

## Ways of Being in/of Distance Education *Modos de Ser na/da Educação a Distância*

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### Abstract

This paper presents a study about the question: 'How a Teacher Education in Mathematics understands teachers in online courses?' In this way, we studied teacher's educators who teach basic mathematics by distance and using technological tools. In order to get some answers, we applied a phenomenological approach with five interviews, that were transcribed and analyzed in two moments: an ideographic analysis and a nomothetic analysis. Although very similar, those categories reveal specific identity characteristics as they pass through nuclear ideas that reveal how training by distance education has been going on. In summary, the study shows that online education, aimed to fill the gaps in school attendance, reveals a path to the emergence of a new way of conducting education. The student who assumes the responsibility for their training can be a driver for teaching in general. This modality makes this same student advance in his competences and build his own professorality. As degree in distance education has unique characteristics, it is a modality that dares to use technology in favor of teaching and make it possible to learn mathematics by a computer screens.

**Keywords:** Phenomenology. Mathematics education. Teacher education. Philosophy of education.



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## Modos de Ser na/da Educação a Distância

### Resumo

*Neste artigo expomos uma pesquisa de cunho qualitativo, desenvolvida de acordo com a abordagem fenomenológica, orientada pela interrogação: “Como o formador de docentes que ensinam Matemática nos anos iniciais se compreende professor em cursos EaD?” Ao perseguir essa questão, denominada por nós de orientadora, buscamos conhecer os diferentes modos de como o professor formador de docentes que ensinarão Matemática na Educação Básica se compreende no movimento de ensinar Matemática, na modalidade a distância e no ambiente tecnológico, como viabilizadores do ensino. Para conseguir respostas que satisfizessem à pergunta, realizamos cinco entrevistas, as quais foram transcritas e posteriormente analisadas cuidadosamente em dois momentos: o da análise ideográfica e o da análise nomotética. Na atenção dada ao dito pelos depoentes e no movimento analítico-reflexivo emergiram duas categorias, modos de ser na EaD e modos de ser da EaD, que foram interpretadas à luz dos depoimentos e da literatura. Destacamos que tais categorias são o resultado do movimento de análise. Embora muito parecidas, tais categorias revelam características identitárias específicas, ao perpassarem ideias nucleares que revelam como vem acontecendo a formação no âmbito da Educação a Distância, segundo nosso olhar de pesquisadores interessados no tema. Em síntese, o estudo evidencia que a EaD, nascida para preencher as lacunas da educação escolar, revela um caminho para o surgimento de outra forma de condução do ensino. Essa modalidade faz com que o aluno, que assume com responsabilidade sua formação, avance em seus estudos e construa sua professoralidade. A graduação na EaD possui características únicas, pois se trata de uma modalidade que ousou ao utilizar a tecnologia a favor do ensino e possibilitou aprender Matemática a partir da tela do computador.*

**Palavras-chave:** Fenomenologia. Educação matemática. Formação de professores. Filosofia da educação.

## 1. Introduction

Although the emergence of Distance Education (EAD) is not related to digital technologies (TD), since it is an educational modality that arose long before the creation of the computer and the Internet, DE has reached levels of recognition and expansion in today thanks to these technologies.

In the last decades, the continuous creation of technologies for personal use has changed the nature of communication processes and access to all types of information. Connected to networks, people exchange messages, talk, engage in professional relationships, fall in love, practice illegal actions, participate in projects of all kinds (BAIER; BICUDO, 2013, p. 421).

The closer we get to the present day, the more clearly we see teaching divided between classroom and non-classroom. The Distance Education (EaD) on-line (BORBA; MALHEIROS; AMARAL, 2011) and the technologies interconnected with it are responsible for changes in the ways of teaching, as well as for new demands for the student and the teacher, opening a fruitful field for educational research. With online

distance education it is already possible to build knowledge according to the student's time and space.

This scenario of opening up possibilities for teaching has caught our attention; it is one of the subjects investigated in our group GEFoProf (Group of Studies and Research in Teacher Education). We undertake the phenomenological attitude when trying to work with the lived reality. We also questioned the formation of the teacher who will teach mathematics in the early years, looking for understandings from the trainers of these teachers who have been working in distance education and we consider the questioning from the perspective of Kluth and Moura (2014, p. 235), who claim it to be "the art of conducting an authentic dialogue".

In this article we aim to expose ways for the teacher education to understand himself as a teacher, in the movement of teaching Mathematics in distance learning, showing that he is a teacher in Distance Education as the phenomenon to be investigated.

## 2. Phenomenology and methodological guidelines

The search for knowledge of what is shown in the eyes of those who do it, in a rigorous investigation, becomes possible in the meeting between the researcher and the researched. In this articulated movement, the first perceives the phenomenon and finds himself discovering it, as the gaze deepens and becomes more critical, enabling the capture of moments and attitudes, addressing the description of the permission for the understanding of what is show. The "phenomenological analysis of the description does not take the described as a pragmatic data whose meanings would already be contained there, but it follows a path paved by constant calls to the attention of what is being done by the researcher" (BICUDO, 2016, p. 57).

In this way of walking, the Phenomenology proved to be favorable to research that aimed to investigate teaching knowledge, aware that "to assume a phenomenological posture is to always perform intentional work" (BICUDO, 2016, p. 44). Intentional because it is intended to explain how the teacher / tutor who works in the distance modality is understood as a teacher education who teacher mathematics. This unveiling takes place through the eyes of the researcher who goes to the field, looking for what stands out on the horizon of the guiding question.

This way, the attitude assumed in relation to the research in question has a hermeneutic phenomenological character, since, in addition to looking for the phenomenon, seeing how it appears, we intend to carry out a hermeneutical analysis of what jumped out at us, exposing the understanding that was possible for us. For this reason, the mission is to carry out hermeneutics of the significant texts and of what was exposed by the interviewees, in order to reveal how the teacher education who teaches mathematics in the early years understands himself as a teacher in distance education courses. Meeting the phenomenon, we understand that the phenomenological approach met our anxieties and concerns, because, in launching us into research, it opened the paths that led us to understand the phenomenon in question. Thus, "when addressing these issues from the point of view of Phenomenology, one finds a way to research and see the world in a philosophical perspective" (BARRIS, 2013, p. 55).

In order to unravel what was presented between the main questions, it was necessary to find a way to walk according to the concerns. Thus, in qualitative research, we find the ideal ground to work, because "qualitative research moves towards research that focuses on the subject and social relations considering the voice of the respondents" (FERREIRA, 2019, p. 20). But what about the phenomenological approach? "As in most rigorous approaches, phenomenology is concerned with a record that allows the greatest possible fidelity, and that means not letting the phenomenon's manifestations be hidden" (DETONI, 2014, p. 103).

Along these lines, we assume the phenomenological stance, which has in the investigation the maxim of going to the same thing to know it. So, we went to the math teacher who worked or works by training

teachers who will teach mathematics in the early years and we got testimonials from five teachers. We started from the principle that this teacher could be found at the university, in his workplace and we asked him the question: "How does the teacher education who teach mathematics in the early years understand himself as a teacher in distance education courses?".

We accepted to go to the teachers and listen to them about their experiences through their practice as a teacher who teaches mathematics to future teachers in distance education, in order to understand the ways in which the training of teachers who will teach mathematics in the initial years and which produce knowledge is given when recognizing and understanding oneself in the movement of the training course.

With the data produced at the researcher-teacher-question encounter, the next step was to carry out the analysis of these statements. The analysis makes possible the discoveries of the invariants, starting with the highlight of the excerpts of each testimony that show ways for the teacher to understand himself as a teacher who will teach Mathematics, within the horizon of the virtual learning environment. At that moment, we started the ideographic analysis, that is, the one that is based on individual ideas and "aims to work with the highlight of individual ideas exposed in the discourse and presented by descriptive texts" (MOCROSKY, 2010, p. 155).

This reduction movement remained continuous until the moment when we felt that the search for understanding the phenomenon had shown preliminary answers to the questions we were asking throughout the text, that is, the structure of the phenomenon studied. Bicudo (2016) brings Husserlian Phenomenology to show that the movement to which we refer "goes from perception, from sensory intuition to eidetic intuition, is effected by successive reductions, now called transcendental reduction, and leads us to the structure of the phenomenon, also called essence of the phenomenon" (BICUDO, 2016, p. 34).

From the successive reductions made and with the ideographic analysis revealing the interpretation given to the phenomenon questioned in the individuality of each discourse, we move on to the nomothetic analysis, that is, we launch ourselves beyond the individual in search of norms and generalizations. Nomothetic analysis aims to present the movement of reductions, from the individual character (ideographic) to the general (nomothetic), presenting the convergences and / or divergences of the ideas about which the units of meaning communicate, bringing to the researcher's understanding in relation to the phenomenological reductions sought. "Finally, it asks for an understanding of the structure of the phenomenon being questioned, taking individuals as cases of more general understandings that now converse of structural ideas concerning the region of investigation" (BICUDO, 2016, p. 59).

The intention was to unveil, in the sense of removing the veil, what is the basic characteristic that this group of teachers reveals about teacher education in DE, as well as the way the teacher perceives himself teaching Mathematics thinking about the other.

Thus, we expose a little of each of the teachers between the lines of the testimonies that, kindly, shared with us their experiences as teachers who teach Mathematics in a technological environment. We emphasize that the choice of each of the interviewees followed as the main criterion the fact that they have already worked or are in activity teaching Mathematics to future teachers of the initial years, either in Pedagogy or in Mathematics, but who bring mathematical knowledge to their students with the aid of technological didactic resources.

The first testimony comes from the teacher named P1, who works with classes in Mathematics and Pedagogy at a private university in the city of Marabá / PA, in addition to being a student at the same institution taking a degree in Social Work in distance learning. He has a degree in Mathematics and a specialization in Mathematics Teaching Methodology and has been working in distance education for approximately three years.

The second testimony is from Professor P2, who no longer works with EaD classes, but who was chosen because, in her testimony, she revealed that she had a distance education degree in Mathematics in the Federal Government's Pro-Licenciatura project. In this trajectory, she explained that, after finishing the course, she became a tutor at the same institution for two and a half years. Today she is a substitute professor at the Federal University of the South and Southeast of Pará and a student of the professional master's degree in Science and Mathematics Education at the Federal University of Pará, where she researches "the initial teacher training in a distance education course, focusing on UAB-Cametá" (P2).

The third testimony is from Professor P3, who teaches Mathematics subjects at a private college in the city of Marabá. The teacher reports that he works with the discipline in Pedagogy classes, according to the criteria established for the choice of the interviewees. He also shows signs of concern with the classes, but still carries some opinions regarding distance learning, stating that the distance education student has to work harder to be able to reach the level of learning of the students in the face-to-face courses. However, his concern for his students is well known and he recognizes technology as the main tool for the existence of distance education courses.

The fourth deponent is the teacher / tutor P / T4, who defines herself as a tutor for describing her role as someone who takes questions from students in face-to-face tutorials or, in specific cases, via the Moodle and / or chat platform, unlike the teacher who is physically present in the classroom. P / T4 has a degree in Mathematics and presents a notorious knowledge of the reality of a distance learning course and the resources necessary for tutoring to happen.

The teacher / tutor P / T5 has a degree in Mathematics and has been working with distance education for more than three years. She also defines herself as a tutor, as described by P / T4, but her care for the student is different, something that makes her feel much more than a tutor, stating that, due to physical distance, she feels the need to supply this absence with incentives and understanding the daily routine of students who have unique characteristics.

Thus came the great categories that opened up for debate with the aim of revealing "how the teacher education who teach mathematics in the early years understands himself as a teacher in distance education courses", each with its particularities, but with the developments that tell what we set out to investigate.

### 3. Ways of being in Distance Education

Ways of being in distance education was a category revealed in the statements of the interviewees. Knowledgeable about the dynamics of a distance education course, they explain that the particularities that define them are evidenced by the ways in which teachers and students show themselves in the course, teaching and learning, since for both of them it is the characteristics of the course and the evaluative practices that have given the tone, marking the identity of something in comparison with what happens in the face-to-face courses, when we compare it to a numerical goal to be reached to pass or not in a subject.

Thus, when this category was highlighted, there was no intention of portraying the individualities of the two modalities, much less comparing them. We intend to present what teachers reveal about the ways of being in distance education when teaching mathematics in a technological environment, when they understand themselves as someone who teaches mathematics with technologies and that help education, unveil realities, making them visible to the reader, because "each situation it is a different reality [and] each different reality is a different situation" (P.1 and P2).

This reality described by the teacher presents three different faces of the ways of being a teacher in distance education, unveiled as perspectives of "reality". The first reality is taken in the general sense of being a teacher. It is the reality described in different situations that are part of the teacher's life, made

possible by the experience with distance education. The second talks about the challenges of the teaching profession, that is, the reality of the day-to-day teaching profession. The third, in turn, reveals the movement from intersubjectivity to subjectivity, explaining that the DE mode calls for different modes of action.

The need to reconcile study and employment in the subjectivity of distance education also highlights a convergence towards the intersubjectivity of the theme that opens up to a reality experienced in all modalities and at various levels of education. "It collaborates a lot for the formation of the Mathematics teacher, and it is a significant formation, because... the student of the distance course seeks autonomy" (P2). "In the tutoring re-offer discipline, we try to evaluate the activities, in this case, that we put for them, which in this case are online activities" (P / T4).

So, when teacher P2 mentions autonomy, she brings to the debate a point that distinguishes distance education from face-to-face modality, given that it instigates the student to seek paths and take up their training to be able to account for the teachings that occur at well-defined times. Thus, "he studies the subjects, the contents, and on weekends he goes to answer the questions in the tutorials, and this makes him become autonomous in relation to his studies" (P2 and P6).

The speech of teacher P2, stating that the distance learning student is autonomous, opens space for another interpretation bias, now no longer aimed at the student, but for teaching aimed at that student. The voice becomes imperative: "If I have an autonomous student, I have to have a different way of teaching!" The autonomy that he must develop throughout the course to progress in his studies and learn from the course must be built with methodologies that work to develop in this student the ability to study on his own, going to the tutorials only to understand what it was not possible to learn alone and complement the understood.

Distance Education presents itself today as a teaching modality with potential and challenges. It offers a unique quality insofar as it transposes space and time limits, characteristic of traditional classroom teaching. To the extent that, by involving different means of communication, it makes it possible to access different sources of information, it promotes student autonomy, allowing a flexible and independent study (BARROS, 2013, p. 34).

The different methodology, referred to on account of the testimonies, suggests a different way of teaching using different digital resources, with the availability of video classes, books with more accessible language and that are not closed to the formalism of writing, either in the mother tongue or in the typical language of Mathematics.

We understand that courses in this modality need to be different, to instigate the student to seek and research alone. They need to assign activities and define time and goals to be accomplished, a movement that leads the student to walk on their own legs, to stumble and fall, but to get up and move on, to be with the other at a distance. "Being with also says being with the computer and with other media in the world" (BICUDO, 2016, p. 40).

This movement does not show a slack course with the form of teaching; on the contrary, it shows a modality that has been constituting a reality composed of technological means that enable the student and the teacher to interact without the need for the physical presence of both, because "the physical absence of the teacher is compensated by an intense communication, which limits the possibility of the student feeling alone, isolated" (BORBA; MALHEIROS; AMARAL, 2011, p. 28).

It shows a modality that differs from the others in that it offers the student the possibility of studying in his own way, within the rules that allow him to be a student, but without being tied to the prototype that has existed for centuries, which has shaped thinking for a single way of doing education. Finally, it defines

the identity and the differences of a modality that has its differential in time and space its differential (HEIDEGGER, 2018).

Returning to autonomy as a strong brand of distance education, in the testimonies many teachers related it to the disciplined posture. They reinforce the idea that distance education has its own characteristics, but the modality is also guided by the equality that exists in all other modalities. It is the common belonging described by Heidegger (2018) understood in the characteristics belonging to the two modalities, but with the specificities that differentiate them.

The development of self-control, discipline and conditioning will be witnessed at the moment of the development of the evaluation activities, since the student who managed to organize himself within the parameters necessary to follow the course will be an active agent in the construction of knowledge, since "normally the student who does distance learning, [are] students who already have a job, do not have as much time to study" (P / T4.12), and, if he has managed to organize his time, he will have great chances of success. Otherwise, adding non-compliance to all these requirements can lead to evasion of the course.

Such requirements are taken as a basis for the good education of the student in the degree course in Mathematics in the distance learning mode at UFPA. Described in the PPP of the course, autonomy appears in the teaching process and its implications for learning, relating technology as a means to build the teaching process and privileging pedagogical approaches that aim to develop "student autonomy and responsibility about his own learning, preparing him to continue learning, that is, to learn to learn" (PPP - EaD / Matemática - UFPA, s / d, p. 13).

However, the dynamism of the course, which presents different paths for different students in a different course, also has its problems. During the interviews, it was possible to perceive expressions of frustration from some teachers when reporting complexities of the evaluations, stating that many students do not seek them out to clarify doubts, that they do not perform activities on the platform and, therefore, are unable to learn and cope with the contents taught in evaluations that are carried out. "Our assessment in the classroom, we did activities, it was participation, the student's presence, why the student was not obliged to go to tutoring, right?"

(P / T5.11) "As the distance is a bit complicated, because what we evaluate of him is what we see of him participating with us. In this case, it is through chat or through forums" (P / T4.10). P / T5 also makes a worrying revelation, which puts her in a conflictual situation, as she ensures that she is not able to control the evaluations that are produced for distance classes, stating that "at a distance ... I think it is a little more complicated, because the evaluation is ready, right? The student did it, and sends it to us, and we correct it" (P / T5.13). The level of discomfort increases when she also says she has no control over the assessment activities that are done at a distance, because, according to her, "we don't know if it was the student who did it, if he told someone to do it. We have to accept, right ?, what he says. And we cannot verify whether he was really learning or not" (P / T5.14).

Even with all the adversities presented, it was possible to verify that teachers believe in distance education and like what they set out to do. For P2, "the course is very good, as well as the level of quality of the course; he complies (...) he seeks autonomy" (P2.16). P.2, in particular, showed great pride in working with EaD from the beginning of the interview, as he graduated from a course in EaD and is now in the master's degree, referring to himself as an example of success of the course and reaffirming that "The dynamics of the course are good and it is worth studying in distance education" (P2.20).

The implementation of distance learning courses in remote places, where people could hardly have the opportunity to study, brought equality and study opportunity to all who need it, democratizing education and changing pre-established standards that, in their own way, excluded those who did not. adapted. Distance

education has also made it possible to “bring together people who are geographically distant, possibly opening space for exchange between different cultures” (BORBA; MALHEIROS; AMARAL, 2011, p. 25).

The ways of being in distance education revealed different realities within the same modality, as well as showing teachers who feel comfortable working, who really like what they do. Thus, when defining the ways of being in distance education, we present the characteristics of a modality that defines its identity; a modality that has in technologies the most striking characteristic, that has autonomy as a way of being and being in distance education, since it is essential for its performance in the course.

#### 4. Ways of being of Distance Education

The Ways of Being of Distance Education category is also based on the equalities and differences that exist between classroom and non-classroom teaching. Distance education has numerous listed differences that, even if distancing themselves from the modalities that contemplate physical presence, move towards equality, from the common belonging to all, since all intend to train teachers. The common belonging described by Heidegger (2018) is based on the inseparability that exists between the common and belonging. Thus, we seek this support to emphasize the strong link that exists between all the modalities that move in the main direction of teacher education.

The search for the definition of what we consider the EaD identity showed us, when revisiting the interviews and the nuclear ideas, units of meanings that converged to answer the question posed to the teachers. To answer it, we need to meet the characteristics that are specific to distance education and the distance education course. These units of meaning pointed to the importance of technologies in education, showing the existing differentiation between the face-to-face and distance education modalities, given based on differentiated evaluation practices when putting the evaluation process in evidence and when discussing evasion in distance education, which reveal their student as a differentiated entity, whose autonomy is the hallmark of the distance course.

The answers given guided us to units of meaning as characteristics of DE, which presented ways of being of teachers who work with different methodologies, as they deal with different students who have technology as their greatest ally in the search for autonomy, an essential requirement for the student training in distance learning.

However, Distance Learning ways of being revealed new units of meaning, such as the importance of technologies in Education and the tool to help Mathematics classes, both in order to present the importance of technologies in aid to Education. They also reveal a characteristic that is very present in the two categories discussed, as they present points that are peculiar to the modality.

The two units of meaning open the debate to a discussion that is pulsating in society and recurrent in the academic environment because it shows a school that has tried to adapt to the various resources that have emerged with the advent of computers and the internet, but that still presents resistance how to use them. However, it is already known that “only chalk and chalk or chalk and brush will not make the student remain in the classroom for four hours straight [...] satisfied” (P1.20).

For we are living in a time when society is increasingly using technological benefits. This social transformation has also had an impact on the educational scenario through, for example, didactic technological resources available for the teaching and learning processes. However, we believe that there is a mismatch between the use of technologies in everyday life and what the school institution has been “offering” to educate people (VANINI et al., 2013, p. 154-155).



This way, there is no room for debate about their use or prohibition of these technological tools in the school environment, as they are there, present in several computer devices connected to the internet (cell phones, notebooks and tablets), which have been in the classrooms and caused controversy and that would take our conversation to another angle.

Thus, a debate based on “how to use them” is established, so that we can advance in the knowledge of what already exists, corroborating Vanini et al. (2013, p. 155) in defending “the need to think more about why technology integration in school and more than that how to make this integration in fact contributes to the transformation of the subject in training”.

In distance education, the use of computer didactic resources are essential for the modality because to overcome the distance, the physical absence of the teacher and the lack of the usual school environment, new ways of promoting teaching are necessary, which has didactic resources used for the teaching and monitoring the students’ learning process. “Among these resources, the discussion forums, chats, wikis, as a space for collective knowledge production, stand out in the virtual learning environment Moodle” (ANASTACIO; BARROS, 2013, p. 448), because “the distance, it has been growing (...) this education regime has been growing with the advent of technology, right? Which is the flagship, is what drives this education system” (P3.8).

In distance education, the use of resources such as those mentioned by Anastacio and Barros (2013) is considered essential for teaching, as it is through them that students interact with teachers, with tutors or amongst themselves. The interaction between students and tutors is described by the teacher / tutor P / T4, stating that “we stay here [...] to clear up doubts, either through the chat or through the Moodle platform or through the news forum, clarifying doubts of students” (P / T4.3).

The description of P / T4 led to two different forms of tools used in virtual learning environments. They are defined as synchronous and asynchronous tools and allow the exchange of information to take place according to each one’s need and time. Thus, cyberspace is no longer just a means of communication to become an interactive means of communication, teaching, learning and exchange of information among all who are attracted by it.

Cyberspace is much more than a means of communication or media. It gathers, integrates and resizes a multitude of media and interfaces. We can find from media such as newspaper, magazine, radio, cinema, TV, as well as a plurality of interfaces that allow synchronous and asynchronous communications, such as chats, lists and discussion forums, blogs, among others. In this sense, cyberspace, in addition to being structured as a virtual environment for universal learning that connects socio-technical networks from all over the world, allows groups / subjects to form virtual communities founded for very specific purposes (SANTOS, 2003, p. 4).

Another unit of meaning that reveals much of the EaD Modes of Being category is the differentiation between classroom and distance modes. In it, we find the testimony of teachers who present their point of view in relation to what they deliberate as differences between the modalities, but who also reveal characteristics that define the ways of being in distance education.

The distinction between the modalities pointed out by professor P1 points out the differentiation based on the specificities existing between the face-to-face and distance modalities. This distinction is explicit in the teacher’s speech when he cites the physical distance between teacher and student as a point of difference between them, pointing to the lack of human contact as a challenge to be faced. According to

P1, “when talking about distance education, [...] the basic difference is that you don’t have that contact, you don’t have the eye in the eye, you don’t have that human warmth” (P1.10).

However, the established comparison fades from the moment when the distinct roles that each modality takes on are defined. The face-to-face modality is established by Anastacio and Barros (2013) from the physical space, the real space

in which we move, build and rebuild, modify and be modified, act and interact, in short, we manifest our existence. In this space, temporal and spatial determinations follow the assumptions of Newtonian Physics, when it is possible to establish, with precision, spaces and times. In this perspective of Physics, we are together when we occupy the same space at the same time (ANASTACIO; BARROS, 2013, p. 451).

It is on this soil that the classroom course is constituted, defined by physical interactions between beings existing in the same space-time. However, when the authors refer to the distance modality, the relationships do not meet Newtonian physics; interaction can now be defined as “multidirectional learning and not just in the teacher-student or student-teacher sense” (BORBA; MALHEIROS; AMARAL, 2011, p. 20). This interaction provided by means of computational tools, with the aid of the internet, promotes the paradigm shift defined by the authors as “multi-dialog”.

Finally, the evaluation is highlighted and presented by teacher P3 and teacher / tutor P / T4, based on the comparison between classroom and distance modalities as an established parameter. We see evidence of difficulties in working with possibilities that open up with the use of distance learning tools, that is, we believe it is an identity problem again, as there is a transposition of the characteristics of classroom teaching to distance education, in order to overlap the characteristics of the first to the detriment of the second, because for P3 “the question of evaluation, it ... becomes a little complicated, right? In this matter, because of the fact that you are not attending with them ”(P3.14).

Lamoglia and Misse (2014) interpret the comparison established between the modalities as a result of the evaluation process seen only from the perspective of summative evaluation, disregarding that DE has different aspects, mainly in the evaluation. We believe that the sticking point of this situation can be found by observing that the transposition of lasting evaluative practices in the face-to-face modality is taking place.

The evaluation question described by the teacher / tutor P / T4 takes the comparison between distance and face-to-face modalities based on presence, as she believes that the evaluation process “is very loose. We are unable to witness the same as the classroom course. So the difficulty of evaluating the student, I believe it is even greater”. The difficulty of evaluating was mentioned earlier in the testimony of P / T5.14, in the category Ways of being in distance education. In it, P / T5 takes the difficulty of assessing confidence, but the summative aspect is at the expense of the formative.

In general, as already indicated, distance education courses adopt a summative assessment, carried out at the end of the educational process, with the aim of certifying or not the student. On the other hand, there are proposals for an evaluation with a formative perspective, which allows the interference of the teacher during the learning process, enabling the direction of pedagogical activities, aiming at a higher school performance. Thus, we believe that this type of assessment should be pursued in all teaching-learning activities (LAMMOGLIA; MISSE, 2014, p. 198).

The evaluation process based on the formative evaluation also shows a form of concern of the teaching units that are migrating to the sense of training, the sense of enabling the student to become an active agent who knows the evaluation process, adopted to clarify the evaluation criteria used and which aims to improve student performance.

The debate about Distance Education Ways went in the direction of showing characteristics that are recurrent in the modality, such as: the geographic distance, the time lived in formation and the student's profile. However, throughout the discussion, it is possible to observe that there are a number of points that are common to both modalities, so that, in portraying the differences in distance education, I was emphasizing what is the same between the two. Thus, we resort to the following question: what is the equal of distance education with other teaching modalities? The answer was sought in what is most common and inseparable from any course that trains teachers: the intentionality of teacher training, in addition to the search for changes in education aimed at the student's autonomy in relation to knowledge.

However, we urge throughout the text that the reader should look for what we define as equal in the difference. Thus, however much we present all points of confluence, we would be being disloyal by not presenting what differentiates them.

**Table 1:** List of the main divergences between distance and face-to-face modalities

DL Modality	Face-to-Face /Presencial Modalidad
Virtual presence of the teacher/tutor	Physical presence of the teacher
Student-teacher-student interaction occurs in the virtual environment	Student-teacher-student interaction takes place in person
Evaluative monitoring is done at a distance	Evaluative monitoring is done in person
The virtual teaching center is the classroom	The geographic teaching center is the classroom
Teaching and learning are controlled by the student based on their study time	Teaching and learning are controlled by the physical presence of the teacher
The time is defined according to the student's needs in relation to the course schedule established by the virtual space-time	Time is established by fixed times defined by the classroom space-time
Emphasis on mediation between tutor-student and student-student using the instruments available in the technological environment	Emphasis on teacher-student and student-student interaction through the use of instruments available in the classroom (which includes the use of digital technologies as well)

**Source:** The authors, 2019.

The main convergences between the two modalities can be established based on the logic of constitution of both, since both are recognized by the Ministry of Education (MEC), both have in their backbone the logic of training professionals who meet the needs the labor market, seeking to offer quality education based on the advantages and disadvantages that the specificities of each modality have.

So, what is the difference between them? The answer lies in the driving logic given to each of them, that is, each one presents specificities that differentiate them, and the meeting of what is different and what is common builds the identity of each of the modalities.

Identity is revealed by what is common and what is specific to each one. Therefore, the concept of identity assumed here is not that of a singularity separate from a context, but of a gathering of particularities that only stand out in what is common to the context from which its

meaning emerges. All of them are, in the Brazilian educational system, higher education courses, and this makes them integrate in the same community where everyone has this characteristic. However, there are typical peculiarities to each of the graduations, differentiating them from each other and showing what distinguishes them (MOCROSKY, 2010, p. 13).

Going after the questions and answers that have been shown to us, we find that, even if we define what is common to the modalities, the common is not the same; even in this common, which is the formation of teachers, each one presents something that belongs to each one of them, which gives different outlines, showing different possibilities of training.

When using the interpretive frameworks and the speeches of the teachers – in a more specific way – we find a sign that the teaching style that has been happening in the classroom is not favorable in distance education. However, what is shown in distance education can be favorable to the face-to-face, since the mode has in essence the student active in his learning, something that teachers and teaching modalities as a whole have been looking for incessantly. With this modality, born to fill the gaps in school education, it is possible that we are witnessing the emergence of a new way of conducting education. Based on digital technologies, it can be a driver for teaching in general, with the student who takes responsibility for their training.

## 5. Final considerations

Distance Education and face-to-face teaching have the same purpose - in the case of this study, to train the teacher - although they follow different paths for the fulfillment of this purpose. It is in the understanding of being-together that Distance Education differs from the classroom course and establishes its pillars; it is in the difference that the modality seeks support, by placing on the front lines ways of coping with the complexities that, in common sense, often fuse and distort understandings of the different with the unequal. In the difference, the purpose is to maintain quality education that prepares the professional for the challenges that the profession will demand.

In the investigation, which aimed to unveil the phenomenon of being a teacher in distance education, the teachers heard speak about the presence and distance education modalities based on the logic of conducting the course, emphasizing that the latter necessarily requires the student to assume that he is a learner, being he - and not the teacher - the trigger point to learn what comes in the ways of school education. This means that different ways of being a student require different ways of understanding formal teaching and the act of teaching. For the interviewees, it is up to the teacher to dispose of the knowledge, so as to encourage the student to be an active agent in its construction and to favor this autonomy, since he will not have the physical presence of the teacher, as in the classroom, as well as different understandings of teaching and learning times.

The teachers who collaborated with the study consider that the difference comes from the ways of being in the distance education course, which at its source aims at an audience that seeks the flexibility afforded by the modality for access to higher education. It is considered that the modality is based on the principles of inclusion by allowing the school to have on the horizon the attention to those who graduate and the genuineness of the student's ways of learning and that distance education presents the principles of welcoming the public that differs by not being able to adapt to the teaching times and spaces of the classroom.

The convergences of training in distance learning in relation to classroom teaching are brought by teachers from the care that everyone presented in their testimonies, highlighting different realities of their students, so that they can face the challenges of the profession with the science that they exist and that they will be waiting for the first unusual situation to present themselves.

However, DL graduation has unique characteristics, as it is a modality that dared to use digital technology in favor of teaching and made it possible to learn Mathematics on the computer screen. They are tutorials, activity posts, content and various materials that enable the EaD student to learn Mathematics with the help of synchronous and asynchronous technologies, which open up for the student to be an agent that builds his own knowledge. What was revealed to us between the lines of the statements of each of the interviewees showed that even what is described as common, that is, teacher training, also differs in the forms of what is unique to each one, which gives different outlines, showing possibilities of, by multiple actions, bypassing ways of being a teacher.

We conclude that the teaching style that has been happening in the classroom is not favorable to distance education, given the specificities of this modality; however, what is shown in distance education can be favorable to the face-to-face, since the modality has at its core the student active subject of its learning. And, in general, maybe this is of great importance for Education and what we, teachers, have been tirelessly looking for. We believe that what is growing in distance education can be a driver for positive changes in teaching.

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