

AMAZONIAN STUDIES AND ITS TEACHERS IN THE (POST) PANDEMIC CONTEXT: PERSPECTIVES FROM ALTAMIRA-PA

OS ESTUDOS AMAZÔNICOS E OS SEUS PROFESSORES NO CONTEXTO (PÓS) PANDÊMICO: OLHARES A PARTIR DE ALTAMIRA-PA

LOS ESTUDIOS AMAZÓNICOS Y SUS DOCENTES EN EL CONTEXTO (POST) PANDÉMICO: PERSPECTIVAS DESDE ALTAMIRA-PA

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Abstract: With the declaration of a public health emergency in March 2020 due to the spread of the coronavirus, several sectors of society were affected, including the implementation of emergency measures that implied social distancing. The school environment was no different, and the main way to continue education was through distance learning. In this context, this research aims to understand the dynamics of teaching Amazonian Studies before, during and after the COVID-19 pandemic in municipal schools in the city of Altamira - PA, based on a dialogue with teachers of this curricular component. The methodology used consists of a qualitative approach of an exploratory nature, supported by a literature review and field research, with the application of questionnaires to teachers. It was found that the challenges faced by the research subjects in the context of Emergency Remote Teaching were multiple, and that some of them persisted even after two school years in which face-to-face teaching returned, in addition to the importance of qualifying the training of geography teachers who, in short, are responsible for this component in schools in Pará. Finally, it is argued that it is important to give visibility to the work of teachers in the field of Amazonian studies, with research that seeks to understand its peculiarities and specificities.

Keywords: Amazonian studies, challenges of teaching practice, post-pandemic, teacher training.



Resumo: Com a declaração de emergência sanitária ocorrida em março de 2020, por conta da disseminação do coronavírus, diversos setores da sociedade foram impactados, inclusive, pela implementação de medidas emergenciais que implicaram em um distanciamento social. No âmbito escolar não foi diferente, o principal caminho trilhado para a continuidade das aulas foi por meio do ensino remoto. Nesse contexto, esta pesquisa tem por objetivo compreender as dinâmicas do ensino de Estudos Amazônicos antes, durante e depois da pandemia de COVID-19 nas escolas da rede municipal de ensino na cidade de Altamira – PA, a partir de um diálogo com os professores deste componente curricular. A metodologia utilizada consiste em uma abordagem qualitativa de natureza exploratória, apoiada na revisão de literatura e pesquisa de campo, com a aplicação de questionários aos professores. Constatou-se que os desafios dos sujeitos da pesquisa no âmbito do Ensino Remoto Emergencial foram múltiplos, e que vários deles permanecem, mesmo depois de dois anos letivos, nos quais a presencialidade retornou, além da importância de qualificar a formação do professor de Geografia, que é, em suma, quem responde por este componente de nas escolas paraenses. Defende-se, por fim, a relevância de visibilizar o trabalho docente no âmbito dos Estudos Amazônicos, com pesquisas que busquem compreender as particularidades e a especificidade deste.

Palavras-chave: Estudos Amazônicos, desafios da prática docente, pós-pandemia, formação de professores.

Resumén: Con la declaración de emergencia sanitaria en marzo de 2020, debido a la propagación del coronavirus, varios sectores de la sociedad se vieron impactados, incluyendo la implementación de medidas de emergencia que implicaron distanciamiento social. El ambiente escolar no fue diferente, y la principal forma de continuar las clases fue a través de la enseñanza a distancia. En este contexto, esta investigación tiene como objetivo comprender la dinámica de la enseñanza de los Estudios Amazónicos antes, durante y después de la pandemia de COVID-19 en las escuelas municipales de la ciudad de Altamira - PA, a partir de un diálogo con los profesores de este componente curricular. La metodología utilizada consiste en un abordaje cualitativo de carácter exploratorio, apoyado en una revisión bibliográfica e investigación de campo, con la aplicación de cuestionarios a los docentes. Se constató que los desafíos enfrentados por los sujetos de la investigación en el contexto de la Teleenseñanza de Emergencia fueron múltiples, y que varios de ellos permanecen, incluso después de dos años escolares en los que ha retornado la enseñanza presencial, además de la importancia de cualificar la formación de los profesores de Geografía, que son, en definitiva, los responsables de este componente en las escuelas de Pará. Finalmente, se argumenta la importancia de dar visibilidad al trabajo de los profesores en el campo de los Estudios Amazónicos, con investigaciones que busquen comprender sus particularidades y especificidades.

Palabras-clave: Estudios Amazónicos, desafíos de la práctica docente, postpandemia, formación de profesores.

Where do we start from?

In March 2020, following the declaration of the coronavirus pandemic by the World Health Organization (WHO), many spaces brought the virtual/remote into their realities to some extent. In formal education, this reality has become recurrent and has required alternatives whose characteristics have varied depending on the context of the schools and the actors involved.

The research reported here focuses on the challenges faced by teachers of the compulsory component of the Amazonian Studies curriculum, most of whom have a degree in Geography, in Altamira -PA. This community opted for Emergency Remote Teaching (ERE), something about which little or almost nothing was said or known, and which quickly became the main and most routine alternative so that teaching-learning processes did not come to a complete halt after the pandemic.

With regard to ERE, it is important to note that it emerged in an unforeseen and urgent way in the basic education network, so that students would not lose their attachment to school during the period of social isolation, which was presented as the only way to combat the spread of COVID-19 (VELLAR, 2021).

Even in the face of this scenario, schooling continued by adapting the teaching-learning process, so that a new teaching method was literally implemented in a hurry. In the vast majority of educational institutions in the country, it can be seen that the decision to adopt ERE was a decision that forced students and teachers to adapt to the pandemic conditions, with various consequences. One of them was certainly the revelation of the difficulties faced by those involved in the educational process regarding the use of Digital Information and Communication Technologies (DICTs).

It should be noted that their use in the classroom is far from being new, as Cavalcanti (2002), Libâneo (2011), Kenski (2012) and others have pointed out. It should also be noted that this discussion is almost always linked to a possible lack of preparation on the part of teachers for the use of technology and its real function in the teaching-learning process. At the same time, their use is fundamental for minimally effective remote teaching.

Thus, the adoption of distance education, albeit on an emergency basis and motivated by factors beyond the control of education systems and school communities, has involved a number of elements that have been discussed for more than two decades, such as digital inclusion and teacher training in the use of digital technologies (FREITAS, 2021).

Digital technologies have been presented as a way to support learning, in other words, they have taken on an important role in supporting the active and autonomous learning processes of higher education students (PINTO; LEITE, 2020). Our daily experience also shows that in basic education, DICTs were less used and teachers were less familiar with these technologies compared to the subjects - students and teachers - involved in higher education training processes. And the pandemic context has highlighted training gaps in the area of DICTs.

It also appears that many of the tools and strategies used in distance learning continue to be used in the return to face-to-face teaching after the pandemic, perhaps also because most subjects are potentially better suited to their use.

It should be noted that when ERE was implemented as an alternative for the continuity of formal teaching processes on a national (and local) scale, the availability of technology for students was not always taken into account, nor was there concern about the adequacy of teacher training for this scenario. Therefore, it can be seen that there is a gap to be studied in the factors surrounding the dissemination of technology in education, such as its availability, the ability to work with content in this model, the possibility of teachers being able to develop knowledge and the perception of all actors in terms of meeting the needs of this audience (FREITAS, 2021).

Therefore, given the advances (sometimes forced) in the incorporation of DICTs in the school environment, the following are the guiding questions: What is the teachers' perception of the use of digital technologies in the context of distance learning during the pandemic? To what extent were teachers prepared to master new tools and how did they adapt to them? What do they envision for the future of education? And how was the teaching of Amazonian Studies in the context of Altamira (PA) affected by the introduction of ERE? 4

In order to find clues to answer these questions, the article aims to understand the dynamics of teaching Amazonian Studies before, during, and after the pandemic in the municipal schools of the city of Altamira - PA. Therefore, the goal is to gain a better understanding of the particularities that surround such a challenging context as the pandemic scenario in the last years (2020-2022), as well as to give voice to Amazonian Studies teachers about their professional experiences during this period, carrying out the exercise of listening, something that, from our perspective, has rarely been done in this process of adaptation or "reinvention" of teachers.

We believe that this type of research can contribute not only to the creation of a historical record of the context experienced by (not only) geography teachers who work with this compulsory curricular component, but also to the mapping of strategies in the post-COVID-19 scenario, based on the experiences they built during this period, supported by the lessons learned from a scenario that was unprecedented for our generation, and for which we need to be better prepared to face in the event of a similar situation in the future.

Where are we heading?

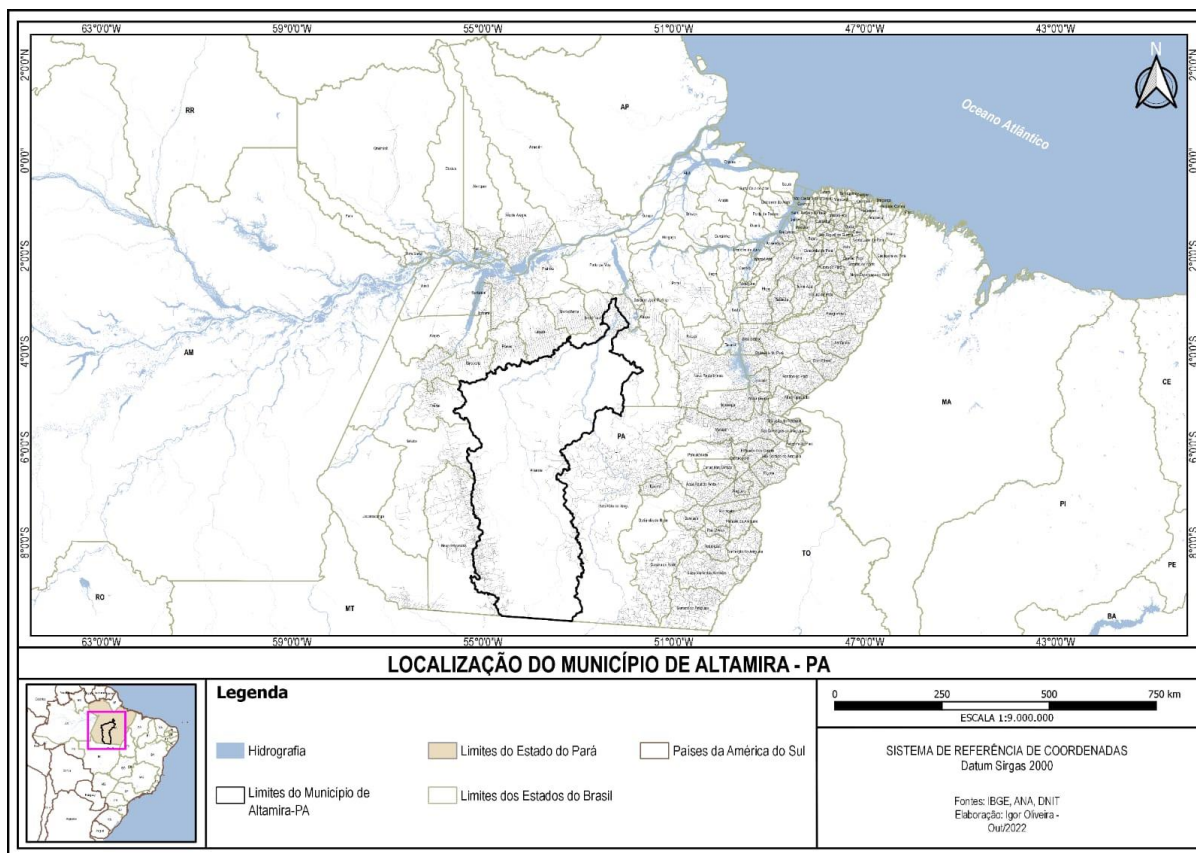
We chose to follow this path using the lens of phenomenology, dialoguing with Husserl when he defines it as a proposal to "go to meet things in themselves" (HUSSERL, 2008, p. 17). Here, we are working with subjectivity and the individual's perception of a phenomenon, in this case the teachers' perception of the impact that the ERE has had on their teaching practice.

This research was carried out with teachers of the Amazon Studies component in public schools in the municipality of Altamira in the state of Pará (Map 1), which is the largest municipality in terms of land area in the country.

We opted for a qualitative approach of an exploratory nature, based on a literature review and the application of questionnaires to our subjects. The choice was based on the studies of Yin (2016), who argues that, in the first instance, qualitative research involves studying the meaning of people's lives, within the conditions in which they actually live and that, when reporting something, participants tend to express their perceptions, aspirations, beliefs and even their behaviors.

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Map 1 - Location of the Municipality of Altamira - Pará.



Source: prepared by Oliveira (2022).

In turn, the research subjects - teachers of Amazonian Studies who work in public schools located in the urban area of the municipality of Altamira-PA - were delimited based on a preliminary survey that included those professionals who actually taught during the years of the pandemic and up to the date of this text.

The information was collected through a questionnaire created and made available on the Google Forms platform. It should be noted that this questionnaire is a data collection tool consisting of an ordered series of questions to be answered in writing and without the presence of the interviewer. It contained a total of 19 questions, both objective and subjective, based on five thematic axes, namely Methods used in remote mode; Conditions for the use of digital technologies; Difficulties in the use of technological materials and the result of the application of technologies in the teaching-learning process; and Prospects for the future after the pandemic. The sample consisted of 10 subjects and was based on the teachers of Amazonian Studies in the schools of the municipality of Altamira.

The data were analyzed using the methodology of content analysis, which is widely used to describe and interpret the content of a wide range of documents and texts. It leads the

researcher to systematic descriptions, both qualitative and quantitative, and helps to reinterpret the real messages contained in the transcribed speeches (RIBEIRO, 2008, p. 27).

Once the questionnaires were returned, the first step was to transcribe the qualitative responses. The second step was to interpret the questionnaire. Finally, the questionnaire responses were cross-referenced based on the articulation of the contents of the different thematic axes, which the researcher carried out based on his assumptions.

ERE, ODL and Hybrid Learning: Is it all the same?

It is commonplace to say that the world changed abruptly as a result of the coronavirus pandemic (or COVID-19 pandemic), which ended up initiating an unexpected way of socializing, making meetings, family activities, work, leisure, study, among others, impossible and, consequently, the relationships established in classrooms. However, this historical record is noteworthy for its magnitude and its impact on various dimensions up to the present day, when, fortunately, the pandemic is no longer a cause for great concern.

However, while it is common knowledge that many spaces and dimensions have changed, few have experienced such a significant impact as the formal classroom. This scenario has forced teachers to adopt practices that are very different from those already known in quality digital network education, as Moreira et al. (2020) point out. As a result, many teachers - even those who were already working with digital information and communication technologies (DICTs) in their daily school life before the pandemic - found themselves somewhat confused or helpless in this context. In general, education systems implemented and/or revived strategies that in their own way contributed to the implementation of Emergency Remote Education (ERE).

According to Hodges et al. (2020), ERE has emerged as an alternative and has been used by researchers and education professionals under this nomenclature to mark the difference from what we know as quality online education. For Joye et al. (2020), the term remote refers only to the change in physical space that was once face-to-face and has temporarily become remote (digital), appropriating this word commonly used in the information technology (IT) field to refer to the non-face-to-face nature of the actions.

Contrary to experiences that are planned from the beginning to be carried out online or at a distance (such as Distance Education - DE), RLE is a temporary change to an alternative mode of teaching due to crisis circumstances (HODGES et al., 2020). In summary, it can be

said that DE has become a strategy to minimize the negative impact and damage to students' education. However, as Silva et al. (2016) state, the "transition" to this model was done in the short term, with little or no planning.

In fact, the suspension of face-to-face teaching activities around the world has meant that teachers and students have had to migrate to a virtual environment, transferring and adapting teaching methodologies and practices that originated in physical learning spaces.

Can remote teaching, practiced in the COVID-19 pandemic by the vast majority of Brazilian public schools, be considered distance learning? Possibly not. RLE and distance learning only resemble each other in terms of the use of education mediated by digital technology. From this perspective, Joye et al. (2020) point out that "remote" refers only to the transformation from physical to remote space, while in distance learning the process is shared by several professionals, such as the content teacher, multimedia producer, illustrator, Virtual Learning Environment manager, as well as others involved, not to mention the planning factor, which designs the teaching-learning trajectory from the outset in a manner consistent with this model.

According to Fernandes et al. (2020), distance learning is an educational modality that favors the use of technological resources to bring students and teachers closer together, breaking with the Cartesian view of time and space. In turn, the Brazilian Ministry of Education defines distance learning as an educational modality in which students and teachers are physically or temporally separated and, therefore, the use of information and communication media and technologies is necessary (BRASIL, 2020).

Another significant difference between distance learning and ERE is the student profile. For Joye et al. (2020, p. 14):

In distance learning, the student has an andragogical profile, i.e., an adult who has a specific motivation to study online and has an a priori, autonomous profile. In remote education, on the other hand, the student's profile is different, since they are motivated to study remotely in emergency situations, such as war conflicts, calamities, pandemics, or people in transit or with special educational needs who cannot attend conventional classroom teaching.

It is worth noting that the Distance Learning method also differs from Hybrid Education in all its contextualization. According to Anastácio (2021), the concept of Hybrid Teaching understands that students do not learn in the same way, so it is necessary to develop teaching proposals that can provide learning opportunities for everyone in a personalized way.

For Hybrid Teaching to materialize, therefore, it is necessary for online and face-to-face moments to complement each other. Moran (2015, p. 27) reiterates this concept when he points out that:

Hybrid means mixed, blended. Education has always been mixed, hybrid, it has always combined various spaces, times, activities, methodologies, audiences. This process, now with mobility and connectivity, is much more noticeable, broader and deeper: it's a more open and creative ecosystem.

It is possible to find different definitions of Hybrid Teaching in the literature. All of them generally present the convergence of two learning models: the face-to-face model, in which the process takes place in the classroom, as has been done for some time, and the online model, which uses digital technologies to promote teaching (BACICH et al., 2015). Given these multiple definitions, we agree with Joye et al. (2020) when they say that the ERE employed in general was not configured as Hybrid Education, since there were no face-to-face moments, nor can it be considered as Distance Education, since it does not have a complete and organized political and didactic-pedagogical structure.

It should also be pointed out that ERE, or any other type of teaching which takes place in virtual environments, requires adequate training to effectively qualify subjects for the best student-teacher interaction, both in terms of the structural issues of the institutions and their pedagogical dimension.

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Amazonian knowledge at school: institutionalization and particularities of the Amazonian Studies component

The basic education curricula in the state of Pará, in compliance with Article 26 of the National Education Guidelines and Bases Law, which is dedicated to regional specificities, offer the regional curriculum component of Amazonian Studies between the sixth and ninth grades of elementary school, which can also be called Regional Studies or Para Studies (PARÁ, 2003).

For the Pará Education Department, the curriculum can be defined as:

Based on the specific needs of each school reality, by all those involved in the context in question. This implies that the definition of the curriculum should be based on the "reality", the "need" of the students in order to select the "knowledge" to be appropriated by them (PARÁ, 2003, p. 24).

In this context, the curriculum must take into account the diversity of each community, respecting the particularities of each school, based on local and global scales. In the context of increasing globalization, the need to value and understand the culture of these school communities is reinforced. For Barros (2021), we should go far beyond a curriculum that merely meets needs, to a critical-liberating curriculum.

According to the aforementioned author (2021, p. 45), "the subject of Amazonian Studies was created in the 1990s by Resolution 630/97, approved by the Pará State Education Council, as part of the so-called diversified part of the curriculum. To this day, it is compulsory in the primary education of the state. Amazonian Studies is in line with the National Common Core Curriculum (BNCC), which states that regional and local characteristics of society, culture, history, environment and economy must be present in the curriculum, and also indicates interdisciplinarity and contextualization as principles for expanding the various possibilities of interaction between different areas of knowledge.

Currently, the curricular component of Amazonian studies is based on the knowledge of geography and history of primary school in the last years of the BNCC (BRASIL, 2017). This is because it includes objects of knowledge about the historical/geographical characteristics of the region, as well as prioritizing, as professionals qualified to teach it, those with degrees in Geography, History or Social Sciences.

In the municipality of Altamira, the component was integrated into the school curriculum through a resolution of the Altamira Education Council, published in 2017. The Curriculum Matrix was developed by the Municipal Education Council based on an analysis of the Curriculum Document for the State of Pará, and aims to enable an understanding of the Amazon as a space of multiple contrasts and contradictions, given the great socio-cultural and environmental diversity that this region offers in its territory of continental dimensions.

This first version of the Curriculum Document for the Municipality of Altamira was developed with the participation of teachers from the municipal public school system. The proposal developed by the Municipal Education Service of Altamira (SEMED) deals with the purpose of the component, which, among other things, should enable students to:

A keen eye on the diversity of cultures and people, on the characteristics that make our region unique in the world, from the colonial period to the present day; on the needs of the people who have lived and are living here and who have transformed, and are still transforming, the Amazonian reality (ALTAMIRA, 2020).

From this perspective, the Amazonian Studies curriculum component presents itself to teachers as a possibility of understanding the specificities existing in the communities, as well as recognizing their respective subjects. In line with Barros (2021), historical studies and geographical sciences are of fundamental importance for understanding the Amazon, but perhaps it is necessary to create an identity for the component and not just see it as a mere complement to other major areas.

And what do the Amazon Studies professors say?

Data on the teaching of Amazonian Studies before, during and after the pandemic was collected mainly through a questionnaire applied to the teachers of this component. In order to define a number of statistically relevant samples, it was essential to know the number of teachers of this component working in the field community.

Teachers were contacted via WhatsApp, and the purpose of the research and the consent form were explained. The questionnaire was then sent through the Google Forms platform. The questionnaire was available to receive responses for a period of 20 days, at the end of the school year 2022. A total of 10 questionnaires were returned, all from teachers working in the sixth grade. This number covered the scope initially planned and is considered representative of the number of professionals working with this component in Altamira (approximately 20 teachers).

Once the questionnaires had been answered, the data were tabulated, organized and processed in order to support the analyses and allow for interpretations, always in accordance with the relevant bibliography and the theoretical framework supporting the research.

First of all, in order to outline the profile of the subjects, the questions dealt with age, education and professional experience, among other similar elements. First, the age of the respondents was asked, which showed that more than half of the teachers were between 36 and 45 years old. Regarding gender, the proportion of responses was 50% male and 50% female. In terms of initial education, 100% of the participants have a degree in geography, which confirms the aforementioned recurrence of geography graduates working in the Amazonian Studies component in the State of Pará.

As far as postgraduate studies are concerned, 60% of the research subjects have a specialization degree and 10% have a master's degree. Thus, only 30% of the participants do not have courses at this level. This is an important data, because it shows that teachers are

looking for additional qualifications and training, while at the same time opting for quicker courses (compared to post-script sensu), for the most part.

As for where they work, 90% of the respondents work in the municipal network as teachers responsible for the Amazonian Studies component. In terms of working hours, 80% of respondents work 200 hours/month. The other participants, who work 150 and 250 hours, reduce this figure or increase it depending on where they work. With regard to the length of time they have been teaching Amazonian Studies, 40% have between five and ten years' experience, which, when added to the other answers, points to a group of subjects with reasonable experience in teaching this component.

Participants were asked why they chose teaching, allowing for more than one answer. It is worth highlighting the option "identification with teaching", highlighted by 70% of the participants as the motivation for choosing a degree. We can see that this option is directly related to affinity with the area, admiration for teaching and identification with the profession. It should also be noted that the "job market" alternative was also relevant in the choice of teaching, a fact corroborated by the fact that 50% of the participants linked their choice of degree to the possible stability that teaching could provide - a concept based on public examinations. According to Muhlstedt and Hagemayer (2015, p. 35) "there is a certain ease in getting a job as a teacher, after all, professionals retire, the population increases and schools need teachers to exist", which helps to understand the data obtained in this respect. Finally, "family influence" and "belief in the social role of the teacher" were also mentioned, with 30% of the participants selecting these alternatives. It is understood that the choice of degree course comes from an intrinsic and altruistic desire, in other words, the desire to be a teacher and a belief in the social role that this professional plays. This altruism can be derived from family issues or the influence of school life. Intrinsic and altruistic motives are not mutually exclusive and contribute to the choice of decisions (TURRA; COSTA; ROSSI, 2019).

Moving on to questions more specific to the subject of the investigation, the participants were asked if they felt there was a lack of materials related to the Amazonian Studies curriculum component in their teaching practice. The data is eloquent: 100% of respondents resent the lack of materials related to the Amazonian Studies curriculum component. In view of the responses obtained, it can be seen that the bibliography relating to Amazonian Studies is scarce - despite the fact that, in 2021, the municipal network adopted a Para didactic collection of Amazonian Studies to offer support in the classroom. It is hoped that this identified and recognized limitation will lead to a mobilization for the construction of

collaborative teaching materials, in which the authorship of the component's teachers is valued.

In turn, when asked about the quality of students' learning during the period of isolation/social distancing in the context of the pandemic, the subjects were again unanimous in their considerations, pointing out that classes during isolation/social distancing were less effective than in the face-to-face regime, as far as learning is concerned. This is possibly due to the abrupt change in the way classes are taught during the pandemic and a possible lack of preparation on the part of all those involved in the teaching process to deal with the scenario in the best possible way.

With regard to preparation to teach the Amazon Studies component during remote classes, the results show that 80% of the participants did not feel prepared or said they were not very prepared for this remote exercise, and only 20% said they were able to do so. The reasons given for this range from a lack of teaching materials to low student motivation, as well as the lack of internet access for many of the students.

These elements become more visible when participants are asked about the biggest challenges faced in the context of Emergency Remote Learning. Those most frequently pointed out were: the limited availability of materials relating to the subject of Amazonian Studies, the lack of pedagogical guidance, the lack of support from the institution, the lack of materials adapted for remote teaching, reflecting the teacher's exhausting workload, as well as the difficulty in effectively including students, since many did not have the resources to access the classes, profoundly limiting the teaching action and causing in some contexts a drastic decrease in their participation.

We then asked: Before the pandemic, did you have any experience with digital information and communication technologies (DICTs) in your teaching practice? In this question, 100% of the teachers indicated that they had little or no experience with DICTs at the start of the pandemic. In this way, we empathetically understand any unpreparedness and inability to deal with digital technologies as another major challenge for them during remote classes. This is reflected in the way the resources acquired for this type of teaching were used, as well as the purchase of support materials such as cell phones, SIM cards, computers, tablets and internet packages. It should be noted that, in Altamira, both students and teachers in the municipal network did not receive such materials from specific public policies for this purpose.

Among the platforms/technologies used by participants during remote classes, WhatsApp was one of the most common. It proved useful for creating groups of students to send reports and activities according to each teacher's timetable or the school's organization. Google Forms was also a tool for sending activities, which facilitated feedback and correction by the teachers. With regard to the tool for student-teacher contact during synchronous meetings, the Google Meet Platform and the Zoom Platform were the survey subjects' preferred options. It appears that these technological tools are still used by teachers to some extent.

Moving on in the questionnaire, participants were asked about the main challenges they face in their teaching practice after the pandemic, and whether these are the same as during the remote teaching period. The answers left no doubt that the challenges are the same, but on a larger scale. Social isolation has brought many difficulties, and because it is a new and atypical situation, students have found it strange and have not hidden, in many cases, their lack of interest and preparation for the new teaching modality, not to mention the fact that institutions have not, in most cases, provided the most appropriate resources to make the teaching-learning process effective. The testimonies of the participants¹ show these challenges:

The return, in the pedagogical sense, was a challenge, not only in terms of the students' learning, but also in terms of the educational deficit that the students brought with them from the remote period (MARIA). 14

No, the challenges are different, given that the students spent almost two years in remote teaching, and this type of teaching did not achieve quality or psychological and intellectual preparation on the part of the students. Today we have students who are more disinterested, more aggressive and more unprepared, unfortunately!" (MARTA).

At the end of the questionnaire, the teacher was asked about his or her greatest learning during the pandemic. In addition to the various challenges that already existed and arose during the period, which contributed to making the teaching-learning process even more difficult, such as the high number of students in each class, the overwork of teachers and widespread devaluation, the results show that teachers had to excel during the pandemic in order to teach their classes and fulfill their tasks in the best way. Thus, the subjects' responses show that the lessons they learned at that time will accompany them throughout their teaching careers. Some of the answers to this question were:

¹ All names are fictitious in order to preserve the identity of the participants.
Signos Geográficos, Goiânia-GO, V.5, 2023.

Persistence, patience and the search for innovation. Always wanting and willing to learn (LAURA).

I learned that the teacher in the classroom is indispensable (PAULA).

That teachers make education happen, that the difference in learning lies in the teacher and their commitment (SAULO).

I learned that we need to be constantly changing, always seeking to improve, to qualify (BRUNA).

The open-ended questions reinforced the intensity of the challenges experienced by teachers during this period, while at the same time pointing to the lessons learned - at a very high cost. Once again, it is important to give teachers the opportunity to listen carefully to their practices, the contexts in which they work and their records in the face of such a delicate historical period, such as the recent years marked by the Covid-19 pandemic.

Some considerations

This research has allowed us to learn more about the challenges faced by teachers of Amazonian Studies in primary schools in Altamira, before, during and after the pandemic. The data and reflections on the results obtained, presented here in summary form, show that the challenges are related to issues such as the lack of experience and acclimatization of the teachers to the irreversible use of digital technological resources; the scarcity of materials that effectively contribute to the work with the Amazon Studies component; the lack of access to the Internet for a significant part of the students, which resulted in low participation and lack of feedback on the activities; the difficulty of the teachers in organizing and managing their time to reconcile professional and domestic activities; and the physical and psychological changes of the teachers (and also of the students) during the pandemic period.

Although the issue of mental health was not included in the questionnaire, it is important to note that from the conversations with the participants and from our experience in the classroom, it can be said that the search for the so-called "reinvention" of teachers through alternative forms and methods of teaching during the pandemic scenario has (also) generated negative psychological effects for teachers, such as emotional stress, anxiety and sleep deprivation, caused or aggravated by social isolation/distancing and all the uncertainties and insecurities evoked by the scenario in question.

The difficulties in using the technological tools presented by the teachers and the abrupt and limited organization of a plan for the new form of teaching were highlighted and also contributed to increasing the precariousness of teaching work, which is confirmed by the perception of the lack of training policies aimed at the effective needs of teachers. Few of the professionals who participated in this research had received specific training in the use of technology as a tool for teaching at a distance, for example. It is not difficult to point out that training in the use of DICTs in distance education would contribute to the improvement of teachers and, consequently, to the optimization of the teaching-learning process.

The Amazonian Studies curriculum component is the only regional component created and included in the State of Pará curriculum, and during the online classes, the challenges of mediating the meetings were even greater. In addition to the problems already reported by the teachers, there is also the fact that, according to our perception, this component is rarely considered a "priority" by the students. This was also reflected in the low number of activities returned and the lack of a range of materials on the subject to support teachers and students - which continues to be a point of difficulty in the teaching-learning process, even today, when face-to-face teaching has long since been restored.

Since the vast majority of teachers who teach the Amazonian Studies component have a degree in Geography, it is up to the programs that train these teachers to dedicate themselves to better meet this need in the context of Pará. It should be emphasized that these programs need to pay more attention to this dimension of the training of future teachers, since teaching this component has become an important way for their graduates to enter the profession.

Although the UFPA Geography course offered at the University of Altamira campus (where the vast majority of the research subjects were trained) includes in its Political Pedagogical Program (PPC) a myriad of subjects related to the Amazon region, little is said about Amazonian studies from a school perspective. For this reason, we advocate that this component of the training of future geography teachers in this region be made more effective, so that there is a greater correspondence between the topics studied in initial teacher training and the reality experienced by Amazonian Studies teachers.

The COVID-19 pandemic has triggered major transformations in teaching and educational practices as a whole, causing emergency changes in the short term - and we're not saying that's anything new. However, more than two years after the full return to face-to-face teaching in schools, we can see that many challenges remain, along with questions, demands

and new issues for the post-pandemic period. The challenges faced during this period have certainly left many marks and indications of paths to be followed. We have certainly made progress in some ways and incorporated new practices, tools and technologies into our daily teaching practice. We have also reaffirmed the certainty that the teacher is irreplaceable - and specifically, that the Amazon Studies teacher deserves greater support and recognition, whether by expanding their pedagogical resources, a greater profusion of support materials or initial and ongoing training that meets their real needs and training demands.

It's important to stress that the vast majority of teachers (and at this point we're not just referring to the subjects of this research) have mobilized and tirelessly sought various means to put their skills, abilities and knowledge into practice before, during and after the pandemic. After all, even in the face of the denial of accumulated scientific knowledge, the Human Sciences and the devaluation of teachers, by a portion of Brazilian society in the context of the pandemic, these professionals worked hard to mitigate the damage of non-presence in the school context and to expand the possible limits of the reach of Emergency Remote Education. Among them, teachers - of Geography! - who work in Amazonian Studies in Altamira.

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