibo Conibo, Nomatsiguenga, Yanesha); transmission schedule were not appropriate to the local customs of parents, who had access to transistor radio at that time, but they had to work in the fields or in other generators of economic resources. There was a "transformation in education that generates inequality in the educational performance of students who can be considered vulnerable because they do not have the necessary resources for their attention in class" (Vicente y Diez, 2021). However, Bustamante (2020) considers that the program has been a success because "all the burden of the emergency has fallen on the teachers". The IBE teachers played a determining role with their activity and educational strategies with a high cultural symbolic component.

Despite adversity and lack of infrastructure, learning was achieved in bilingual institutions focused on the peoples' customs and traditions and in their own languages. The face-to-face communication strategies developed by BIE teachers have shown that human communication results in a constitutive practice of culture and ensures, at least through this educommunicative rural experience, that languages threatened by extinction continue alive (Martin -Barber, 1987),

Finally, the experience revealed by the study, confirms the thesis of Martín-Barbero who affirms that in the continent "pre-Columbian cultural matrices coexist, fully colonial ingredients, processes of undeniable modernity and postmodern traits. Latin American cultures articulate, in their historical condition, multiple fates" (Martín-Barbero, 2000, 119).

Conclusions

The articulating mechanisms in the knowledge socialization through the teaching-learning process are carried out through its cultural axes: traditions, beliefs, myths,

folklore. Their learning experience is based on doing, re-evaluating, and re-signifying their own culture. This is positive because it protects from the loss of identity and ensures cultural survival.

Teachers were recipients of information and knowledge, through technological and / or digital channels (social networks, such as Facebook and instant messaging systems such as WhatsApp) and transmitted it to their students through traditional support (paper), with the use of the Basic writing instruments used in the 20th century: pencil, pens, markers, blackboards). This happened due to the infrastructural deficiencies that the study area has shown. This is confirmed by contrasting with the reports of national organizations directly involved with these services: Osiptel (Regulatory Agency of Telecommunications in Peru) and the data of the National Institute of Statistics and Informatics (INEI) through its last official update of 2016.

The teachers in charge of bilingual institutions have empirical skills related to traditions and customs, acquired in their professional training or through experiences within the towns. However, it is considered necessary that constant training in planning, execution, direction, and evaluation in the teaching-learning process, must be supported by bilingual specialists who belong to the same culture and who are able to transfer socio-cultural aspects. This will allow to transmit with precision the knowledge to the students and, in the same process, to promote the dynamization of their own cultural traits.

Referencias

Aguaded, I (2012). La educomunicación: una apuesta de mañana, necesaria para hoy. Aularia: Revista Digital de Comunicación, 1(2), 259-261.

Aikman, S (2012). Interrogating discourses of intercultural education: from indigenous Amazon community to global policy forum. Compare: A Journal of Comparative and International Education, 42(2), 235-257.

Andina (2020, abril 20). Aprendo en Casa: estas 35 radios regionales transmiten contenidos en lenguas originarias.

Bañuls Campomar, G (2017). ¿Cómo aprenden los docentes? Construyendo la muestra en un estudio de caso. Psicología, Conocimiento y Sociedad, 7(2), 5-24.

Barbas Coslado, A (2012). Educomunicación: desarrollo, enfoques y desafíos en un mundo interconectado. Foro de educación, 10(14), 157-175.

Becerra-Lubies R (2021). Intercultural education and early childhood: strengthening knowledge based on Indigenous communities and territory. AlterNative: An International Journal of Indigenous Peoples, 17(2), 326-334.

Bustamante, J (2020) Educación en cuarentena: cuando la emergencia se vuelve permanente (segunda parte). Aportes para el Dialogo y Acción, (5).

Castells, M (2015). Comunicación y poder. México. Siglo veintiuno.

Centeno-Caamal, R (2021). Formación tecnológica y competencias digitales docentes. Revista Tecnológica-Educativa Docentes 2.0, 11(1), 174–182.

Chanona, O, Alcalá Del Olmo y Leiva, J (2020). La interculturalidad en México y España: una revision comparativa en el ámbito educativo y social. In Investigación y experiencias de innovación pedagogica inclusive en una sociedad intercultural y en red (Coords. Leiva, J. & Matas, A.) pp.213-228, Madrid, Dykinson.

De Kerkchove, D (1995). The Skin of culture: investigating the new electronic reality. Sommerville house.

Decreto de Urgencia 033-2020 (2020, marzo 27). Decreto de Urgencia que establece medidas para reducir el impacto en la economía peruana, de las disposiciones de prevención establecidas en la declaratoria de estado de emergencia nacional ante los riesgos de propagación del COVID.

Delors, J, Al Mufti, I, Amagi, I, Carneiro, R, Chung, F, Geremek, B y Nazhao, Z (1996). Informe a la UNESCO de la Comisión Internacional sobre la educación para el siglo XXI: la educación encierra un tesoro. Santillana, Ediciones UNESCO.

Duran Becerra, T, & Tejedor Calvo, S (2017). Interaction in educommunicational platforms. A reflection on different types of platforms and their usability. The case of Colombia. Teknokultura: Revista de cultura digital y movimientos sociales, 14(2), 261-275.

Flores-Vivar, J (2008). Perspectivas de docencia, aprendizaje e investigación del ciberperiodismo para una emergente sociedad en red. Anàlisi: quaderns de comunicació i cultura, 36, 53-63.

Gil Álvarez, DC, León González, DC, & Morales Cruz, MM (2017). Los paradigmas de investigación educativa, desde una perspectiva crítica. Revista Conrado, 13(58), 72-74.

Greene, D, & David, J. L. (1984). A research design for generalizing from multiple case studies. Evaluation and Program Planning, 7(1), 73-85.

Hornberger, NH (2014). "Until I Became a Professional, I Was Not, Consciously, Indigenous": One Intercultural Bilingual Educator's Trajectory in Indigenous Language Revitalization. Journal of Language, Identity & Education, 13(4), 283-299.

Instituto Nacional de Estadística e Informática (2019). Indicadores de Educación 2008–2018. INEI.

Instituto Nacional de Estadística e Informática (2020). Estadísticas de las tecnologías de información y comunicación en los hogares: informe técnico. INEI.

Jiménez-Chaves, VE (2012). El estudio de caso y su implementación en la investigación. Revista Internacional de Investigación en Ciencias Sociales, 8(1), 141-150.

López, LE (2020). What is educación intercultural bilingüe in Latin America nowadays: results and challenges. Journal of Multilingual and Multicultural Development, 1-14.

Martin-Barbero, J (1987). De los medios a las mediaciones. Comunicación, cultura y hegemonía. México: Gustavo Gili.

Martin-Barbero, J (2000). Contemporaneidad latinoamericana y análisis cultural. Madrid: Iberoamericana

Martínez Lirola, M (2020). Hacia una educación inclusiva: formación del profesorado de primaria enmarcada en los ODS que potencian la igualdad de género. https://doi.org/10.35362/rie8223596

Mateus, JC y Quiroz, MT (2017). Educommunication: a theoretical approach of studying media in school environments. Revista Latinoamericana de Ciencias de la Comunicación, 14(26), 152-163.

Ministerio de Cultura (2021). Base de datos de pueblos indígenas u originarios: quechua.

Ministerio de Educación (2018). Lenguas originarias del Perú. MINEDU. Dirección General de Educación Básica Alternativa, Intercultural Bilingüe y de Servicios Educativos en el Ámbito Rural. Dirección de Educación Intercultural Bilingüe.

Ministerio de Educación (2020). Aprendo en casa.

Moura-Vieira, ME, Luderitz-Hoefel, MG y Réal-Collado, JT (2021). El "desierto digital": repercusiones de la COVID-19 en la Educación en España y Brasil. Revista Electrónica Interuniversitaria de Formación del Profesorado, 24(2), 181-191.

Oliveira Soares, I de (2019). Educommunication landmarks in Latin America: What should be considered in the last 50 years. In JC Mateus, P Andrada, & MT Quiroz (Eds.). Media Education in Latin America (183-199). Routledge.

OSIPTEL: Organismo Supervisor de Inversión Privada en Telecomunicaciones (2020). Cada año más hogares conectados. Osiptel.com. 7(30).

Organización de las Naciones Unidas (2021). Objetivos de desarrollo sostenible.

Oyarce-Cruz, J, Medina Paredes, M y Maier, M (2019). Indigenous Amazonians on air: Shipibo–Konibo radio broadcasters and their social influence in Peru. AlterNative: An International Journal of Indigenous Peoples, 15(2), 93–100.

Ramos, C (2020, julio 21). El reto de la educación virtual: Teníamos claro que era necesario el contacto con las familias para que los alumnos no dejen la escuela.

Real Academia Española (2014). Diccionario de la lengua española [23ª ed].

Resolución de Consejo Directivo 00045-2020-CD/OSIPTEL (2020, marzo 31). Aprueban medidas adicionales y temporales para la prestación de los servicios públicos de telecomunicaciones durante el aislamiento social.

Soto, R y Escribano, E (2019) El método estudio de caso y su significado en la investigación educativa. In D.M. Arzola Franco (Coord.). Procesos formativos en la investigación educativa. Diálogos, reflexiones, convergencias y divergencias. (pp.203-221). Red de Investigadores Educativos Chihuahua.

UNICEF (2019). Informe anual de UNICEF 2019.

Valdiviezo, L (2009). Bilingual intercultural education in indigenous schools: an ethnography of teacher interpretations of government policy. International Journal of Bilingual Education and Bilingualism, 12(1), 61-79. https://doi.org/10.1080/13670050802149515

Valdiviezo, LA (2010). Indigenous worldviews in intercultural education: teachers' construction of interculturalism in a bilingual Quechua–Spanish program. Intercultural Education, 21(1), 27-39.

Vicente, C y Diez, M (2021). Covid y la educación no presencial: aportes desde el proceso de enseñanza y aprendizaje en la carrera de diseño industrial de una universidad de Lima. En Blanco y Negro, 11(1), 199-218.