

CHALLENGES AND PERSPECTIVES OF TEACHING DIDACTICS CURRICULAR COMPONENT DURING COVID-19 PANDEMICS

RETOS Y PERSPECTIVAS DE LA ENSEÑANZA DEL COMPONENTE CURRICULAR DIDÁCTICA EN MEDIO A LA PANDEMIA DE COVID-19

DESAFIOS E PERSPECTIVAS DO ENSINO DO COMPONENTE CURRICULAR DIDÁTICA EM MEIO A PANDEMIA DA COVID-19

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ABSTRACT: Covid-19 pandemics has been affecting the educational systems and the universities, intervening in the organization of academic work in the undergraduate courses. In the context, Emergency Remote Teaching (ERT) has been adopted by the universities in order to minimize the losses on the teaching-learning process in the period of social isolation. Given that fact, this paper presents results of a research that aimed at analysing the teaching of didactics, in the period of social isolation, problematizing challenges, tensions and possibilities in face of the pedagogical work mediated by digital technology in the context of the pandemics. Regarding methodology, it is an exploratory study of quantitative and qualitative approach. The results indicated absence of effective interaction between students and teachers, caused by the lack of material conditions and by the limited access to quality internet. The students highlighted still the importance of presence teaching to preserve the quality of the teaching-learning process at the university.

KEYWORDS: Higher education. Didactics. Teaching-learning. Pandemics. Emergency remote teaching.

RESUMEN: *La pandemia de Covid-19 ha afectado a los sistemas de enseñanza y las universidades, interfiriendo en la organización del trabajo académico en los cursos de graduación. En ese contexto, la Educación Remota de Emergencia (ERE) fue adoptada por las universidades a fin de minimizar las pérdidas en el proceso enseñanza-aprendizaje en el periodo de aislamiento social. Delante ese factor, este artículo presenta resultados de una investigación que objetivó analizar la enseñanza de didáctica, en el periodo de aislamiento social, problematizando retos, tensiones y posibilidades enfrentado por el trabajo pedagógico*

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mediado por las tecnologías digitales en el contexto de la pandemia. Cuanto, a la metodología, eso es un estudio exploratorio de abordaje cuantitativa y cualitativa. Los resultados indican ausencia de interacción efectiva entre estudiantes y maestros, provocada por la falta de condiciones materiales y por el acceso limitado a la internet de calidad. Los estudiantes destacaron la importancia de la enseñanza presencial para preservar la calidad del proceso enseñanza-aprendizaje en la universidad.

PALABRAS-CLAVE: *Enseñanza superior. Didáctica. Enseñanza-aprendizaje. Pandemia. Educación remota de emergencia.*

RESUMO: *A pandemia da Covid-19 tem afetado os sistemas de ensino e as universidades, interferindo na organização do trabalho acadêmico nos cursos de graduação. Nesse contexto, o Ensino Remoto Emergencial (ERE) foi adotado pelas universidades a fim de minimizar as perdas no processo ensino-aprendizagem no período de isolamento social. Diante do exposto, este artigo apresenta resultados de uma pesquisa que objetivou analisar o ensino de Didática, no período do isolamento social, problematizando desafios, tensões e possibilidades face ao trabalho pedagógico mediado pelas tecnologias digitais no contexto da pandemia. Quanto à metodologia, trata-se de um estudo exploratório de abordagem quantitativa e qualitativa. Os resultados indicaram ausência de interação efetiva entre estudantes e docentes, provocada pela falta de condições materiais e pelo acesso limitado à internet de qualidade. Os estudantes destacaram ainda a importância do ensino presencial para preservar a qualidade do processo ensino-aprendizagem na universidade.*

PALAVRAS-CHAVE: *Ensino superior. Didática. Ensino-aprendizagem. Pandemia. Ensino remoto emergencial.*

Introduction

The present study was conducted in the context of facing the Covid-19 pandemic worldwide. Among the impacts caused, it is noteworthy that the measures of social isolation have intensified the use of digital media in communication processes. In this sense, with the Covid-19 pandemic, the need emerged for people to adapt to the use of technological devices, since several social practices, such as work, study, and social life, started to be performed online.

It can be stated that the complexity of the pandemic scenario accentuates social inequalities and further deepens an unavoidable political-economic and social crisis, stemming from an extreme right-wing and neoliberalist government, instituted in the country since 2019, which has not effectively assumed the political commitment to contain/minimize the disease, thus contributing to its spread.

In this context, the educational system deserves to be highlighted, since, due to the pandemic and the necessary social distance, education started to be provided in a remote

format. This change has accentuated social inequality, since students coming from different social classes have different access to technological resources and, consequently, to academic education.

A survey conducted by the Brazilian Internet Management Committee (CGI.br) in the period between August and December 2018, released in 2019, attests that 58% of households in Brazil do not have access to computers and 33% do not have internet. Among the lower classes, access is even more restricted. The data reveals that, in rural areas, not even schools have access to the World Wide Web: 43% of them stated that the problem is the lack of infrastructure for the signal to reach the most distant places.

It can be seen that teaching mediated by Digital Information and Communication Technologies (DICTs) can, to some extent, mitigate the impact of the pandemic in the educational area. However, all political actions in this field must be thought from different perspectives, considering positive aspects and existing limits that do not imply in damages to the students' learning. These issues are the object of analysis and discussion of Didactics through the actions of its researchers and teachers.

In line with these assumptions, the National Association of Didactics and Teaching Practices (ANDIPE), brings to light results of a recent research conducted on the teaching of Didactics in the pandemic context. This study sought to analyze the teaching of Didactics in the period of social isolation, problematizing challenges, tensions and possibilities in the face of pedagogical work mediated by digital technologies in the context of the Covid-19 pandemic.

Finally, this article is organized into five sections: the first section presents and contextualizes the research topic at hand. The second section explains the methodological approach taken in the study. The third section presents a brief review of Didactics as an investigative field and a curricular component fundamental to teacher education. The fourth and fifth sections present and analyze the data obtained in the study. The fourth section discusses the teaching of Didactics offered in the remote format from the point of view of those who teach this curricular component, especially in the current pandemic context, marked by the mediation of DICT. Finally, in the fifth section, we sought to focus on the data obtained from the teachers about the students' position towards the adoption of the Emergency Remote Teaching (ERT) format. The final considerations and references follow.

Methodological approach

This section presents the methodological approach adopted in the study that culminated in the writing of this article. The choice of exploratory research is justified by the need to produce quantitative and qualitative data that can increase the familiarity of researchers with the theme in question, offering concepts and hypotheses for further studies. To this end, an online questionnaire was applied from June to July 2020, to professors of Didactics in undergraduate courses at federal and state Higher Education Public Institutions (HEPIs) in the Northeast, Southeast, South, and Center-West regions of the country.

The online questionnaire was configured as the most adequate research instrument to collect information from a representative number of Didactics teachers who worked in the ERT during the pandemic context. Although the questionnaire does not allow direct interaction between the researchers and the research participants, the questions were designed to encourage reflection on the challenges and prospects of teaching Didactics.

The online questionnaire was organized into seven sections, totaling 33 questions, 22 closed and 11 open. In the first, the participant had access to the research presentation, informed his or her e-mail address, and agreed or not to the Informed Consent Form (ICF). In the second and third sections, composed of 14 closed questions, personal and professional information was requested in order to define the profile of the participants. In the fourth and fifth sections, the participants answered 8 closed and 5 open questions about the use of digital technologies in teaching didactics, with the difference that in the fourth section the questions were about the period before the pandemic, and in the fifth section the questions focused on the pandemic context. The sixth section, proposed with 5 open questions, presented questions about the possible incorporation of Online Education principles in the teaching of Didactics. In the last section, there was only one space for doubts, complaints and/or suggestions.

The choice and inclusion of public higher education institutions in this study was made by identifying those that offered the curricular component Didactics in the undergraduate course, through the ERT, during the year 2020. After this survey, the researchers involved contacted the directors of the Faculties of Education and the coordinators of the Didactics field in order to request permission and support to carry out the research. After each institution accepted the request, the questionnaire was sent to all practicing professors. The professors of Didactics were contacted via email, based on the criteria of belonging to the Didactics curricular component offered in their institutions.

Although the respective study was directed to Didactics professors from public higher education institutions, professors from private institutions and from other curricular components also answered the questionnaire. Thus, based on this finding, 174 questionnaires were considered valid. From a universe of professors coming from four regions, 174 didactic professors answered the online questionnaire.

As for the procedures adopted for data analysis, we opted for content analysis, with reference to the contributions of Bardin (2011). In this sense, the consolidated obtained through the answers to the questionnaire was subject of analysis of the researchers involved in a dialectical, analytical and integrated movement that allowed unveiling the challenges that the epistemological field of Didactics has faced and that it should assume in the face of the emergence of the ERT, in the context of the pandemic and post-pandemic in classroom education.

To treat the data produced from the online questionnaire, four axes of analysis were defined: 1. profile, working conditions and previous experiences of teachers with the use of digital tools in the classroom; 2. changes perceived/lived by teachers in the teaching-learning process in the pandemic context; 3. changes perceived by teachers in the students' attitude in teaching-learning in the pandemic context; 4. potentialities and challenges of the new teaching experiences for the field of Didactics.

Within the limits of this article, the data from analysis axis 3 will be presented and discussed. Closely linked to this problem, the aim of this study was to analyze issues related to the material conditions of the teaching-learning process, as well as to identify the challenges and experiences experienced by teachers.

Didactics as an investigative field and a fundamental curriculum component for teacher training

In the context of this study, it becomes relevant to clarify our place in the discourse, as teachers and researchers in the field of Didactics. Thus, Didactics can be understood from two approaches: as an epistemic field – theory or science of teaching – and as a discipline, a curricular component (FRANCO; LIBANEO; PIMENTA, 2011).

As an epistemic field, Didactics investigates the phenomenon of teaching and, consequently, learning (D'ÁVILA, 2021). Teaching and learning are also, in turn, interdependent phenomena, but they cannot be confused as synonyms. The synonymy lent to this dialectical pair does not collaborate with the scientific understanding of Didactics and its

object, therefore, does not contribute to the enhancement of training and teaching practices. In this sense, the use of the expression teaching-learning reveals synthetic ways of treating a complex process that has, in itself, a relationship of interdependence and, for such design, needs singular approaches not amalgamated.

It is relevant to highlight that Didactics is an epistemic field arising from the pedagogical science (PIMENTA; SEVERO, 2021). These are two areas of knowledge that have an interdependent relationship with each other, but each has its own specificity.

Pedagogy is the science that investigates the educational phenomenon, understood by a broad spectrum. Education, as a complex, multifaceted, and multidetermined phenomenon, can be glimpsed in a rhizomatic perspective, deducing from such an image the derivation of at least three manifestations that are also three social practices, summarized in the formats in which they are expressed: formal or institutionalized (school education); non-formal (education in the third sector of social movements, free courses), and informal (education that takes place in everyday social relations, such as home education). Pedagogy is, therefore, a human, social and applied science, interdisciplinary, of theoretical and practical character, which investigates the educational phenomenon seeking to understand it from different manifestations (GHEDIN; MACIEL; SILVA, 2021; LIBÂNEO, 2005).

The phenomenon of teaching, with all its complexity, is the object of Didactics. It is a comprehensive phenomenon that goes beyond the walls of the classroom because it is surrounded by multiple dimensions and determinations. Teaching, in a systemic view, must be interconnected to educational issues (D'ÁVILA, 2021).

Consistent with this perspective, this article focuses on Didactics as a teaching component, a central discipline in undergraduate courses; a component that introduces the student to the pedagogical field. Thus, Didactics is understood as a teaching field in which the sociopolitical phenomena that have altered understandings about its place in teacher education are highlighted.

Methodological subjects, or specific didactics, and supervised teaching internships are rooted in Didactics. These disciplines, as a whole, contribute to the initial education of teachers for Basic Education. Since it was established as a compulsory subject in Basic Education courses in the 20th century, Didactics has occupied a central role in teacher education. Its normative status was preponderant, especially after the reform embodied in the Law of Directives and Bases nº 5.692, of August 11, 1971, the golden period of technicism in Brazil (BRAZIL, 1971).

This brief historical review is relevant for understanding the current reality. With the emergence of the extreme right-wing government in Brazil and, in its wake, the neoliberal agenda in force, undergraduate courses underwent a new reformulation. It is the Resolution of the National Education Council - CNE/CP No. 2, of December 20, 2019, which updates the National Curriculum Guidelines (DCN, in the Portuguese acronym) for degree courses and establishes the Common National Base (BNC, in the Portuguese acronym) for teacher training (BRAZIL, 2019).

Closely linked to the principles and determinations of the Common National Curricular Base (BNCC) (BRAZIL, 2018), the new DCN are presented as a neotechnicalist project of validation of the neoliberal political ideology in force in the country. It is worth saying that this ideology is refutable by the fact that it alienates from the educational process capabilities and values that are fundamental to the training of students and the professional practice of teachers. Besides depriving teaching autonomy, therefore, it is a prescriptive norm; in this sense, the proposal of the DCN in question takes from the students the condition of critical thinking.

Didactics as a mandatory curricular component in undergraduate courses aims at the formation of teachers, in a comprehensive perspective. As such, it brings in its scope the understanding of teaching and learning as dialectically interconnected phenomena, as well as the understanding of pedagogical theories and the study of didactic structuring fundamental to the teaching work and teacher education. Consistent with this perspective, the relevance of this article is to understand the teaching of Didactics from the point of view of the subjects that teach this curricular component, especially in the current pandemic context, marked by the mediation of DICT, which, as exposed, suffers influences of neoliberal policies in vogue in the country.

The relationship between Didactics and DICT has been narrowing since the end of the 20th century and has intensified since the first decade of the 21st century. Authors such as Pimentel and Carvalho (2020), Santos (2019), Silva (2010), among others, are in favor of the paradigm of Online Education, contributing important contributions to Didactics. Online Education, as Santos (2019) argues, is an emerging paradigm and a cybercultural phenomenon that adopts as principles: pedagogical work based on interactivity, collaborative learning, authorship, content curation, and shared mediation (PIMENTEL; CARVALHO, 2020). It is relevant to highlight Silva (2010) as a defender of interactivity in the remote or face-to-face classroom. These authors contribute a legacy to the field of Didactics based on interactivity, through a pedagogical work that integrates face-to-face and online activities.

The requirement of teaching mediated by Digital Technologies in the pandemic context

Institutions around the world have been affected by the Covid-19 pandemic. The extension of physical distancing measures between people imposed the incorporation of the remote format in all educational segments, including Higher Education. The suspension of face-to-face activities generated great discomfort among university professors, who faced the challenge of developing teaching activities mediated by DICT, without prior preparation.

For Alves (2020, p. 352), emergency remote teaching can be understood as “pedagogical practices mediated by digital platforms, such as applications with content, tasks, notifications and/or synchronous and asynchronous platforms such as Teams (Microsoft), Google Class, Google Meet, Zoom [...]”. For the author, this alternative is configured as being temporary and as a viable means to carry out studies in Basic and Higher Education in the pandemic context. Moreira, Henriques and Barros (2020) also state that the Covid-19 pandemic required teachers to adopt rapid changes in their teaching practices. It is a crisis that “generated the obligation of teachers and students to migrate to the online reality, transferring and transposing methodologies and pedagogical practices typical of physical learning territories, in what has been called emergency remote teaching” (MOREIRA; HENRIQUES; BARROS, 2020, p. 352).

In the context of university teaching, there are many professors who hold synchronous meetings with face-to-face agendas, that is, real-time conferences transmitted by digital platforms. What was also seen was a race for technological resources that could soften the aridity of physical distance. However, the acquisition of digital platforms and interfaces was not enough to provide the necessary conditions to reinvent itself in the digital environment. Thinking of the ERE as a possibility to produce meanings for the act of learning and teaching, mediated by technologies, presupposes the understanding that online education is a phenomenon of cyberculture (SANTOS, 2005, 2019; SILVA; SANTOS, 2009) that needs to be understood as a composition of practices and situations of training processes, which requires its own and contextualized methodology.

In this regard, it was found that,

For the communicational and interactive potential of ICT not to be underused in education, it is necessary an epistemological and methodological investment in pedagogical practices, teaching and research actions that present concepts and devices that dialogue with the socio-technical potential of cyberculture (SANTOS, 2019, p. 60).

Although almost all teachers are occasional or assiduous users of DICTs, the organization of emergency remote teaching in the perspective of online education demanded theoretical and methodological deepening. In this context, it was verified that a diversity of "lives" and tutorials were carried out, but it was the concrete experience of teaching in front of a screen that put in abeyance pretended certainties.

The transition from face-to-face teaching to the remote format has called into question several beliefs. Many university professors quickly realized that pedagogical practices mediated by DICTs had their own characteristics and that it was not possible to make a direct transposition from face-to-face teaching to remote teaching. This realization has significantly broadened the reflection about certain procedures and actions that were consolidated in the pedagogical practice of higher education.

The very concept of class needed to be revised to be understood as a project of collective construction that fosters situations in which subjects learn from each other. As Veiga (2011) states, the class "is a technical-political, creative act, an expression of beauty and of the scientific and ethical values of each of those involved in the teaching process. In short, the class is a space of human formation and cultural production".

A class is not, therefore, a bunch of isolated practices in which the subjects involved do not dialog and do not collectively produce knowledge. For this reason, the mere adoption of several digital interfaces would not be enough to break with an academic teaching perspective. For Pimentel and Carvalho (2020), the perspective of online education presupposes the recognition of certain principles that, correlated, compose a coherent set of conceptions and actions necessary for its effectiveness:

[...] it is not possible to promote collaborative learning (4th principle) if there is no conversation among everyone (5th principle); to make collaboration (4th principle) effective by promoting conversation (5th principle) and co-authorship (6th principle), there must be active teaching mediation (7th principle); authorial activities (6th principle) only make sense when knowledge is understood as an open work (1st principle); among other relations (PIMENTEL; CARVALHO, 2020, s./p.).

From this perspective, online education cannot be understood as that which takes place only in the ERT, but as a didactic-pedagogical approach that emerges from the approximation between communication and education. It is based on the actions of exchange and collaboration mediated by DICTs and is not limited only to the notion of being connected. For this reason, authorship, sharing, connectivity and collaboration are hallmarks that define the online education approach.

For the teachers responsible for teaching Didactics, this may have been an even greater challenge. The coherence between what is elected as content of the curricular component and the way the pedagogical proposal of the Didactics course is organized is an interesting challenge for those who consider their own practice as an object of investigation.

For this reason, in the context of the research on the teaching of Didactics during the Covid-19 pandemic, it was considered relevant to identify how the monitoring of students' activities and interactions in collaborative online environments took place before the social distance and, also, to obtain data about the interactions among students during the social distance enhanced by the proposed activities.

Regarding the geographical origin of the Didactics teachers participating in the survey, 33% work in the Northeast, 32% in the Southeast, 30% in the South, and 5% in the Midwest. Of all the respondents, 76% are in the age bracket of 40 years or older, 32% are between 40-49 years old, and 44% are 50 years old or older. As for the time they have been teaching, 46% said they had been teaching for more than 20 years, and 20% had less than 10 years.

Regarding the monitoring of students' activities and interactions in collaborative online environments before the social distance, it was found that about 40.23% of the Didactics teachers did not use digital environments with the students, or did not monitor the students' activities in the online environments used. These data can be seen in Table 1.

Table 1 – Tracking student activities and interactions in online collaborative environments before the social distancing

Indicators	n°	%
I did not use digital environments with my students	54	31,04
Occasionally checked students' online discussions	39	22,41
Regularly monitored, analyzed, and intervened with motivating comments or feedback	34	19,54
Followed students' online activities regularly	31	17,81
Did not track students' activities in the online environments I use	16	9,19
Total	174	100%

Source: Research data (2020)

It was also verified that although this online interaction already existed before the context imposed by the pandemic, about 37.35% of the Didactics teachers performed regular follow-ups of the students' activities, and of these, less than 20% with feedback. Based on the data, it can be inferred that, even in face-to-face teaching, the use of digital tools for interaction and activities was already being used. Perhaps with less frequency because it was

not the main means of interaction, since this took place more among peers face-to-face; also because the activities could be carried out individually or collectively from the presentation and monitoring of more usual modes of pedagogical practices.

Although networked education existed before social isolation, it did not occupy a prominent place in face-to-face teaching, nor a priority place for activities and socialization, nor did it demand a wide use from teachers and students. In this sense, it can be said that these digital tools were used less frequently in face-to-face teaching (GOMES *et al.*, 2022; SILVA; PETRY; UGGIONI, 2020).

As for the interactions between students during the social distance, enhanced by the proposed activities, almost 57% of the Didactics teachers answered that these did not happen, and about 43% answered that they were not in activities during this period. These data are described in Table 2.

Table 2 – Interactions between students during social withdrawal

Indicators	n°	%
Not applicable, I was not in teaching activity during the pandemic	41	23,56
There were no activities during this period	35	20,11
Students exchanged evidence and built knowledge together, in a remote collaborative space	23	13,21
There was no interaction between them	22	12,64
I encouraged students to work in groups to search for information online or to present the results in a digital format	19	10,91
I required students to work in groups and access the internet to conduct research and present the results in a digital format	12	6,89
Students did only individual activities	11	6,32
Could not integrate digital technologies into group work	11	6,32
Total	174	100%

Source: Research data (2020)

As can be seen, of the interactions proposed by the activities, only 12.64% were for individual tasks, either because it was impossible to do them in groups or because they were already proposed in this format. About 31.01% of the Didactics teachers encouraged or proposed group, collaborative and online interaction to the students.

The emergence of new pedagogical possibilities arises with remote teaching, one of which is the use of digital technologies as a tool for working, learning, approaching, interacting, and carrying out activities and evaluations. In this way, the Didactics teacher, as well as the others, now has attributions that were not mandatory in the past, such as proposing online activities to students and following up on them.

It can be said that, in the current context, the teacher is the one who "must now guide the student's learning process in order to develop their ability to learn how to learn, their self-learning and their autonomy" (MOREIRA; HENRIQUES; BARROS, 2020, p. 354). In this sense, the pandemic demanded new roles for teachers and students who should mobilize the use of digital tools as a means of work and study. In other words, there are still other challenges to be faced in this process in order to guarantee the actions of teaching and learning.

Thus, it can be said, based on the data, that interaction was not always present, since 12.64% of the teachers said so. It becomes relevant to verify if this occurred because of the lack of knowledge about the virtual environment, the lack of use of tools that promote interaction, or even if this is a reflection of an emergency that "spared", including teachers from having a training focused on the use of DICTs and its use in this pandemic context.

It was found based on the data in Table 1 and 2 that there was not a total detachment regarding the interactions of students, which, logically, should have been more intense and constant in the scenario of the ERT, because it is the viable way for this to happen and the use of DICTs is mandatory. Thus, interaction, which should be present in education and in the academic scenario, due to its importance in the learning process (both in the cognitive and emotional aspect), may not be being promoted in the RPE for several reasons, causing even greater damage to the crisis already installed in the educational environment.

Thus, in the research conducted, it was noted that the proposal of activities in the ERT is not only a challenge for teachers. Contrary to what was imagined, despite the supposed familiarity of young people with technological resources, the difficulties for students to follow the activities are also numerous and reveal structural problems of the education system and society in general.

One of the questions presented to the Didactics teachers, in the context of the research, refers to the difficulties that the students presented to follow the proposed activities during the Covid-19 pandemic. Among the 103 Didactics teachers who worked in the ERT, only 3.9% reported no problems. The main difficulty indicated by the teachers was access to technological resources and the internet, represented by 87.37%. As Santos denounces, "any quarantine is always discriminatory, more difficult for some social groups than for others" (SANTOS, 2020b, p. 15).

The significant percentage of students who reported difficulties with the Internet and technological resources highlights the social inequalities present in the country. This data encourages us to raise some questions: who are the students that cannot have quality

connection or do not have adequate technological resources? Who are the students who need to share computers with other people in the family? Who are the students who only have a smartphone to follow the activities proposed by their universities?

Studies carried out in this context attest that the majority of students in Brazilian public universities come from the least favored classes. For the majority, admission to a public university represented a social conquest that, in the pandemic, reveals its most perverse side. Students have had access to free, quality higher education, but are not being assured the conditions for permanence, development, and learning (BARBOSA; VIEGAS; BATISTA, 2020; MOREIRA; HENRIQUES; BARROS, 2020; SANTOS, 2020a, 2020b).

It becomes relevant to highlight that access to technological resources and good quality internet are not demands imposed only during remote activities performed by Brazilian public universities, due to the Covid-19 pandemic. It is a demand incorporated into the academic routine and that marks the difference in material conditions among students.

On the potential knowledge arising from the Covid-19 pandemic, Santos (2020a, p. 4) states that "the current pandemic is not a crisis situation clearly opposed to a situation of normality. Since the 1980s [...] the world has lived in a permanent state of crisis". For the author, the point of permanent crisis is not to be solved.

Consistent with this perspective, the relationship between the difficulty in keeping up with activities and socioeconomic conditions can also be identified when teachers report that students indicate the accumulation of activities in the home environment (9.7%) and the inadequacy of physical space at home (2%). In addition, 5.8% of the Didactics teachers present issues related to socioeconomic aspects.

In this sense, these data tie in with the 87.37% of Didactics teachers who made reference to students' difficulties with technological resources, internet connection problems, and reinforce the idea that, in fact, the Covid-19 pandemic does not affect everyone in the same way. Although the new coronavirus does not choose gender, race, creed, or social class, the pandemic is extremely selective and hits social sectors differently, such as the public school system and the students who depend on it.

Besides the socioeconomic aspects, the Didactics teachers also indicated the emotional conditions: 15.53% of the students faced challenges when following the activities. Fear and anxiety were the most highlighted aspects. Although, in absolute numbers, this represents only 16 of the 103 Didactics teachers who worked in the ERT, this is an aspect that deserves to be highlighted. The Covid-19 pandemic made human frailty globally explicit. Anxiety and fear took hold in the face of imminent death, unemployment, and hunger.

Socioeconomic and emotional aspects may also justify the 8.73% of Didactics teachers who presented difficulties in completing the activities in the allotted time, alleging lack of concentration, challenges to self-organization, among others. Contrary to what is reported by the media and international organizations, quarantine "not only makes more visible, but also reinforces injustice, discrimination, social exclusion, and the unjust suffering they cause" (SANTOS, 2020a, p. 22).

It is important to note that, among the Didactics teachers who participated in the survey, 76% indicated the difficulty of some students in understanding and/or accepting the ERT proposal, represented by 7.76%, and about 16% indicated students' difficulties in solving didactic-pedagogical issues. In this sense, the supposed difficulty of students in understanding the proposal may be directly related to the difficulty of the Didactics teachers themselves in organizing a teaching proposal that takes into account the principles of online education. Despite the broad discussion about teaching and its complexity, the emergence of the ERT also surprised the Didactics teachers, calling into question beliefs and practices.

The teaching of didactics mediated by digital technologies in the context of the pandemic: the teaching perspective

In this study, it was also considered relevant to know how students positioned themselves in the face of the new remote class format during the Covid-19 pandemic. Of the 174 responses obtained, 49.5% of the professors reported not being in remote activity. Of the 88 professors who claimed to be working remotely, 18.4% reported positively to remote classes; 13.5% saw it reasonably; 13.8% of students would have positioned themselves against remote activities; 1.2% of students were suspicious and worried and 4.5% of teachers did not respond.

Based on these data, the students' positioning was classified into three categories: favorable positioning; favorable positioning with criticism; unfavorable positions.

According to the 88 Didactics teachers who claimed to be, at the time of the research, teaching in this pandemic period, 18.4% of the students were positively positioned about academic work with digital technologies in the current context, as revealed by some testimonies:

They are worlds apart. DE students soon adapted to the new. Our previously face-to-face assessments have been done remotely. The face-to-face students are just following up on readings and videos for further discussion. They

really like everything I send via the digital platform and regret that we stopped for so long. Professor 1

Most are positive about the teaching materials and the approach to the subject. Professor 2

Many expressed enthusiasm because they had already been using digital tools. Others went into despair, others into depression. They are learning how to deal with the situation. Professor 3

Of the students who positioned themselves in a favorable but critical way, it was found that for 13.5%, the issues that appear most often are access to the internet and the inadequate conditions in their homes. Therefore,

[...]is not the denial of digital tools but the conditions, the difficulty to access the Internet, to do readings and watch classes over the cell phone, and the lack of access to appropriate tools. Professor 4

They integrate very well into the debates, and say they feel comforted by the moments in the discipline, but they register their concern about the future possibility of compulsory remote teaching, because of colleagues who have impediments to participating in the classes. Professor 5

The positions are diverse, since the conditions of access are not equal. In some classes there was broad acceptance, but not everyone has easy access to the Internet. Professor 6

Even with reasonable acceptability, students have criticisms given their material conditions of existence. It is relevant to highlight the economic challenges faced by students from public institutions, especially those from undergraduate programs. A survey showed that 70% of the student population has difficulty in accessing digital technologies and network connections. In the undergraduate courses this percentage is even higher: more than 80% of the students said they did not have adequate environmental conditions. These students have only a smartphone and internet via mobile data (GOMES *et al.*, 2022; LAGO *et al.*, 2021; SILVA; GOULART; CABRAL, 2021).

According to the teachers participating in the survey, many students said that they learn little of the content from reading the material, requiring interaction and support from the Didactics teacher. Other students revealed fear and tension typical of the pandemic context and resistance. Others claimed tiredness and demotivation, because they are overloaded with tasks. About these issues, we found that:

Well [...] I observed that at first the students were excited, participating in the WhatsApp group, and also in the first weeks on the Moodle Platform. Then I realized that some had not done the activities, so I tried to schedule a meeting on Google Meet, but some were in the environment with a

strangeness, even closed the camera, and only participated in the chat. I think this happened because it was the first time we met using this resource.

Professor 7

As the weeks went by, punctuality dropped and adherence to synchronous classes decreased. **Professor 8**

At first they wanted to continue classes remotely, but after the second class in this format, less than half the students return to class. **Professor 9**

Among the students, 13.8% were against remote activities. It was observed that this position was motivated by: concern with the exclusion experienced by many colleagues; unpreparedness of teachers, and also lack of clarity regarding contracts with large corporations. Add to this the 1.2% of students who expressed themselves as "worried and suspicious", this percentage of dissatisfied students rises to 15%.

According to some Didactics teachers,

Our students are resisting a lot. We professors from the History course are also resisting because the university didn't have the proper debate about remote teaching. **Professor 10**

The vast majority is against remote teaching, but understands that it is a necessity due to the emergency situation. They feel unmotivated by the lack of face-to-face social interaction and activities of a practical nature. **Professor 11.**

A part of the academics have resistance to the new format, due to the fact that they have little knowledge of the Virtual Learning Environment - VLE. I believe they lack the experience to identify possibilities and limits. **Professor 12**

Tensions and contradictions are part of the game, and it is necessary to perceive them. The emphasis given by a professor of Didactics on the lack of adequate debate in his institution about remote teaching reveals a serious problem - the lack of democratic participation of professors in institutional decisions. This is a unique statement, but in the current context it portrays the evaluation of many professors and deserves to be highlighted, considering the numerous struggles faced in the universities under the current government.

Despite the great structural, economic, emotional, and pedagogical challenges, one can see in the statements of the Didactics teachers efforts and desire to move forward, the search for solutions to the numerous crises, even facing the limits resulting from the adoption of the ERT.

Asked about how the students evaluated the Didactics classes held using technological tools during the Covid-19 pandemic, among the 174 respondents, 60.33% answered that they

had not started the ERT in their institutions; 14.52% indicated that the students' evaluation was satisfactory; 10% said the evaluation was positive; followed by 5% who said the evaluation was bad. It was also verified that 1.67% of the students considered the classes very positive, and only one student evaluated the classes as regular.

It is worth noting that the sum of the percentages of students who considered the classes satisfactory, positive and very positive, represents only 26.19%, which reveals a result below the average. It can be inferred that the social isolation situation, the physical absence of the teacher and peers, probably had a negative impact on the students' evaluation. Besides, many Didactics teachers revealed insecurity in the use of technological tools in the online modality due to the fact that they had not used these instruments before the pandemic in face-to-face teaching. The immediate use, without planning, and the teachers' lack of previous experience in using digital technologies may have had a negative impact on the students' evaluation (GOMES *et al.*, 2022; GOMES, 2017; LAGO *et al.*, 2022; SILVA; GOULART; CABRAL, 2021).

As can be seen, this data emphasizes the relevance of assessment, considered as an action integrated to the learning process, which works as an articulating element of learning. According to Gomes *et al.* (2021), it is important that this evaluation process is open to the students. Thus, it is important to listen to the students about the pedagogical proposal, the activities that are being carried out, how well they are adapted or not to the intended goals, and how they are collaborating to achieve the objectives. It is also recommended the opportunity to exchange feedback about the performance of the Didactics teachers, the intervention actions, the interactions, and the results with respect to the intended objectives.

It is also necessary that the face-to-face and remote activities allow the students and the professor of Didactics to exercise self-evaluation. The comments and reflections recorded throughout the activities, when well done, will constitute relevant information for learning, since they will come from the students themselves, who will be able to indicate aspects that require revision and/or changes.

Regarding another aspect present in the data - teacher insecurity in the use of technological tools in remote format -, it is important to highlight that working with technologies requires continuous training. It can be said that teachers are often offered training courses that, in general, reinforce isolated and individual teaching activities. It is as if by knowing the tool and offering refresher courses the teacher is prepared to use it. For Lévy (1999), the use of technologies involves creation, the invention of a form from a dynamic configuration.

It is relevant to point out that many teachers claimed that they were not trained either in the undergraduate course or in the school for the pedagogical use of technologies. However, in a context where the use of technologies redefines the ways of production and socialization of knowledge and people's relationships among themselves, and with a culture strongly characterized by the presence of digital media, the challenges of education and initial and continuing teacher training are immense (PADILHA; ZABALZA, 2016; SIMPLÍCIO; MATOS; RIBEIRO, 2021).

Final remarks

This article is part of a research conducted by Andipe that sought to analyze the teaching of Didactics in the period of social isolation, problematizing challenges, tensions, and possibilities facing the pedagogical work mediated by digital technologies in the context of the Covid-19 pandemic. In this sense, we focused on the following problem: *what changes were perceived by teachers in the students' attitude in the pandemic context?*

In concluding this article, it is relevant to make some considerations obtained through this study. A first consideration concerns the impact caused by the health crisis in Brazil and in the world. The year 2020 is marked by the Covid-19 pandemic and, consequently, by the changes provoked in the life of the world population, bringing repercussions in the economic, political-social, educational, and affective-emotional fields. In Brazil, as in the rest of the world, the pandemic has led to the paralyzation of classroom activities in the educational system and to a redesign for the return of classes in a remote format.

The impacts brought about by the Covid-19 pandemic have put the teaching-learning process in evidence. This is a complex scenario that demands a look at the challenges in order to think about ways and possibilities to be adopted in this context and in the post-pandemic future.

A second consideration concerns Didactics, a curricular component of undergraduate courses that investigates, among others, the teaching and learning phenomena. Didactics is interested in a pedagogical relationship based on mediation, constructed by students and teachers, situated and formative.

The health crisis, on the one hand, has accentuated the differences between those who have more difficulty in learning; it has required a new teaching profile, which needed to reinvent itself, to adapt to digital technologies; on the other hand, it has inspired projects and

teaching interventions, which foster autonomy, critical thinking, protagonism, and the formation of effective learning networks.

Finally, a third consideration concerns the adoption of remote format teaching. The survey results indicate a lack of effective interaction between students and professors, caused by the absence of material conditions and limited access to quality internet. According to the Didactics teachers, a significant percentage of students were favorable to remote activities, followed by students who were unfavorable, emphasizing, among others, the lack of resources and little debate in the institutions about the adoption of the remote format during the pandemic. And, finally, students also highlighted the importance of face-to-face teaching to preserve the quality of the teaching-learning process in the university.

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