

TEACHERS' PERCEPTIONS REGARDING THE USE OF DIGITAL INFORMATION AND COMMUNICATION TECHNOLOGIES (DICT) AND THE APPROACH TO MULTILITERACIES IN THE CLASSROOM

PERCEPÇÕES DOCENTES QUANTO AO USO DAS TECNOLOGIAS DIGITAIS DA INFORMAÇÃO E COMUNICAÇÃO (TDIC) E À ABORDAGEM DOS MULTILETRAMENTOS EM SALA DE AULA

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Abstract: *This research is a theoretical-practical study on teachers' perception regarding the use of Digital Information and Communication Technologies (DICT) and the approach to multiliteracies in the classroom. The objective was to understand the perception of two Portuguese language teachers working at the Federal Institute of Education, Science and Technology of Pará (IFPA) - Abaetetuba campus regarding their use of DICT and the approach to multiliteracies in the classroom. In this study, an exploratory investigation of a qualitative nature was conducted through field research grounded in an ethnographic approach. Ultimately, it was revealed that the emerging perspectives related to multiliteracies indicate the promotion of educational practices that are critical, reflective, and pluralistic, fostering the cognitive competencies necessary for collective knowledge production.*

Keywords: *Portuguese language. Multiliteracies. Digital Information and Communication Technologies.*

Resumo: *Esta pesquisa é um estudo teórico-prático sobre a percepção docente acerca do uso das Tecnologias Digitais da Informação e Comunicação (TDIC) e da abordagem dos multiletramentos em sala de aula. Objetivou-se compreender a percepção de duas docentes de Língua Portuguesa atuantes no Instituto Federal de Educação, Ciência e Tecnologia do Pará (IFPA) - campus Abaetetuba quanto ao uso das TDIC e à abordagem dos multiletramentos em sala de aula. O objetivo específico envolveu identificar como ocorre o uso das TDIC e a abordagem dos multiletramentos, pelas professoras, em sala de aula. Neste estudo, foi desenvolvida uma investigação de caráter exploratório, de cunho qualitativo, por meio de uma pesquisa de campo alicerçada sob a abordagem etnográfica. Ao final, foram evidenciadas que as perspectivas emergentes relacionadas aos multiletramentos apontam para a promoção de práticas educativas de caráter crítico, reflexivo e pluralista, que fomentem as competências cognitivas necessárias à produção coletiva do conhecimento.*

Palavras-chave: *Língua Portuguesa. Multiletramentos. Tecnologias Digitais da Informação e Comunicação.*

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Introduction

The debates on multiliteracies in education were observed by researchers from the United States, England, and Australia, who noted significant changes related to language use and multiliterate practices adopted by students, workers, and citizens in general. In this context, these scholars came together to form the self-styled New London Group (NLG), which is aimed at developing a new educational philosophy that encompasses the management of multiple languages (Rojo, 2012; Rojo, 2013).

In this perspective, to better integrate citizens into today's society, multiliteracies have emerged as a pedagogical proposal aiming to prepare individuals to navigate the various environments and situations found in the technologically and globally integrated society in which humans live.

The studies conducted by the NLG emphasized that new social organizations, particularly new technologies and media that emerge, and diversify linguistic forms by differentiating them into multiple languages, are aspects strongly related to the pedagogy of multiliteracies (Batista *et al.*, 2018).

In this logic, multiliteracies pertain “on one hand to the multiplicity of languages, semiotic systems, and media involved in creating meaning for contemporary multimodal texts, and on the other hand to the plurality and cultural diversity brought by contemporary author-readers to this meaning-making process” (Rojo, 2013, p. 14).

Hence, this approach incorporates a range of perceptions and tools linked to cultural, technological, linguistic, and communicative aspects that allows the school to produce holistic prepared citizens to operate in the three main spheres of life – professional, public, and private.

In this context, it is pertinent for educational institutions and educators to prioritize teaching in which knowledge is produced through interaction with Digital Information and Communication Technologies (DICT), since new learning styles demand new teaching methodologies. In this situation, the teacher should adopt the role of facilitator of learning, and the student should become an actively engaged subject in the construction of knowledge.

In short, after reflecting on their practices, schools and educators have the opportunity to provide a collaborative, interactive, and dynamic learning environment by incorporating the pedagogical approach of multiliteracies into teaching. In this case, the purpose is to promote the critical, social, and intellectual development of students.

The research presented in this article is an excerpt from the Master's thesis authored by the first author of this study and supervised by the second author of this study for the purpose of obtaining a Master's degree from the Literature Graduate Program (PPGL) at the Federal University of Pará (UFPA).

The investigation was aimed to understand the perception of two Portuguese language teachers working at the Federal Institute of Education, Science and Technology of Pará (IFPA) - Abaetetuba *campus* regarding their use of DICT and the approach of multiliteracies in their classroom. Specifically, the objective was identifying how the use of DICT and the approach of multiliteracies occur in these teachers' classrooms.

Given the objectives, this study is aimed to answer the following research question: how do the teachers use DICT and approach multiliteracies in the classroom?

Regarding the justification, the importance of the theme addressed in this investigation is supported by the increasing prominence of research on the relationship between DICT and multiliteracies. Nevertheless, there are still few studies that focus on the perceptions of Portuguese language teachers working in Professional and Technological Education (PTE), a practice that stands out from other modalities of education due to its distinctive characteristic of linking human formation to the world of work (Moura, 2014).

Methodology

Regarding the methodological approach, it was anchored in ideas proposed by Uriarte

(2012). Therefore, the study reported in this article addresses the specificity of the ethnographic approach used to conduct research at a Professional and Technological Education (PTE) institution in Abaetetuba, in the state of Pará: the Federal Institute of Education, Science and Technology of Pará (IFPA).

The ethnographic approach was adopted chosen because it allows the presentation of theoretical concepts, the understanding and analysis of teachers' conceptions by the research, and potentially provides a reflection that makes possible the advances of the studies associated to the theoretical framework of this research: Digital Information and Communication Technologies (DICT) and multiliteracies.

Two Portuguese language teachers from the Abaetetuba *campus* of IFPA were chosen to participate in this field study. Interviews, questionnaires, and classroom observations of these teachers were applied and considered the primary sources of data generated for analysis. Additionally, relevant data came from field diary entries, as well as from the analysis of the descriptive academic memoir written by the participants.

All procedures conducted in this investigation, which involved the participation of research subjects, were carried out in accordance with the ethical standards of the institutional and national research committee. It means, this study was analyzed and approved by the Research Ethics Committee on Human Beings (CEP) of the Federal University of Pará (UFPA) under protocol number 5.502.319. Furthermore, all participants in this study provided their permission to be researched, which was obtained and recorded through the signing of the Free and Informed Consent Form (FICF).

The data analysis is grounded in qualitative and interpretative principles that enable understanding the complexity of reality and the various nuances that encompass the teaching process based on the perspectives of multiculturalism and multimodality inherent in multiliteracies.

Data analysis and discussion

It is certain that the vast amount of data and information arriving at an unprecedented speed astonishes many educators in the 21st century. Given the rapid development of Digital Information and Communication Technologies (DICT), it is crucial for educational institutions and teachers to be prepared for the influences of an increasingly complex society in which audiovisual communication is the dominant form.

Every day, it is observed how remarkable technological advances are and how media are present in all forms of communication. In order not to lose its social function and be left behind amidst so many transformations and innovations, education cannot abstain itself from the technological world, but it also should not become dependent on technology. Regarding this, Costa and Oliveira (2004, p. 86) report that

the tasks facing education and communication are challenging considering the perspective of new forms of learning based on changes in interpersonal interactions and new cognitive environments. A deep understanding of how social actors live and interact through media systems can effectively contribute to bringing schools closer to reality.

Based on this, it becomes understandable that the use of technology in the complex process of knowledge construction in everyday classes requires wisdom and discernment from both the school and the teacher. Thus, DICT should be seen as innovative tools rather than inventions aimed at replacing educators or causing difficulties in their work.

Regarding the data collected for conducting this study, when asked about the advantages and disadvantages of using DICT in the classroom, the participants in the research, teacher Eli and teacher Léia, both referred to by pseudonyms of their choice, highlighted more advantages than disadvantages. Based on the data from the questionnaire, they reported that:

[1] The advantages are numerous: DICT is a constitutive part of the current world. Our students are hyper-connected in this world. Consequently, **integrating technology into our classes is part of the changing process that schools need to undergo if they want to continue making a difference in people's lives.** The disadvantages are more related to the behavior of adolescents rather than DICT itself. Today, many students use digital devices even for carrying out textual production activities. Many of them take notes on their phones and snap pictures of slides with the intention of memorizing the concepts presented in class. However, these photos and notes are not always revisited. I perceive a certain "naivety" in this generation, thinking that having a photo of the board on their phone will help them learn more effectively (Teacher Léia, questionnaire, May/2023, my emphasis).

[2] The advantages include the possibility of motivating students to learn through the use of DICT, since technology is commonly used and appreciated in everyday life by individuals. Hence, integrating it into education can be beneficial. **There is also the opportunity to cater to a variety of learning styles among students,** as through the use of slides, it is possible to teach using prose text, audio, images, etc. I do not see any disadvantages in using DICT in the classroom, as long as they are used for an educational purpose (Teacher Eli, questionnaire, May/2023, my emphasis).

As stated, both teachers acknowledge that DICT bring benefits to education, such as the increasing integration of the global network into the academic world, which accelerates the production of scientific knowledge and expands contact among various cultures and individuals.

According to teacher Léia's perspective on overcoming the reductionism associated with knowledge, the school should take a stance regarding the use of DICT so that they help transform pedagogical practices. This entails considering educators' experiences within their respective cultures while simultaneously expanding teaching and learning opportunities.

Another benefit related to the use of DICT was mentioned by Eli: the opportunity to motivate students to learn. In the teacher's point of view, when the educational process takes place in an interactive environment that encourages communication and information exchange between teachers and students, it becomes easier to boost student motivation. Hence, it is possible to achieve better results both in the application of the most suitable methodology by the educator and in the learning of the students when pedagogical practice is properly aligned with DICT, which needs to be used to their full potential.

Furthermore, as reported by teacher Eli, the ability to provide knowledge through dealing with different learning styles is another positive aspect of DICT. According to De Aquino (2007, p. 44), learning styles are "the personal competencies of learners to process information in a learning environment". Therefore, working with multimodal texts facilitated by the use of DICT in education promotes the engagement of different learning styles: visual, auditory, and kinesthetic, for example.

Regarding this, because students learn differently from each other, it is necessary for educators to develop activities that involve various learning styles. This way, students will not feel excluded and, with the help of the teacher, they can better understand their own learning process (Dias; Dias, 2016).

Hence, with the purpose of promoting student learning, it is essential to work on the interaction between teacher and student in the classroom by taking into account the various learning styles and the implementation of approaches and strategies that are most suitable for each situation. This point contradicts the perspective of the banking model of education discussed by Freire (1996), which imposes on the student the role of a passive subject to whom an uncritical education is offered. Negatively, it homogenizes students in terms of how they learn, think, and express themselves.

In relation to the use of DICT, despite some negative aspects, as pointed out by teacher Léia, both teachers demonstrate interest in adapting themselves to the new demands of the globalized world by planning their classes based on the integration of DICT in education. When asked about the purpose of using DICT in the classroom, the participants stated:

[3] I use PowerPoint presentations on the projector, as well as videos and verbal and/or mixed texts to optimize my class time. For instance, when I propose the analysis of a text to my students, I never write the text on the board. If possible, I use printed text. When resources are not available or due to the nature of the text (including images, etc.), I project it using the projector. Google Classroom has been helping me promote student's autonomy, especially in completing activities. For each class, a new activity is posted on Classroom. Over the weeks, I update a spreadsheet in which students can track their performance. At the end of the academic term, a grade is given based on the completion of these activities (Teacher Léia, questionnaire, May/2023, my emphasis).

[4] I use DICT in the classroom to present information to students. For example, I use PowerPoint to share slides containing written text and images, such as advertisements, commercials, cartoons, and comic strips, to teach content to students. I also use it to display PDF booklets related to the topics covered in class (Teacher Eli, questionnaire, May/2023, my emphasis).

As observed, for the teachers, the use of DICT in the classroom provides an opportunity to cover the chance of working with texts from various sources and composed of multiple modalities. In this context, it is evident that texts increasingly take on new configurations as new technologies emerge that can better meet the needs of their readers. For this reason, images are closely intertwined with textual compositions, since the immediacy of information is linked to images and languages derived from them. Thus, a proper understanding of multimodal texts results from the ability to recognize meanings conveyed through the use of visual tools alongside verbal text.

It is important to emphasize that the uncritical use of DICT, which involves only technical aspects, does not contribute positively to the student learning process. Consequently, it is crucial to foster the ability to communicate effectively in various situations by searching for information in the digital environment and selecting this information after determining its reliability. After accessing information, it is necessary for the reader to pay attention to the source, the author, and the channel through which the fact was disseminated. Therefore, it is essential for the reader to have critical thinking skills to evaluate the information encountered.

It means that it is not enough for students to conduct research without educational purpose. On the contrary, proposals to work with learning scripts through the application of web-based games and/or webquests are valid, as well as socially recognized activities such as producing fanzines, interviews, videos, comic strips, comics, cartoons, newspapers, documentaries, and podcasts.

Therefore, it is essential to provide opportunities for actions aimed at the social transformation of individuals, because the focus of education should not be on DICT; rather than this, it should be on the individuals, as they have the power to change reality. This idea is reflected in the responses of the teachers when asked about the advantages of integrating DICT in the classroom for the development of students as critical individuals in society.

[5] The advantages of integrating DICT in the classroom for the development of students as critical individuals in society are diverse. For example, it is possible to show videos or images that stimulate the start of discussions and debates on social

issues. In this case, **the use of DICT serves as a way to initiate the process of developing critical awareness** (Teacher Eli, questionnaire, May/2023, my emphasis).

[6] More than just understanding the texts we read, I aim to lead my students to critically reflect on the discourses present in these texts. And, with DICT, the work becomes “easier” (Teacher Léia, questionnaire, May/2023, my emphasis).

In a complementary manner, in another question present in the questionnaire answered by the teachers, they were asked about the role played by DICT in the education they propose to their students. In both responses, a positive tone associated to the use of DICT in knowledge construction was observed.

[7] DICT play a fundamental role in the education I propose to my students, as they serve as a way to address the new facets of the globalized world that are now present in education as well (Teacher Eli, questionnaire, May/2023, my emphasis).

[8] I hope that the use of DICT in the classroom helps students in constructing meaningful learning and not just in memorizing concepts and grammar rules (Teacher Léia, questionnaire, May/2023, my emphasis).

Thus, it is confirmed that DICT can positively contribute to systematically solving problems; to constructing, strengthening, and evaluating arguments; to identifying the relevance of concepts; to understanding the logical connections that integrate ideas; to detecting inconsistencies in reasoning; and to reflecting on the adoption of certain beliefs and values.

Although the teachers strive to frequently use DICT in the classroom, as reported by them, this is not a straightforward process. On the contrary, there are challenges to overcome when using technologies in the classroom: teacher Léia pointed out that what challenges her is bridging the “real” world with the school knowledge, given that often the educator feels that students do not understand the reasons why they are studying certain topics and subjects. In the teacher’s view, a major contradiction concerns students seeing that the world has changed while, at the same time, the school seems to remain the same as when their parents attended. On the other hand, teacher Eli stated that she does not have such a broad mastery when it comes to using DICT.

The obstacle reported by teacher Eli remains a reality present in the daily lives of many teachers: the limited mastery of DICT, which hinders the use of technology in education because it is not fully understood and, therefore, it is not used pedagogically. Linked to this, Moran (2013, p. 2) asserts that

students are ready for multimedia, but teachers, in general, are not. Teachers increasingly feel the gap in technology proficiency and often try to hold onto traditional methods, making small concessions without changing the essential. I believe many teachers are afraid to reveal their difficulties to students. For this reason, and due to habit, they maintain a repressive, controlling, repetitive structure. Teachers recognize the need to change, but are unsure how to do so, and are not prepared to experiment safely. Many institutions also demand changes from teachers without providing them with necessary conditions to implement them. Often, some organizations introduce computers, connect schools to the Internet, and expect that this, by itself, will solve teaching problems.

In this context, educators’ challenge is to adapt to technological advances while maintaining control and critically appropriating emerging communication tools. The new bridges between the real and the virtual, as well as between physical presence and remote connection, can be established through expanding the concept of classroom, time, space, and audiovisual communication, which is

facilitated by DICT (Moran; Masetto; Behrens, 2007). According to Gadotti (2005, p. 16),

the new technologies have created new spaces of knowledge. Now, in addition to schools, companies, households, and social spaces have also become educational. More and more people study at home because they can access the cyberspace of education and distance learning from there, seeking information available on interconnected computer networks that meet their knowledge demands. On the other hand, civil society is strengthening not only as a workspace but also as a space for the dissemination and reconstruction of knowledge.

From this perspective, it is valid to mention that using DICT and, through them, responding critically and actively to various contexts for many purposes is the necessary condition for a teacher to become digitally literate. This means that, in this perspective, the individual should interact socially, use DICT to solve everyday problems, and at the same time, participate in the collaborative construction of knowledge.

Regarding teacher Léia's report on the challenge of bridging the real world with school knowledge, to overcome it, is indispensable for the student to understand his/her learning process, as well as to take on the role of an active agent capable of influencing reality and inspiring social changes. On that account, it is crucial for educators to rethink and to reflect on their pedagogical practice with the aim of adapting and/or improving it. In this way, the teacher can develop new types of actions that enable him/her to demonstrate his/her student not only how to deal with reality, but also how to reconstruct it.

Hence, in order to make this possible in the globalized world, it is essential that education adjusts itself to the postmodern paradigm, which demands innovation and attractiveness to achieve a reality that truly integrates into students' experiences. From this perspective, modern virtuality heavily relies on new channels of communication and information, which have become fundamental for the dissemination of knowledge.

Still related to the use of DICT, when explicitly questioned about the approach to multiliteracies in the classroom — a concept that synthesizes the diverse cultural and linguistic manifestations from students as well as highlights an ethical, critical, and democratic perspective — the teachers reported that in their classes they strive to work with both the multimodality of texts and the multiculturalism present in the classroom environment.

[9] Without explicitly mentioning the word “multimodality”, I **aim to bring texts in various forms to the classroom: written, oral, visual, and mixed** (Teacher Eli, questionnaire, May/2023, my emphasis).

[10] When I became a Portuguese language teacher, I realized that the Internet is a place of endless possibilities and many paths for learning. That is why I **use a little bit of everything in my classes: memes, comic strips, cartoons, opinion articles, humor sketches, songs, etc.** (Professor Léia, questionnaire, May/2023, my emphasis).

By analyzing the excerpts, it is observed that the multimodal text, which is also referred to as multisemiotic text due to its use of semiotics, which concerns to the production of meanings as well, is a recurring resource in the educational practices adopted by teachers. This can be understood as an incorporation of contemporary social practices into educational practice. Therefore, according to Dionísio (2014, p. 48), researches that focus on multimodality “have proposed concepts, methods, and perspectives for the collection and analysis of visual, auditory, embodied, and spatial aspects of interaction and environments, as well as the relation among them”.

In this way, multimodality becomes important for several reasons. Firstly, it allows the construction of meanings arising from particular communicative situations through the combination of various semiotic resources, such as written text, sound, image, gestures, and facial and bodily expressions.

In dealing with the multiculturalism present in the classroom environment, teachers Eli and Léia, aware of the variety of cultural backgrounds comprising the educational structure, affirmed that they aim to address the theme of multiculturalism in the classroom to promote an environment where differences are more readily accepted by raising issues such as racism and prejudice/bias among the students. This can be achieved through promoting educational practices that raise students' awareness of diversity, teach them to respect differences, address issues of gender and identity, and enable them to assess and understand underlying cultures based on the cultural and political aspects involved.

[11] I deal with multiculturalism in a way that allows me to appreciate the different cultures that manifest in the classroom, enabling me to demonstrate to students the importance of respecting, coexisting with, and valuing each other's culture and habits (Teacher Eli, questionnaire, May/2023, my emphasis).

[12] I try to be as open as possible to different opinions and discourses. When selecting texts for our classes, especially when dealing with argumentative texts, I explore the various viewpoints present in society regarding that situation, aiming to avoid biasing the teaching according to my own position (Teacher Léia, questionnaire, May/2023, my emphasis).

In this context, Candau (2010) assumes that it is urgent to reinvent the school, since working towards building an intercultural education enables the empowerment of socially excluded groups, such as women, Black people, Indigenous people, and homosexuals. Through a democratic articulation that promotes social differences and respects multiculturalism, it becomes possible to integrate both common sense and scientific knowledge, associating them with the life and daily experiences of students. This approach allows for the recognition and application of new knowledge in everyday life (Oliveira, 2015).

Thus, it is reiterated the need to deal with accepting the differences of various peoples and the diverse cultures and knowledge produced by them. Through visibility to multiculturalism and intercultural education, it is possible to reflect and act in the world in a critical and transformative way to overcome the conditions of exploitation, oppression, and domination experienced by a large portion of individuals living in society today.

In this sense, individuals (re)discover the meanings involved in each communicative situation as a result of the interaction between hybrid languages and modes of expression. Thus, the ways in which texts are structured both verbally and non-verbally enable the cognitive activation of the individual in relation to society.

Hence, the underlying principle behind the concept of multiliteracies starts from the idea that it becomes increasingly important for educators to (re)think educational strategies that enable students to interact effectively with texts integrated into their daily lives, considering the textual, linguistic, and cultural diversity present in contemporaneity.

When teaching the class on linguistic variation and citing examples of how speech forms are modified based on culture, teacher Eli addressed multiculturalism in the classroom by signaling the existence of different modes of expression across cultures. Then, she showed students that in the face of cultural differences, individuals should respect others and understand themselves as individuals whose social interactions result from an intercultural approach.

In this sense, the effects resulting from globalization and informational flows are transmitted through a variety of social spaces where multiple identities and realities are present. Therefore, this exchange requires a variety of communication modes, which demands linguistic and cultural adaptability.

Conclusion

In order to revisit the objectives which were set for this research, this study was aimed at understanding the perception of two Portuguese language teachers working at the Federal Institute of Education, Science and Technology of Pará (IFPA) - Abaetetuba *campus* regarding their use of DICT and the approach of multiliteracies in their classroom. Specifically, the objective was identifying how the use of DICT and the approach of multiliteracies occur in these teachers' classrooms.

In order to answer the research question, it is affirmed that the use of DICT and the approach of multiliteracies by the teachers in the classroom occurs through the use of multimodal texts that foster critical thinking, such as: booklets, cartoons, editorials, memes, and comic strips. It demonstrates the wide existence of distinct discourses and cultures that coexisting in the same environment ensure cultural and linguistic diversity within which individuals must position themselves critically, in order to understand the existence of various discourses that permeate human formation.

Based on the conduct of this research and on the results, that are not generalizable given the sample limitation and the methodological approach used, it has been found that the use of DICT can bring positive effects to education, but it is essential for educators to be aware of both its benefits and drawbacks. They also need to understand the implications of DICT use for society at large and specifically for education. Given that, simply equipping schools with updated technology is insufficient, it is crucial for teachers to be open to new possibilities arising from the evolution of science.

Many educators still find it challenging to develop pedagogical activities aimed at fostering multiliteracy practices because, at times, their educational training did not equip them with the necessary resources to effectively carry out this work in the classroom. Considering that the pedagogy of multiliteracies is an emerging teaching approach, there is still a widespread need to fully understand and appropriate this concept.

Contemporaneity demands a linguistic education focused on understanding the inherent diversity of linguistic practices manifested through printed, digital, and audiovisual texts. In this case, the main positive aspect regarding the implementation of the educational proposal established by multiliteracies is the integration of a teaching program that includes classes connected to the socio-cultural reality in which society is embedded.

Hence, in order to enhance their ability to interact with written and digital language, teachers need to train themselves and keep themselves informed to remain updated on the social changes occurring inside and outside the classroom. Rojo and Moura (2012) emphasize that educators should integrate teaching practices focused on the hypermediatic aspects of education through the use of DICT, so that students gain knowledge of the ideologies behind the ways discourse is manifested.

Regarding the limitations faced by this investigation, it is possible to mention theoretical limitations that reinforce the need for further study on themes such as literacy agents, literacy as agency, literacy projects, and the influence of design elements to effectively implement multiliteracies.

Another limitation concerns the methodological approach adopted in this investigation, which involved only two participants working as teachers in the same educational institution. Possibly, expanding the number of participants in the research could have enabled a more complex analysis with more diversified data to be examined. Additionally, researching the perceptions of teachers working in Professional and Technological Education (PTE) in educational contexts other than IFPA - Abaetetuba *campus* could have provided richer data for analysis and discussion.

Finally, as a starting point for future research, this study opens up the possibility of new questions regarding multiliteracies to be discussed, such as students' perceptions of the teachers' work in the classroom based on the multiliteracies approach, since this research focused only on educators' perceptions.

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