

Joint Construction Between Empathic Interactions to Strengthen Social Subjects in a Multi-degree School

Sandra Patricia Leones Rodríguez¹
Olga Patricia Bonilla Marquínez²

1. Universidad Católica de Manizales, sandra.leones@ucm.edu.co, ORCID: 0000-0002-1693-5842
2. Universidad Católica de Manizales, ORCID: 0000-0002-4646-6901

Abstract: qualitative research that investigated empathic interactions among students of a multi-degree rural school and their relationship to collaborative learning. The overall goal was to understand how these empathic interactions favour learning environments and strengthen the social subject. The methodological design was based on the qualitative approach, the ethnographic perspective and the constructivist paradigm, drawing a three-step route. In the first there was an approach to the object of study from the theoretical review, then, the selection of techniques was made and the instruments for data collection were designed, and, finally, they were applied through various pedagogical means. The results of the research suggest that the predominant social interactions among students were affective empathic interactions, which in turn favoured the learning environment in the multi-degree classroom. The conclusions highlight the importance of conducting in-depth studies of social relations in early childhood, as well as investigating the way teachers exercise their practices from empathy and uncovering the realities within the rural school.

Keywords: early childhood education, social interaction, empathy, rural school.

Introduction

Being a multigrade classroom teacher in the field of rural education in Colombia is a challenging and challenging experience, given that teachers have the task of serving groups of students with heterogeneous ages, with different processes and stages of physical, motor and cognitive development, as well as diverse learning needs and interests. However, it is also a transformative experience, since it demands the creativity and sensitivity of the teacher to combine their professional training with their social skills in order to respond adequately to the needs of the context. In many cases, rural teachers assume roles that go even beyond the pedagogical, to deal with administrative and community issues, since they lead various processes and mediate among the members of their communities.

On the other hand, it should be noted that the issue of rural education in Colombia is of increasing interest among pedagogues and researchers, who have addressed relevant issues such as the quality of rural education and the existing gaps between rural and urban (Díaz & Arias, 2021), environmental conservation, and pedagogical practices in the rural environment (Martínez, Guzmán Toro, & Vargas Vargas, 2018; Jaimes, 2022; Olaya, 2022), the role of the rural teacher as a political subject (Franco, 2020) and the parental role of families in rural education (Muñoz, 2022).

However, in the state of the art, no research was identified that focused on understanding these ways of relating and interacting that young children from multigrade rural contexts have, which constitutes an important theoretical gap, because as Zubiría (2010) expresses, it is necessary to go in search of a dialogic pedagogy, where, in addition to academic knowledge, spaces are created for the collective construction of principles, values and knowledge for life.

Taking into account the above, this doctoral thesis focuses on empathic interactions among students in a rural multigrade school in Colombia. The general objective is to understand how these interactions influence the learning dynamics and development of the social subject. To achieve this, a methodological design based on the qualitative approach and with a method based on the principles of ethnography and the constructivist paradigm has been used, which allowed the design and use of techniques such as participant observation and collaborative open interview.

It should be noted that empathic interactions play a crucial role in the formation of rural students and in learning environments. These not only encourage communication and joint problem-solving, but also create an environment of trust, support among students and training for life. From a constructivist perspective, these interactions contribute to the development of the social subject and are fundamental for the active construction of knowledge.

Regarding the population under study and the context of occurrence, it should be noted that they are students who are children of peasants between the ages of 4 and 12 years old, who live in the southwest of the department of Huila in Colombia, in the village of El Retiro, which for the year 2019, it was made up of 420 inhabitants, with a relief composed of plateaus, mountains and mountains with Andean vegetation, most of them are coffee growing families (Ricardo, et al., 2019).

On the other hand, the potential direct users of the results of this research are teachers who work in multigrade classrooms in rural contexts. Understanding empathic interactions will allow them to improve their pedagogical practices and create more effective learning environments. In addition, students will also benefit directly from experiencing more meaningful and collaborative learning.

Likewise, these contributions of the thesis could have an impact on other indirect users, which include educational institutions, teacher trainers and educational policies. The findings can contribute to initial teacher training and guide decision-making in curriculum design and multigrade classroom management.

To ensure that the results of this research reach direct and indirect users, dissemination will be generated through publications in scientific journals, participation in congresses and academic events, creation of abstracts for blogs, participation in national and international seminars related to the line of research, the findings will be announced in conferences in teacher training spaces of educational institutions specialized in it, as well as the higher education colleges and universities at the national and international level, direct relations will be established with possible expert authors in multigrade education at the Latin American level, in order to be part of the rural education network and thus publicize what has been researched. As a remunerative product, the doctoral thesis will provide a manual on how to promote empathy in the multigrade classroom, which will contain specific practices and exercises to cultivate empathy among students in a classroom with multiple grades.

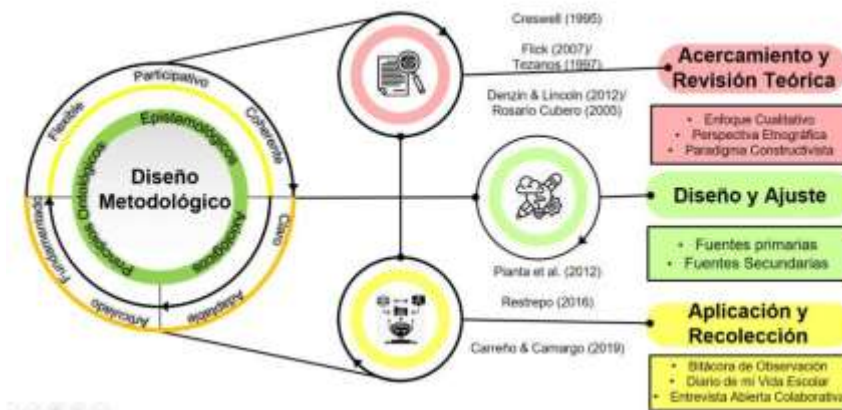
In this way, the doctoral thesis fills a scientific gap by exploring and analyzing in detail empathic interactions in multigrade contexts. Its potential impact is significant for the progress of Colombian rurality, and its application can improve the learning experience for students, forming them as social subjects who co-construct knowledge.

Method

According to Pasek & Matos (2006), every method involves three paradigmatic elements, the ontological, epistemological and axiological. In addition to defining them, the doctoral thesis established a dialogue between the qualitative approach, the constructivist paradigm and the ethnographic perspective, which are coherent to the extent that constructivism as a research model allowed co-constructing knowledge with the subjects investigated, and in turn, the ethnographic perspective acquired meaning, because the research was not alien to the various ways of understanding, interpret and describe the situations studied from the immersion of the research teacher as part of the context.

In this way, the phenomena that occurred in the social interaction of the multigrade classroom were understood and deepened, explaining them from the perception of the participating agents, in a natural environment, based on data collection techniques and instruments that allowed understanding the observed behaviors, producing descriptive data, which were interpreted to understand the object of study (See Figure 1).

Figure 1
Methodological Design



In this perspective and the constructivist paradigm. In this phase, the researcher reviewed and analyzed theories, models, concepts, techniques and instruments relevant to qualitative research in multigrade contexts.

The purpose of this moment was to understand the theoretical bases that support the doctoral research and other related ones that would provide a guide for the methodological scheme. Trends were found in the use of techniques such as open interviews, direct observation, school maps, among others. This moment was fundamental to establish a solid base before designing and executing the methodological journey.

Moment Two: Design and Fit

Here it was possible to structure the particular methodological design of the doctoral thesis, using primary sources (data obtained directly from the experience and knowledge of the context by the multigrade teaching researcher) and secondary sources (existing information in the literature). The primary sources addressed related ethical issues, such as the ages of the students, the grades of the headquarters, the curiosity of the children, and how this related to the actual participation that would allow their voices and perspectives to be heard. From the secondary sources, we thought about the design of innovative instruments that would fit the purposes of the thesis and achieve each of the objectives.

Moment Three: Application and Data Collection

Once the literature was researched, the essential tools used in the doctoral thesis were designed and adjusted, the instruments were applied on different occasions, approximately in a time of two months, in different classroom spaces and times of the school day. To do this, the researcher relied on another teacher to guide the subjects, while she applied the methodological design to small groups of students.

From the ethnographic perspective, the researcher used the techniques of participant observation, using an innovative instrument, such as the direct observation log. This instrument had two phases, a quantitative one that occurs with the completion of the observation form, and a qualitative one, which allowed the thematic coding emerged from the characteristics contained in the structure of the instrument itself.

On the other hand, the instrument of the diary of my school life gave the actors the possibility of expressing their own perceptions and interpretations of their social reality, which would later be contrasted with the information collected through the other instruments. It is also worth highlighting the application of the collaborative interview sheet, which used innovative and attractive pedagogical strategies for primary school students, such as short films, comics and contextualized case studies.

Encounters between the constructivist paradigm and the ethnographic perspective

Based on the reflections from the epistemological principles of the established methodological design, the reasons why the ethnographic perspective was articulated with the constructivist paradigm as the most appropriate way to approach the study of empathic interactions from multigrade educational contexts will be deepened.

Both research approaches allow students, as social participants, to share information with the researcher, express their ideas about reality through tools such as the field diary and participate as co-builders in the pedagogical means used and designed to capture their attention. In addition, the research professor assumed ethnography as a perspective and not as a method or a product, which led to the doctoral thesis based on direct observation embodied in ethnographic writing Tezanos A. d. (1997). In this way, the actors of the educational process were able to see what was happening inside the multigrade classroom. As a result, both the research professor and the students participated in the research as co-builders, recognizing their views and relating them to the theory.

It is recognized that research participants create and attribute meanings to social practices and relations, both in the ethnographic perspective and in the constructivist paradigm. In fact, the constructivist paradigm holds that knowledge is actively constructed; This can be applied in educational contexts from an ethnographic perspective to investigate how subjects construct meanings in the classroom from joint interaction Tezanos, A. d. (2020).

Thus, in this analysis that articulates the constructivist paradigm with the ethnographic perspective, the importance of understanding social and cultural phenomena within their specific context is emphasized, understanding the meaning of the world of multigrade students from collaborative ethnographic practices, as explained by Alba Lucy Guerrero and Diana Milstein (2021).

Participants

López defines the work unit as "a subset that starts from the unit of analysis in which the research project will be carried out" (2004, p. 54). In this case, the work unit was made up of the 40 students enrolled in the San José Country Institution, Bajo Retiro campus, in the department of Huila. They are students belonging to families of low socioeconomic status, they live mainly from the cultivation of coffee, banana, cassava, avocado and fruit tree crops such as oranges, tangerines and mangoes. The ages of the students range from 4 to 12 years of age, and they are enrolled in preschool, first, second, third, fourth and fifth grades. Given the heterogeneity of students, it is predictable that their interests will be different, they will establish friendships in different ways, they will create strong and complex relationships, they will present evolutionary developments at different times, some in early childhood, others in childhood, and some approaching puberty.

Tools

Participant observation technique and direct observation log instrument: A form of observation that is most frequently used in qualitative research is participant observation. The main features of the technique were evident when the researcher was fully introduced to the field, and observed from the ethnographic perspective as a member and participant of the study (Flick, 2007). For the execution of this technique, the instrument of *Direct observation log*. This instrument was designed to identify the types of empathy that most favor the learning environment in the multigrade classroom, it was an inspiration from the study of the *classroom Assessment Scoring System* (Classroom Assessment Scoring System) from which an instrument was adapted to respond to the needs and objectives of the doctoral thesis. The instrument has two perspectives of analysis, the quantitative one based on the average that the instrument yielded, and the qualitative reflections, through the thematic codes extracted from the characteristics included in the design of the instrument. (Pianta, La Paro, & Hamre, 2012)

Collaborative open interview technique and instrument of Diary of my school life and collaborative open interview file: interviews in qualitative research deal with the practical, ethical, epistemological and theoretical issues of interviewing people on specific issues or their life history (Angrosino, 2007). The open interview is characterized by the spontaneity of the information provided by the interviewee, because there is no predetermined script to which the interviewee must be subjected, but the data emerge in the horizontal dialogue that guides and establishes the researcher.

For the doctoral thesis, the collaborative open interviews were carried out to the extent that the students were contributing and complementing the situations analyzed, that is, it was sought to pedagogically design resources that would allow the investigated subjects to co-construct with the researcher the relevant instruments for the interview.

At first, individual open interviews were considered, but as they were validated with the execution of them, the researcher noticed that the children in general were tense and did not act naturally, this because they were not familiar with this type of conversation. From this, it was thought again, how to induce the naturalness of the student, so that he feels confident and dialogues in a more daily way? A new way was determined to co-construct with them an instrument that would allow them to be "themselves" and to be able to give a closer interpretation to their true reality.

As a result of this reflective analysis, *the diary of my school life* emerged, where the students developed day by day the field diary of the events they experienced in the multigrade school. The collaborative open interview sheet was also designed, which were developed in groups of at least five students through the use of pedagogical resources such as contextualized case studies, talks based on short films and comics so that they could present the cases and solutions.

To support the interviews, the researcher, during the fieldwork, had multiple informal conversations with different students, many of them oriented, in part or in full, to shed light on the types of predominant empathic interactions that emerged in the conversation, in order to allow them to express them in everyday life.

Procedure

Direct observation log: consisted of observing the school day for a period of at least 2 hours (1 hour and a half for observation and 30 minutes for recording), in a maximum of 6 cycles. Observation usually began at the beginning of the school day and continued throughout the morning. The observation procedure required the observer to look closely at the students' activities in the classroom and outside it. During this time, the observer had to note on the observation sheet, how and who participated in social interactions, with their respective date label, moments, class times, etc., paying particular attention to the empathic interactions between them.

The observation log was designed in such a way that they had a space next to each characteristic that broke down the types of empathy, so that the observer could assign according to the scores they considered appropriate. It was essential to take notes for scoring during each observation cycle, since these notes constituted the basis for coding and avoided the incorporation of irrelevant information. After assigning a score, the observer was to start a new observation cycle.

Assigning Scores to Each Cycle: The scores in the observation log should have been assigned on the observation sheet immediately after each observation cycle. The observer had to give a score to each dimension using a scale of 7. This description of the scores provides a detailed explanation of each scale at low (1.2), medium (3.4.5), and high (6.7). (see table 1).

Table 1
Description of Scores in the Direct Observation Log

Low		Middle			High	
1	2	3	4	5	6	7
The description of the low level represents the multigrade classroom and/or the students very well. All, or almost all, of the relevant indicators of the low level are present.	The description of the low level generally represents the multigrade classroom and/or the students, but there are one or two indicators that are at the medium level.	The description of the middle level in general represents the multigrade classroom and/or the students, but there are one or two indicators that are at the low level.	The description of the middle level represents the multigrade classroom and/or the students very well. All, or almost all, of the relevant indicators of the medium level are present.	The description of the average level in general represents the multigrade classroom and/or the students, but there are one or two indicators that are at the high level.	The description of the high level generally represents the multigrade classroom and/or the students, but there are one or two indicators that are at the medium level.	The description of the high level represents the multigrade classroom and/or the students very well. All, or almost all, of the relevant indicators of the high level are present.

Due to the highly inferential nature of the direct observation log, it was essential to consult the extended description of the particularities of each of the types of empathy before assigning scores (See example tables 2 and 3).

Table #2
Example of the extended description of the characteristics of the types of empathy.

Cognitive Empathy
Student comfort: reflects the motivation students feel to stay, perform, and participate in the classroom.
Student expression: evidence of respect and the use of correct words among students.
Clear Expectations of Behavior: The ability of students to set clear expectations about the behavior of their peers and to effectively use methods that prevent and redirect inappropriate behavior. The term "clear expectations of behavior" is often defined too broadly to include the use of strategies or activities by students to keep themselves and their peers in other grades engaged in learning activities and as a way to prevent misbehavior.
Proactivity: considers the students' abilities to organize the time of the development of curricular activities, and participate most of the time individually and in groups.

Table #3
Example of a guide for assigning scores according to the components of each of the characteristics of the types of empathy.

Student Comfort		
It reflects the motivation students feel to stay, perform, and participate in the classroom.		
Low (1,2)	Medium (3,4,5)	High (6,7)
Description of the scores.		
Affection for school: -School attendance -Punctuality -Wear the Uniform neatly -Personal presentation	There is little to no indication that students feel affection for the school.	There are some indications that students feel affection for school.
		There are Many indications that students feel affection for school.

Continuation table #3.

Student Comfort
It reflects the motivation students feel to stay, perform, and participate in the classroom.

Low (1,2)

Medium (3,4,5)

High (6,7)

Joint construction between empathic interactions to strengthen social subjects in a multi-degree school

Description of the scores.			
Verbal expressions: -Use of respectful words -Adequate vocabulary -Moderate tone of voice -Close and friendly language	Very few or no verbal expressions are seen among students.	Some verbal expressions are seen among the students.	Many verbal expressions are seen among the students.
Non-verbal expressions: -Gentle facial expressions -Open posture and body language -Subtle movements -Active listening	Very few nonverbal expressions are observed among students, whether facial or body.	Some non-verbal expressions are observed among the students, either facial or bodily.	Non-verbal expressions are frequently observed among students, whether facial or body.
Conservation of the environment; -Correct use of school materials. -Active participation in agricultural projects. -Energy saving -Water saving -Reuse of resources	Students rarely if ever conserve the environment.	Students sometimes conserve the environment.	Students constantly conserve the environment.

It is important to note that although Table 1 offers general rules for assigning scores, it is not a list of items that must be checked in order to assign a score; Therefore, observers should view the characteristics of empathy types as an overall description of the classroom, whether at the low, medium, or high level.

Once the observer had extensive knowledge of the characteristics of each of the types of empathy and the way in which scores were assigned, they proceeded to stipulate them in the direct observation log (see figure 2).

Table 4.
Direct observation logbook.

DIRECT OBSERVATION LOG

Grades observed: _____ Observer: _____
 Start Time: _____ End Time: _____
 Number of students: _____ Number of adults: _____
 Date: _____

CLASS (circle the area or subject of the activity observed): Spanish mathematics natural sciences English Social Ethical Technology Ed Artistic Physics Other: _____	MOMENTS (circle the observed moments). Sports routines Outside the classroom Meals/snacks Small group Complete group Workshops inside the classroom Curricular events other: _____							
Types of Empathy and Their main characteristics	Score							
Cognitive Empathy (CE)	<table border="1" style="margin: auto;"> <tr> <td style="width: 20px; text-align: center;">1</td> <td style="width: 20px; text-align: center;">2</td> <td style="width: 20px; text-align: center;">3</td> <td style="width: 20px; text-align: center;">4</td> <td style="width: 20px; text-align: center;">5</td> <td style="width: 20px; text-align: center;">6</td> <td style="width: 20px; text-align: center;">7</td> </tr> </table>	1	2	3	4	5	6	7
1	2	3	4	5	6	7		

-Student comfort: reflects the motivation
students feel to stay, perform and

Joint construction between empathic interactions to strengthen social subjects in a multi-degree school

<p>participate in the classroom.</p> <p>-Student expression: evidence of respect and the use of correct words among students.</p> <p>Clear Expectations of Behavior: The ability of students to set clear expectations about the behavior of their peers and to effectively use methods that prevent and redirect inappropriate behavior.</p> <p>Proactivity: considers the students' abilities to organize the time of the development of curricular activities, and participate most of the time individually and in groups.</p> <p>Consideration of the perspectives of others: examines the degree to which student-to-student interactions and classroom activities reflect the interests, views, and motivations that encourage responsibility and autonomy.</p>								
<p>Emotional empathy (EE)</p> <p>-Positive communication: describes those clear expressions without affecting or damaging the sensitivities of others, or your own. Positive communication must be free, without pressure and in an honest way, taking into account the feelings of others and seeking empathy with the other.</p> <p>-Degree of response: responds to the needs to recognize emotions among students, responding to the needs for attention and support, comforting, helping and paying attention to the needs of individualized support.</p> <p>-Awareness: examines the understanding of the emotional needs of others. It involves a high sense of sensitivity and skill development that facilitates the anticipation of difficulties and appropriate responses.</p> <p>-Emotional exchange: refers to the awareness of one's own emotions on which others are built. This social competence resides in this type of empathy as a way of transmitting positive</p>		1	2	3	4	5	6	7

<p>energy with those peers who need them. This emotional exchange denotes intelligence and training as human beings.</p> <p>-Quality of feedback: Describes the emotional balance needed to keep disturbing emotions at bay as key to emotional well-being in the classroom. Feedback between teachers and students is essential in quality learning and in the training of students capable of applying emotional intelligence in adult life.</p>								
<p>Somatic Empathy (ES)</p> <p>-Interpersonal relationships: reflects physical proximity in shared activities and help between peers, enjoying reciprocal affection and social conversation.</p> <p>-Synesthesia: it is usually a developmental condition. Refers to human perception to involuntarily and automatically experience an additional sense in the face of a specific sensory stimulus. Physical sensations (eye contact, warm voice, etc.).</p> <p>-Integration: refers to physical connection in multigrade social life, without barriers of age or grade.</p> <p>-Encouragement and affirmation: It indicates the recognition of the potentialities of others; the needs for reinforcement and the persistence of students to stimulate participation.</p> <p>-Repetition and expansion: It reflects the attitudes of students who are willing to repeat and expand on the explanations so that their peer understands or elaborates their own concept.</p>		1	2	3	4	5	6	7
<p>Affective Empathy (EA)</p> <p>-Respect: reflects the signs of positive quality that is equivalent to having veneration, appreciation and recognition for the people around us. Students show</p>		1	2	3	4	5	6	7

<p>this by having eye contact, a warm and serene voice, respectful language and an attitude willing to collaborate and share, etc.</p> <p>-Positive affect: refers to the set of positive emotions that are felt and experienced in the social life of the classroom. Positive affection brings great benefits and can be fostered from childhood.</p> <p>-Accompaniment and interest: Referring to one of the key or essential elements of educational tasks. Classroom accompaniment among students involves authentic feelings of interpersonal interactions and the protective value between them.</p> <p>-Frequent conversation: Measures the quality and quantity of information exchanges, conditional responses, and conversations between peers.</p> <p>-Use of appropriate vocabulary: referring to skills in production (oral and written), and in receptive activities developed by students.</p>									

Observation sheet types of empathy in the multigrade classroom, prepared by Sandra Leones Rodríguez (2023). Referenced from the CLASS system format by Dr. Robert C. Pianta, Karen M. La Paro and Bridge K. Hamre, 2012).

Obtain an average of scores for all observed cycles: to obtain a composite score for all cycles, the scores of the individual cycles for each dimension had to be averaged using the complete cycle score, adding these scores and dividing it by the number of observed cycles. (see Figure 2).

Table 5.
Log compilation sheet.

LOG COMPILATION FILE

Observer Name: _____ Observed Degrees: _____
 Educational Institution: _____ Date: _____
 Educational venue: _____ End time: _____

INSTRUCTIONS

Transfer the scores from the observation sheets. Calculate the average scores for each dimension of the domains, adding up the scores from each observation cycle and dividing them by the number of cycles completed. Then calculate the score for each domain as indicated.

	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5	Cycle 6	Average
Number of students.							
Number of adults.							
Academic content (circle it; mark focus area)	Spanish mathematics natural sciences English Social Ethical technology Ed artistic physics other:	Spanish mathematics natural sciences English Social Ethical technology Ed artistic physics other:	Spanish mathematics natural sciences English Social Ethical technology Ed artistic physics other:	Spanish mathematics natural sciences English Social Ethical technology Ed artistic physics other:	Spanish mathematics natural sciences English Social Ethical technology Ed artistic physics other:	Spanish mathematics natural sciences English Social Ethical technology Ed artistic physics other:	
Moments and Group (circle it; mark the observed moment)	Sports routines outside the classroom meals/snacks small group full group workshops inside the classroom Curricular events other:	Sports routines outside the classroom meals/snacks small group full group workshops inside the classroom Curricular events other:	Sports routines outside the classroom meals/snacks small group full group workshops inside the classroom Curricular events other:	Sports routines outside the classroom meals/snacks small group full group workshops inside the classroom Curricular events other:	Sports routines outside the classroom meals/snacks small group full group workshops inside the classroom Curricular events other:	Sports routines outside the classroom meals/snacks small group full group workshops inside the classroom Curricular events other:	
Start time							
End Time							
Observation Day	Date:	Date:	Date:	Date:	Date:	Date:	

EC	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	Overall EC Average	
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7		= \sum (PD1EC ... PD6EC)/6
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7		
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7		
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7		
Average of the day	= \sum (CEC1... CEC5)/5	= \sum (CEC1... CEC5)/5	= \sum (CEC1... CEC5)/5	= \sum (CEC1... CEC5)/5	= \sum (CEC1... CEC5)/5	= \sum (CEC1... CEC5)/5		
EE	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	Overall average EE	
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7		= \sum (PD1EC ... PD6EC)/6
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7		
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7		
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7		
Average of the day	= \sum (CI1... CI5)/5	= \sum (CI1... CI5)/5	= \sum (CI1... CI5)/5	= \sum (CI1... CI5)/5	= \sum (CI1... CI5)/5	= \sum (CI1... CI5)/5		
IS	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	Overall Average EN	
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7		= \sum (PD1EC ... PD6EC)/6
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7		
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7		
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7		
Average of the day	= \sum (CES1... ESC5)/5	= \sum (CES1... ESC5)/5	= \sum (CES1... ESC5)/5	= \sum (CES1... ESC5)/5	= \sum (CES1... ESC5)/5	= \sum (CES1... ESC5)/5		
EA	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	Overall Average EA	
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7		= \sum (PD1EC ... PD6EC)/6
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7		
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7		
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7		

Joint construction between empathic interactions to strengthen social subjects in a multi-degree school

Average of the day	$\frac{=\sum(\text{CEA1...CEA5})}{5}$	$\frac{=\sum(\text{CEA1...CEA5})}{5}$	$\frac{=\sum(\text{CEA1...CEA5})}{5}$	$\frac{=\sum(\text{CEA1...CEA5})}{5}$	$\frac{=\sum(\text{CEA1...CEA5})}{5}$	$\frac{=\sum(\text{CEA1...CEA5})}{5}$	
--------------------	---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------	--

Note: Compilation of scores of the observed cycles types of empathy in multigrade classroom. Prepared by Sandra Leones Rodríguez (2023). (Reference taken from the CLASS system format by Dr. Robert C Pianta, Karen M. LaParo, and Bridget K. Hamre, 2012).

This observation instrument, *Direct observation log* It allowed us to obtain an overall average of the type of empathy that prevailed in the multigrade classroom, which was compared with the thematic codes extracted from the expanded description of the instrument. This instrument was validated by the pedagogues and researchers of the Faculty of Research and Postgraduate Studies of the Ibero-American University of Mexico City, Dr. Hilda Patiño Domínguez and Dr. Ximena Andrea González Grandón.

Instruments of the Journal of my School Life and Collaborative Open Interview Sheet: In the first place, it is important to specify that the collaborative open interviews contained two moments within them: the first, the "diary of my school life", and the second, the completion or recording of the "open interview sheet". The first was filled out at home and brought on Fridays to be analyzed by the teacher. This instrument was developed by the students, and represented the written balance of what happened in the course of their day to day in the multigrade classroom, their experiences, successes, mistakes, reflections, positive and negative physical encounters, discussions, everything they remembered most about their school life. From the students' diaries, significant thematic codes emerged, which were organized according to the type of empathy referred to (see figure 2).

Figure 2.
Field diary model my school life.



The second, a guide sheet of open interviews and the design of some very pertinent pedagogical tools, such as the viewing of the short film "The Hedgehog", where the students had to finish co-constructing the story, according to their perceptions. The assignment of the dialogues in a comic strip that posed conflictive situations of their daily life, in which they had to give a story and a possible solution. Finally, it contained two very everyday case studies in the classroom, where they were presented with a phrase or situation, which they continued or talked about with each other. Of course, the interviewer was recording all the time, listening and observing their answers, without losing eye contact with them (see table 4).

Table 6
Model of collaborative interview form in the multigrade classroom.

COLLABORATIVE OPEN INTERVIEWS SHEET

Name of the interviewer:
Date: Participant
identification: Full names
and ages of the students.

Degree
Place
Hour

INITIAL QUESTIONS

Case 1 (EC):

Option A for young children: Miguel is adding 2+2 and says that there are 10; Luciana who observes him tells him..." Nooo Miguel, it's 4"; What do you think? Do you want to prove to me who is right? let's look in the yard for objects that help us answer the sum correctly.

Option B for big children: Sofia arrived at school very quietly today, it seems that something is wrong with her...

Case 2 (EE)

Option A for young children: Carlos ran past and tripped David, who was sitting on the floor with a group of classmates, but Carlos didn't notice because he was focused on going to enjoy his rest and play with the ball. David gets very upset, his arm hurts... What should David do? If you had acted like Carlos, how would you like things to have been solved with David?

Option B for Big Kids: Grade 5 kids ask Grade 1 Yeison to lend the teacher a ball to play at halftime. Yeison returns to the court very happy with the ball, but he gets so excited that he kicked it so hard that the ball went to the ceiling and exploded with the zinc, the fifth-grade children react...

Case 3 (ES) Short film "El Hedgehog". Let's chat... if we were the Hedgehog, how we would feel about the affectionate hugs of our colleagues. What will happen next with the Hedgehog, complete the story...

Case 4(EA)



Have you had the opportunity to receive help within the school? Tell.
 Have you ever had the chance to help someone? How?

ATTACHED NOTES

Before collecting and systematizing the information through instruments such as the direct observation log, the diary of my school life and the collaborative open interview file, it was necessary to determine ways that would allow the researcher to focus on the most relevant units of analysis, and thus be able to interpret or reveal meanings and identify patterns of behavior. empathic emotions and attitudes, which are not always explicitly reflected in interviews or field diaries, but rather seem encrypted within the corpus of data collected. (Kvale, 1994)

Based on the above, thematic coding was chosen as a method of preliminary analysis, since, although the focus of the thesis was not based on grounded theory, this strategy allows the focused analysis of the categories or topics of interest for the thesis, in the specific case, it allowed the selection of words or short phrases that evoked or referred to any of the types of empathic interaction addressed in the theoretical framework, that is, cognitive (Deutsch & Madle, 1975), emotional (Goleman, 1995), somatic (Lipps, 1924) and affective (Hoffman, 1982).

Among the multiple ways proposed to encode data in qualitative research, thematic coding was chosen, since according to Flick (2007) it is a fundamental approach in the analysis of qualitative data. He highlights the importance of this method to discover patterns, interpret meanings and generate theories from qualitative data.

It should be noted that, while the data were being collected, a coding grid had already been designed for the systematization and analysis of the data, (see table 5), in which a list of codes was established that allowed a selection of short fragments to be made from the transcriptions of the collaborative open interviews and the texts or narratives recorded in the field diaries. This thematic coding grid was developed taking into account the different types of empathic interactions described above. Likewise, for the selection of the codes, all the categories of the relational circuit that make up the theoretical and conceptual framework were taken into account, namely, empathic social interactions, the development of the social subject, collaborative learning, and of course, multigrade education.

Table 7.
Thematic coding grid.

Instrument	Selected Fragments	Thematic Coding
Direct Observation Log		Cognitive empathy (CE) Emotional empathy (EE) Somatic empathy (HE) Affective empathy (EA)
Journal of my School Life		
Collaborative Open Interviews Sheet		

Classification and categorical analysis

Code classification and categorical analysis is an approach used in qualitative research to organize and understand data by identifying and grouping more significant categories (Flick, 2007). For this reason, in the second moment of the analytical plan, the codes were grouped and classified in the light of the most relevant categories for the thesis, such as the different types of empathic social interactions, cognitive, emotional, somatic and affective empathy. However, it should be noted that relationships and similarities were also established with the other theoretical categories, among which is the development of the social subject, collaborative learning and multigrade education.

In order to establish these connections and similarities between the encoded information and the theory, conceptual proximities were taken into account, analogies were made and the correspondences between theoretical principles and observed data were explored. However, in order to favor the emergence of new categories, contradictions, oppositions, or unusual meanings (Bruner, 1996) were also analyzed, which may challenge or contradict what the theory says.

Moment of Triangulation, Interpretation and Relations of Meanings

Ultimately, the analysis of the identified categories was carried out to understand their meaning and relevance in the context of the research, thus achieving the main objective of the doctoral thesis, framed in *understanding the empathic interactions between students, which favor learning dynamics in the multigrade school*. Likewise, it was sought to establish relationships, tensions and emergencies between the different categories, particularly those that linked empathic interactions with learning dynamics and the development of the social subject in the students of the multigrade school of the Bajo Retiro Unitary Campus.

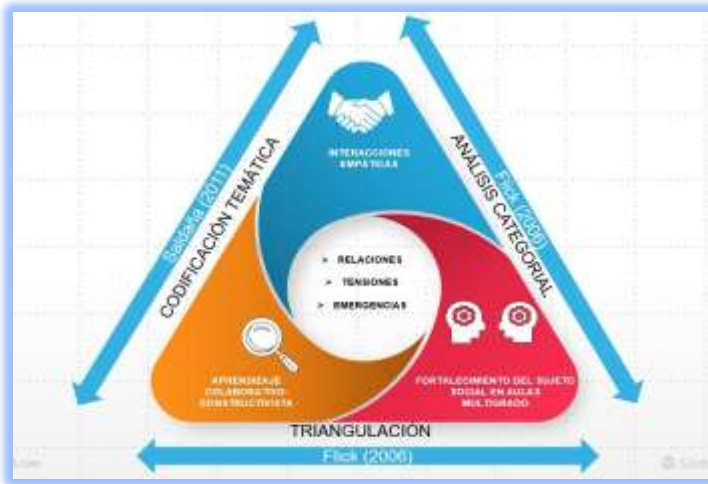
The methodology used in this third moment of analysis was the triangulation between these three categories that support the research thesis, that is, social empathic interactions, constructive learning dynamics and the strengthening of the social subject in multigrade classrooms. In order to triangulate them, a comparative analysis was made between the conceptual and theoretical frameworks, and the data produced by the silver analytical devices at moments one and two of the analysis plan, since contrasting these different perspectives and sources of information gives a deep and robust understanding of the phenomenon studied.

Once the three moments of data analysis had been completed, the findings of the thesis were presented based on the relationships, tensions and emergencies between the study categories. To condense the information, a semantic network was used, which is described in depth in the following section. In the same way, the future lines or openings of the thesis were drawn, which will make it possible to give continuity through other research exercises, and finally, the conclusions of the study were raised.

Results

The implementation of the methodological design made it possible to understand *How empathic interactions among students favor learning environments, and strengthen the social subject in the multigrade school of the Bajo Retiro unitary campus, in La Plata, Huila* (see figure), as a dynamic gear that justifies the good learning environment observed in the multigrade classroom of the Bajo Retiro campus. This can be stated after approaching the different concomitant research at the international, Latin American, national, regional and local levels in the state of the art, and examining different authors with their related theoretical postulates in the theoretical framework (Leones & Bonilla, Revisión Bibliográfica Sistemática de la Investigación Multigrado, 2024) (Leones & Bonilla, 2024). Subsequently, the thesis gained momentum with the reflexive analysis of the responses and dialogues that emerged among the students and the observations made during the application of the data collection instruments.

Figure 3
Moments of the Analysis Plan



Source of own creation.

In the implementation of the methodological plan, it was possible to evidence and describe not only the types of empathic interactions that prevail among the participants, but also to detail the new categories that emerged during the process of listening to and observing the students' voices. For example, the actors of the study repeatedly mentioned in their field diaries and in the interview, the high value that they give to the other, to their peers, colleagues and friends, as a special consideration and appreciation that they have among themselves, manifested in different thematic codes, where a special aptitude to meet the needs of the people of the Spaniards was revealed. ways of thinking, and contributing to a harmonious social coexistence. This aspect

was not addressed in the research consulted in the state of the art, which was limited to highlighting the problems of the multigrade rural context, leaving aside the issues of social interactions among children.

At the same time, the first findings that correlated the thesis were those produced by the observation log, in its first quantitative version. This showed that the predominant type of empathy in the multigrade classroom was affective empathy, with an overall average of 6.6, followed by somatic empathy with 5.8, then cognitive empathy with 5.7 and finally emotional empathy, with 5.7 on the scale of assigned scores. These results were contrasted with the qualitative analysis in the thematic coding with the characteristics that led the researcher to assign these scores, obtaining a parallelism with affective empathy. In this way, it was possible to identify the types of empathic interactions that prevailed among the research participants.

Some thematic codes that highlighted the predominance of affective empathy and the value of others were: "in this school everyone is kind, not like in the other school, they made fun of me for my last name, for my physique. On the other hand, I do like to be here because here they do respect me" (Camilo, fifth grade-Diary of my school life, DVE); "when I don't have recess, they give me or buy me, and we play together" (David, second grade, DVE), "I witnessed an accident entering the classroom, since my classmate Mauren, from the first grade, had a hard fall on the swings of the school, to which I wish a speedy recovery" (Lizeth second grade-DVE), "today was a very good day!, I had a happy time with Karen, Yoni and Leidy, and we played mom, we shared together, we chatted, we laughed. I shared my snack with them and had a good time with them" (Vanessa fifth grade-DVE), "when we help young classmates and they are stubborn, we look for a way for them to realize their mistakes" (Juan José, fifth grade-MP1), "if I am the one who stumbles over someone else, I would apologize" (Alejandro fifth grade-MP2); "here there are first, second, third, fourth and fifth grades, so we must be friendly and we must respect everyone at all times" (Lucero, second grade-MP3), "we must help our classmates because we are good children" (Antonnela, first grade-MP4), "if I see a sad classmate, I tell him... the past stepped on and I invite him to play" (Leidy, autistic, fourth grade-FEC).

These affective empathic interactions played a fundamental role in the process of social construction of learning in the multigrade classroom, since, as mentioned by Rosario Cubero (2005) in her article entitled "Basic elements for a social constructivism", social interactions in the classroom promote empathy and effective communication. This was evident in the multigrade classroom of the Bajo Retiro campus, when the children collaborated with their classmates, built knowledge together, considered the differences in learning rhythms, ages and interests, posed questions, enriched their understanding, sought strategies and opportunities for interaction, listened and expressed their ideas, and resolved conflicts autonomously. These skills are essential for both learning and life in society.

Social constructivism is directly linked to affective empathy and the way in which multigrade students construct learning (see figure 26), this is the most important finding revealed by the doctoral thesis, and from this relationship another new theoretical category emerged, and it is attentive listening among schoolchildren, this predominant capacity among children, it gives them the opportunity to get closer to the emotions and needs of their peers regardless of grade or age. It also allows them to be open to other opinions, use an appropriate tone when communicating, demonstrate sensitivity towards others and contribute to an environment conducive to constructive dynamics of social learning. These statements are supported by Cesar Coll, in his work, "Constructivism in the classroom", when he argues that this constructivist conception of learning must use affective strategies that help the brain to associate, classify, infer, analyze and think with a special emphasis on metacognition, which allows the construction of significant learning in the student (Coll, 2007. P. 27).

By continuing with the process of thematic coding of the instruments, authentic expressions of the subjects were found, which manifested a third emerging category, the high degree of value they give to learning, reflected in the value of the task, as an individual and social commitment in their autonomy, as part of the formation of the social subject, reflecting an adherence to the school and commitment to their school duties. It was very common to find in the thematic codes, that children mentioned within their routines after school, the willingness and satisfaction in executing them, and that sometimes, if they realized that they had not done them, they did not invent excuses, but looked for a way to solve them with the collaboration of their peers.

In fact, the value of homework was a category that emerged during the analysis of the data collected, which is directly related to the love for school. The following figure shows the result of the frequency of words most used by students in the methodological process, which reflects terms that denote school commitment, pride in achievements and in helping others to achieve them, quality in social relationships which are close and reflect being part of a school community. Emotional well-being where they are usually happy and cared for, active participation that flashes enthusiasm and a sense of belonging, which is evidenced by feeling supported and valued.

teacher. These close empathic relationships encourage collaboration from the initiative of the actors themselves, enhancing the multigrade classrooms of the context in which the research occurs.

The findings of the doctoral thesis led to the theoretical reflection of the relevance of empathic interactions among students in the multigrade classroom. From the study of the state of the art, perceptions were glimpsed from the postulates of Alonso Puig (2008) and Luis Moya (2018) when they stated that the experience of empathy could promote collaborative attitudes and teamwork among students, which could be beneficial for learning. They also stated that when children feel valued and respected by their peers, they were more likely to feel motivated to collaborate and work together. Then, in the theoretical framework, there was a more comprehensive stance with the study of didactics as a science that studies educational processes and supported by the statements of Blanca Castillo (2016), Joaquín Prats (2002), Luis Alves de Mattos (1955) and Rómulo San (2007), when they stated that the importance of the study of empathy as part of classroom didactics, it promoted the creation of new strategies to optimize training processes, the direction and empowerment of social subjects in students, as promoters of greater prominence in the learning process.

Now, from the doctoral thesis, a continuation of the previous theoretical approaches is offered, affirming that, from empathic interactions and co-constructed learning dynamics, didactic strategies can be promoted for the development of autonomy and the favoring of learning in the midst of the diversity of grades, ages and conditions, that is, develop social subjects.

These successes will allow rural multigrade teachers to become aware of the concordance of the student's social formation with quality learning; to observe what is hidden in what is seen in order to face the new demands and forms of social relations in rurality. In addition, the students will be the greatest beneficiaries of this doctoral thesis, since they are expected to reverberate the initiatives taken by their teachers, to allow them to be social subjects, so that they will be more likely to relate and resolve conflicts in a constructive way, they will create a more inclusive and welcoming environment for all, reduce bullying, promoting tolerance and mutual respect. As a complement, social subjects strengthened by empathy will develop critical thinking, with greater intrinsic motivation, and will feel more promoted and committed. Finally, this social training will be an essential skill for life outside the classroom, where they must learn to manage their time, make informed decisions and assume responsibilities. (Zambrano, 2014)

Discussion and conclusions

Empathic interactions between students play a fundamental role in the learning dynamics in the multigrade school. Through participant observation, collaborative open interviews, and student-written field diaries, several types of empathic interactions prevalent in the classroom were identified, such as affective, somatic, emotional, and cognitive, in addition to social learning strategies, such as collaboration, mutual support, and emotional understanding.

The empathic interactions that are privileged in the multigrade classroom are related to the creation of an environment of trust and support among students. These interactions mobilize learning dynamics by fostering communication, joint problem-solving, and the construction of shared meanings. From a constructivist perspective, empathic interactions contribute to the development of the social subject. Likewise, collaborative learning and empathic social interactions are fundamental for the active construction of knowledge.

Although studies on rural education and multigrade classrooms were found, none delved into the topic of empathic interactions, therefore, the doctoral thesis aimed to fill this scientific gap by exploring and analyzing these interactions in a more detailed way. (MEN, 2018)

Empathic interactions play a crucial role in rural student education, teacher teaching dynamics, and classroom environments. Their study and understanding can contribute significantly to improving the learning experience for students in these multigrade contexts.

It is intended that this research work contributes to the pedagogical knowledge of an effort that aspires to strengthen an educational system based on relationships of solidarity, collaboration, empathy and joint construction.

However, talking about rural education at the preschool and basic levels in Colombia requires recognizing multiple challenges faced by teachers in institutions with multigrade classrooms. These classrooms represent, almost iconically, the school configuration in rural sectors, mostly, and some urban municipal capitals of the country. The teachers who work in these classrooms configure their practice supported by their initial training, and with the creativity of professional survival. They are required to attend to administrative matters and, at the same time, respond pedagogically to groups of students with heterogeneous ages and specific learning needs.

Prior preparation for pedagogical practice is rarely acquired in the initial teacher training processes in Colombia. Therefore, it is essential to incorporate specific professional training programs for multigrade teachers. The closest thing to this has been offered since 2019 by the University of Magdalena with the academic program of a bachelor's degree in peasant and rural education. Therefore, it is suggested that additional research be carried out to evaluate the relevance of rural teacher training in Colombia, as well as the teaching methods and strategies applied under the new school model.

As for the normal schools in Colombia, it is important to strengthen them so that, as in countries such as Mexico, Argentina and Spain, they train professional teachers for primary and high school. This will help improve the quality of education and prepare teachers better to meet the challenges of multigrade classrooms and rural education. (Miranda, 2017)

On the other hand, it is suggested to potentiate research on pedagogical strategies that can be useful in multigrade classrooms in Colombia, so that they are adjusted according to the characteristics and interests of the context, providing activities and teaching means built from close listening with the communities and enriching the accompaniment strategies implemented by the Ministry of National Education. to optimize work in the classrooms and strengthen rural education.

In addition to this, empathy is proposed as a subject or annual seminar from primary institutions, which contain practical activities adapted to the various contexts of the Colombian rural regions, for this, the contribution from the doctoral thesis will be a manual of empathic practices in the multigrade classroom, which will contain specific practices and exercises to cultivate empathy among students in a classroom with multiple grades.

Bibliographic references

- Alro, H., & Skovsmose, O. (2012). Dialogic learning in collaborative research. In P. Valero, *Critical Mathematics Education. A socio-political view of mathematics learning and teaching* (pp. 149-171). Bogota, Colombia.
- Angrosino, M. (2007). *Ethnography and participant observation in qualitative research*. Spain. Retrieved on 29 of 12 of 2023
- Bruner, J. (1996). *Mental reality and possible worlds. The acts of imagination that give meaning to experience*. Barcelona: Gedisa.
- Castillo, B. C. (2016). *Cognitive empathy and the development of social skills in children aged 5-6 years at the Alfonso Troya educational unit*.
- Coll, C. (2007). *Constructivism in the classroom*. Barcelona: Graó.
- Cubero, R. (2005). *Constructivist Perspectives. The intersection between meanings, interaction, and discourse*. Spain: Graó.
- Deutsch, F., & Ronald Madle. (1975). Empathy: Historic and Current Conceptualizations, Measurement, and a Cognitive Theoretical Perspective. (S. AG, Ed.) *Human Development*, 18(4), 267-268. Recuperado el 2023, de <https://www.jstor.org/stable/26764331?typeAccessWorkflow=login>
- Díaz, D. M., & Arias, Á. J. (2021). *Curricular Improvement Tools to Strengthen the Specific Needs of the Multigrade Classroom at the IED José Hugo Enciso-Naranjitos Campus, Primary Cycle*. Bogota.
- Flick, U. (2007). *Introduction to qualitative research*. Paideia. Retrieved on 2 of 11 of 2023, from <https://www.freeibros.net/psicologia/introduccion-a-la-investigacion-cualitativa-2da-edicion-uwe-flick>
- Franco, L. J. (2020). *UCM Doctoral Thesis: The teacher as a political subject for rural education in peace and post-conflict scenarios*. Manizales.
- Goleman, D. (1995). *Emotional Intelligence*. Kairos.
- Hoffman, M. (1982). *Development of Prosocial Motivation*.
- Jaimes, M. C. (2022). *The Teaching Practice in the Multigrade Classroom: An Approach to the Understanding of Knowledge*. El Pital-Huila.
- Kvale, S. (1994). *Interviews: an introduction to qualitative research interviewing*. Sage Publications Inc.
- Leones, S., & Bonilla, O. (2024). Empathic Interactions in Multigrade Schools: A Strategy for Developing a Didactic Subject of Learning. *Migration Letters*, 21(2), 180-206. Obtenido de www.migrationletters.com
- Leones, S., & Bonilla, O. (2024). Systematic Bibliographic Review of Multigrade Research. *Ciencia Latina Internacional*.
- Lipps, T. (1924). *The Fundamentals of Aesthetics. The contemplation of aesthetics and the plastic arts*. Madrid.
- López, P. (2004). Sample population and sampling. *Zero Point*.
- Martínez, I. C., Guzmán Toro, L. Y., & Vargas Vargas, J. (2018). *Interdisciplinarity as a means to transform didactic practices focused on water conservation in the La Mina Educational Institution of the Municipality of Teruel, Huila*. Teruel-Huila.
- Mattos, L. Á. (1955). *Compendium of general didactics*. Buenos Aires: Kapelusz.
- MEN. (2018). *Special Plan for Rural Education towards Rural Development and Peacebuilding*. Bogota.
- Milstein, D., & Alba Guerrero. (2021). Readings of collaborative ethnographies with children and young people in Latin American educational contexts. 14. doi:10.11144/Javeriana.m14.lecn
- Miranda, A. (October 21, 2017). Comparative analysis of education in Finland, Japan and Mexico. *Innovate*. Retrieved from <https://innovaprende.wordpress.com/2017/10/21/presentacion-del-analisis-en-educacion-de-finlandia-japon-y-mexico/>
- Moya, L. (2018). *Empathy*. Barcelona: Plataforma Editorial.

- Muñoz, D. (2022). *Meanings of the parental role in education mediated by traditional technologies in rural school families in times of pandemic*. Doctoral Thesis, Universidad Católica de Manizales, Manizales. Retrieved August 10, 2023, from <https://repositorio.ucm.edu.co/handle/10839/4020>
- Olaya, C. A. (2022). *Analysis and Strengthening of the Action of the Planning to Transform the Teaching Practice in a Rural, Unitary and Multigrade Primary School Headquarters*. Tello-Huila.
- Pasek, E., & Matos, Y. (2006). Five paradigms to address the real. *TELOS. Journal of Interdisciplinary Studies in Social Sciences*, 8(1), 106-121. Retrieved 26 12 2023, file:///C:/Users/usuario/Downloads/Dialnet-CincoParadigmasParaAbordarLoReal-6436593.pdf
- Pianta, R., La Paro, K., & Hamre, B. (2012). Classroom Assessment or Scoring System. System for evaluating classroom dynamics. In P. B. Publishing (Ed.), *Manual Pre-K Spanish* (p. 124). Baltimore, London, Sydney, United States of America; United Kingdom; Australia: Pre-K Spanish. Retrieved January 4, 2024, from www.brookespublishing.com
- Prats, J. (2002). Towards a definition of research in social science didactics. *Enseñanza de las ciencias sociales*, 81-89.
- Puig, M. A. (2008). *Living is an urgent problem*. Barcelona: Aguilar. Retrieved on 10 14, 2023
- Ricardo, L., Puyo, C., & Sánchez, H. (2019). *Mayor's Office of La Plata*. Retrieved from <https://www.huila.gov.co/salud/loader.php?Servicio=Tools2&ITipo=descargas&IFuncion=descargar&idFile=26450>
- San, R. (2007). The subject in education and education in the subject. *Sophia. Collection of Philosophy of Education*(2), 7-12. Retrieved November 19, 2023, from <https://www.redalyc.org/pdf/4418/441846112001.pdf>
- Tezanos, A. d. (1997). *An ethnography of ethnography. Methodological approaches for teaching the qualitative-interpretative approach to social research*. Pedagogy Collection S. XXI.
- Tezanos, A. d. (2020). The primary school: an ethnographic perspective. *Research Center of the National University C.I.U.P.*
- Vergara, A., Vergara, E., Chávez, P., & Peña, M. (2015). Children as Social Subjects: The Contribution of the New Social Studies of Childhood and Critical Discourse Analysis. *Psychoperspectives. Individual and Society*, 14(1), 55-65. Retrieved from <https://www.scielo.cl/pdf/psicop/v14n1/art06.pdf>
- Zambrano, A. (January-June 2014). Being a teacher and a society of control "the hidden in the seen"-Ocesi University. *Praxis & Saber*, 5(9), 149-164.
- Zubiría, J. D. (2010). *Towards a Dialogic Pedagogy*. Aula Abierta Magisterio.