

**DEVELOPMENT OF ORAL LANGUAGE AND ITS INFLUENCE IN THE
ACQUISITION OF HIGH MOUNTAIN CHILDREN READING IN TUMBAYA,
JUJUY, ARGENTINA, ON APRIL 2023**
**DESARROLLO DEL LENGUAJE ORAL Y SU INFLUENCIA EN LA ADQUISICIÓN DE LA LECTURA
EN NIÑOS DE UNA ESCUELA DE ALTA MONTAÑA EN TUMBAYA, JUJUY, ARGENTINA
DURANTE ABRIL DE 2023**

Carlos Eduardo Savedra¹

Secondary School N° 9 "Juana Azurduy", Argentina

(carloseduardo2702@msn.com) (<https://orcid.org/0009-0001-3589-6412>)

Manuscript information:

Recibido/Received: 19/02/2024

Revisado/Reviewed: 02/05/2024

Aceptado/Accepted: 23/05/2024

ABSTRACT

Keywords:

language development, oral
language, language acquisition,
language, morphosyntax,
semantics, pragmatics

The propose for the present work is to inquire oral language development and its relationship with the acquisition of students reading in a high mountain school in the Departament of Tumbaya, Jujuy, Argentina. Through a non-experimental mixed research model along with semi-structured interviews, it aims to explain how the linguistic stimulus of the nearby environment relate with the particular characteristics of morphosyntactic structuring. The influence of personal experience and the standard transmitted by the social environment in acquisition of semantics. Also, we are interested in the social environment input in acquisition of pragmatics. All of it from the theoretical perspective of Bronfenbenner ecological model that conceives the environment as a set of serial structures disposed in different levels, in which their interconnections are vital in the process of human development. Finally, it concludes that the reading-learning skill of the child depends on the way it is taught and on nature and existence of ties that unite school and home, in a context with its own characteristics of the social, cultural and geographical environment.

RESUMEN

Palabras clave:

desarrollo del lenguaje, lenguaje
oral, adquisición de la lengua,
lenguaje, morfosintaxis, semántica,
pragmática

El presente trabajo se propone indagar sobre el desarrollo del lenguaje oral y su relación con la adquisición de la lectura en alumnos de una escuela de alta montaña en el departamento de Tumbaya, Jujuy, República Argentina. Mediante un modelo de investigación mixta no experimental con entrevistas semiestructuradas pretende explicar cómo se relacionan los estímulos lingüísticos del entorno cercano con las características particulares que toma la estructuración morfosintáctica; el modo en que operan las experiencias personales y los modelos transmitidos por el ambiente social en la adquisición de la semántica; se interesa además por el aporte que hace el ambiente social a la adquisición de la pragmática.

Todo ello desde la perspectiva teórica del modelo ecológico de Bronfenbrenner que concibe al medio ambiente como un conjunto

¹ Corresponding author.

de estructuras seriadas y dispuestas en diferentes niveles cuyas interconexiones son decisivas en el proceso de desarrollo humano. Finalmente concluye que el aprendizaje de la lectura por parte de un niño depende tanto del modo en que se le enseña como de la naturaleza y existencia de los lazos que unen a la escuela y el hogar en un contexto atravesado por las características propias del entorno social, cultural y geográfico.

Introduction

During their development, children have different trajectories, among which the following stand out: physical, cognitive, socioemotional and finally language development, which will be the focus of the present study (Gómez, 2015). Language is the most complex and complete resource that human beings possess, whose development begins at birth and extends throughout life. This capacity is divided into morphosyntactic levels, which accounts for grammatical structures; semantic, which refers to the meanings of words or phrases; pragmatic, which accounts for the contextualized use of language; and phonological, which refers to the sounds that make up speech (Rodríguez y otros, 2017). All of them allow understanding and expressing communicative statements; occupying a fundamental place as an exclusive means of communication between people (Sandoval Zúñiga y otros, 2020). This complex process takes place in close relation with the different areas of development among which we can name the neurological development that controls the perceptual-motor activity, the development of the auditory apparatus, the formation of the psyche of the subject both in its conscious and cognitive sphere (development of thought) and in the unconscious; all of them summarized in the experimentation of the own body and the closest environment; the control of oneself and the coordination of body movements (Rodríguez y otros, 2017) thus making it possible to affirm that from the earliest years, the child relates intensely with the environment and that therefore there is simultaneity between the understanding of words, acting and interacting with the environment, in the sensory-motor demands of the brain (Ruiz-Pérez y otros, 2016) .

Language thus occupies a central place in the movement of appropriation of the reality called the world as human beings advance in the understanding of their environment (Pérez-Echeverría & Martí, 2010). It also provides unique ways of understanding and interpreting the world in intimate relation with the space-time coordinates, establishing a sort of circularity in the feedback, since in this way the cultural elements and the rules of language are incorporated in each time and place, which serve as categories according to which the human being can and will be able to interpret the world, giving a dynamism to the systems of representation that have varied from their beginnings and have diversified from rudimentary to highly complex systems (Pérez-Echeverría & Martí, 2010).

Oral language is fundamental in the first stage of human development as it constitutes a means of access to the world of culture and knowledge (Uribe-Hincapié y otros, 2019). Its acquisition consists of the development of the ability to communicate verbally and linguistically through conversation in a given situation and with respect to a given spatio-temporal, linguistic and extralinguistic context of the speakers; in such a way that communicative competence refers to the knowledge that a person has of a language and the ability to use it with the intention of communicating effectively with other users, with whom he shares the same language and patterns of use of the language (Moreira-Aguayo y otros, 2021).

In a recent study, Emilce Toledo asks whether morphosyntactic markers in the Spanish language influence the recognition of different grammatical categories, countable and uncountable nouns and verbs. Pseudowords are used in this study, because if words known to the children were offered, it could not be determined whether the recognition of the grammatical category being examined is due to the influence of morphosyntactic markers or to the semantic recognition of the lexicon (Toledo, 2021). The author presents

Roger Brown's studies on the identification of countable nouns, uncountable nouns and verbs by the 3- to 5-year-old child on the basis of morphosyntactic markings in the adult sentence in order to explain how the type of grammatical practice affects cognition (Toledo, 2021). The methodology consisted of taking a sample of 12 3-year-old children separated into 3 groups to expose them to linguistic stimuli and evaluate their ability to recognize verbs, countable and uncountable nouns. In general terms, the study concluded that, although the children did not have access to the integral comprehension of the proposition, the answers showed the identification of the action in the verbal category of the pseudoword; inferring that it could be due to the morphological behavior of the gerund verb. Finally, he infers that the morphological marker not only makes it possible to categorize a pseudoword but also, together with the context, allows a first approximation to its meaning (Toledo, 2021).

Canales Jara wonders if there are linguistic differences in the phonological awareness skills of rhyme and initial phoneme identification, syllable segmentation and sound integration in kindergarten children of the province of Mendoza from different socioeconomic backgrounds; he also wonders if these differences originate in the socio-environment of the educational level or in the socioeconomic background of the household (Canales Jara, 2021). This study recognizes the value of context and culture as conditioning factors in the development of language in interaction with individual personality traits (Carneros, 2015). The study further suggests that there is a directly proportional relationship between the environment in which children grow up and the level of language skills such that, during the initial learning process of reading, children from low socio-economic backgrounds tend to experience difficulties at a higher rate than children from other social sectors (Canales Jara, 2021).

The study concludes that there is a marked difference in socioeconomic level and educational level between the parents of children attending urban kindergartens and the parents of children attending urban-marginal kindergartens; that the socioeconomic and educational level of the families of children attending urban kindergartens is higher than that of the families of children attending urban-marginal kindergartens; and that there is a marked difference in educational climate between the two groups (Canales Jara, 2021).

José María Gil explains from the relational approach that language development is not based on an innate grammar, but on a two-level system in which meanings are directly connected to the means of expression, such as sounds and gestures. Innate structures, linguistic stimuli and the communicative needs of the subject concur in the development of language (Gil, 2019). In this article he concludes that the speaking subject has an active role in the process of language acquisition and development in which the learning of words and grammatical structures depends on the meanings that speakers need to convey or understand (Gil, 2019). He further points out that language development is a complex process of four fundamental strategies: recruitment of nodes; selection of nodes that previously did not fulfill a specific function (were latent); establishment of connections between nodes; and finally consolidation and strengthening of connections. Therefore, learning language and learning to communicate are two linked and continuous processes (Gil, 2019).

This paper aims to investigate the development of oral language and its relationship with the acquisition of reading in students of a high mountain school in the town of Tumbaya, Jujuy, Argentina, emphasizing that as social beings they are immersed in an environment with a particular culture and context, which operates as a conditioning factor without ignoring the interaction between the variability of individual personality traits (Carneros, 2015).

In this context, we ask: What was the relationship between oral language development and reading acquisition in students of a high mountain school in the department of Tumbaya, Jujuy, during the year 2023? what is the relationship between linguistic stimuli from the immediate environment and the particular characteristics that morphosyntactic structuring takes on in high mountain children? How do the personal experiences of the high-mountain child and the models transmitted by the social environment operate in the acquisition of semantics? What contribution does the social environment make to the acquisition of pragmatics in high-mountain children?

Method

The present research used a non-experimental mixed research model with semi-structured interviews that made it possible to describe qualitatively and quantitatively the way in which the relationship between the phenomena "oral language development in high mountain children" and "its relationship with the acquisition of reading" occurs without conducting experiments. For this purpose, a cross-sectional study was carried out during the months of March and April of the year 2023.

The universe is made up of a total of 13 children from kindergarten to seventh grade, which translates into 52% of the student population, which is why it is possible to affirm that the results are highly representative of the school reality. In addition, of the total number of participating students, 54% are boys, while the remaining 46% are girls; this difference of less than 10 points between boys and girls allows us to infer that the study provides a fairly accurate picture of the use of language and communication skills of the student population, the performance obtained by boys and girls in the standardized tests, and the possible relationships that exist between language development and learning to read.

The educational institution where the research was carried out has an enrollment of 25 students between kindergarten and seventh grade. We worked with thirteen children whose parents agreed to sign the corresponding informed consent forms. The study included the participation of the 9 teachers of the educational institution who provided qualitative information on the linguistic competencies of each participating child through a questionnaire that is part of the CELF V battery and the contribution of some of them in semi-structured interviews.

The particular characteristics of the institution that arise from its geographic location in an area of difficult access make the student population remarkably low in comparison with educational institutions in urban centers of the same province, thus requiring a multigrade organization according to the needs of the context (Table 1).

Table 1
Distribution of the student population

| Cycle / Level | GRADE | Students | |
|------------------------|-----------|-----------|-------------|
| | | CA | % A |
| Initial Level | Room of 5 | 2 | 8% |
| I ^o Cycle | grade 1 | 5 | 20% |
| | grade 2 | 3 | 12% |
| II ^o Cycle | grade 3 | 3 | 12% |
| | grade 4 | 6 | 24% |
| III ^o Cycle | grade 5 | 3 | 12% |
| | grade 6 | 1 | 4% |
| | grade 7 | 2 | 8% |
| Total | | 25 | 100% |

Note. CA= Number of students; %A= Percentage of Students

As for data collection techniques, a semi-structured interview was used for teachers and designed for this study. The CELF-5 battery was also applied, which measures the language skills of children and adolescents (from 5 to 15 years and 11 months) and identifies and diagnoses possible language and communication disorders. This test was used to perform a complete exploration of the different language fundamentals that were considered relevant to the research. The tests that make up this battery made it possible to evaluate morphosyntax, semantics and pragmatics, providing complementary information on communication and language skills both in educational environments and in real conversation situations.

The scalar scores provided information about the subject's linguistic performance in relation to the content measured by each test. The application manual also indicates that the scalar scores allow comparison of each child's performance with others of the same age in the typing sample. Its measure is 10, and the standard deviation (Std) is 3, so that if a scalar score of 10 reflects the average performance of a given group or age, scalar scores 7 and 13 indicate a standard deviation below and above the mean respectively, constituting the limits of the average range (Wiig, 2018).

As clarified in the CELF V Manual, some of the tests cover all ages, i.e., from 5 to 15 years old, while others, depending on the relationship between language and development, cover certain age ranges, as is the case of morphosyntax, which applies to children from 5 to 8 years old. In all cases, the average scalar score obtained by the population is first presented and then discriminated according to the corresponding percentages. It is clarified that there is the presence of an atypical subject depending on the results of the test, which is why in some cases the average scalar score will be presented integrating the atypical case and excluding it in order to plot the impact it has on the average scalar score of the group

Results

Morphosyntactic Structuring

Morphology deals with the internal relationship of words, studying the forms or structural units with meaning: words and morphemes. He is interested in two central elements: one is *the structure*, i.e., how words are made; the other element is *the function*, which refers to the role they play when integrated into statements, phrases and sentences (Granada Azcárraga, 2009). It also covers both inflection and derivation; by means of rules that operate on the same basic units: the morphemes. This is even better understood from the example proposed by Lyons: just as the inflectional form cantar is composed of

the most basic units (morphemes) *cant* and *ar*, so the derivational form *cantante* is composed of the two most basic units *cant* and *ante*; applying in both cases the same process of affixation, adding an affix to a base form (Lyons, 1984).

Syntax defines the type of word combinations that can be considered acceptable or grammatically correct. Here, concordance, i.e. the harmony between the different parts, the regime, which refers to the relationships of dependence between the elements and the construction, and finally the order in which the words are placed, play an important role. Syntax is ultimately the study of the formal relations of signs to each other (Chilton & Schaffner, 2000).

In the investigation of the relationship between the linguistic stimuli of the immediate environment and the particular characteristics of morphosyntactic structuring in the children of a high mountain school, the contribution of a teacher who can provide elements that can serve as a frame of reference for possible interpretations of the quantitative results obtained by the CELF V battery in morphosyntax is interesting. According to the teacher, an adult neighbor of the institution stated that her grandparents were nomadic, as they had no land they moved around the puna area, they belong to the Kolla people and their native language is Kunza. "they come from the Kolla people and the language they spoke was Cunsakunza." The Kolla language is not the case of the present study, so it will suffice to say that it was spoken in the Puna area both in the Atacama region in Chile and in the provinces of Jujuy, Salta and Tucumán until the first decades of the twentieth century (Pueblos Originarios). It is characterized by the lack of verbal and nominal inflections, the scarcity of verb tenses; in fact, verbs express concepts that are less stable in time, in the sense that they usually refer to states or events (Vidal Leyton, 2021).

On the other hand, among the characteristics observed in the oral language of the participating children is that they generally do not finish words or join terms that in the grammatical structure of our language should be separated, for example: "*noicomiuou*" /*noi komiu*/ meaning I have not eaten; "*lescuola*" /*leskuola*/ for referring to school. As for the speakers in the environment, it is noted that communication based on orality has similar characteristics, since the teachers state that they have experienced the need to contact an adult caregiver due to apparent difficulties in understanding what the children wanted to communicate through oral expression; however, when the adult was present, they noticed that it was even more difficult to understand what the adult wanted to express, so it is understood that many communicative behaviors are learned from adults: "I decided to interview the grandfather and it was more difficult to understand the grandfather."

Some results of the tests that make up the CELF 5 Battery for the evaluation of morphosyntax.

Elaboration of Sentences

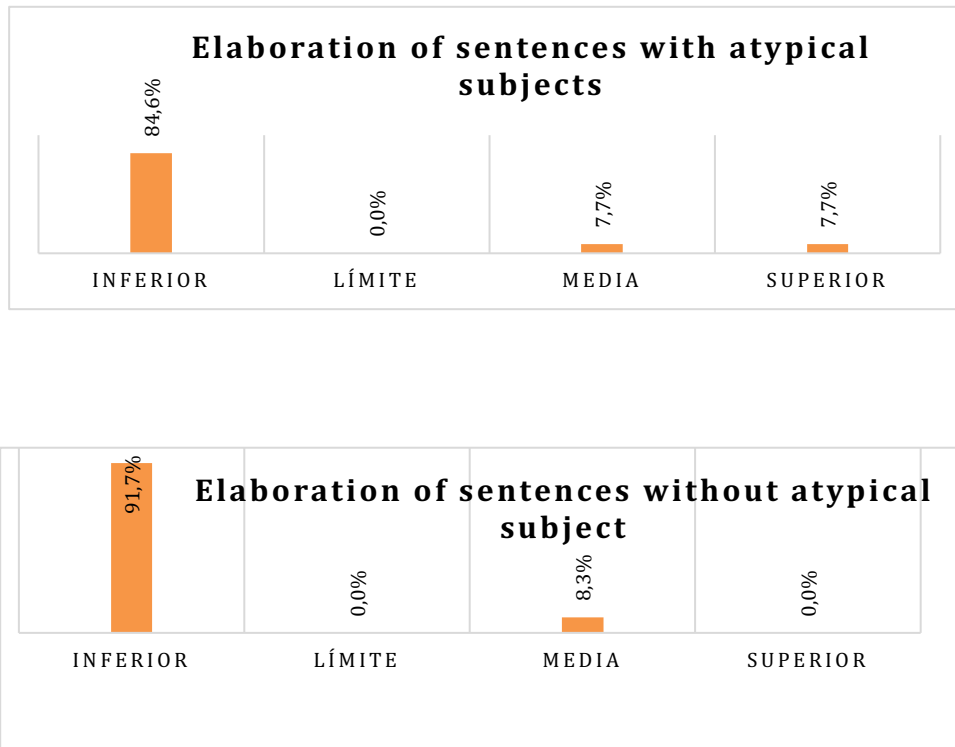
This test evaluates the ability to orally elaborate complete, semantically and grammatically correct sentences of increasing length and complexity from given words, for example: *car*, *yes*, *because*, within a context established by illustrations. It reflects the ability to integrate semantic, syntactic and pragmatic rules or constraints, as well as to use working memory. The skills assessed are related to the curricular objectives of infant, primary and lower secondary education concerning the internalization of linguistic rules (semantic, syntactic and pragmatic) and their integration to produce oral and written discourse (Wiig, 2018).

In the analysis of the values obtained by the test, 7.7% of the population obtained a scalar score above the mean, that is, equal to or higher than 13 points; 7.7% was within

the mean; no individual was located at the limit; finally, 84.6% obtained scalar scores below the mean. However, if we proceed to discard the outlier, the distribution of values changes significantly, increasing the percentage of values below the mean to 91.7%, which suggests that the number of children with syntactic, semantic and pragmatic restrictions is even higher (Figure 1).

Figure 1

Elaboration of sentences.

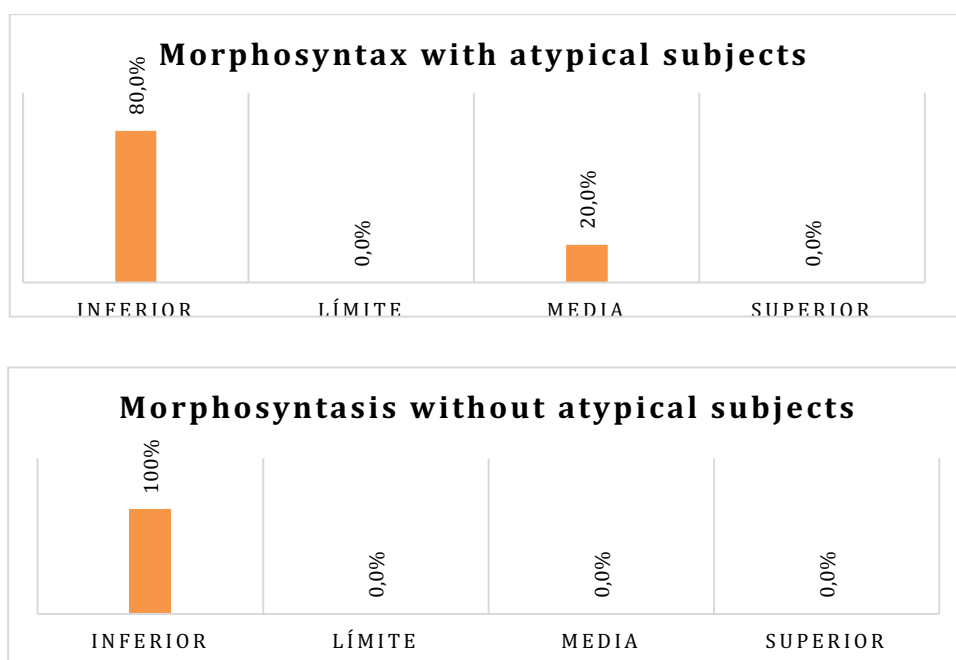


Morphosyntax

This test evaluates the child's ability to apply the morphosyntactic rules of gender and number inflection, verb conjugation, agreement, nominal and adjective derivation, comparative and superlative degrees, contraction; select and use determiners and possessive pronouns, personal pronouns, reflexive pronouns, prepositions and conjunctions. It has scales for children between 5 and 8 years of age, which is why 38% of the participating population was evaluated.

The detailed analysis shows that 80% of the population obtained a lower scalar score, 20% obtained a score within the mean; finally, no individual obtained a higher score or a borderline score. If we proceed to discard the outlier, the distribution of values changes notably, placing all the children evaluated in the lower range, which suggests that the number of children with morphosyntactic restrictions is total (Figure 2).

Figure 2
Morphosyntax.



Semantic Structuring

This level represents the knowledge that people have of objects, of the relationships between objects and between events in the real world; therefore, it studies the meanings and changes of meanings that words undergo (Granada Azcárraga, 2009). For Lyon there is an interdependence of the orational meaning with respect to the meaning of the lexemes that compose each sentence. Furthermore, it establishes that lexical, grammatical and orational meanings belong to the domain of linguistic semantics. Finally, he will say that while descriptive meaning may be exclusive to language, expressive and social meanings are not; they are also found in other natural semiotic systems, both human and non-human (Lyons, 1984).

In the research on the relationship that exists between the personal experiences of the high mountain child and the models transmitted by the social environment in the acquisition of semantics, it is observed that there is a strong cultural component, according to some interviewees this component is transmitted by the close social environment, i.e. it is perceived that children imitate their parents in such a way that expressions such as "aquisito" /akisito/, "aquí nomás" /akí nomas/ which can usually be interpreted as close, next, beside, etc. are used to indicate places and/or things whose proximity is measured in relation to another element, for example: community A is approximately 10 kilometers away, but in relation to community B it is very close.

One of the teachers interviewed also points out that in the construction of the meaning of words, the gesticulation that accompanies them plays a role, "before they pronounce the words, you realize that they want to talk to you". This observation of the teacher is correlated with one of the characteristics of the Kunza language in which, according to Vidal Leyton, due to the lack of inflections and scarcity of verbal tenses, the use or support of gesticulation and/or hands is necessary for communication (Vidal Leyton, 2021).

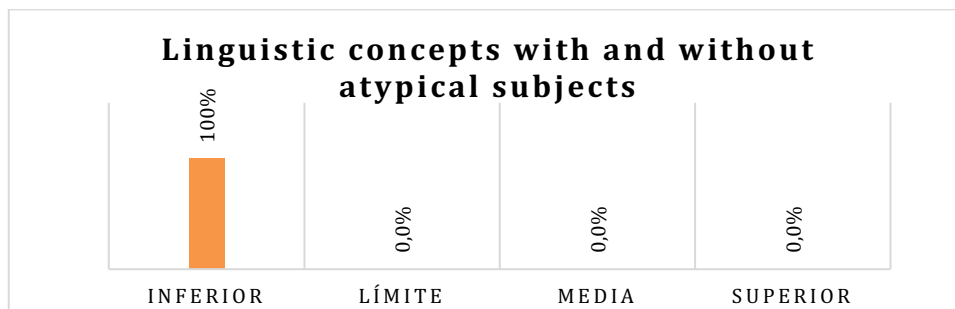
Some results of the CELF V battery that investigate semantic structuring.

Linguistic Concepts

The test evaluates the subject's aptitude to interpret indications that contain basic concepts and require logical operations, such as inclusion, exclusion, location and time; and also evaluates tasks related to the execution of indications that contain basic concepts necessary for the classroom task. Understanding the basic concepts, such as and, before or after, is essential for following directions during hands-on activities, classes, projects and other assignments (Wiig, 2018). It has scales for children between 5 and 8 years of age, which is why 38% of the participating population was evaluated.

It is observed that 100% of the children evaluated obtained a scalar score below the mean, which suggests that the entire population of participants between 5 and 8 years of age has a deficit in the ability to interpret indications that contain basic concepts, for example: medium, different, many; as well as in the comprehension of logical operations and conjunctions, such as and, all, except those referring to conjunction, disjunction, conditional, etc. Figure 3.

Figure 3
Linguistic concepts

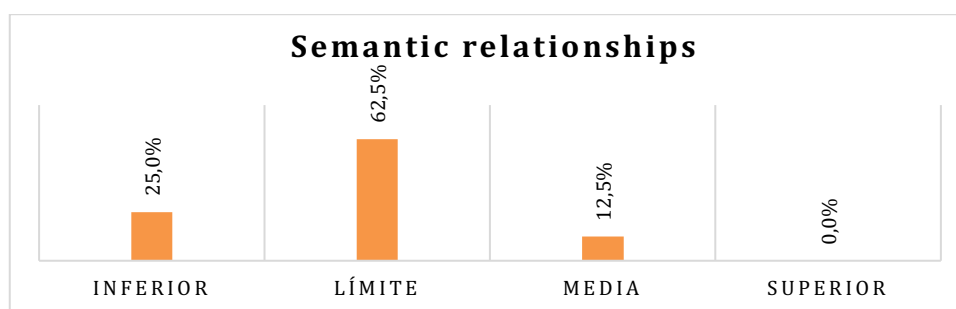


Semantic Relationships

The test evaluates the ability to understand sentences that contain a comparison; include spatial content; specify a temporal relationship; and express sequential content or are formulated in the passive, necessary for following oral or written directions, performing tasks, understanding established series, e.g.: days, years; and the order of actions (Wiig, 2018). It has scales for children between 9 and 15 years of age, which is why 62.5% of the participating population was evaluated. The average scalar score obtained by all the children evaluated is 6 points and places the group below the average, which allows inferring that at group level there are difficulties in the abilities to understand and/or execute indications; difficulties in logical sequential ordering that negatively impact on the ability to order around the space-time categories.

The scalar scores obtained by those evaluated were distributed as follows: 62.5 % were at the borderline, 25 % below and 12.5 % obtained a medium score. According to these measurements it is possible to affirm that 87.5% of the children evaluated could present difficulties in understanding sentences containing a comparison, which are presented to them orally or in writing (Figure 4).

Figure 4
Semantic relationships



Pragmatic Structuring

At this level, the context takes center stage as a network of relationships interwoven to shape the structure of meaning. Pragmatics is the study of the relationships between language and the contexts in which it is used. Granada Azcárraga refers to three types of contexts of linguistic function: linguistic, paralinguistic and extralinguistic contexts, which operate in an integrated manner in the communicative dynamics (Granada Azcárraga, 2009). According to Blum-Kulka it can be stated that, in a broader sense, pragmatics is the study of linguistic communication in context, however, knowledge of the words and grammar of a language alone does not guarantee success in communication. Several factors are involved in the interpretation of words, such as familiarity with the context, intonation marks and cultural assumptions (Blum-Kulka, 1997).

In the inquiries about the contribution that the social environment makes to the acquisition of pragmatics, in relation to oral expression, one of the teachers interviewed describes the way adults and children speak as striking, because generally there is no voice modulation, the words are said in a low tone of voice, in addition the teacher states that he has always worked in the high mountains but that in this community his way of speaking so closed is noticeable. This suggests that in the paralinguistic context of the pragmatic dimension it becomes difficult to access what the speakers really want to communicate. In addition, the lexical selection made by speakers for conversations that take place both in the classroom and outside it, is impregnated with characteristics of the immediate social environment with modifications at the phonological level; these characteristics make it difficult to correctly identify graphemes in the grammatical structure, for example: "corniada" /korniada/ instead of cornada which refers to the blow of an animal with horns, "maistro" /maistro/ instead of maestro "está llaveado" /"ta yaviao/ to mean that the door has a key, these modifications are transferred to writing, since according to the teacher the children write as they speak, which causes interference in the interpretation and/or execution of instructions in the school environment.

Some results of the CELF V battery in the assessment of pragmatic skills.

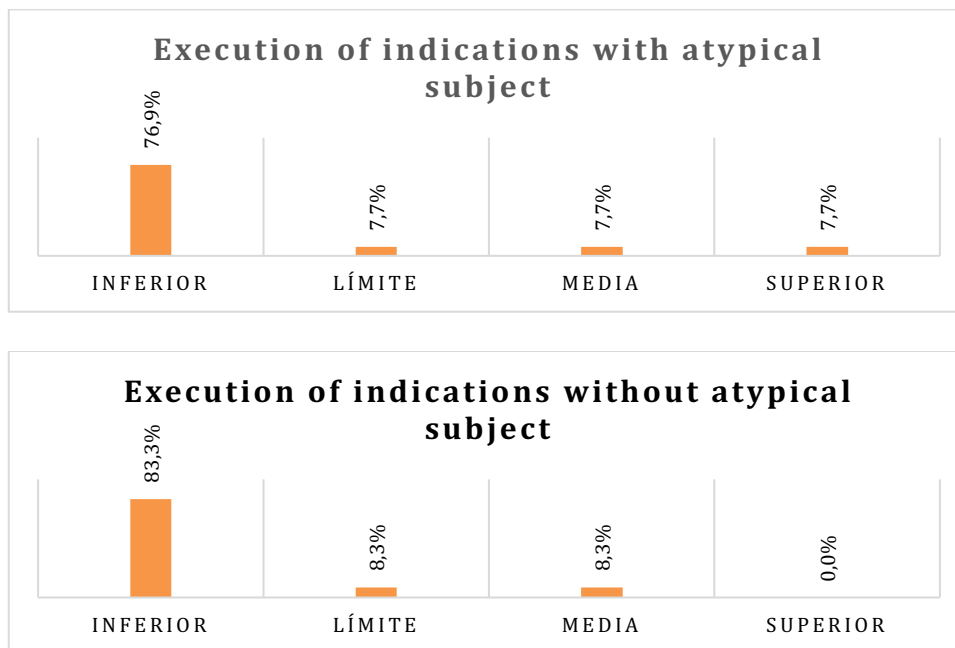
Execution of Indications

The test evaluates the subject's ability to interpret indications that contain basic concepts and require logical operations, such as inclusion, exclusion, location and time; it also evaluates abilities to identify the mentioned drawings from among several drawings (Wiig, 2018). In the classroom context, these skills are related to the execution of instructions that contain basic concepts and that must be followed during the school day in order to appropriate knowledge. It has a range of 5 to 15 years, which is why all

participating children were evaluated. The average scalar score obtained by all the participating children is 5, which places the group below the average, which allows inferring that at group level there are difficulties in interpreting and/or following directions. Moreover, if the atypical subject is excluded, as has occurred in other tests, the average scalar score drops one point, showing that the bulk of the population has even greater difficulties.

The percentage analysis shows that 76.9% of the participants obtained a lower scalar score, 7.7% obtained a borderline score, 7.7% obtained a medium score and 7.7% obtained a higher score. These scores allow inferring that most children experience difficulties in interpreting, remembering and/or following oral directions of increasing length in a learning context, which negatively impacts access to knowledge. Furthermore, when excluding the atypical subject, the percentage of children who obtained lower scalar scores is 83.3%, 8.3% obtained borderline scores and the remaining 8.3% were within the mean, so it is understood that the percentage of the population with difficulties is even higher, Figure 5.

Figure 5
Execution of indications.



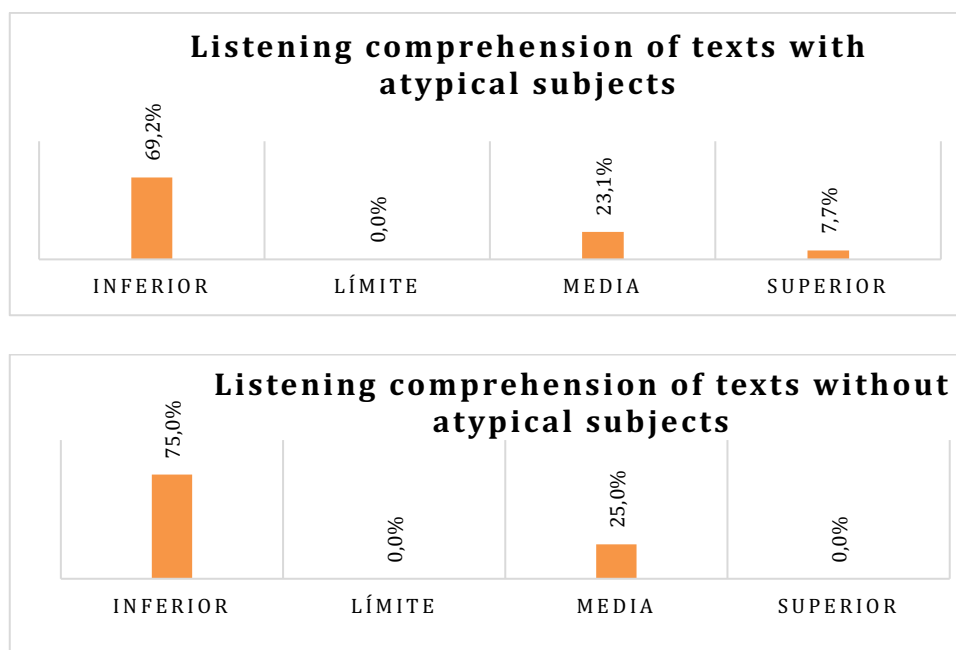
Oral Comprehension of Texts

The test assesses the subject's ability to maintain attention and concentration while listening to oral texts; create meaning from the texts; answer questions about the content of the text; and use fundamental thinking strategies to carry out interpretations beyond the information contained in the text. Measures comprehension of the main idea, recall of facts and details, recall of the sequence of events, as well as making inferences and predictions (Wiig, 2018). It has variables for children from 5 to 15 years of age, which is why the entire participating population was evaluated.

The percentage distribution shows that 69.2% of the children scored below average, 23.1% scored average and 7.7% scored above average. This allows inferring that most of the children present restrictions in listening to educational content; the use of the information presented; and the application of fundamental thinking skills to go beyond

the information given, learn and create new knowledge. Furthermore, if the outlier is excluded, the percentage of children below the mean rises to 75 % while the percentage at the mean also rises to 25 %. This allows us to infer that the percentages that best represent the group in its aptitudes is the one that excludes the atypical subject, Figure 6.

Figure 6
Oral comprehension of texts.

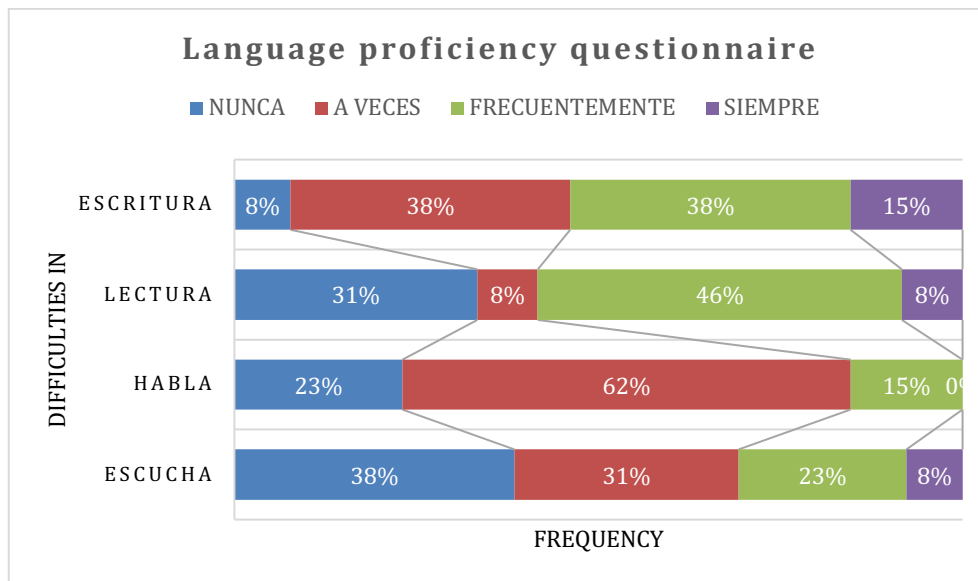


Language Proficiency Questionnaire

The linguistic competence questionnaire allows to enter the classroom from the particular point of view of each teacher and in group form from the perception that the teaching staff has about the group of students participating in the classroom context in which linguistic communication takes place, the linguistic uses that the student performs in order to read and write, socialization, organization and self-regulation (Wiig, 2018). Comparatively, it is observed that the adults who teach in this institution generally perceive that the majority of students (38%) never present difficulties in listening, another majority group (62%) of students sometimes present difficulties in speaking, another majority group (46%) of children frequently present difficulties in reading, and finally 76% of children sometimes and frequently present restrictions in writing. This comparison allows us to infer a relationship of inverse proportionality between listening, reading and writing, Figure 7.

Figure 7

Comparison between listening, speaking, reading and writing



Discussion and Conclusions

Discussion

The first objective was to investigate the relationship between the linguistic stimuli of the immediate environment and the particular characteristics of morphosyntactic structuring in high mountain children, taking as a reference Bronfenbrenner's ecological model that conceives the environment as a set of serial structures arranged in levels, understanding that development is a complex process, which responds to the influence of a multiplicity of factors closely linked to the environment or ecological environment (Ortega Chávez & Pozo Ortega, 2021).

Elements of the ecological environment were found that operate as structuring elements of the morphosyntax, among which we can mention in the first place the direct and close ancestry in time of the members of the community with the Kolla people and their native language Kunza, characterized by the lack of verbal and nominal inflections, and the scarcity of verb tenses with their own rules of combination and meaning. It is also observed that the speakers participating in the study generally do not finish words or join terms that in the grammatical structure of our language should be separated, for example: "noicomiuou" /noi komiu/ to say I have not eaten; "lescuela" /'leskuela/ to refer to school; this modification in the combination modality of spoken words translates into difficulties in making legal combinations when writing, or difficulties in accessing the correct decoding of the message in a written text.

These obstacles are correlated with the quantitative data provided by the CELF V battery in the morphosyntax section. When the children were asked to elaborate grammatically correct sentences of increasing length and complexity from a given word with the intention of inquiring about contents related to the internalization of linguistic rules (semantic, syntactic and pragmatic) and their integration to produce oral and written discourse, the group tendency showed difficulties in the integration of these rules with syntactic, semantic and pragmatic restrictions. Similarly, the group evidenced

difficulties in applying the morphosyntactic rules of gender and number inflection, verb conjugation, agreement, nominal and adjective derivation, comparative and superlative degrees, contraction; selecting and using determiners and possessive pronouns, personal pronouns, reflexive pronouns, prepositions and conjunctions. These restrictions in the access and application of the morphosyntactic rules of our language that are inherited by the ecological environment find their correlate in Pérez Pedraza, for whom the acquisition of morphosyntax by the child is linked to an order of evolution and is carried out by processes of gradual and progressive imitation of the rules that the adult transmits from the oral interaction with the child (Pérez-Echeverría & Martí, 2010). In this context, it is worth mentioning the contributions of recent studies that suggest a close relationship between cognition, language development, corporeality and movement capacity; the social environment becomes important again, which is presented as an environment full of language and action, which allows us to affirm that in every human group the incorporation of language into the communication system occurs naturally, which, with gestures and the mastery of motor skills, allows the child to acquire and show competence according to his environment (Ruiz-Pérez y otros, 2016).

The second objective of this study was to investigate how the personal experiences of the high mountain child and the models transmitted by the social environment operate in the acquisition of semantics, positioned from Bonfenbremer's ecological theory. A strong cultural component is observed in the speech modalities of the participating children, i.e. children imitate their parents in such a way that expressions such as "aquisito" /akisito/, "aquí nomás" /aki nomas/ which can usually be interpreted as proximity, geographic proximity, indicate in context places and/or things whose proximity is measured in relation to another element.

The results allow us to corroborate restrictions in this field. In the evaluation of basic linguistic concepts: and, before or after; which are fundamental to follow directions during practical activities, classes, projects and other tasks (Wiig, 2018) the population evaluated obtained scalar values that evidence the existence of difficulties in the abilities to understand and/or execute indications; difficulties in logical sequential ordering that negatively impact the ability to order around the space-time categories. Furthermore, in the inquiries on semantic relations, the scalar mean allows us to affirm that the group mostly experiences restrictions in the skills necessary for following oral or written directions, performing tasks, understanding established series, e.g., days, years; and the order of actions. The scalar values obtained in the item related words allow inferring that the group also experiences restrictions in understanding the relationships in the semantic field and therefore in using or specifying words in both oral and written discourse. These restrictions imply difficulties in accessing semantic meanings when writing a text as well as when trying to access the meanings of written texts through reading. All these elements find a correlation in a study by José María Gil who affirms that there is a marked difference in socioeconomic and educational level between the families of children attending kindergartens in urban centers with respect to families of children attending educational institutions located in marginal urban environments; he also explains from the relational approach that language development is not based on an innate grammar, but on a two-level system in the development of language in which innate structures, linguistic stimuli and the communicative needs of the subject concur (Gil, 2019). In this article he concludes that the speaking subject has an active role in the process of language acquisition and development in which the learning of words and grammatical structures depends on the meanings that speakers need to convey or understand (Gil, 2019). The context becomes important as a constitutive element of a subjective model of the speakers involved in each interaction that takes place, from a psychosocial basis that allows to adapt the linguistic

performance according to a socio-cognitive interface that mediates between the individual dispositions of the language users and the interpretation of the social situation in which they are inserted (Ghio, 2013).

The third objective of this study was to investigate the contribution of the social environment to the acquisition of pragmatics. As Ortega Chávez points out in Bronfenbrenner's ecological theory, the person must be understood as a developing and dynamic entity, which is progressively involved in the environment and therefore also influences and even restructures the environment in which it lives (Ortega Chávez & Pozo Ortega, 2021). Pragmatics, as the study of the relationships between language and the contexts in which it is used, refers to three types of contexts of the linguistic function: the linguistic, the paralinguistic and the extralinguistic context, which operate in an integrated manner in the communicative dynamic (Granada Azcárraga, 2009).

In the paralinguistic context of the pragmatic dimension, it is difficult to access what the speakers really want to communicate; in addition, the lexical selection they make for conversations that take place both in the classroom environment and outside it, is impregnated with characteristics of the immediate social environment with modifications at the phonological level, these characteristics make it difficult to correctly identify the graphemes in the grammatical structure, for example: "corniada" /*korniada*/ instead of cornada which refers to the blow of an animal with horns, "está llaveado" /'ta yaviao/ to mean that the door has a key; these modifications are transferred to writing, i.e. speakers write as they speak, and speech is learned from other adult speakers, which causes interference in the interpretation and/or execution of instructions in the school environment.

In the items of the CELF V battery that inquire about pragmatic skills, it is observed that the values obtained by the group in the item execution of indications indicate restrictions in the aptitude of the subjects to interpret indications that contain basic concepts and require logical operations, such as inclusion, exclusion, location and time; which have a negative impact on the organization of the school day in order to appropriate knowledge. The mean scalar score obtained in the item pragmatic skills profile allows us to observe that the group experiences restrictions in the knowledge of social situations and the understanding of both explicitly established and implicit norms that are fundamental in curricular and non-curricular activities.

Finally, the item "oral comprehension of texts" assessed the ability to maintain attention and concentration while listening to oral texts and to create meaning from the texts. Comprehension of the main idea, recall of facts and details, recall of the sequence of facts, as well as making inferences and predictions were measured. The average scalar score yielded values that indicate that the group experiences difficulties in listening to educational content; using the information presented; and applying fundamental thinking skills to go beyond the information given, learn and create new knowledge.

Conclusions

In relation to the first objective, it is possible to affirm that there is a concurrence of cultural elements typical of the region: the Kunza language spoken by the grandparents of the community, the transmission of ways of speaking by the surrounding adults, and that all this has a structuring character in the development of morphosyntax in the children evaluated, which causes interference in the internalization of linguistic rules (semantic, syntactic and pragmatic) and their integration to produce oral and written discourse, triggering syntactic, semantic and pragmatic restrictions.

In relation to the second objective, taking into account the ecological model and highlighting that as social beings, individuals are immersed in an environment with a

specific culture and context, which operates as a conditioning factor without ignoring the interaction between the variability of individual personality traits (Carneros, 2015) the study also shows that the evaluated population experiences restrictions in understanding the relationships in the semantic field and therefore in using or specifying words in both oral and written discourse.

In relation to the third objective, the data obtained allow us to conclude that in the paralinguistic context of the pragmatic dimension it is difficult to access what the speakers really want to communicate; furthermore, the lexical selection they make for conversations that take place both in the classroom and outside it is impregnated with characteristics of the immediate social environment and therefore they experience restrictions in their ability to interpret indications that contain basic concepts and require logical operations, such as inclusion, exclusion, location and time.

Finally, in the item oral comprehension of texts, which allowed the evaluation of aptitudes for maintaining attention and concentration while listening to oral texts; creating meaning from the texts; comprehension of the main idea, memory of facts and details, recall of the sequence of facts, as well as making inferences and predictions were measured. The data obtained allow us to conclude that the evaluated group experiences serious restrictions in listening to educational content; the use of the information presented; and the application of fundamental thinking skills to go beyond the information given, learn and create new knowledge.

Based on the previous conclusions, it is possible to affirm that there is a close relationship between morphosyntactic, semantic, pragmatic, oral comprehension of texts and reading acquisition in children from a high mountain school that can find possible explanations based on Bronfenbrenner's ecological theory.

Limitations

First of all, the restrictions of the instrument used for data collection, whose scales are Spanish, must be taken into account. Another limitation of the present study is that it could not include the entire population due to refusal of the parents of those who did not participate in the study. Finally, a limitation of this research is the lack of time and resources to extend the study to the secondary school that operates in the same locality, since, if it had been carried out, it would have covered all the children and adolescents in the community.

Recommendations

It is suggested for future research to deepen the relationship between the development of language in children in a high mountain school and its relationship with the learning of reading in a comparative study with an institution in an urban center of the same province to establish possible convergences and/or divergences.

It would also be convenient to carry out a study to adapt the CELF V battery scales for their application in different regions of the Argentine Republic, discriminating between urban and rural environments, in order to provide a tool according to the characteristics of the region, as is the case with M Casullo's norms for Bender in children.

References

Blum-Kulka, S. (1997). Pragmática del discurso. En T. A. Van Dijk, *El discurso como interacción social* (págs. 67-100). Gedisa.

- Calderón Astorga, M. (2004). *Desarrollo del Lenguaje Oral. (Parte 1)*. Ministerio de Educación de la Provincia de Santa Fé. <https://www.santafe.gov.ar/index.php/educacion/content/download/174430/858460/file/Desarrollo%20del%20Lenguaje%20Oral.pdf>
- Canales Jara, Y. (2021). Efecto de variables socioambientales sobre habilidades de conciencia fonológica en nivel inicial. *Anales de Lingüística*, 6, 189-216. <https://revistas.uncu.edu.ar/ojs3/index.php/analeslinguistica/article/view/5178>
- Carneros, P. (2015). *Psicología y mente*. <https://psicologiymente.com/desarrollo/teoria-ecologica-bronfenbrenner>
- Chilton, P., & Schaffner, C. (2000). Discurso y política. En T. A. Van Dijk, *El discurso como interacción social. Estudios del discurso: introducción multidisciplinaria* (pp. 297-330). Gedisa.
- Ghio, E. (2013). Sociedad y discurso de Van Dijk. *Literatura Lingüística*, 28. <https://doi.org/http://dx.doi.org/10.4067/S0716-58112013000200015>
- Gil, J. M. (2019). El desarrollo lingüístico y la representación del sistema de la lectura en términos relacionales. *Anales de Lingüística*, 3, 13-47. <https://revistas.uncu.edu.ar/ojs3/index.php/analeslinguistica/article/view/3766>
- Gómez, E. (2015). Una teoría ecológica de la parentalidad. En E. Gómez, *Paternalidad positiva*. Fundación América por la Infancia.
- Granada Azcárraga, M. &. (2009). *Manual de componentes del lenguaje: niveles fonológico, morfosintáctico, semántico y pragmático*. Impresora Gutenberg.
- Karam, T. (2007). Lenguaje y comunicación en Wittgenstein. *Razón y Palabra*(57). Razón y palabra: <http://www.razonypalabra.org.mx/anteriores/n57/tkaram.html>
- Lyons, J. (1984). *Introducción al lenguaje y a la lingüística*. Teide.
- Moreira-Aguayo, P., Solórzano-Solórzano, S. E., & Del Pino-Yépez, G. (2021). El desarrollo de las competencias comunicativas en español en estudiantes . *Polo de Conocimiento*, 6(8), 905-916. <https://doi.org/file:///C:/Users/Carlos/Downloads/Dialnet-ElDesarrolloDeLasCompetenciasComunicativasEnEspaño-8094453.pdf>
- Ortega Chávez, W., & Pozo Ortega, F. &. (2021). *Modelo ecológico de Bronferbrenner aplicado a la pedagogía, modelación matemática para la toma de decisiones bajo incertidumbre: de la lógica difusa a la lógica plitogénica*. NSIA Publishing HouseEditions.
- Pérez Pedraza, P. &. (2006). Desarrollo de la comunicación y del lenguaje: indicadores de preocupación. *Pediatría Atención Primaria*, VIII(32), 115-125.
- Pérez-Echeverría, M., & Martí, E. &. (2010). Los sistemas externos de representación como herramientas de la mente. *Cutura y Educaciòn*, 22(2), 133-147.
- Rodríguez, M., Gómez, I., & Prieto-Ayuso, A. (2017). La educación psicomotriz en su contribución al desarrollo del lenguaje en niños que presentan necesidades específicas de apoyo educativo. *Revista de Investigación en Logopedia*, 7(1), 89-106. <https://doi.org/https://www.redalyc.org/articulo.oa?id=350851047005>
- Ruiz-Pérez, L. M., Ruiz-Amengual, A., & Linaza-Iglesias, J. L. (2016). Movimiento y lenguaje: Análisis de las relaciones entre el desarrollo motor y del lenguaje en la infancia. *RICYDE*, XII(46), 382-398. <https://doi.org/https://www.redalyc.org/articulo.oa?id=71047482004>
- Sandoval Zúñiga, M. S., Espitia Bello, E. J., Díaz Muñoz, M., Sandoval Valenzuela, R., & Sepúlveda Ibarra, Y. (2020). Habilidades metafonológicas y metasemánticas en niños con trastorno específico del lenguaje y niños con desarrollo típico del lenguaje. *Folios*, 52, 121 - 133. <https://doi.org/https://doi.org/10.7440/res64.2018.03>
- Toledo, E. (2021). Valor semántico de las estructuras morfosintácticas en niños de 3 años. *Anales de Lingüística*, 6, 69-103. <https://revistas.uncu.edu.ar/ojs3/index.php/analeslinguistica/article/view/5176>

- Uribe-Hincapié, R. A., Montoya-Marín, J. E., & García-Castro, J. F. (2019). Oralidad: fundamento de la didáctica y la evaluación del lenguaje. *Educación y educadores*, 22(3), 471-786. <https://doi.org/https://www.redalyc.org/articulo.oa?id=83464752007>
- Vidal Leyton, A. (2021). *Gramática General de la lengua Kunza*. [Tesis para obtener el Grado de Licenciada en Lingüística y Literatura, Universidad de Chile]. <https://repositorio.uchile.cl/xmlui/bitstream/handle/2250/186442/Gramatica-general-de-la-lengua-kunza.pdf?sequence=1>
- Wiig, E. S. (2018). *Evaluación de Clínica los fundamentos del lenguaje CELF V*. Pearson.