

**DIGITAL TECHNOLOGIES IN RURAL SCHOOLS DURING THE COVID-19
PANDEMIC: WHAT DO THE STATEMENTS OF TEACHERS IN THE
MUNICIPALITY OF CARUARU-PE WARN US ABOUT?**

***AS TECNOLOGIAS DIGITAIS EM ESCOLAS DO CAMPO DURANTE A PANDEMIA
DA COVID-19: O QUE ALERTAM OS ENUNCIADOS DE DOCENTES DO
MUNICÍPIO DE CARUARU-PE?***

***LAS TECNOLOGÍAS DIGITALES EN LAS ESCUELAS RURALES DURANTE LA
PANDEMIA DE COVID-19: ¿QUÉ ADVIERTEN LOS ENUNCIADOS DE LOS
DOCENTES DEL MUNICIPIO DE CARUARU-PE?***



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ABSTRACT: This article, which is part of a master's thesis, aimed to understand the meanings and significations attributed to Digital Information and Communication Technologies (DICT) by teachers working in rural schools in Caruaru-PE during the COVID-19 pandemic. This is a qualitative study developed in two stages: the administration of an online questionnaire and the conducting of a focus group via Google Meet with nine teachers. This article analyzes the data obtained through the questionnaire, seeking to understand the processes experienced by the participants during the pandemic. The study is grounded in the historical-cultural approach to teaching-learning processes and in a critical perspective on technology, taking into account rural culture and the living conditions of rural populations. The analysis was based on Dialogical Discourse Analysis, drawing on the Bakhtin Circle. The results reveal meanings and significations that advocate the use of DICT to support learning and educational practices; however, they do not emphasize their critical potential for social transformation.

KEYWORDS: Rural Education. Pandemic. Pedagogical Practices. Digital Information and Communication Technologies.

RESUMO: Este artigo, parte de uma dissertação, objetivou compreender os sentidos e significados das Tecnologias Digitais de Informação e Comunicação (TDIC) produzidos por docentes de escolas do campo de Caruaru-PE durante a pandemia da Covid-19. Trata-se de uma pesquisa qualitativa, desenvolvida em dois momentos: aplicação de questionário on-line e realização de grupo focal, via Google Meet, com nove docentes. Neste artigo, analisam-se os dados obtidos pelo formulário, buscando compreender os processos vivenciados pelos participantes durante a pandemia. Fundamentamo-nos na abordagem histórico-cultural dos processos de ensino-aprendizagem e em uma perspectiva crítica da tecnologia, considerando a cultura camponesa e as condições de existência dos sujeitos do campo. A análise baseou-se na Análise Dialógica do Discurso, a partir do Círculo de Bakhtin. Os resultados evidenciam sentidos e significados que defendem o uso das TDIC para favorecer os estudos e as práticas educativas, sem, contudo, destacar seu potencial crítico para a transformação social.

PALAVRAS-CHAVE: Educação do Campo. Pandemia. Práticas Pedagógicas. Tecnologias Digitais da Informação e Comunicação.

RESUMEN: Este artículo, parte de una disertación de maestría, tuvo como objetivo comprender los sentidos y significados de las Tecnologías Digitales de la Información y la Comunicación (TDIC) producidos por docentes de escuelas rurales de Caruaru-PE durante la pandemia de la Covid-19. Se trata de una investigación cualitativa, desarrollada en dos momentos: la aplicación de un cuestionario en línea y la realización de un grupo focal, a través de Google Meet, con nueve docentes. En este artículo, se analizan los datos obtenidos mediante el formulario, con el propósito de comprender los procesos experimentados por los participantes durante la pandemia. Nos fundamentamos en el enfoque histórico-cultural de los procesos de enseñanza-aprendizaje y en una perspectiva crítica de la tecnología, considerando la cultura camponesa y las condiciones de existencia de los sujetos del campo. El análisis se basó en el Análisis Dialógico del Discurso, a partir del Círculo de Bakhtin. Los resultados evidencian sentidos y significados que defienden el uso de las TDIC para favorecer los estudios y las prácticas educativas, sin destacar, no obstante, su potencial crítico para la transformación social.

PALABRAS CLAVE: Educación Rural. Pandemia. Prácticas Pedagógicas. Tecnologías Digitales de la Información y la Comunicación.

Introduction to the complex relationship among rural education, technologies, and the COVID-19 pandemic

This text is the result of a master's study conducted with teachers who teach in Elementary Education and Youth and Adult Education (EJA) in rural schools in the municipality of Caruaru, Pernambuco. Located in the Central Agreste region of the state of Pernambuco, the municipality had an estimated population of 405,408 people in 2025, according to IBGE data. With a rural area composed of four districts, Caruaru is known for its popular culture, its São João festival, considered one of the largest in the world, and especially for its clay art, which gained prominence through the work of the artist Mestre Vitalino.

In view of the developments of the COVID-19 pandemic, which led to school closures, the challenges faced by teachers in reconfiguring their teaching and learning methodologies became evident. Among these reconfigurations, the use of Digital Information and Communication Technologies (DICT) stood out, particularly in adapting to remote classes, an emergency model adopted in Brazil and abroad to ensure the continuity of formal educational processes.

The COVID-19 pandemic brought concern, tension, anguish, and fear, including fear of infection by the virus and its consequences, such as death and bereavement. There were also concerns about political and social issues, such as the increase in the number of people who lost their jobs because businesses were closed and merchants who had to shut down their establishments. These situations, resulting from the pandemic, imposed an unprecedented reality, in which the situation of schools stands out: because of health measures and World Health Organization guidelines, they suspended in-person activities. As a result, the entire school structure and the actions of students, teachers, and family members began to follow new routines, with classes necessarily conducted remotely.

Given the pandemic scenario and the necessary physical and social isolation, which affected teachers' working conditions in education, we sought to reflect on how these adjustments reverberated in rural schools, based on what their teachers said and considering the particular conditions of these schools. We consider the rural context to be a living space distinct from the urban one, especially regarding access to DICT artifacts and internet connectivity. In addition, it differs because of the assumptions and guidelines underpinning Rural Education (Caldart, 2012).

Thus, although everyone was affected by the COVID-19 pandemic, understood as a broader, global configuration, we start from the assumption that there are singularities

determined by different cultural contexts, which influenced how rural subjects experienced this period. In this sense, the objective of the study was to understand aspects of the processes of producing senses and meanings about DICT for teachers working in rural schools.

To understand the so-called information society, described by César Coll and Carles Monereo (2010), the network society (Castells, 2002), or even the knowledge society (Moreira, 2001), it is necessary to consider that individuals can construct knowledge autonomously and creatively, transforming identities and social roles, with DICT serving as instruments in this construction and transformation. One proposal of the knowledge society is that “thoughts cease to belong to individuals” and become everyone’s. Considering that society is undergoing a process of transformation consolidated over time, Coll and Monereo (2010, p. 15, our translation) emphasize:

[...] for several decades now, we have been witnessing the emergence of a new form of economic, social, political, and cultural organization, identified as the Information Society (IS), which entails new ways of working, communicating, relating to one another, learning, thinking, and, in short, living.

For Lévy (1997), new technologies of intelligence foster new ways of living and relating to one another, with the virtual having brought about a new historical period for humanity, marked by ruptures in the characteristics of interactions that, in turn, transform cognitive characteristics, affecting memory, perception, and ways of conceiving space-time relations. The “philosopher of the virtual” compares these changes to major transformations experienced by humanity, such as the transition from the historical period of orality to writing and the development of the printing press. During the pandemic, with the spread of use and immersion in virtual contexts, it became possible to understand concretely what Lévy was referring to.

During the quarantine period, with events and in-person public services canceled, this virtual time, characterized by Lévy (1997), became a concrete reality in the most diverse geographical spaces. Digital social networks and virtual space were frequently used to enjoy musical attractions, online events such as livestreams, and interactions at the most varied levels of relationships. In education, it was no different. Teachers began to teach their classes using DICT, in line with the idea that humanity is experiencing new ways of working, communicating, relating, and learning, mediated by technologies.

In other words, the pandemic period urgently imposed a reality that was already underway: the need to adapt to DICT. Teachers began to use these technologies even more. Because of physical and social isolation and the need to adjust school calendars, it became

necessary to adapt teaching to remote classes, initiating a transformation in the teaching model. Faculty members began, on an emergency basis, to work with the technological tools available. Personal digital artifacts, such as cell phones and computers, were used for educational work, and this emergency led many teachers to learn how to use DICT in their practices in order to meet pedagogical demands and teach remote classes.

However, it is important to highlight inequalities in access to and conditions related to DICT. In this context, DICT may bring subjects closer together or push them farther apart, narrowing or widening a gap of social differences crystallized over centuries. Discussions about digital inclusion and digital literacy, already present before the pandemic in research agendas in education, sociology, psychology, and other areas, gained new perspectives with the expansion of uses, the development of new technological products to meet the needs of the pandemic context, and even the creation of new needs resulting from the spread of the DICT industry.

In this study, we focus on prompting educational reflection about the use, access, and development of DICT in non-hegemonic contexts, such as rural settings and their schools. It should be noted that, although the pandemic highlighted the need to use DICT in various sectors, in education the different realities also revealed distinct challenges regarding training, access, and use of these tools by teachers and students.

The study therefore sought to understand some elements of teaching work during the pandemic from the perspective of rural-school teachers. We address issues related to the proximity and distance between rural schools and technologies, seeking to understand the dialogic interplay in the statements of teachers working in these institutions, in a case study focused on the rural area of the municipality of Caruaru, Pernambuco, in northeastern Brazil. We observed whether, at any point, their statements converge with the discursive arena present in debates on Rural Education, such as the discussion of the hegemony of industrialization versus other counter-hegemonic ways of life, including family farming and agroecology. One question stands out: are the statements of rural-school teachers, in the context investigated, guided by the non-hegemonic principles (Arroyo, 2011) of Rural Education?

The expression “Rural Education” is intended to replace the view of education associated with former rural schools and to oppose the paradigm that overvalues urbanity in rural areas (Caldart, 2012). Rural Education promotes educational activities aimed at social transformation and at valuing rural subjects, recognizing the need for pedagogical practices in rural areas that address both the characteristics and appreciation of rural culture and the

demands of a society currently immersed in technology-mediated interactions. In this way, material and intellectual meanings can be fostered in rural contexts, socially including subjects whose voices have historically been rendered invisible. We emphasize that this rural context is still full of contradictions, whose cultural meanings are generally shaped by hegemonic paradigms that affect rural territories.

Our study established a dialogue between statements about technology produced by the rural-school teachers participating in the research and the possible social voices present in those statements. We take as a basis the historicity of Rural Education, which originated in social movements from and for rural communities and whose guidelines conceive this space as an arena of dispute. From this perspective, Rural Education can promote the historical contextualization of concepts and content addressed at school, dialoguing with the knowledge of rural peoples so as to strengthen rural territory as a place of life.

To analyze these possible voices, it was important to draw on the understanding of technology proposed by scholars from a critical perspective, such as Andrew Feenberg (2013), for whom technologies are marked, from their origin, by worldviews and ideological aspects and are therefore not neutral; nor are the possibilities and practices related to them neutral. The philosopher presents a framework of perspectives on technology, reproduced below, which explains possible interpretive positions regarding this tool. Depending on the interpretation, some theoretical positions tend to consider technology neutral; others see it as controlled by human beings; it may also be interpreted as autonomous or, in a fourth quadrant, as conditioned by values.

Chart 1 – Modern alternatives in the philosophy of technology

QUATRO PERSPECTIVAS		
A TECNOLOGIA É		
	eixo (A) AUTÔNOMA	eixo (B) HUMANAMENTE CONTROLADA
Neutra	(1) Determinismo por exemplo: a teoria da modernização	(2) Instrumentalismo fé liberal no progresso
Carregada de Valores meios formam um modo de vida que inclui fins	(3) Substantivismo meios e fins ligados em sistemas	(4) Teoria Crítica escolha de sistemas de meios-fins alternativos

Source: Feenberg (2013, p. 57).

In addition to critical theory of technology, the cultural-historical approach in psychology makes it possible to understand digital artifacts as mediators that transform the ways of living and relating to the world of those who have access to technological resources, while also indirectly affecting cultural contexts without access to these resources and, consequently, excluding them from a historically constructed digital mediation. Likewise, considering the dimensions of historicity that traverse us, we understand that DICT are imbued with value judgments in the meanings of their interfaces, in the motives and objectives of activities, and in processes ranging from their creation and development to their use. In other words, artifacts are marked by intentionalities that should not be disregarded, because they bring together values incorporated into their finished form as products (Peres; Morais, 2021).

Reinforcing this argument, there is a growing number of studies that foster the development of competencies related to digital technologies, such as Computational Thinking, but that focus predominantly on urban contexts. In rural contexts, there are still few studies proposing approaches that go beyond the use of digital technologies and also address the process of developing these artifacts (Ortiz; Pereira, 2019). Studies by the research group “Educational Development of Sustainable Multimedia (DEMULTS)” have been advancing in this direction, promoting the development of digital artifacts through Participatory Design and Programming by rural-school students (Morais *et al.*, 2021; Peres *et al.*, 2020). However, in

general, within Rural Education, many studies discuss digital inclusion without addressing technology development with students (Munarim, 2014; Santos; Leão, 2017).

Seeking to reflect on this issue, in this article we present an analysis of responses recorded by teachers in a Google Forms form, which constituted the first stage of a master's study. This first stage was important for selecting the teachers who would participate in a later stage and served as the criterion for proceeding to the second stage, organized as a focus group on Google Meet. However, in this article we rely only on the analysis of what was recorded in the form; the continuation and the full study can be found in Gomes (2022).

In this article, we emphasize what we identified as a gap involving certain themes in teachers' statements. This reflects the production of invisibilities, which occurs whenever some forms of subjectivation - in the case investigated here, the culture of rural peoples - remain subordinated and rendered invisible, becoming vulnerable, often irreversibly, and maintaining a process of reproduction of the hegemonic model, a product of capital.

According to studies of the Bakhtin Circle (Faraco, 2003), which guide our method for analyzing teachers' statements, the functioning of language cannot be apprehended through units of language itself, but only through dialogic relations among statements, an essential Bakhtinian postulate. In reflecting on the unit of analysis selected in the dialogic analytical method applied to the participating teachers' discourse, we consider that statements can only be understood in their contextual relations of meaning and sense each time they appear. Conceived in this way, they must be considered within the dialogic relations that engender them.

When we cross these reflections with Bakhtin's ideas, it becomes possible to perceive the voices that were absent from teachers' statements. As we will see, it was precisely the gap identified through the absence of certain ideological positions in the statements that sounded an alert for Rural Education.

Methodology

This study is eminently qualitative and requires a relationship of "interaction" between the researcher and participants, an aspect emphasized by Ludke and André (2017) when discussing the need for transparency in the stages of research, since confidentiality regarding the data provided by participants, if promised, must be maintained. Regarding interviews and, particularly, the focus group used in this study, Ludke and André (2017, p. 59, our translation)

state: “in the interview situation, this issue becomes particularly relevant, because guaranteeing anonymity may favor the provision of data that could compromise the interviewee if their identity is not protected.”

In addition to guaranteeing participants’ anonymity, the authors also emphasize the care researchers must take not to disclose data that could compromise participants’ identification.

In the article “Research Ethics: General Principles,” in a document from the National Association of Graduate Studies and Research in Education (ANPEd), Mainardes and Cury (2019) present some principles to be considered, including:

In the field of Education, the American Educational Research Association (AERA, 2017) defined the following principles: a) professional competence; b) integrity; c) professional, scientific, and knowledge responsibility; d) respect for rights, human dignity, and diversity; and f) social responsibility.

Among others, the authors consider these principles, which guide researchers to act with competence, integrity, and responsibility, maintaining “respect for rights, human dignity and diversity, and social responsibility” in relation to what they propose to investigate.

Regarding research in education involving teachers and DICT, and considering the importance of participants knowing the ethical aspects of the research and the preservation of their identities, an Informed Consent Form (ICF) was prepared and made available on Google Forms for reading and acceptance before teachers accessed the questionnaire. In this way, participants were able to learn about the ethical aspects characterizing the study and express their agreement to participate.

Data construction

We developed a questionnaire with 25 multiple-choice questions, some of them open-ended, answered by 32 teachers. After administering the questionnaire, we analyzed each recorded response. All teachers stated that they used DICT to continue teaching their classes in rural schools, using social networks such as YouTube, Instagram, and Telegram, and platforms such as Google Meet and Google Forms. Among the applications, WhatsApp was the most widely used.

Among the questions presented in the form, we asked about the context of rural schools and what it was like to carry out teaching work during the pandemic. Many statements characterized this period as challenging, extremely difficult, or complicated and drew attention

to aspects that limited interaction in the teaching-learning process, such as the “limited feedback from students.”

Other representative statements included: “teaching work in this pandemic context constitutes a challenge for Rural Education. In many settings, access to technology and, specifically, to the internet is not adequate for carrying out work that makes it possible to address students’ needs.”

Reaching students through the internet therefore became one of the major challenges of teaching work. Although these professionals had technological artifacts, the challenge was to reach students and keep them focused on the proposed class activities, providing the necessary feedback to teachers and the school. It is important to note that there is no specific mention of the rural context in these statements, nor of relationships indicating challenges specific to this context.

Data analysis

The analysis was guided by Dialogic Discourse Analysis (DDA), following the approach of Mikhail Bakhtin’s works (2006). It is important to revisit some considerations about the statement, a central concept of dialogism from the Bakhtinian perspective. From this perspective, the statement is constructed in a space where echoes of memory can be confronted to reveal the experiences in which subjects are embedded, in actions carried out with or without DICT. Considering it always in motion, it is understood that “the utterance is organized within dialogic relations that are constructed in the social environment in which the research subjects are situated” (Silva, 2020, p. 55, our translation). In this context, for Bakhtin (1982, p. 392, our translation):

There is neither a first nor a last word, and there are no boundaries to a dialogic context (it extends into an infinite past and tends toward an equally infinite future). Even past meanings, that is, those generated in the dialogues of previous centuries, can never be stable (concluded once and for all, finished); they will always change, renewing themselves in the subsequent process of dialogue.

What we call a statement concerns what Beth Brait (2020, p. 63, our translation) defines as “[...] a sentence or sequences of sentences,” also conceived as a “unit of communication, as a unit of meaning, necessarily contextualized.” Peres (2007, p. 25, our translation), in turn, summarizes its specific characteristics as follows:

The object of study in Bakhtinian metalinguistics (Bakhtin, 2002,b) is the statement with some particularities: a) its boundaries are delimited by the alternation of speaking subjects; b) statements are imbued with value judgments and are addressed to someone; c) each statement has a discourse project and typical forms of completion; d) they have a completion and constitute a whole of meaning, therefore awaiting the other's complement, their response - which, although "finished," guarantees the fundamental characteristic of inconclusiveness and incompleteness; e) the meaning of the statement is also dialogic and the relations are relations among authorial positions.

Statements are links in a communicative chain, always responding to others and anticipating future responses. Relations among subjects are imbued with social voices and are therefore polyphonic, revealing ideological aspects, positions, and worldviews that can be analytically apprehended in the dialogic process. There is no established Bakhtinian analytic procedure, but, based on these ideas, it is possible to define criteria for reaching the voices present in the statements of historically and socially situated subjects in interactions.

In this dialogic relationship, the researcher, as a discourse analyst, also responds to previous statements and dialogues with the voices that underpin them. In the case investigated, understanding the senses and meanings of DICT for teachers in schools located in rural areas, given the conditions of the pandemic experienced, constitutes a link grounded both in an understanding of DICT and in an understanding of Rural Education. It follows from this logic that:

We pose questions to ourselves and in a certain way organize observation or experience in order to obtain an answer. When we study human beings, we seek and find signs everywhere and strive to interpret their meaning (Bakhtin, 2003, p. 319).

As this research also traverses the researcher, as a teacher immersed in the construction of the proposed dialogue, each question and each reflection permeates both the person tracing this path and the participants and what they have to say through language constructed in contextualized interaction, in the search to understand signs and interpret them. Regarding polyphony, Bakhtin (2003, p. 330) states:

Every large and creative verbalized whole is a highly complex, multilayered system of relations. In the creative relationship with language, there are no voiceless words, no words belonging to no one. In every word there are voices, sometimes infinitely distant, anonymous, almost impersonal (the voices of

lexical nuances, styles, etc.), almost imperceptible, and nearby voices that sound simultaneously.

In every uttered expression of speech there are voices; there are no empty words without the intention of expressing, in some way, a voice or a sense for what is said. Within systems of relations, we are beings constituted through dialogues, in the web of relations between ourselves and others.

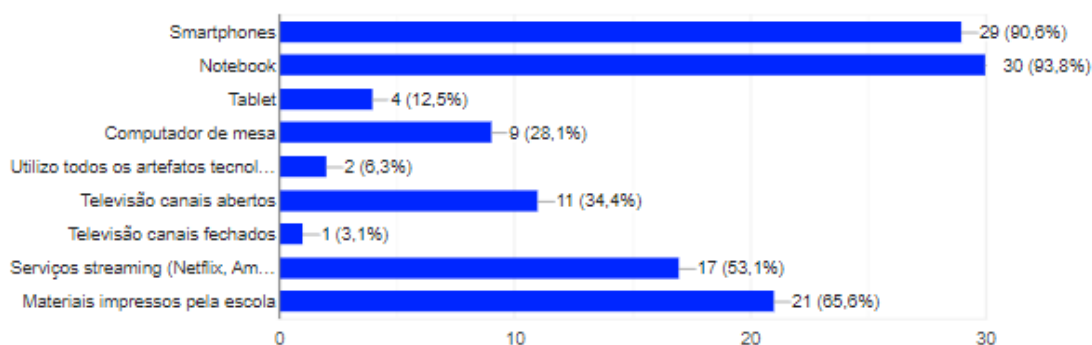
Below, we present some analyses and results of teachers' statements, represented in the graphs, which reveal relevant dialogic aspects. Other enunciative dimensions of the dialogic analysis, however, could only be explored in greater depth in the second stage of the study, which is not the focus of this article.

Analysis and results

In this text, the focus is on the first stage of the study and, therefore, we do not explore in depth the results found in the second stage (focus group). However, it is important to emphasize that, even in the analysis of this first stage (questionnaire), there is an uninterrupted thread of dialogicity with elements that reached what we later obtained in the focus group, a more interactive stage marked by a discursive dynamic rich in social voices.

When we asked which artifacts teachers used in their remote classes during the pandemic, we observed different digital resources, as shown in Graph 1:

Graph 1 – Different digital artifacts used in remote classes



Source: Prepared by the authors (2023).

In Graph 1, we perceive the strong and indispensable presence of DICT in the remote-class model, which recalls Lévy's statement (2003, p. 95, our translation): "we human beings never think alone or without tools." Coll and Monereo (2010) also indicate that incorporating

technologies into school education can make teaching and learning processes more efficient and productive.

We understand that this positive view of technologies, without greater critical reflection, may be inconsistent with the critical dimension of industrialization processes envisaged by Rural Education. In the second stage of the study, we observed how strongly this positive view was reflected in teachers' statements.

This is not about denying technologies, because we recognize that they are important and were fundamental during the pandemic. However, consuming them without reservations, without considering that their production comes from major urban centers, generally without connection to the social voices of rural peoples and their contextualized needs, is inconsistent with Rural Education. Reflecting on their incorporation into educational projects implies critically understanding that, often, the insertion of DICT into rural-school activities occurs without projects or planning.

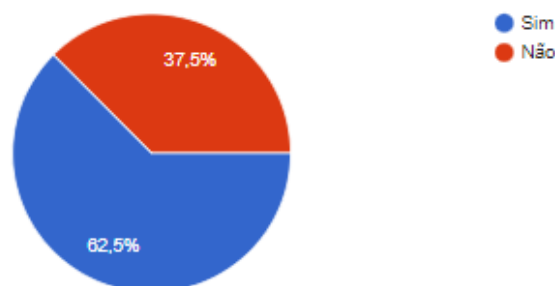
The lack of planning for the use of DICT is a reality in many schools, whether located in hegemonic or non-hegemonic contexts. In rural contexts, given the specificities of these educational spaces-times, an additional reflection is necessary: the absence of the social voices of rural peoples in DICT interfaces. Use alone does not generate polyphonic dialogic processes because, in general, DICT carry meanings originating in major urban centers, without the participation of rural peoples throughout their development.

Another aspect we considered relevant regarding DICT, which emerged in the questionnaire analyses, concerned the acquisition of technological artifacts for teaching work during the pandemic, since, in many settings, it became necessary to use technological devices that had not previously been part of teachers' daily lives and work.

However, printed activities were also used, which teachers took to students' homes, generally every two weeks, so that pedagogical work could continue and students would not be left without access to content, since many did not have technological artifacts or internet access.

It is worth recalling the account of one teacher, who reported that she was able to teach students who came to her home because she lived in a village, while maintaining distancing and safety measures such as mask use. In this way, it was possible to deliver printed materials and answer questions. Graph 2 below presents the acquisition of technological artifacts:

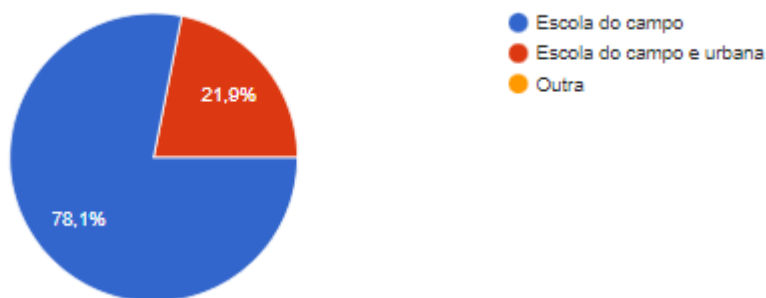
Graph 2 – Teachers who acquired technological artifacts during the pandemic



Source: Prepared by the authors (2023).

These data show that most teachers (62.5%) had to acquire DICT artifacts in order to continue their pedagogical work during the pandemic. It was also necessary to use printed materials, as already mentioned in this article, even with the availability of digital networks such as the internet and artifacts such as cell phones and computers to support pedagogical work. It is worth noting that some of these teachers also taught in urban schools. Thus, we can infer that the acquisition of equipment did not occur solely because the teachers taught in rural schools, since 21.9% of them also worked in urban public schools, while 78.1% worked in rural schools. This can be seen in Graph 3 below:

Graph 3 – Teachers who teach in public schools



Source: Prepared by the authors (2023).

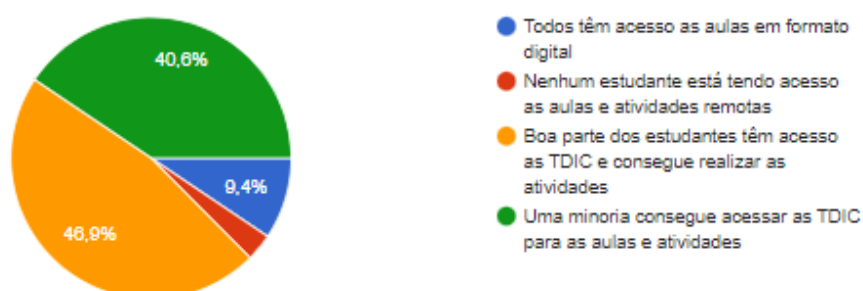
As shown in Graph 3, it is noteworthy that, among the teachers participating in the study, there are no records of work in private schools. Therefore, most respondents (78.1%) teach only in rural schools. Despite efforts to meet the demands and innovations required by the pandemic, many other issues affected this context and prevented all students from following and completing the proposed activities.

We also identified, in the documents analyzed and in the graph above, that 21.9% of teachers who teach in the city also work in rural areas, fulfilling workloads across two or even

three shifts. This finding suggests an even greater need to acquire DICT artifacts for pedagogical activities during the pandemic in order to serve and reach students.

Next, Graph 4 shows students' access to the activities.

Graph 4 – Students' access to proposed/remote activities



Source: Prepared by the authors (2023).

Graph 4 presents the percentages of students who had access to DICT. When asked about students' access to DICT for carrying out activities, teachers responded that 46.9% of them, corresponding to a significant portion, had access to technologies and were able to complete the activities; 40.6% were able to access DICT to attend classes and carry out activities; and 9.4% had access to classes in digital format. Only 3.1% stated that no students had access to remote activities and classes.

We sought to identify, in teachers' statements and in the voices present in their propositions, the meanings of educational practices with DICT, which dialogue with pedagogical experiences in rural schools amid the scenario of physical isolation, remote classes, and technology use during the pandemic. We understand voices as positions, in the sense attributed by Bubnova, Baronas, and Tonelli (2011, p. 276, our translation): "voice is identified with opinion, points of view, and ideological stance." Thus, the voices in a statement relate more to the dimension of sense than to that of meaning, because they preserve the singularities of the subject who speaks.

Based on our objectives and unit of analysis, we listed some categories present in teachers' statements and sought to articulate them with the theoretical framework. It should be noted that the research experience involving synchronous, screen-mediated interactions between the researcher and participants generated data that led us to reflect on the senses and meanings present in the voices of statements about the topic addressed.

It is understood that each statement presented by participating teachers is imbued with value judgments and social voices related to what they believe and is dialogically

complemented by the other's discourse. Because statements are incomplete, they complement one another in the dialogic process in which each speaker presents their "authorial positions." Thus, we agree with Brait (2020) when she states that a statement has a certain completion, although it remains incomplete. We therefore understand that dialogicity is in motion and can only be constructed in a relationship of participation and interaction among subjects and their living spaces - the school and the territories of which they are part and in which they are situated.

When reflecting on the meaning of DICT for teachers from rural schools in the municipality in question, we observed in their statements that, over nearly two years of remote classes, a period concurrent with this study, DICT were understood as a challenge and as resistance to difficulties. For participants, the senses and meanings of DICT appear above all as elements that can limit the progress of remote classes. Among the factors mentioned are the lack of technological artifacts, some students' difficulties in handling the tools, and lack of internet connectivity, all of which hinder teaching and learning. For these teachers, DICT represent ease only when connectivity is available and students have the skills to use them.

It should be noted that, when speaking about lack of skills or access difficulties, teachers do not express a critique of technology based on its place of origin, nor of the absence of rural voices in interfaces. Nor do they present a critical reflection on the development and use of technologies and on the complex relations between city and countryside.

This absence of a voice specific to Rural Education, which would be congruent with quadrant 4 of critical theory of technology (Feenberg, 2003) and with its foundations in educational processes established as counter-hegemonic critique, resonates in this study as an alert. We dialogue with this absence, taking it as a potential problematizing element capable of strengthening a situated and critical practice with DICT aimed at rural peoples: one that reflects the voices of these peoples, which are necessary in this arena of discursive dispute; one capable of fostering agroecology, coexistence with the semiarid region, family farming, the struggles of social movements, and other voices convergent with this model of society.

Final considerations

This study was developed from the following question: what are the senses and meanings of DICT for teachers from rural schools in the municipality of Caruaru, Pernambuco, during the COVID-19 pandemic? To answer it, we sought to analyze what teachers say about their DICT-mediated actions during the pandemic in everyday rural life. It was important to

understand that what teachers did not say also deserves attention, precisely because it reveals processes of invisibilization.

We articulated the statements of participating teachers, within the proposed dialogic interplay, with critical theory of technology and the cultural-historical approach, seeking to understand the social voices present and the gaps in their discourses. Senses and meanings were understood and carefully analyzed through the Bakhtinian lens of dialogism.

Based on the analyses, we identified that the DICT practices developed by teachers involve the use of these tools for information and communication and that screens contributed to the remote moments in which we began to communicate and work through them. We experienced new processes that, during the pandemic, gradually took shape and became routine. Teachers developed skills they had never imagined acquiring, created channels on digital social networks, and adapted to new networked work models, as we observed in the responses recorded in the Google Forms form.

According to Vygotsky (1934; 2001), the sense of a word is the sum of all psychological facts awakened in human consciousness; thus, something may have a different sense for each subject, while meaning is more stable and precise. According to the statements of the research participants, the emphasized social voices indicate that DICT make it possible to continue pedagogical work, but can also be limiting depending on access conditions. However, the meaning of “limiting,” in participants’ discourse, still does not incorporate the critical sense of the voice of Rural Education.

Thus, the alert revealed in the statements stems more from the absence of rural social voices in teachers’ discourses than from the voices highlighted when they discuss the reach and limits of technologies. To broaden the discussion of digital technologies in Rural Education, it would also be important to state that DICT, originating in major urban centers, carry meanings from companies, corporations, and historically exclusionary industrial processes that do not always support the education of and for rural peoples.

The alert, then, is that, when using DICT in rural contexts, it is important to consider the possibilities and limits of these technologies not only in terms of access difficulties, but also regarding the conditions under which they are generated and reach rural areas. It is urgent to think about teaching-learning practices that promote a connection between countryside and city, contribute to overcoming this dichotomy, and guide digital inclusion processes in rural schools without rendering invisible the voices of the peoples who resist in these territories. This implies reflecting on practices with DICT beyond use, also enhancing rural students’ participation in

the development of contextualized technologies and benefiting their capacity to create digital artifacts and solve problems in their territories. It is therefore a matter of imprinting their own rural voices on the interfaces generated.

Regarding the inclusion of DICT by teachers in their pedagogical practices, it is worth considering that, at that point in the pandemic, there was commitment to education and a readjustment of practices. However, the use of DICT remains a challenge; therefore, deeper critical approaches in education are needed to foster genuine digital inclusion with social transformation.

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