

IMPACT OF PERU'S MINEDU MANUALS ON THE TEACHING OF CENTRAL QUECHUA IN BILINGUAL SCHOOLS IN THE ANCASH REGION

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Abstract

This study analyzes the impact of teaching materials produced by the Peruvian Ministry of Education (MINEDU) for the teaching of Central Quechua in bilingual and non-bilingual schools in the Áncash region. The research adopts a descriptive and analytical approach, based on documentary analysis, surveys, and semi-structured interviews applied to 19 teachers from twelve educational institutions located in different Quechua-speaking areas of the region. The results indicate that MINEDU materials—such as manuals, dictionaries, and workbooks—contribute positively to strengthening students' linguistic and cultural identity, as well as to the development of communicative, mathematical, and cognitive skills, due to the inclusion of contextualized images and themes related to Andean life. However, significant limitations were identified, including the use of lexical items unfamiliar to teachers and students, insufficient adaptation to local Quechua varieties, lack of teacher training, and delayed distribution of materials. These factors negatively affect the effectiveness of the teaching–learning process. The study concludes that, while the materials support intercultural bilingual education objectives, their impact could be significantly improved through contextual linguistic adaptation and systematic teacher training.

Keywords: Intercultural Bilingual Education; Central Quechua; teaching materials; language standardization; MINEDU; Áncash.

I. INTRODUCTION

Peru is a linguistically and culturally diverse country. This diversity is evidenced in the coexistence of the 48 native languages within its territory. Of this group, Quechua is the indigenous language with the largest number of users and the entity with the widest geographical distribution. These two factors explain, in part, why it has a series of varieties with different degrees of intelligibility. Quechua grouping them into two large branches: Quechua I (QI) and Quechua II (QII) (Torero, 1974). The degree of linguistic variation within the QI is higher, as it includes several dialectal subgroups, with Central Quechua being the most complex and widespread (Landerman, 1991); the same that is made up of the Huáylay and Huáncay varieties. The first with speakers from the Ancash, Húanuco, Huamalíes and Marañón region and the second with speakers from the Junín, Jauja, Concepción and Huancaayo regions. Huaylay Quechua is spoken in the Ancash region and in the border areas of this with the regions of La Libertad, Húanuco and Lima; for this reason it is labeled with the phrase "Quechua of Ancash" or "Quechua Ancashino". Julca (2009) considers that the Quechua of Ancash, in turn, groups the varieties: Quechua Huaylas (with its Huaylas Norte and Huaylas Sur modalities), Quechua Corongo-Sihuas, Quechua Conchucos (with its Conchucos Norte and Conchucos Sur modalities) and Bolognesi-vertientes. As described, the so-called Ancashino Quechua is a complex linguistic entity. Intelligibility among speakers presents some difficulties due to phonological, morphological and lexical differences between the varieties. From the academy and from the Peruvian State, linguistic diversity is defended as an expression of the biological and cultural riches of the country; likewise, the preservation of said diversity is promoted, through the maintenance of bilingualism: native languages-Spanish language; however, with a view to the development of writing and with the intention of improving the social prestige of languages; and, By legal mandate, the Peruvian education and culture management bodies have begun a process of standardization of indigenous languages. In this context, for Quechua I, the Ministry of Education (MINEDU) has produced teaching materials in the last five years, taking into account the dialectal variations of the linguistic group; among them: *Chawpin qichwata*

qillqanapaq maytu-Manual of central Quechua writing (2022); a pedagogical dictionary *Yachachinapaq shimikuna- chawpin qichwa*, Central Quechua pedagogical vocabulary (2021); books and workbooks for the different curricular areas. These materials are applied in bilingual schools with monolingual Quechua children and also in secondary schools in cities, such as the capital of the province of Pomabamba in the Ancash region, where the presence of monolingual Hispanics was identified. Considering that, according to the Ministry of Education, the materials are used to teach the Quechua language in educational institutions located in the Central Quechua area, there is an urgent need to collect experiences and information from teachers, students and parents regarding the effectiveness of the materials referred to, both in the teaching of the Quechua language as a mother tongue and as a second language. Based on the arguments developed, the research seeks to answer the following questions:

¿What is the impact of the use of manuals, dictionaries and texts produced by the Ministry of Education of Peru in the teaching of Central Quechua as a mother tongue in bilingual schools in the Ancash region?

1.2. Background

According to the Ministry of Education of Peru (2017), educational materials in indigenous languages are a pedagogical support in the work of teachers and contribute to the achievement of student learning and the development of their skills from their own environment with the mediation of the teacher or other educational actors.

For his part, Caballero (2019) in his study on *Strategies for the strengthening of the native language (Quechua) in children of EIB- initial level of the Educational Institution No. 283 Santa Rita*, points out that the educational materials in Quechua aim to develop learning capacities from the student's environment with the support of the teacher; In other words, these materials facilitate the development of the learner's competencies and skills based on their own culture or daily life.

MINEDU (2017) conducts a study on *factors associated with the use of workbooks in EIB: The case of materials in Awajún, Ashaninka, Aymara and Quechua Chanka*. The results of the research show that the use of workbooks presents limitations due to the scarce training that teachers receive on the use of these materials, likewise, the absence in curricular planning regarding the use of these materials and problems related to the elaboration of materials that often present decontextualized content.

The Ministry of Culture (2017), in *Successful Experiences of EIB in the Cusco Region*, compiles the experiences of the application of educational materials in Quechua in the different curricular areas, such as: mathematics, communication, and social personnel. These practices compiled by MINCUL are positive and innovative because the strategies used by teachers aim to recover the ancestral knowledge and knowledge of students in learning processes. Therefore, in the case of the Communication Area, they start from the *Papa allay project*, where the children improved in the production of texts and oral expression in their L1 as well as in the L2; while in the Mathematics Area, through the reconstruction activity of the Q'eswachaka bridge, they managed to solve mathematical problems (*t'aqlla, Sikya, Thatki, chaki, wiku, riqra, chalqa*, among other arbitrary measures), using their Andean knowledge.

1.3. Conceptual framework

1.3.1. Language standardisation

Amorous (2018) considers that linguistic standardization implies a cultural process, in relation to a particular set of ideas, customs, beliefs, and attitudes towards a language.

For Matzeltin (cited in Giralt & Nagore, 2018), the standardization of a language implies the transformation of a dialectal variety into a generalized official means of communication; which consists of a series of steps such as: a) awareness that leads the speaker to be aware of the individualization and/or otherness of his or her language; this implies: translations, glossaries, proper name; while b) *textualization* has to do with the emergence of textual series such as laws, lyrical possessions, chronicles, among others; while, c) *codification* is characterized by the emergence of orthographies, grammars, dictionaries that systematize the language; while, d) *normativization* it is related to the emergence of institutions that, through a selection of variants, unify the language and regulate writing and declare that the grammar and vocabulary selected are correct; and, e) *officialization* is given through appropriate legislation. Finally, *medialization* and *internationalization* are carried out.

On the other hand, González (1994), in line with the guidelines proposed by Haugen, considers that standardization consists of a series of steps such as: the *selection* of a variety from which the standard language will be developed; the *codification* that involves the elaboration of dictionaries, grammars; stages that must be under the responsibility of an institution. In addition, he points out that functional *elaboration* is another of the standardization steps where the standard variety is used in social life, parliaments, courts, among other spaces; and, finally, the acceptance stage consists of the chosen variety being accepted by the population as the variety of the community.

Aito, Brook, Estrada, García, Liddicoat, Martel, Muñoz, and Terborg (2006) point out that the standardization of a language is circumscribed within the planning of the linguistic corpus, which consists of the choice of the alphabet, definition of orthographic criteria, elaboration of dictionaries, and a practical or pedagogical grammar of the language. Materials that will fundamentally serve as a basis and contribute to the elaboration of the various educational texts. While Moreno (2008), about the process of standardization of a language, points out that this stage involves the codification that consists of the development of spelling, grammar and lexicon, as proposed by Haugen.

1.3.2. Standardization in indigenous languages

Cerrón-Palomino, Landaburu and Mosonyi (1987) state that standardization does not only imply modernization, that is, this goes beyond the planning of the corpus, the codification of the written language, grammar and lexicon. In other words, modernization would imply the adaptation of the lexicon to the technological needs of the emergence of new objects, properties, among others. In other words, construct some terms that are not in the oral tradition; Therefore, to guarantee the functionality of the new terms, it is necessary to work with the participation of the community to find the appropriate words that designate some objects of the language that did not appear before.

Arias and Lovón (2022) point out that for the state, the standardization of an indigenous language is developed under the premise that an alphabet is consensual, which will allow communicative efficiency.

MINEDU (2022) regarding the standardization of Central Quechua aims to standardize at the level of writing in order to guarantee effective communication and facilitate the use of the language by its speakers within a linguistic community. Therefore, in order to meet the proposed objective, it seeks a unified writing in order to develop an academic central Quechua and thus serve as a unifying element of the different peoples who speak central Quechua.

1.3.3. Role of teaching materials in language teaching-learning

Foreign language (ELE) teaching manuals and materials are intended for students to learn not only the language, but also the culture of the target language. In this process, the focus from which the manual is based is important; that is, the linguistic theory and the theory of learning that guide the teaching-learning process of the teachers and students who work with it. (Melero, 2004)

On the other hand, Kiato and Kiato (1997) argue that, in the teaching of a language, the students must be the fundamental axis of the learning process. As such, the right materials for a particular class should have an underlying philosophy, approach, method, and teaching technique that are tailored to the needs of the students. In this sense, it is important that teachers know how to choose the most appropriate teaching material, as well as develop and adapt complementary materials for the class.

Delgadillo (2009) states that the role of teaching materials in the educational context is determined by learning from the content and the process itself. The content must be related to linguistic, communicative, sociocultural and pedagogical systems; and, the process of learning a language is characterized by the way language is received, processed, and produced, as well as the learning styles and motivation of students to learn a language other than their own.

1.3.4. Central Quechua

For Torero (2002), Quechua is a multilingual dialect group that is grouped into two groups: Quechua I (Waywash) and Quechua II (Yungay). Quechua I extends its dialectal area in the central highlands with a northern branch in the departments of Áncash and Huánuco and a southern branch in the departments of Pasco, Junín, Lima and the northeastern and northwestern mountain ranges of the departments of Ica and Huancavelica. According to MINEDU (2022), Central Quechua is spoken in the departments of Áncash, Huánuco, Pasco, Junín, La Libertad, Huancavelica, Ica, Lima, and San Martín. In Ancash, it is spoken in all its provinces, except in the province of Pallasca; in Huánuco, it is also spoken in all its provinces, with the exception of the Leoncio Prado province; in Junín it is spoken in all its provinces, including Chanchamayo, and in Pasco it is also spoken in all its provinces, including Oxapampa, among other areas of the aforementioned departments.

II. METHODOLOGY

2.1. Universe and study sample

The universe of the research is constituted by the members of the educational communities: teachers, students and parents of bilingual and non-bilingual schools in the Ancash region of the Quechua areas: Huaylas Norte (Carhuaz (north), Yungay and Huaylas) and Huaylas Sur (Carhuaz (south), Huaraz, Recuay and Aija (east)); Conchucos Norte (Fizcarrald (north), Mariscal Luzuriaga, Pomabamba, Marañón) and Conchucos Sur (Fizcarrald Sur, Antonio Raimondi, Asunción, Huari, Huacaybamba and Huamalíes); also, the members of the educational centers of Sihuas-Corongo and Bolognesi-vertientes (Bolognesi, Ocos and Aija); places where the teaching materials prepared by Minedu in the current five-year period are used.

The sample is made up of teachers from bilingual and non-bilingual schools selected in the areas in which the Huaylas Norte (Yungay) and Huaylas Sur (Huaraz) varieties of Quechua are spoken; Conchucos Norte (Pomabamba and Mariscal Luzuriaga) and Conchucos Sur (Huari and Huamalíes).

The systematized information provided in the results of this report was provided by 19 teachers from twelve bilingual and non-bilingual educational institutions in the Ancash region. Table 1 contains specific data on the number of teachers surveyed, the names and localities where the educational institutions are located, as well as on the varieties spoken by the respective communities.

Table 1 Teachers surveyed according to locality in the Ancash region and use of the Quechua variety

Number of respondents	Educational Institution	Location	Region -Ancash
02	409	Pariacaca-Carhuaz	Huaylas Sur (Huaraz)

04	Jorge Basadre Grohman Túpac Amaru II	Nicrupampa - Independencia (3) Hualchir (Huaraz) (1)	Huaylas Sur (Huaraz)
03	Mariscal Luzuriaga	Mariscal Luzuriaga	Conchucos Norte
07	84126 N° 84005 2033 218 606	Llumpa - Pomabamba (4) Alpamayo - Pomabamba (1) Chachuabamba-Pomabamba Comunpampa-Pomabamba Putaca-Pomabamba	Conchucos Norte
02	CRFA Our Lady of Cocharcas Lino Quintanilla	Huari	Conchucos Sur (Huari and Huamalíes)
01	José María Flores	Yungay	Huaylas Norte (Yungay)

2.1.1. Unit of Analysis

The units of analysis are made up of data of various kinds that were provided by teachers and specialists of the UGEL of the Ancash region on the functionality of the educational materials prepared by Minedu for the teaching of Central Quechua.

2.2. Data collection instruments and techniques

2.2.1. Techniques

The analysis material was gathered by applying the following techniques:

Documentary analysis technique: allows reviewing administrative and academic reports to obtain information about the effect of the use of the manuals of the Ministry of Education of Peru on the teaching of Central Quechua in bilingual and non-bilingual schools in the Ancash region.

Survey technique: allows collecting information regarding the effect of the use of Quechua teaching materials through the application of a questionnaire and registration cards to the members of the selected sample.

Interview technique: allows obtaining complementary information regarding the functionality of Quechua teaching materials through semi-structured interviews with the specialist teachers who are part of the selected sample.

2.3. Instruments

The following tools were used to gather the information contained in the theoretical framework and in the preliminary results of this report:

2.3.1 Bibliographic, mixed and summary files: in instruments of this type, existing data in the literature on the standardization and functionality of teaching materials in indigenous languages at the national and international levels were recorded.

2.3.2 Questionnaire: this is the main instrument of the research because it allows obtaining information from teachers regarding the functionality of the materials prepared by Minedu. Specifically, the questions seek data on the operability of the grammar, the relevance of the contents, the graphic representation of the sounds and the illustrations of the contents.

The questionnaire is organized into five sections:

- In section three, the questions collect information on the types of materials distributed by MINEDU in the initial and primary education centers.
- Section 4 contains questions aimed at collecting information on the impact of EIB educational materials on the teaching-learning process.

Records of educational materials: (checklist) with the purpose of making an inventory of the types of teaching materials available to teachers and students in bilingual and non-bilingual schools in the Ancash region. Special note was made of the practical use of these materials during class sessions and homework development.

Interview guide: these allowed data to be obtained to complement the information collected with the application of questionnaires on the practical use of Central Quechua teaching materials.

Registration sheets: these made it possible to systematize the information on the characteristics of the teaching materials (contents, images, graphs, among others) prepared by Minedu and the effects of their use; information collected through the application of questionnaires and interview guides.

2.4. Procedures

The research was carried out in the following stages:

- In the **first stage**, the **cabinet method** was used to inquire about the literature related to the subject in order to identify the criteria applied in the proposal for standardization of central Quechua that constitute the purpose of the construction of the Quechua teaching materials produced by Minedu. The selected information was recorded in the bibliographic, mixed and summary files prepared by the research team.
- In the **second stage**, the research team designed a data collection instrument that allowed obtaining preliminary information related to the impact of the Quechua educational teaching materials produced by Minedu: teaching manuals, dictionaries, workbooks, among others.

3. In a **third stage**, data collection instruments were applied in bilingual and non-bilingual schools in the Ancash region in order to obtain preliminary information regarding the effect of the practical use of Quechua teaching materials. For the application of the instruments, teachers and students of the Doctorate of the Universidad Antúnez de Mayolo and students of linguistics of the Universidad Nacional Federico Villarreal participated.
4. In a **fourth stage**, the data obtained in the fieldwork were emptied and organized into the registration sheets, in collaboration with the linguistics students.
5. In a **fifth stage**, the analysis and interpretation of the information collected was carried out through the application of data collection instruments, for which comparative tables, graphs, among others, were made.
6. Finally, in the **sixth stage**, the analysis of the results obtained was carried out.

III. RESULTS

The research seeks to know and analyze the effects of the use of the manuals of the Ministry of Education of Peru in the teaching of Central Quechua in bilingual and non-bilingual schools in the Ancash region. In this sense, the analysis of the information provided by the 19 teachers of the bilingual and non-bilingual schools of the institutions and localities specified in Table 1 (2.1, Method section) yielded the following results:

Result 1. The effects of the application of the manuals, dictionaries and texts produced by the Ministry of Education of Peru in the teaching of Central Quechua in bilingual schools in the Ancash region are as follows:

a) Impact of the use of educational materials in Central Quechua distributed by MINEDU in the teaching-learning process in students of EIB educational centers.

80% of the teachers surveyed agree that the topics addressed in the texts and workbooks of the various areas reinforce the identity of the students and facilitate the development of literary and artistic creativity; because, in these materials, the students observe images that reflect rural contexts, socio-productive activities and daily activities of their community; such as: planting and harvesting of potatoes, corn; as well as the construction of housing, food processing, among other activities; as can be seen in the following images taken from the *Rimana llapanchik yachakushun workbook (1)*.

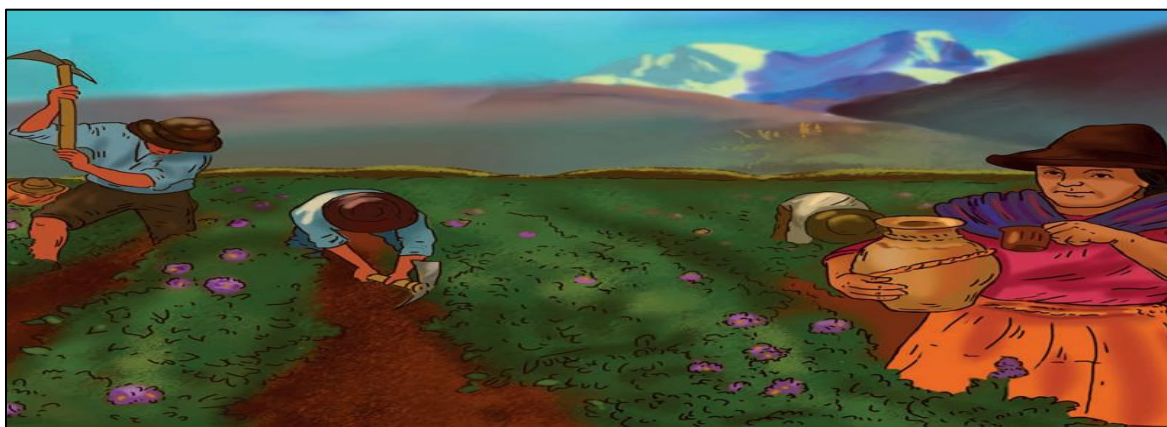
Figure 1 Collective participation in the construction of an Andean house



Note: Image taken from the *Rimana llapanchik yachakushun workbook (1)*. [image] corresponds to the section *Taq (5) Ayllunchikpa rurayninchaw yanapanakushun*

The teachers point out that the image represents the collective work that is still preserved in many Quechua-speaking communities; specifically, the construction of a traditional Andean house under the collaboration system called *ayni* – or in some localities *minka*. They draw attention, however, to the material used in the construction; it is no longer adobe, but brick; an element of contemporary Western culture that until recently was only used in the coastal strip of the country.

Figure 2 Agricultural activity: potato harvest



Note: Image taken from the Rimana llapanchik yachakushun workbook (1). [image] corresponds to the section *Taq (1) Muruyninchikkunata kushilla*

In relation to the previous image, the teachers indicate that it represents the cultivation of potatoes, an agricultural activity that is the basis of the economy of the Quechua peoples and the Andean peoples of Peru in general.

a.1) Impact of EIB communication texts on the teaching-learning process

Most of the teachers surveyed consider that the use of the educational materials distributed by MINEDU allows the development of communicative competence in Quechua because they promote the elaboration of written or oral narratives; however, an important group of these consider that they do not contribute or do not evidence such contribution in the teaching-learning process. Table 2 contains phrases taken from the reports that show a contrast between both groups of teachers.

Table 2 Impact of communication texts on oral and written production in Quechua

Questions	EIB teacher responses
Do you think that the use of materials from the MINEDU communication area facilitates the oral and written production of texts in Quechua for students? Why?	<p>RP1: "Yes, because they feel identified and in a lower percentage."</p> <p>RP2: "No, they are just books to fill in the blanks and the students already know about this monotony."</p> <p>RP3: "Not evidenced."</p> <p>RP4: "No, many are out of context and find the contents of the books new."</p> <p>RP5: "No because it cannot be read fluently"</p> <p>RP6: "No, because there are terms unknown [sic] to the student"</p> <p>RP7: "Yes, the images allow you to express yourself in your own words and also represent the activities experienced."</p>
Do you think that the use of communication materials helps students to strengthen their oral and written comprehension of texts in Quechua? Why?	<p>RP1: "Regularly, yes, but they are not interested in reading in Quechua, they prefer to visualize and hear."</p> <p>RP2: "They do allow strengthening"</p> <p>RP3: "Yes, because in their language they understand it better by contextualizing it to their reality"</p> <p>RP4: "No because it is not contextualized"</p>
Do you think that the use of materials in the area allows the development of students' literary and artistic creativity? Why?	<p>RP1: "I think so, because in rural contexts it is reflected"</p> <p>RP2: "I think so, because it reflects rural contexts."</p> <p>RP3: "No, many are out of context and find the contents of the books new."</p> <p>RP4: "To a certain extent, yes, they recognize the songs, the traditions and the traditional paintings."</p> <p>RP5: "Yes because they develop their own language"</p> <p>RP6: "Yes because it arouses the student's interest"</p>

As can be seen in Table 2, the responses of many teachers agree that communication texts have a positive impact on EIB students because the content and images of the workbooks reflect the daily activities of the Andean man's life; This allows the student to develop their communicative skills because it proposes the elaboration of oral and written texts. However, other teachers maintain that MINEDU's EIB educational materials do not facilitate oral or written production because they contain foreign topics and are decontextualized. The latter argue

that the situation is also complicated by the lack of knowledge of many Quechua terms coined by MINEDU on the part of teachers and students. This is the case of the Quechua words: *Taq* "section or unit", *yaskishun* "accept", *Shutu* "period", among other terms.

a.2.) Impact of EIB mathematics texts on the teaching-learning process

The teachers surveyed mention that the mathematics workbooks, as well as the communication texts, contain themes and images that reflect activities of the daily life of the Andean man that involve important non-explicit mathematical operations; among them, agricultural and livestock work. They offer as evidence, for example, images taken from the workbook *The Petitioner of the Prophet*. *Watayuq wamrakunap* (5) *Chawpi qichwa*.

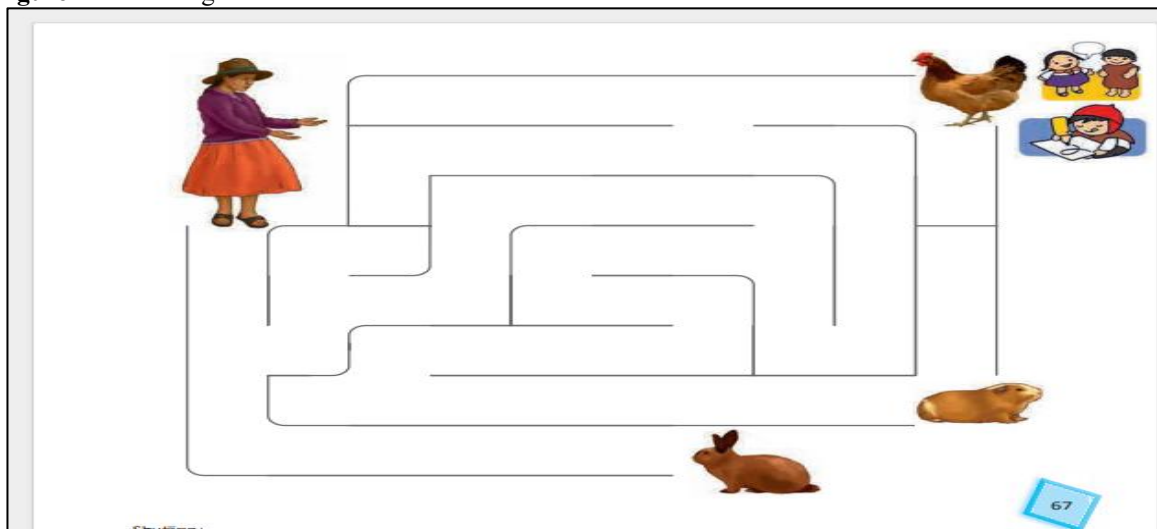
Figure 3 Agricultural activity



Note: Image obtained from the Llapanchik yachakushun workbook. *Watayuq wamrakunap* (5) *Chawpi qichwa*. [image] Section 1.

The teachers indicate that in this image the corn harvest can be seen; productive activity characteristic of the Andean peoples. In addition, they point out that the content of the image naturally and spontaneously motivates the development of the EIB student's logical reasoning.

Figure 4 Reasoning exercises



Note: Image obtained from the Llapanchik yachakushun workbook. *Watayuq wamrakunap* (5) *Chawpi qichwa*. [image] Section 3.

The teachers surveyed mention that in this image it has been constructed with elements that are part of the daily life of the Quechua-speaking language; a fact by which, at first, the student establishes a close relationship with the text and feels motivated for the development of mathematical activities; However, in the words of the teachers, the cultural contents of the workbook are not sufficient for an adequate development of the teaching-learning process in this area because the use of some Spanishized terms hinders student learning. The answers recorded in Table N°3 constitute evidence of the teachers' opinions.

Table 3 Teachers' opinions regarding the impact of MINEDU mathematics texts on the learning of EIB students

Questions	EIB teacher responses
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Do you consider that the topics and mathematical operations raised in the area are articulated with aspects of Andean culture? Why?	RP1: "Yes, it identifies with the Andean culture." RP2: "It helps in a way" RP3: "Yes, only some" RP4: "Not all, some do" RP5: "No, because it is generalized at the level of central Quechua"
Do the examples in Quechua presented in the mathematics workbook promote the development of logical thinking in the student? Why?	RP1: "Yes, they are interested in learning because they are in Quechua" RP2: "No because some terms are unknown" RP3: "Yes, harvesting potatoes, corn, crops, building houses, food, etc." RPT4: In a good way because students are better motivated"
Do the MINEDU materials in the area of mathematics match the needs of the students? Why?	RP1: "No, they feel like it slows them down." RP2: "Not all" RP3: "Yes" RP4: "NO" RP5: "Not because they are out of context"
Does the lexicon used in the materials in the area of mathematics encourage the student to develop the subject easily? Why?	RP1: "No, there are Spanishized terms that make it difficult for them to understand" RP2: "Most of them are unknown to the student, as well as to the teachers" RP3: "From the moment the terms are unknown, students move away from the text" RPT4: "Not because it comes with incorrect ethnographies"

Table 3 considers some matching responses. In relation to the content and images of the mathematics workbook, the majority of the teachers surveyed maintain that these aspects are articulated with the Andean culture and promote in a certain way the development of logical thinking in the student. However, with respect to the lexicon used in the aforementioned material, the teachers consider that it does not facilitate the student's learning in this area because the terms are unknown to both the student and the teacher and many of these and also some of the words are Spanish; therefore, they consider that it does not satisfy the student's need and on the contrary delays them. Below are some images considered out of context by the teachers in the *Llapanchik yachakushun workbook*. *Waatayuy wamrakunapaq (5) Chawpi qichwa*

Figure 5 Urban context



Note: Image obtained from the Llapanchik yachakushun workbook. Watayuq wamrakunapaq (5) Chawpi qichwa. [image] Section 8.

Some teachers consider that images of this type do not help the learning process in the student because it is not related to elements of their local culture since they reflect clearly aspects of city life. Therefore, they suggest that teaching materials should address specific topics of the local culture; They should also be written according to the Quechua varieties of each region.

a.3.) Impact of Social Personnel – Science and Environment EIB texts on the teaching-learning process

In relation to the materials in this area, the teachers point out that the thematic contents are very good because they reflect many elements of their bio-sociocultural environment. They offer the following image as an example.

Figure 6 Medicinal plants of the Andean world



Note: Image obtained from the Llapanchik yachakushun workbook. Watayuq wamrakunapaq (5) Chawpi qichwa. [image] Section 1.

According to the teachers surveyed, this image shows plants that are part of the biodiversity of the student's environment; In this case, it is the representation of any plant and that of anise, which is an herb used as an infusion to cure stomach ailments, and that of *Markuu*, which is a base plant for the elaboration of a poultice to relieve bone diseases such as arthritis. Although they appreciate the contents included in the texts, they also report problems in relation to many vocabulary terms. They point out that many of these are not understood because they do not refer to their basic or etymological meaning. The following table contains the responses of some teachers who support the statement.

Table 4 Opinions regarding the impact of MINEDU social-science and environment personnel texts on the learning of EIB students

Questions	EIB teacher response
What topics are addressed in the texts Personal Social – Science and Environment in Quechua distributed by MINEDU?	RP1: "Nature, climate, family." RP2: "The approach of inquiry, students reject." RP3: "Nature." RP4: "Character Story."
Are the topics in the area of Social Personnel – Science and Environment articulated with the Andean biocultural context? Why?	RP1: "Yes, you look at the stories of the region," RP2: "Yes, because the syllabus is good, what happens is the student rejects the terms," Kp3: "Yes, it is." RP4: "Yes because it is about central Quechua"
Do you think that the topics addressed in the texts of Social Personnel – Science and Environment allow students to reinforce their cultural identity?	RP1: "Yes, because it expands more on the social environment and identifies [Sic]" RP2: "Some, but others are unknown to their context" Qp3: "Yes" RP4: "In some way because they deal with ancestral customs"
Does the use of materials from the area of Social Personnel – Science and Environment in Quechua provided by MINEDU allow students to handle information about biological resources of the Andean world and their locality? Why?	RP1: "The topic yes, only when the content is translated" RP2: "The theme yes" Qp3: "Yes" RP4: "Yes, because it is related to its environment"

Do you think that the topics addressed in the materials in the Social Personnel – Science and Environment area allow students to strengthen the development of their cognitive skills? And why?	<p>RP1: "No, they develop it by grade and it does not have its own initiative and it helps us in developing the competencies [sic]"</p> <p>RP2: "Only the science and environment syllabus, but not social personnel"</p> <p>RP3: "It does help them"</p> <p>RP4: "Yes because they are more active"</p>
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As can be seen in Table 4, the teachers' responses agree that the content of the text testifies, in a certain way, to the presence of natural resources in the student's environment and that it fosters knowledge of the biological resources of their area. However, they also agree that the difficulty they face in the teaching-learning process focuses on the management of the lexicon.

b) Impact of materials produced in Central Quechua by MINEDU for EIB teachers.

80% of the teachers surveyed agree that reference materials such as dictionaries, texts on the knowledge of the Quechua or Andean people, riddles in Quechua, tongue twisters, alphabet sheets; as well as materials for the teacher, such as: interculturality primers, writing manuals in native languages, mathematics intercultural, methodological guides in EIB, facilitate the organization of the learning units and the elaboration of their class sessions; while classroom materials such as mathematics, communication and social-science and environmental workbooks favor student learning. In other words, the materials provided by MINEDU are useful because they are characterized by being practical for the design of the teaching-learning process. Unlike the previous group, 10% of teachers surveyed indicate that they do not have all the educational materials in EIB; and, at the same time, the scarce materials available do not fully facilitate the learning of students because they have been made in a variety of Quechua different from that used by the student population. The teachers of the Mariscal Luzuriaga Educational Institution are part of this last group. It should be added that the teachers report the existence of speakers of various varieties of Ancashino Quechua within a population of this educational center and that it would be due to the geographical location of the institution, since Piscobamba - the capital of the province of Mariscal Luzuriaga - is a town historically known for being the point of arrival and departure to various towns and hamlets in the area of Conchucos Norte.

c) Difficulties in relation to the use of the EIB educational material in Central Quechua provided by MINEDU

The lack of knowledge of terms coined by MINEDU to designate certain abstract concepts is one of the most frequent limitations faced by EIB teachers when using the didactic materials developed and distributed by MINEDU to the EIB Educational Institutions in the Ancash region. For example, in the communication workbook *Rimana. Llapanchik yachakushun (1) the following expression appears in the first unit: muruyninchikkunata kushilla waatakushun*, according to the teachers surveyed in this statement the term *kushilla* is not well used because they mention that it hinders understanding because {-lla} is a limiting morpheme in Quechua that in this case appears attached to the word *kushi* "joy" generates in the student and teacher a problem of semantic interpretation; Similarly, the following Quechua chakra statement *Qishyaykuna imanaw kashqanpita rimashun* causes problems of interpretation because according to teachers the word *qishyaykuna* "disease" is misused because this term is used to refer to the state of health of a person or an animal, but it is not used for plants.

Another difficulty faced by teachers is the need to adapt the material to the sociocultural context of the student since it limits the teaching-learning process; likewise, the lack of familiarity of students and teachers with the variety of Quechua used by MINEDU in the reference texts, workbooks, and other materials it distributes. Added to this situation is the lack of training of EIB teachers for the use of the aforementioned educational materials.

IV. DISCUSSION

Regarding result 1

The research has made it possible to identify and analyze the impact of the use of educational materials in Central Quechua distributed by MINEDU in the teaching-learning process in EIB schools in the Ancash region, concluding that it is favorable because the educational materials of the various areas reinforce the linguistic and cultural identity of the EIB student. This is because the content of these materials addresses issues related to the productive and daily activities of the Quechua population, an aspect that allows the student, the culture and their Quechua language to be articulated in the teaching-learning process, allowing them to develop their communicative and mathematical skills. These results are in line with the proposal of Delgadillo (2009) who argues that the content of teaching materials should be related to linguistic, communicative, sociocultural and pedagogical systems.

On the other hand, the research allowed us to identify some difficulties in relation to the use of EIB educational materials in Central Quechua developed by MINEDU. One of the limitations is the lack of knowledge of the terms coined by MINEDU because they do not correspond to the Quechua variety of the community in which the EIB educational institution is located; another limitation is the lack of training for EIB teachers on the use of educational materials and, therefore, the difficulty that these teachers present in adapting teaching materials to

the sociocultural context of the student. This result coincides with what Pérez and Guijarro (2019) obtained in a study on the *Challenge in the teaching of Spanish /L2 in Quechua communities*, where they note that texts are characterized by their lexical and grammatical complexity and that this makes it difficult for the child to achieve their communicative and linguistic competence in Quechua. Likewise, the study carried out by Euguren and Belaunde (2021) on the use of materials in Peruvian schools identified drawbacks in the application of the materials produced by MINEDU due to the fact that teachers were not trained for their use in classes.

According to specialists in Bilingual Intercultural Education, WMRS, a specialist from the UGEL Caraz and pedagogical accompanist, and HVL, a former specialist from the UGEL Pomabamba, they point out that the result of the use of educational materials in Quechua distributed by MINEDU is not very favorable in the teaching-learning process in the EIB schools of the Ancash region in recent years due to many factors. First, the lack of identity of many EIB teachers with the Quechua language and culture; given this situation, many of the teachers do not develop class sessions or projects related to the Quechua culture or the needs of the EIB students. Second, the EIB teacher is not properly trained in the mastery of Quechua grammar and lexicon and lacks explicit knowledge of the importance of Andean culture. Thirdly, the lack of training and awareness of the EIB teacher for the use of the materials distributed by the MINEDU is another reason that generates that the results in the teaching-learning process are deficient in the EIB schools of Ancash; and, finally, MINEDU materials are not distributed on time, that is, before the school term begins in the EIB schools in the region. This situation is in line with the result of the study carried out by MINEDU (2017) on factors associated with the use of workbooks in EIB: The case of materials in Awajún, Ashaninka, Aymara and Quechua Chanka, where they report that the use of workbooks presents limitations due to the scarce training that teachers receive on the use of these materials and the curricular planning with them. It adds to this situation; that many of the contents of the materials are decontextualized from the sociocultural reality of the students. Following the same line, Choque (2020) argues that the EIB materials distributed in the Cusco-Collao region are not used frequently because teachers were not trained in the proper use of the texts.

V. CONCLUSION

In relation to objective 1, it is concluded that the content of the educational materials in Central Quechua distributed by MINEDU in bilingual schools in the Ancash region have a positive effect on the teaching-learning process of EIB students; because the content and images of the materials of the various curricular areas are articulated with the Andean culture in general, which favors the reinforcement of the Quechua language and culture and generates significant learning in the EIB student.

However, teachers point out that there are factors that hinder the teaching-learning process; for example, the Quechua variety used in educational materials that do not facilitate the learning process of the various curricular areas. Therefore, they consider that the texts should be elaborated in the Quechua variety of the student's community. These limitations originate because MINEDU does not train EIB teachers in a timely manner in this aspect, adding to this situation, the untimely distribution of educational materials.

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