

The use of a longitudinal and ethnographic research database: theoretical-methodological discussions ^{1 2 3 4}

O uso do Banco de Dados de uma pesquisa longitudinal e etnográfica: discussões teórico-metodológicas

El uso de la Base de Datos para investigaciones longitudinales y etnográficas: discusiones teórico-metodológicas.

Penafiel, Kelly Jessie Queiroz ⁽ⁱ⁾

Gomes, Maria de Fátima Cardoso ⁽ⁱⁱ⁾

⁽ⁱ⁾ Universidade Federal de Rondônia – UNIR, Vilhena, RO, Brasil. <https://orcid.org/0000-0003-0968-670X>, kellyjessierm@gmail.com

⁽ⁱⁱ⁾ Universidade Federal de Minas Gerais – UFMG, Faculdade de Educação, Belo Horizonte, MG, Brasil. <https://orcid.org/0000-0002-6881-3193>, mafacg@gmail.com

Abstract

This article presents a theoretical and methodological discussion on a longitudinal and ethnographic research carried out from February 2017 to March 2020, based on the construction of a Database consisting of video recordings, field diary notes, and a collection of artifacts. Permanently available records enable the development of master's and doctoral studies, including during the Covid-19 pandemic. On the one hand, the emic stance, the historical-cultural view of the research subjects, and the collectively constructed illogic of inquiry enabled the development of ethnography through the Database. On the other hand, there are limitations, which can be amended by researchers' solidary and collective work, when one of them participated very little in constructing such records.

Keywords: Database, Ethnography in Education, Cultural-Historical Theory

¹ Responsible editor: Silvio Gallo <<https://orcid.org/0000-0003-2221-5160>>

² References correction and bibliographic normalization services: Vera Lúcia Fator Gouvêa Bonilha <verah.bonilha@gmail.com>

³ Funding: CNPq.

⁴ English version: Viviane Ramos <vivianeramos@gmail.com>

Resumo

Este artigo apresenta discussão teórico-metodológica sobre uma pesquisa longitudinal e etnográfica desenvolvida de fevereiro de 2017 a março de 2020, a partir da construção de um Banco de Dados composto por videograções, anotações em diário de campo e coleta de artefatos. Os registros permanentemente disponíveis possibilitam o desenvolvimento de pesquisas de mestrado e doutorado, inclusive, durante a pandemia da Covid-19. Considera-se que a postura emica, a visão histórico-cultural dos sujeitos da pesquisa e a lógica de investigação construída coletivamente, por um lado, viabilizam fazer Etnografia por meio do Banco de Dados. Por outro lado, há limitações, que são compensadas pelo trabalho solidário e coletivo dos pesquisadores, quando uma das pesquisadoras participou pouco de sua construção.

Palavras-chave: Banco de Dados, Etnografia em Educação, Teoria Histórico-Cultural

Resumen

Presentamos una discusión teórico-metodológica generada a partir de una investigación longitudinal y etnográfica, desarrollada entre febrero de 2017 y marzo de 2020, usando una base de datos compuesta por registros en vídeo, anotaciones en diario de campo y colecta de artefactos. Estos registros posibilitan el desarrollo de trabajos de maestría y doctorado, inclusive durante la pandemia de Covid-19. Consideramos que la postura Emica, el enfoque histórico-cultural de los sujetos de investigación y la construcción colectiva de la misma, posibilitan hacer etnografía usando bases de datos. Aunque se presentan dificultades, estas son compensadas por el trabajo colectivo y solidario de los investigadores, por ejemplo, en el caso de alguien que no participó activamente de la construcción de la base de datos.

Palabras clave: Base de datos, Etnografía em Educación, Teoria Historico-Cultural

Introduction

This text proposes a theoretical-methodological discussion about a longitudinal and ethnographical research conducted by a group of researchers in Childhood Education and Cultural-Historical Psychology. We specifically want to discuss the first author's context during a month of empirical material production and her reliance on a vast Database built by other researchers between February 2017 and March 2020

The research program, *Programa de Pesquisa Infância e Escolarização* [Childhood and Schooling Research Program], which built said Database, approaches themes regarding the

perezhivaniya of babies and teachers, among them the insertion process at EMEI Tupi⁵, the construction of the autonomy of psychomotor movement, the cultural origins of games, the creation of babies' subjectivity, friendships, the experience with artifacts, and the building of literacies senses and meanings. The latter was the focus of the first author's thesis. The Research Program was submitted to the evaluation of the Ethics Committee from *Universidade Federal de Minas Gerais* – UFMG, and approved under the CAAE n.º 62621316.9.0000.5149.

Some ethnographical questions emerged during this thesis: Are we making ethnography when we resume other researchers' recordings and field notes? Can we talk about "participant observation" when a researcher seeks to build his/her empirical material in a database previously organized? What are the problems and advantages of researching in a database that the researcher did not help build? We do not aim to answer all these questions in depth. However, it is necessary to reflect on them. Building quality research is complex and related to theoretical-methodological implications arising from the researchers' choices and the sociopolitical and economic context. The Covid-19 pandemic created challenges for the studies in human sciences, notably those using Ethnography and, therefore, qualitative studies.

In Brazil, most studies in education have been developed using a qualitative approach. Despite this, according to Oliveira (2013), studies on education are still questioned "mainly concerning representativeness, subjectivity, as well as technical problems regarding data collection, processing, and analyzing" (p. 165).

In the terms proposed by Geertz (2008), ethnographic description continues to be essential to capture the senses and meanings the group participants give to their actions. That is, what makes an ethnographic study is that it seeks to showcase events based on the viewpoint of those involved in them. As Erickson (2004) points out this emphasis on the local meaning was key in the definition of ethnography started by Malinowski.

Interactional Ethnography, translated in Brazil as *Etnografia em Educação* [Ethnography in Education], was founded by *Santa Barbara Classroom Discourse Group* to allow the practice of Ethnography in the classroom (Putney et al., 1998). According to Green et al. (2005), Interactional Ethnography demands a long time (one year or more) based on the theoretical-methodological assumption of Cognitive Anthropology, Interactional Sociolinguistics, and

⁵ Pseudonym chosen for the school where the Research Program was held.

Discourse Analysis (Gomes et al., 2017). Though from different fields, the assumptions mentioned, with their specific analytical focuses, share the same perspective of culture, language, and discourse contextually built by people in different social spaces (Castanheira, 2010). Researchers underline this construction process through a logic of inquiry.

Green et al. (2005) highlight the main principles that ground Ethnography as a logic of inquiry and not only as a research method but “*ethnography as the study of cultural practices, ethnography as entailing a contrastive perspective and ethnography as entailing a holistic perspective*” (p. 27).

The first focuses on Ethnography as the study of cultural practices regarding a set of principles and practices that members of a given group use to guide their actions. They are the non-fixed cultures of a group. Understanding the nursery class and the activity classes of EMEI Tupi as cultures implies paying attention to what happens there and what the group members do to one another through events and time. Studying a group *as a culture* is asking about their practices and what they allow to their members. Therefore, culture belongs to the groups and is not held by a single individual (Green et al., 2005).

The second principle sees Ethnography as a contrastive perspective, considering three forms:

- (i) the contrast as a basis of perspectives of data triangulation, methods, and theory; (ii) the contrastive relevance as a grounded form to make emic practices and processes visible; (iii) difference of framing and relevant points as contrastive spaces to identify culture knowledge. (Green et al., 2005, p. 34)

The third principle points to Ethnography as a holistic perspective that, according to Green et al. (2005), refers to identifying a “circumscribed” social unity. According to Bloome (2012), the ethnography that does a holistic and cultural description “seeks to understand what is happening, what it means, and its significance to the social group, from an *emic* (native, insider) perspective rather than from an *etic* (external, outsider) perspective.” (p. 9). These three principles show that Ethnography is not a set of linear data collection techniques and participation in the research field but a logic of inquiry.

From this perspective, we bring theoretical-methodological aspects to this discussion to show how the first researcher's logic of inquiry was built based on the Database mentioned earlier.

This logic of inquiry is grounded on the assumption of Ethnography in Education and the Cultural-Historical Theory. According to Gomes et al. (2017), the Ethnography in Education and the Cultural-Historical Theory are concerned with “the collective aspects and the individual ones of/in the classroom, seeking to understand dynamically and historically the relationships between the individual and the social when building learning opportunities to all” (p. 121). However, the Cultural-Historical Theory questions the objective of Ethnography in Education, when not limited to the learning processes, and analyzes the unity of instruction-development in the activity rooms in Childhood Education. The focus is on understanding the cultural development of babies and small children and their relationships with instruction (planning and collective execution of activities) and self-instruction (babies and children's activities), that is, with the dialectic of collective-individual in the activity rooms (Vigotski, 1934/1993).

When proposing an articulation between these two approaches, Gomes et al. (2011) consider that Ethnography in Education and the Cultural-Historical Theory start from the principle that “the individual development is built through collective development. People give their own meaning to what was taught to the cultural group in which they belong” (p. 12). Therefore, one approach complements and questions the other (Gomes, 2020).

Putney et al. (1998) also defend the combination of these two perspectives, which they consider to be mutually informative in building how the researcher places and is placed in the research *locus*. According to Gomes et al. (2011), researchers learn and apprehend the cultural meanings of the investigated groups when adopting these two approaches. They also build and rebuild knowledge about the community researched. As Vygotsky did not develop field studies nor deepen the concept of culture, we sought grounding elements in the Ethnography in Education to conduct longitudinal and ethnographic research in dialogue with the Cultural-Historical Theory.

Relevant studies were conducted through different undergraduate, master's, and doctorate projects, based on this dialogue and the use of the Database of the *Programa de Pesquisa Infância e Escolarização*.

Dominici's (2021) research about the constitution of Valéria's and Henrique's subjectivities in a collective space of education and care is a good example. According to Dominici (2021), “the constitution of subjectivities is a process and a product of encounter that

establish a dialectic unit between the individual and the collective” (p. 15). The unity of analysis [individual-collective] shows that biological, social, emotional, cultural, discursive, and cognitive aspects coexist when constituting Valéria’s and Henrique’s subjectivities.

Silva, E. (2021), who investigated the processes of constitution of play in a class of two-year-old children in EMEI Tupi (2017-2018), defends that the historicity of play’s cultural contents supports the thesis that “play of infants and children is an act of creating possibilities of participation in the social group and of creating meanings for the events of collective life; an act constituted by the unity [action/imagination]” (p. 9).

Focusing on the unity of analysis [person-environment], Macário (2021) investigates the perezhivanie of a group of babies in their relationship to cultural artifacts. According to the author, such perezhivaniya were marked by the appropriation of cultural artifacts made available in the nursery space: the meanings attributed to the curtain, blankets, balls, and cans, among others, were expanded and transformed by the babies' actions.

Silva, V. (2023) analyzed the imitation process of a baby also in the scope of *Programa de Pesquisa Infância e Escolarização*. This process was marked by the dialectic unity [perception-action]. Investigating the process of constituting the social friendship bonds in a group of children during three years in EMEI Tupi, Silva, V.’s (2023) study raised an important discussion to broaden friendship theoretical concepts among children under three years old, as well as pointed out evidence for the pedagogical practice with young children. Thus, implementing longitudinal ethnographic studies is powerful for understanding the process of babies and young children's cultural development in collective contexts of care and education.

Therefore, we perceive that the studies mentioned sought to use Vygotsky’s (1932/2018) method of unit of analysis because, in a collective context of education and care, “we should see the people that teach and develop themselves and not the abilities taught and developed – human beings need to be in the core....therefore, we should ask what is developed and not what is development” (Gomes, 2020, p. 70).

This article is organized in sections, starting with this introduction (section 1), followed by a reflection on the construction of the empirical material, the presentation of Lúcia's telling case (section 2), and the implementation of an Ethnographic study during a pandemic (section 3). Section 4 discusses the ethical implications. Finally, we present our final remarks.

The construction of empirical material from a vast Database

In quantitative terms, the Database has 897h21min51s of filming of 231 days of participant observation between 2017 and 2019. Thus, in this article we consider the *in loco* empirical research in this period. The records are kept on external hard drives with backups, and files are stored on the cloud through Dropbox and Google Drive. Figure 1 presents the percentage of *participant observation* days in each research year.

Figure 1

Percentage of observed days (Banco de Dados do Programa de Pesquisa Infância e Escolarização (2021))

<i>Year</i>	<i>PERCENTAGE OF OBSERVED DAYS</i>
2017	42,5%
2018	35.7% (There was a teachers' strike)
2019	45%

The figure shows that 80 days were observed in 2017, representing 42.5% of all school days. In the following year, there was a teachers' strike in the Municipal Education system of Belo Horizonte, state of Minas Gerais, Brazil. Thus, only 63 days were observed, corresponding to 35.7% of school days. Finally, in 2019, 88 days were observed, representing 45% of all school days.

Spradley (1980) discusses how to use the participant observation method within ethnographic studies. The author stresses the need to be clear on the nature of Ethnography because other types of qualitative research use participant observation, descriptive studies, and

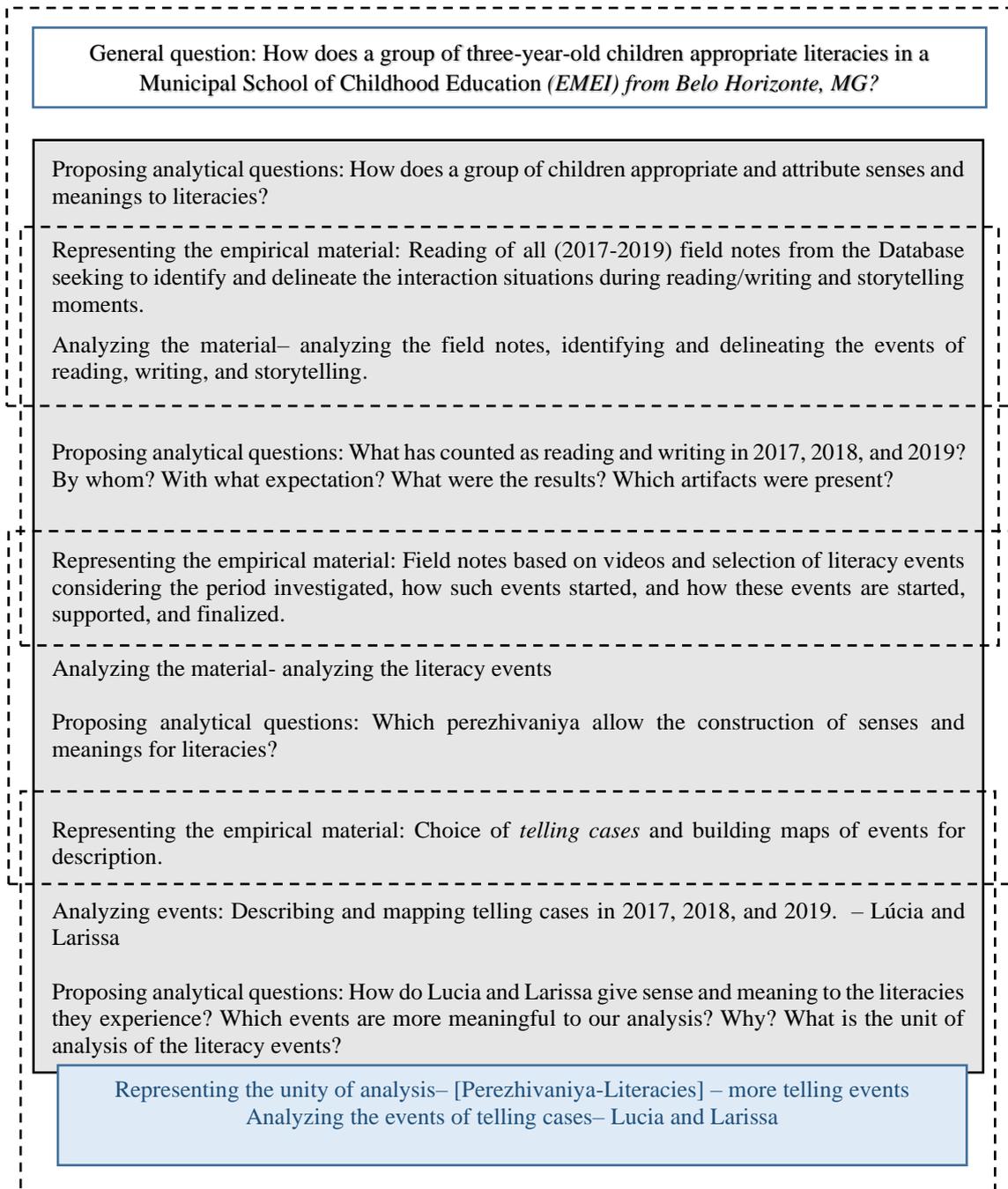
interviews. Therefore, he calls our attention to know what a participant observation that leads to an ethnographic description and analysis actually means.

According to Spradley (1980), the ethnographer must locate a social situation and the informants before conducting the interview and the participant observation. As non-linear research processes, making ethnographical/analytical questions, building the empirical material, representing it, and analyzing it are necessary to build a logic of inquiry that is flexible, self-correcting, responsive, and iterative. Figure 2 shows the construction logic of the first author's PhD research using the Database mentioned.

Therefore, the logic of inquiry presents the relationships part-whole, the possibilities of iterative-responsive analysis, and the representation of empirical material. Initially, we presented a general ethnographic question that delineated our study object. Afterward, we moved to the representation of the empirical material in maps of events and toward new analytical questions. This abductive logic, in which a question raises others, can be perceived using sharp rectangles, indicating that one is inside the other and occurring simultaneously. This movement is rooted in Vygotsky's (1932/2018) method of Unity of Analysis, which opposes the Cartesian 'decomposing into elements' Method of Analysis.

Figure 2

Representation of logic of inquiry



Note: Created by authors, based on the model available at Green et al. (2005).

As Green et al. (2005), Castanheira (2013) and others consider that the superposition of these triangles represents the connection between the different phases of the process. The superposition is intentional and seeks to make visible the recursive and iterative process of research using participant observation, as Spradley (1980) and Green et al. (2005) affirm that the simple use of participant observation does not constitute, by itself, the researchers' engagement in ethnographic research. More than being physically present in the research place, participant observation involves adopting an emic perspective, even with records from a database. If the researchers are not based on theories of culture or proposing ethnographic questions to guide their choices towards what is relevant to highlight or not in the database, or "...encompass their personal interpretation about the activity observed, they are not engaged in an ethnographic approach as perceived from an anthropological point of view" (Green et al., 2005, pp. 18-19).

The reflection raised by Spradley (1980) and Green et al. (2005) helps us to distinguish data and records, as Castanheira et al. (2007) reflected when stating that "records are not data until the researcher acts over them and uses particular theoretical perspectives to transform the 'slice of life' recorded (written, graphic, or audio/video) into data to analyze the studied questions" (p. 64).

Hence, an advantage of conducting longitudinal ethnographic research in a group is the production of a large number of records that the researcher can consult to build a logic of inquiry. The relationship, the collective study, and the contact with the people who created the archive is necessary to understand the records. The research, as a collective activity built by many hands, allowed the establishment of a logic of inquiry for the first author's research, as well as the analysis and interpretation of the empirical material considering her research theme – the senses and meanings of *Perezhvaniya* -Literacies by babies and young children.

When entering a record archive of a longitudinal and ethnographic study, with data collected by the researcher and others, the research questions and object will help identify which and how to select the events to create a set of materials for analysis. When taking a database with more than 800 hours of filming and three years of field notes, we first feel apprehensive and concerned about giving meaning to what we see. However, the enormous amount of empirical material accumulated was used to thoroughly describe the routine of babies' and young

children's activity classes, including the verbal dimension and the essential non-verbal and coverbal ones.

All 231 days of participant observation were recorded in an observation sheet standardized by the research group. Figure 3 presents the macro form of the record of one event analyzed by the first author, which supports the theoretical-methodological discussion we are building in this article.

Figure 3

Observation sheet from the September 4, 2017 (Research Program Archive, 2021)

OBSERVATION SHEET			
CLASS: Coruja [Owl] MAIN TEACHERS IN CLASS: Letícia, Ivana, Cristina, Luciola, and Juliana ⁶ CHILDREN: Lúcia, Danilo, Valéria, Henrique, Larissa, and Simone OBSERVATION DATE: September 04, 2017 DAY OF THE WEEK: Monday (afternoon) RESEARCHER: Isabela Dominici			
TIME	SUBJECTS/LOCAL	DESCRIPTION	KEYWORDS
2:36	Simone	Simone grabs a small pan and moves a spoon inside it, saying "food"	
3PM		Children play in a sunny space (solarium)	
3h13	Lúcia	Lúcia returns to the classroom and grabs a plastic book on the floor. She starts to handle it, babbling as if she were reading. She does that for almost 10 minutes.	Imitation – book
3:25	Simone, Danilo, and Lúcia	The books passes by Simone and Danilo's hands, who quickly handle it.	
3:30	Lúcia	Lúcia grabs the book again and continues to handle it until she is called for dinner.	
3:40	Teacher Juliana, babies Valentina, and Henrique	Juliana organizes the children in the high chairs and places Henrique and Valentina on the little table for dinner.	
3:55	Children	Finish dinner – Children are placed on the strollers to sleep.	
5PM	End	Departure.	
EVENT SELECTED: Lúcia, for a long time, handling the book and babbling, concentrated. The book is not a literary work and is commercially sold as a bath book. It is made out of plastic, like a buoy. However, Lúcia's act initially portrays an imitation because she is a baby and cannot read, but it also shows her cultural appropriation of the reading act. PERSONAL NOTES: What does walk and speak mean to this class? METHODOLOGICAL/THEORETICAL NOTES:			

⁶ All names are pseudonyms.

Besides the initial descriptive notes, each researcher did a broad record at the end of an observation day. In this record, they highlighted at least one interactional event that would later be expanded to start the analysis. The personal notes were reserved for the researcher's personal and sentimental impressions. The notes greatly varied as they depended on each researcher's key question. The methodological notes were intended to record the methodological (camera position, relationship with the teachers, etc.) and theoretical observations that stood out, as shown in Figure 5.

Once in contact with the video archive, the first author read the field notes, starting from 2017. After reading them, the author selected the record days in which possible literacy events took place. In these notes, she sought to separate the days in which some interaction occurred, involving reading and writing. Following the selection of videos to be watched, she fully watched all of them, taking notes on the time and events that could be interesting for the study, thus writing field notes based on videos (Castanheira et al., 2007). The same procedure was used with the records from 2018 and 2019.

Green et al. (2011) comment on the different types of notes (methodological and interpretative) of Ethnographic Research. From this perspective, the authors perceive interpretation as a way to theorize. To them,

these different forms of notetaking make visible the dynamic and interrelated processes of describing, recording, interpreting, responding, and making meaning(s) of bits and pieces of the developing lifeworld(s) of teachers, students, and others in classrooms. (p. 68)

As Baker et al. (2008) argued, a video recording is a type of field note recorded by an ethnographer from a specific angle. It is not an event record that captures the whole life in the classroom or the event itself. The record is a "slice of life" from a specific viewing angle that can be (re)read to specific ends.

The field notes based on videos led to the selection of events, which, in turn, led to the building of maps of events, as shown in Figure 4.

Figure 4

Map of the event- September 04, 2017

Thesis: LITERACIES AS HUMAN ACTIVITIES: AN INVESTIGATION ON THE CONSTRUCTION OF SENSES AND MEANINGS

PhD candidate: Kelly Jessie Queiroz Penafiel

Advisor: Maria de Fátima Cardoso Gomes

Map of events, day: September 04, 2017

EMEI Tupi

Class: Owl Class

Year: 2017

Teachers: Letícia, Ivana, Cristina, Lucíola, and Juliana

Children: Lúcia, Danilo, Valéria, Henrique, Larissa, and Simone

Researchers: Virginia and Isabela

Time: 07h – 17h

Total hours of filming: 3h32min15sec.

Events and sub-events observed on September 04, 2017

Start/ Finish and duration	Events	Start/ finish	Sub-events	Context
00:00:01 – 00:11:34 (11) 11min33s	Playing in the solarium	00:00:01 00:03:11 (13) 3min10s	<i>Lúcia and the book</i> “Os sons dos animais” [The animal sounds]	Babies are taken to the external area of the classroom, called solarium, by teachers Lucíola and Juliana. Janaina places Simone in a toy tricycle and plays with her. Afterward, it is Valeria’s turn. Danilo crawls behind, and the teacher warns Valeria to be careful with him.
00:00:01 – 00:12:22 (12) 12min21s		Back in the activity room, Lucia grabs a plastic book on the floor and starts to handle it while babbling: “Abh/abh/ .” She babbles and points out the images with her index finger. The baby opens and closes the book, turns it upside down, returns to the original position, and babbles: “Na/na/na/na/”. The other babies play in the room. Larissa holds one of the paper sheets disposed of by teacher Ivana during the finger painting activity.		

In the first column of Figure 4, we mark the beginning, the end, and the duration of events and sub-events of the day. Columns two and five present, respectively, the events and their contextualization. Each event was built considering the time spent, with whom, to what ends, where, under which conditions, with what expectations, and their results. The limits of an event to the other were marked by activity cycles that were “interactionally marked by

participants through discourse and other contextualization clues ...and show the differentiated nature of conversation and action” (Castanheira et al., 2007, p. 320).

The actions described portray the recursive and iterative representation of Ethnography in Education. According to Baker et al. (2008), these are“... recursive and iterative practices of the processes of abductive thinking in which the ethnographer is involved in several scale levels and several points in time within a telling case” (p. 69). Telling case is a detailed narrative of ethnographically identified cases, which provide elements to produce theoretical inferences needed to build knowledge on a given theme (Mitchell, 1984).

Figure 5 presents field notes representing all activities during the day. These notes helped select the most meaningful event to understand the senses and meanings of babies' and small children's literacy events. The first author used them to build the Map of Literacy Events in nursery and activity rooms for one, two, and three-year-old children.

Figure 5

Field notes based on videos

<i>Observation day (record in the collective field diary)</i>	<i>Video timestamp</i>	<i>Events (What happened? With whom? How? When? Under which conditions? What were the consequences?)</i>	<i>Personal comments and theoretical-methodological reflections</i>
September 4, 2017	00:00:12 (1)	Teacher Letícia writes Danilo’s name on his socks.	Nursery teachers normally identify babies’ personal objects by writing their names.
	00:02:12 (1)	Teacher Letícia does the daily routine with the babies	It is the first time the routine is done with the babies. "Do a routine" for this group seems to be when the teacher tells the class what the daily activities will be. Normally, the teacher uses an illustrated flashcard in which babies have a snack, sleep, lunch, play, etc.
	00:00:03 (13)	Lúcia handles a plastic book and babbles while looking at the images.	Lúcia handles the plastic book for two minutes.

Note: Created based on the collective field notes and video records of the Research Program (2021)

The procedure aims to raise several events in which reading and writing were present, considering the conditions, when, with whom, how, and with which consequences. The files were organized in external HDs, separated into files by year, month, days, and individual files. A folder could often have more than 10 or 15 files, counting every time a recording was started and finished. Thus, every time a recording started, the time counter would go back to zero and ended up counting the time since then. Therefore, as we can see in Figure 5, the first event selected started at the minute 00:00:12 of file 1.

The field notes, based on the video, and the creation of event maps led us to select the *telling case of Lúcia and Larissa*, i.e., refining and deepening our analysis. Babies participated in literacy events since their first days at EMEI Tupi. Over time, the girls build sense and meaning to these events, each with their subjectivity. According to Putney et al. (1998), telling cases portray the consequent nature of collective-individual development. The choice of Lucia's and Larissa's telling cases, as seen in the representation of the investigation knowledge (Figure 4), can highlight how the senses and meanings for literary events were built by the group and by Lúcia and Larissa.

Due to the space limitation of this article, we will present only Lucia's case. Aiming to refine our theoretical-methodological discussion in a micro level, Figure 6 presents the transcriptions⁷ of the discursive sequences of the sub-event "Lúcia and the book *Os sons dos animais*" occurred on September 04, 2017. This sub-event happened in the afternoon of said day, right after teachers Juliana and Cristina brought the babies back from the solarium to the nursery's activity room. The teachers were preparing the room for dinner. Lúcia grabbed a plastic book on the floor and started to handle it while babbling. She babbled and pointed to the images with her index finger. Lúcia opened and closed the book, turned it upside down, and returned it to its original position.

⁷ The discursive sequences are presented as message units that, according to Gumperz (2013), are the smallest unit of meaning demarcated by the limits of statements identified through context clues. Thus, in the transcription table, the excerpts were transcribed literally, detailing, as much as possible, the phonetic, syntactic, prosodic, and interactional aspects.

Figure 6

Discursive sequences of the sub-event– “Lúcia and the book Os sons dos animais” – September 04, 2017

<i>Lines</i>	<i>Record timestamp</i>	<i>Babies' gestures, actions, and words</i>	<i>Teachers', aids' and researcher's gestures, actions, and words</i>	<i>Video frames</i>
1	00:00:08	Lúcia finds the plastic book “Os sons dos animais” on the mat.		
2	00:00:13	Lúcia babbles: <i>Dah:::/ (moves the book from one side to another).</i>		
3	00:00:22	Lúcia opens and turns upside down, from one side to another, while babbling : <i>AH:::(babbling while holding the book).</i>		
4	00:00:35	Lúcia's twin, Danilo, crawls close to her, while the sister continues to handle the book: <i>Ih:::/ Ah:::(loud babbling holding the book close to her face).</i>		

5	00:00:43	Lúcia points using her index finger and says: <i>Ei/ didi/ ah/</i> . Danilo continues sitting behind Lúcia, observing her.		
6	00:00:57	Danilo crawls to the middle of the mat where Valéria, Simone, and Larissa are. Lúcia opens and closes the book while babbling: <i>Bu/ bu/ bu:::/</i>	Teacher Juliana calls the babies: Let's go/put the toys away?	

The sub-event lasts 1 minute and 05 seconds, which is a considerable time for a one-year-old baby to be engaged in the same activity. During this time, Lúcia kept her almost full attention on the artifact book, though she was attentive to her surroundings.

While sitting over her folded legs and a straight back, Lúcia used her body and built *perezhivaniya*, affections, and emotions that contrasted with the first sub-event from February 3, 2017, when following the book reading, sitting on her father's lap or supported by the teacher aid Adriana. We noticed that, when imitating the gesture of pointing, she assumed to herself the meaning of this gesture to the book, previously done by the father. Through social relationships, babies appropriate the senses and meanings of books when evidencing the transformation, the qualitative leap of her cultural development, giving meaning to the book as an object that can be read, now in a vertical position and turning the pages. In the words of Pino (2005, p. 53), the humanization of the *homo* species is a collective task, while the humanization of each individual is a “task of the collective,” which, in this telling case, is built by teachers, parents, grandparents, babies, and cultural artifacts- books.

In this context, the first author's PhD research (Penafiel, 2023) identified in the observed class several literacies – literary, musical, digital, school, and academic. Thus, the dialectic unit *Perezhivaniya-Literacies* seemed conducive to understand literacies' senses and meanings. We also considered that, during three years, what was seen as literacy qualitatively transformed throughout times and events, when the attribution of senses and meanings given by Lúcia, Larissa, their classmates, and teachers intertwined in the dialectic relationship between

the individual and the collective, as they semiotically transform social meaning into personal senses.

The logic of inquiry, presented in Figure 2, seeks to make visible the path taken in the first author's research, in the context of the *Programa de Pesquisa*. Figures 2 and 6 focus on what we did, starting from a general question, which was dismembered into other questions in an iterative and recursive process, through which we analyze the movement: How do babies transform themselves over three years through the Unit of Analysis- *Perezhivaniya-Literacies?*

Here, the assumptions of the Method of Unity of Analysis and the concept of *Perejivanie*, by Vygotsky (1932/2018), express our monist and holistic view of the world to build the logic of inquiry of the first author's research and the studies that composed the Database, as the study of childhood culture development cannot be done through isolated and abstract processes but by social relationships and the discourses produced by research participants.

Conducting ethnographic research during a pandemic

As previously said, the *Programa de Pesquisa Longitudinal*, coordinated by teachers Vanessa Ferraz Almeida Neves and Maria de Fátima Cardoso Gomes, aimed to follow a class of 14 babies since their first day in nursery until the last one in Childhood Education (2017-2022) to understand their cultural development in a collective space of care and education.

The first author of this article started her field research in February 2020, aiming to understand the attribution of senses and meanings built by a group of three-year-old children in the context of a Municipal School of Childhood Education in the city of Belo Horizonte from 2017 to 2019. However, her first contact with the research field occurred in December 2019, when she participated in a meeting with the families of the children taking part in the research, together with Rita⁸, the class's teacher that year. In a field note, the first author writes that the objective of the meeting was to inform children's parents that the city would no longer offer full-time education for three-year-old children. Thus, the class would be dismantled. Faced with this impossibility, some families decided to change schools, which led to difficulties in our

⁸ The pseudonyms are the same in all the studies that use the *Programa de Pesquisa* Database.

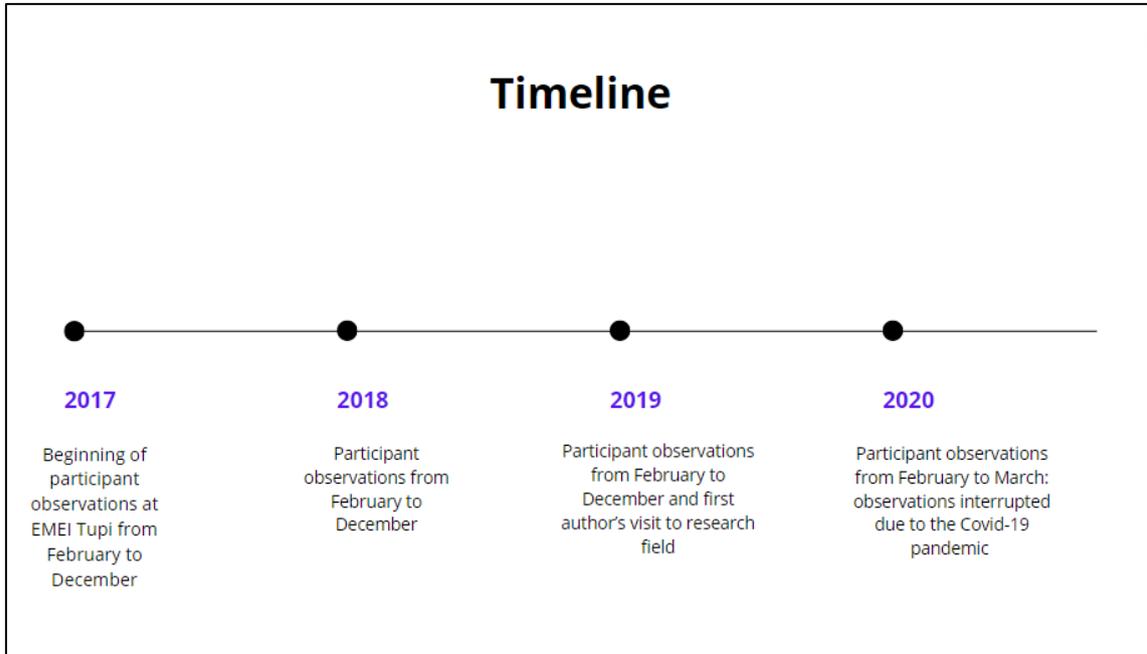
research because the *Grupo de Estudos e Pesquisa em Psicologia Histórico-Cultural na Sala de Aula* (GEPSA- Study and Research Group in Cultural- Historical Psychology in Classroom) and the *Grupo de Estudos em Cultura, Educação e Infância* (EnlaCEI- Study Group on Culture, Education, and Childhood) had been following and analyzing the cultural development of these 14 children since nursery until that year.

The year 2020 was starting and ethnographic and longitudinal studies, as the one described here, demand constant negotiation between researchers and the school community. No matter how established and consolidated the contact, in a way, nothing is certain. Therefore, in every moment, the researcher is a participant subject, together with other participants, building senses and meanings, “this means that there is a permanent negotiation of language production between the group and the researchers, mediated by the camera” (Souza, S. 2003, p. 90) and by the meetings with parents, teachers, and the school's direction and coordination. The unconditional respect for others is part of what establishes ethics in research (Neves & Müller, 2021). Hence, new negotiations were held, for example, trying to gather the children in the same class. This solution was not doable because the children could only attend one shift, so the parents who kept their children at this school chose the schedule that best answered their needs. Five children continued at EMEI Tupi; two of them attended the morning shift and three the afternoon one, demanding a new organization of the research team – we tried to keep two researchers in each shift. In the first week, we made records every weekday, and after March 2020, we filmed the two shifts twice a week.

Figure 7 shows the beginning and the interruption of empirical material building at EMEI Tupi in March 2020 due to the Covid-19 pandemic.

Figure 7

Field research timeline



The first author was on the field, recording and taking field notes from February 12 to March 16, 2020, when the in-person activities of EMEI Tupi were suspended due to the Covid-19 pandemic. The following months were loaded with conflicting feelings, which definitely marked researchers' lives and emotions faced by the pandemic context and the research conduction. This distress was not only ours. As Hartmann (2020) tried to portray, the Education researchers' first weeks of social isolation were a mixture of prostration, stupefaction, and reflection in which alternatives had to be drawn.

In this sense, given the new worldwide situation of pandemic and isolation, the first author's research was conducted considering the records of the aforementioned years produced by researchers from the groups GEPSA and EnlaCEI, both from the School of Education of *Universidade Federal de Minas Gerais* (UFMG). One of the most significant advantages of a longitudinal and collective research is that we are never alone, even in heartbreaking moments like the one that started in March 2020.

Though the adverse context of Covid-19 pandemic has interrupted the participant observations, GEPSA and EnlaCEI tried to keep contact with EMEI Tupi and the families.

Thus, teachers, pedagogical coordinators, and researchers held virtual meetings in September, October, and December 2020, and April 2021. The groups named these meetings Study Cycles, during which EMEI's teachers from both shifts and researchers discussed themes related to the longitudinal research and other issues that interested the participants, such as the play of boys and girls, babies' cultural development in nursery, the challenges of teaching Childhood Education during a time of physical isolation, etc. The meetings were open to other teachers from the school, not only to the initial research participants.

The research groups GEPSA and EnlaCEI also sought to keep contact by phone, mainly through WhatsApp, being open and receptive to the families. Unfortunately, some did not return the messages or contact attempts. However, those who participated seemed happy with our work. Some family members sent photos and/or little videos of daily activities from the children participating in the research since 017. This contact allowed us to conduct some interviews and continue the dialogue with participants from an ethical viewpoint, which will be detailed in the next section.

Ethical procedures for in-person and virtual research

As Neves and Müller (2021) point out the ethics in the research with babies and young children need to consider who takes care of them. To these authors, education and care with babies have been gradually inserted into the research agendas, pedagogical practices, and public policies. Thus, the ethical questions related to these agendas need to be thought from a different logic and communication strategies than the ones used with older children and adults. The ethical care in studies involving human beings does not stop with the institutionalized procedures of signing terms and submitting protocols. When discussing the challenges of qualitative research with children, authors such as Souza, M. (2010) and Barbosa (2014) highlight that any human action is social and, therefore, demands an ethical posture. Adopting such a perspective requires researchers to have a particular understanding of science, human beings, and childhood. Hence, a research with human beings, especially with children and babies,

demands a careful attitude that should be taken to the field and, when analyzing the empirical material, should be translated into a relation of unconditional respect to all those involved.

Considering what the authors point out, we can equally think of ethical questions when looking at the empirical material produced by third parties. Even though the first author was not on the field during the recorded moments, the gaze she developed as a researcher for the empirical material is also grounded by the unconditional respect of an ethic collectively established by the researchers from the Programa de Pesquisa Infância e Escolarização.

Kramer (2002) analyzes ethical questions faced by researchers studying children of different ages and social groups. The author discusses the subjacent conception of studies under three aspects: names (real or fictional) and the impact of authorship on children; the use of children's images, their faces, the authorization of image use (photos, filming, etc.) and, finally, the implications of the social impact of scientific works. Furthermore, she questions whether it is possible to present findings while preserving and guaranteeing participants' safety.

Kramer (2002) argues that it is essential to perceive children as authors when using a theoretical-methodological perspective that understands childhood as a social category and children as citizens with rights, historical and social subjects that are established and establish cultures. However, we question: How can we think about this with babies and young children? Do babies produce discourses? This question had been raised by Dominici (2021). The author proposes thinking about babies' discourse production, considering what is meaningful to attribute senses and meanings. According to Dominici (2021), babies produce discourses through gestures, gazes, babbling, and broadening other languages when appropriating speech with words and statements. We use the same assumption in this research. Besides this, as Kramer (2002), we consider that researching childhood demands from us a view that considers the human condition as historical and social.

Kramer (2002) points out another important question that highlights the discussion of ethical procedures in the research with children, when she analyzes the antagonism between authorship and anonymity. To the author, there should be a balance between guaranteeing children's authorship as participants of studies with them and not about them, and guaranteeing children's anonymity that protects their identities. The studies conducted by GEPSA and EnlaCEI seek to balance these issues. However, as Kramer (2002) states, guaranteeing anonymity does not mean using numbers, codes, or mentioning only participants' initials, as this

denies their condition as subjects, disregards their subjectivity, and relegates them to "an anonymity incoherent to the theoretical reference that guides the research" (p. 47). So, we opted to use pseudonyms for all participants. The same fictitious names were used in all dissertations and theses developed in the *Programa de Pesquisa* scope, in which this paper is anchored.

Another ethical concern refers to using videos and photos as a methodology of qualitative research. Kramer (2002) and Souza, S. (2003) raise pertinent reflections on photo and record cameras nowadays. Photos and film records are objects of culture and are present in most people's daily lives (Kramer, 2002).

The question also involves the authorization requesting and granting. In the author's opinion, "authorship is related to authorization, authority, and autonomy" (p. 53). Thus, we should question: How can we guarantee anonymity and authorship? How can we guarantee autonomy and identity preservation? The same author answers: "Maybe the path that can help us find ethical alternatives, befitting the concept of childhood that guides us, is to differentiate the types of images, if they are from children, professionals, and institutions" (p. 53).

Using videos, recordings, photos, and other artifacts empirically produced should be perceived, interpreted, and analyzed with care and deep respect for others. For Neves and Müller (2021), this ontological care is permanent and implies construction and reconstruction. The authors suggest that being with babies and the authors caring for them, in collective contexts of education and care, can be thought of as the "honor of encounter," that is, "honoring the encounter is related to availability, in this case, bilateral. The studies can only be conducted with babies if, through languages, they show an openness to do so, which is also valid for their caregivers" (Neves & Müller, 2021, p. 4).

Final remarks

In this text, we proposed a theoretical-methodological discussion on using a Database amidst the Covid-19 pandemic from an ethnographic and cultural-historical perspective, which considers the relationships part-whole and the dialectic and historical relationships individual-collective. We analyzed the senses and meanings of Lucia's *perezhvaniya*-literacies under a logic of inquiry of a three-year research build day after day, month after month, year after year at the EMEI-Tupi by the participants of the Research Program and the research focused on this

article. This construction made conducting an ethnographic and longitudinal study possible even during the interruption of school activities due to the pandemic.

It also allowed us to reflect on some questions in this article: Can we talk about participant observation when referring to research based on empirical material from a previously organized database? Are we conducting an observation when we resume the video records and field notes made by other researchers? How can we distinguish between data and records? How can we build a logic of inquiry through a Database?

During the uncertain times we have been living, relying on a research group that produces collectively can be highly advantageous. The advantages reflect on the research actions, which demand dialogue and collective reflections so that the researcher is never alone. The possibility of dialogue and discussions can contribute to the descriptive, analytical, and interpretative process.

Regarding participant observation, we understand that, more than being physically present in the research space, observing involves using an emic and ethical perspective grounded on unconditional respect toward others. It also encompasses the use of holistic and contrastive perspectives and the study of cultural practices that are the principles of ethnographic actions.

Even though we had the advantage of conducting research with an extensive Database, we are aware of the limitations this can also represent. If, on the one hand, it can be advantageous, on the other, working with such an extensive volume of hours of recording can be an enormous challenge. In our case, it demanded intensive work, sometimes tiring and discouraging. However, it was a viable alternative when unable to be in the field in – person.

Another limitation of conducting research with databases built by other researchers regards the nature of the data provided. It was not always possible to check if the records filmed the beginning or the end of each event, activity, or day. The field notes did not always help. Hence, the contact with the researchers that were *in loco* needs to be constant.

When resuming the video records and field notes done by other researchers, we are conducting a participant observation because, as Anderson et al. (2016) pointed out, our access to the texts, experiences, and shared meanings, based on iterative processes of interpretative analysis (for instance, the synthesis of academic literature, theorization, concept implementation, and data interpretation) is filtered by our gaze as researchers. Summing up, our

gazes worked to construct meaning based on the positions socially situated in time and space, from which we make sense of other positions, may they be incorporated or imagined by others (Anderson et al., 2016).

References

- Anderson, K. T., Stewart, O. G., & Aziz, M. B. A. (2016). Writing ourselves in: Researcher reflexivity in Ethnographic and multimodal methods for understanding what counts, to whom, and how we know. *Anthropology and Education Quarterly*, 47(4), 385-401. https://www.researchgate.net/publication/309439917_Writing_Ourselves_In_Researcher_Reflexivity_in_Ethnographic_and_Multimodal_Methods_for_Understanding_What_Counts_to_Whom_and_How_We_Know_Writing_Ourselves_In
- Baker, W., Green, J., & Skukauskaite, A. (2008). Video-enabled ethnographic research: a microethnographic perspective. In G. Walford (Ed.), *How to do educational ethnography*. (pp. 2-40). Tufnell Press.
- Barbosa, M. C. S. (2014). A ética na Pesquisa Etnográfica com crianças: primeiras problematizações. *Práxis Educativa*, v. 9(1), 235-245. http://educa.fcc.org.br/scielo.php?script=sci_arttext&pid=S1809-43092014000100013
- Bloome, D. (2012). Classroom Ethnography. In M. Grenfell et al. *Language, Ethnography and Education: Bridging new literacy studies and Bourdieu* (pp. 7-22). Routledge, 2012.
- Castanheira, M. L. (2010). *Aprendizagem contextualizada: discurso e inclusão na sala de aula*. (2. Ed.). CEALE; Autêntica.
- Castanheira, M. L. (2013). Indexical signs within local and global contexts: case studies of changes in literacy practices across generations of working-class families in Brazil. In J. Kalman, & B. Street (Ed.), *Literacy and numeracy in Latin America: Local perspectives and beyond*. (pp. 95-108). Routledge.

- Castanheira, M. L., Green, J. L., & Dixon, C. N. (2007). Práticas de letramento em sala de aula: uma análise de ações letradas como construção social. *Revista Portuguesa de Educação*, 20(2), 7-38. https://scielo.pt/scielo.php?script=sci_arttext&pid=S0871-91872007000200002&lng=pt&nrm=iso&tlng=pt?script=sci_arttext&pid=S0871-91872007000200002&lng=pt&nrm=iso&tlng=pt
- Dominici, I. C. (2021). *Valéria e Henrique: O entrelaçar da constituição de suas subjetividades*. [Tese de Doutorado]. Universidade Federal de Minas Gerais, Belo Horizonte. <https://repositorio.ufmg.br/handle/1843/35589>
- Erickson, F. (2004). O que faz a Etnografia da escola “etnográfica”? In C. L. G. Mattos (Org.), *Etnografia na Educação: Textos de Frederick Erickson*. (pp. 225- 268). EDUEPB
- Geertz, C. (2008). *A interpretação das culturas*. LTC.
- Gomes, M. F. C. (2020). *Memorial: trajetórias de uma pesquisadora e suas apropriações da Teoria histórico-cultural e da Etnografia em Educação*. Brazil Publishing.
- Gomes, M. C.; Dias, M. T. M., & Gregório, M. K. S. V. (2011, out.). Abordagem Histórico-Cultural e Etnografia Interacional: a busca da coerência. In *Rennião Anual da APNED*, 34, 2011, Natal, RN.
- Gomes, M. F. C., Dias, M. T. M., & Vargas, P. G. (2017). *Entre textos e pretextos: a produção escrita de crianças e adultos na perspectiva histórico-cultural*. Editora UFMG.
- Green, J., Castanheira, M. L., & Yeager, B. (2011). Researching the opportunities for learning for students with Learning Difficulties in Classrooms: An Ethnographic perspective. In C. Wyatt-Smith, J. Elkins, & S. Gunn, S. (Ed.) *Multiple perspectives on Difficulties in learning Literacy and Numeracy* (pp. 49-90). Springer.
- Green, J., Dixon, C., & Zaharlic, A. (2005). A Etnografia como uma lógica de investigação. *Educação em Revista*, 42, 13-79.
- Gumperz, J. J. (2013). Convenções de contextualização. In B. T. Ribeiro, & P. M. Garcez, P. M. (Orgs.). *Sociolinguística Interacional* (2a ed., pp. 149-182). Loyola.
- Hartmann, L. (2020). Como fazer pesquisa com crianças em tempos de pandemia? Perguntemos a elas. *Revista Nupeart*, 24, 29-52. <https://www.periodicos.udesc.br/index.php/nupeart/article/view/18827>

- Kramer, S. (2002). Autoria e autorização: questões éticas na pesquisa com crianças. *Cadernos de Pesquisa*, 116, 41-59. <https://www.scielo.br/j/cp/a/LtTkWtfzsbJj8LcPNzFb9zd/?format=pdf>
- Macário, A. P. (2021). *Descortinando as vivências dos bebês na creche: a relação com os artefatos culturais*. [Tese de Doutorado]. Universidade Federal de Minas Gerais, Belo Horizonte.
- Mitchell, J. C. Case studies. (1984). In R. F. Ellen, *Ethnographic research: a guide to general conduct* (pp. 237-241). Academic Press.
- Neves, V., & Müller, F. (2021). Ética no encontro com bebês e seus/as cuidadores/as. In Comissão de Ética em Pesquisa da ANPEd (Org.). *Ética e pesquisa em educação: subsídios*. ANPEd.
- Oliveira, A. (2013). Algumas pistas (e armadilhas) na utilização da Etnografia na Educação. *Revista Educação em Foco*, 16(22), 163-183. <https://revista.uemg.br/index.php/educacaoemfoco/article/view/322/312>
- Penafiel, K. J. Q. (2023). *Letramentos como atividades humanas: uma investigação sobre a construção de sentidos e significados*. [Tese de Doutorado]. Universidade Federal de Minas Gerais, Belo Horizonte.
- Pino, A. (2005). *As marcas do humano: às origens da constituição cultural da criança na perspectiva de Lev S. Vigotski*. Cortez.
- Putney, L., Green, J., Dixon, C., Durán, R., Floriani, A., & Yeagar, B. (1998). Consequential progressions: exploring collective-individual development in a bilingual classroom. In Smagorinsky & Lee (Eds.), *Constructing meaning through collaborative inquiry: Vygotskian Perspectives on literacy research* (pp. 2-63). Cambridge University Press.
- Silva, E. B. T. (2021). *Atos de criação: as origens culturais da brincadeira dos bebês*. [Tese de Doutorado]. Universidade Federal de Minas Gerais, Belo Horizonte.
- Silva, V. T. (2023). *As relações sociais de amizade na creche: um estudo de abordagem etnográfica em um grupo de crianças de zero a três anos de idade em uma instituição pública de Educação Infantil em Belo Horizonte*. [Tese de Doutorado]. Universidade Federal de Minas Gerais, Belo Horizonte.
- Souza, M. P. R. (Org.). (2010). *Ouvindo crianças na escola: Abordagens qualitativas e desafios metodológicos para a Psicologia*. Casa do Psicólogo.

- Souza, S. J. (2003). Dialogismo e alteridade na utilização da imagem técnica em pesquisa acadêmica: questões éticas e metodológicas. In M. T. Freitas, S. J. Souza, & S. Kramer (Orgs.), *Ciências humanas e pesquisa: leituras de Mikhail Bakhtin*. (pp. 78-93) Cortez.
- Spradley, J. P. (1980). *Participant Observation*. United States of America, Rinehart and Winston Editor.
- Vigotski, L. S. (1932/2018). *7 Aulas de L. S. Vigotski: sobre os fundamentos da Pedologia*. E-papers.
- Vigotski, L. S. (1934/1993). Estudio del desarrollo de los conceptos científicos em la edad infantil. In L. S. Vigotski *Obras Escogidas* (Tomo II, pp.181-286). Aprendizaje-Visor

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Corresponding author:

Penafiel, Kelly Jessie Queiroz - Universidade Federal de Minas Gerais – UFMG, Faculdade de Educação, Av. Antônio Carlos, 6627, Pampulha, Belo Horizonte, MG, 31270-901, Brasil.

Authors' contributions:

Penafiel, Kelly Jessie Queiroz - *Conceptualization (Equal), Data Curation (Equal), Formal Analysis (Equal), Funding demand (Equal), Investigation (Equal), Methodology (Equal), Project Management (Equal), Resources (Equal), Supervision (Equal), Validation (Equal), Visualization (Equal), Writing- original draft (Equal), Writing- review and editing (Equal).*

Gomes, Maria de Fátima Cardoso - *Conceptualization (Equal), Data Curation (Equal), Formal Analysis (Equal), Funding demand (Equal), Investigation (Equal), Methodology (Equal), Project Management (Equal), Resources (Equal), Supervision (Equal), Validation (Equal), Visualization (Equal), Writing- original draft (Equal), Writing- review and editing (Equal).*