A Review of Scientific Papers on the (Tele) Work of Postgraduate Professors

Ana Luiza Leite*, Mario Cesar Barreto Moraes

University of State of Santa Catarina, Florianópolis, Brasil

ABSTRACT

Before the implementation of compulsory remote work due to the Covid-19 pandemic, postgraduate professors already exercised telework in their homes, informally. Thus, the objective is to analyze the scientific production of telework or work of postgraduate professors. A systematic review of articles in the SCOPUS, Web of Science, and Scielo databases and of theses and dissertations in the Brazilian Digital Library of Theses and Dissertations was carried out. We sought to classify the research found by themes and identify the content of the results that researchers found. There was a significant amount of work on the evaluation of postgraduate studies or professors, in search of improvements. Problems were noted in the professor's work in relation to the lack of training for teaching, university environment with few resources, complex activities and in a quantity that extrapolates the time of service, evaluation by results that causes negative consequences in the performance of activities as in the personal life of the professor. Telework was found in different contexts, such as ubiquitous work and the digital age, distance education, pleasure and suffering at work, and as a dimension that addresses teaching work. Since professors have already experimented with teleworking and compulsory remote work, they are subject to the positivities and negativities that it can cause, which may or may not facilitate the improvement of the problems pointed out. The research contributes to the human resources management area, by seeking to understand how professors-researchers have used this modality outside universities and potential research gaps, such as identification of control of professors' telework since it is subjective and complex; more precise identification of the profile of professors who telework and what type; how teleworking affects the issues raised by research on professors' work; and, how was the experience of compulsory remote work during the pandemic.

Keywords: *Telework, Work, Professor, Postgraduate*

Introduction

Covid-19 has forced changes in the university system on a scale that is likely unprecedented, coinciding with the increase in information technology capabilities due to the advent of artificial intelligence, machine learning, and automation (Krishnamurthy, 2020). In view of the pandemic context, the main change in higher education that can be seen as a result of Covid-19 was the

migration from face-to-face teaching to online teaching. This implied the adoption of compulsory full-time remote work by higher education institutions

Postgraduate Programs have been taking advantage of emergency remote teaching during the Covid-19 pandemic, almost none had the planning, structure, or training for this form of teaching. Thus, the change in the form of face-to-face teaching, already so consolidated in postgraduate, implies changes that challenge the *status quo*. Silva and Teixeira (2020), when analyzing how teachers have experienced the challenges imposed by the pandemic, verified the lack of technical handling, the incorporation of information and communication technologies in their pedagogical practice in an almost imposed way in the current context, and the lack of more specific training in the area. When there is a change in the way they work, professors need to use new ways of transmitting knowledge, making didactic material, and allocating class time and physical space, where public and private, social and family, work and leisure (Carmo & Franco, 2019).

Even before the pandemic, postgraduate studies, as a scientific field, already indicated that it was basically focused on the accumulation of scientific capital and the formation of scientific *habitus* (Corrêa & Ribeiro, 2013). It is noticed that these professors need to focus on academic productivity, as the organizational *habitus itself* seems to be directly oriented to the evaluation processes, which direct the decision-making and positioning of these professors (Bauer & Darbilly, 2020). In this context, professors describe their work as precarious, especially in terms of material infrastructure; they believe they work under a strong requirement to achieve productivity goals (publication); and extend the journey to the domestic space (Borsoi, 2012). That is, before the implementation of compulsory remote work due to the Covid-19 pandemic, professors already exercised partial telework in their homes, informally.

The question that aligns this research lies in: what is the scientific production regarding (tele) work of post*graduate professors*? In this sense, the objective of this work is to analyze the scientific production, through a systematic review of Brazilian articles, theses, and dissertations, to understand what has been researched about telework or the work of postgraduate professors. This research is justified as a result of the need to understand the telework of professors at this level of performance who started to perform compulsory remote work during the Covid-19 pandemic and identify research gaps.

Theoretical foundation

Although, since the Industrial Revolution, work has been concentrated in central locations, forming metropolises, with the spread of information technologies, the possibility arose to carry out work anywhere and at any time. Hunton and Harmon (2004) consider there were three phases of evolution throughout the development of the work. The first would be the work of nomadic tribes, the second, collective work in large centers, and, finally, the third, a hybridism of these two phases, telework, which can be carried out anywhere, including with constant changes of location (Hunton & Harmon, 2004). The future of work, according to Morgan (2014), goes in the direction of the flexibility to work at anytime, anywhere, using any device, instead of the standard of working during business hours, in the company using the equipment provided by the company.

Thus, it starts to focus more on results and on collaboration and information processes, enabling adapted and democratized learning (Morgan, 2014).

Telework is a term coined by Nilles, in 1973, to refer to the partial or total replacement of the commute to work, using telecommunications and computers (Nilles, 1988). Álvaro Mello, the proponent of telework in Brazil, defines telework as taking work to workers wherever they are, instead of taking them to work (Mello, 1999). That is, both emphasize the need to travel to a specific place of work. Nilles (1988) also covers two points inherent to teleworking: the need for technology and periodicity. Over time, new forms of work began to emerge, as well as new terms such as homework, remote work, virtual work, mobile work, and electronic work, which have been presented as synonyms for teleworking (Schweitzer & Duxbury, 2006). In summary, the criteria used to identify who teleworks include (i) location; (ii) proportion of time spent teleworking; (iii) regular working hours or as overtime; (iv) technology; and (v) *status* of the type of work, such as self-employed, full or part-time, permanent or temporary (Schweitzer & Duxbury, 2006).

Regarding professionals who telework at home, Kraut (1989) identified three types: (i) substitutes, employees who work at home and not at the office or company location; (ii) supplementary, employees who work overtime at home; and (iii) self-employed, self-employed whose business is headquartered in their home. What is indicated, in this classification, that professors would fit in the supplementary, since professors-researchers obtain an average weekly workload of 50.65 hours, causing almost half of the time spent on research to be directed to the weekend and, consequently, to the house (Melo & Serva, 2014).

Professors can work during their working hours in various environments, such as the classroom, meeting room, laboratories, and even at home, on weekends and holidays (Alvarez, 2004). The professor's work often requires the use of technologies, whether to submit an article, use certain software for research, or plan classes with the creation of slides, which indicates that the graduate professor makes use of available technologies. Zabalza (2004), in turn, describes three main functions of the work of university professors: teaching, research, and administration in various sectors of the institution. The function that differentiates the work of the higher education professor from that of other levels of education is the longer time needed for dedication to research since he needs constant updating in relation to the development of the academic work of the advisees and his own (Muniz-Oliveira, 2016).

Among the different dimensions of teaching work, research is also one of the most prestigious, since its universities and professionals are evaluated in terms of their quality and productivity (Vosgerau et al., 2017). Higher Education Personnel Improvement Coordination-CAPES, in Brazil, focuses its evaluation strategies on the number of publications, causing consequences not only in relation to the relevance of scientific production, but also to the maintenance of insufficient didactic-pedagogical training of active teachers (Vosgerau et al., 2017). An example is that in Brazil, scientific production and publication are increasingly produced, but with debatable quality, since the impact and number of citations of publications are below the world average (Bianchetti et al., 2015).

Vosgerau et al. (2017) understand that the control of teleworking's professors already exists since the activities related to teaching are daily controlled by the students and by the course coordinator, who verifies that the professors are consistently fulfilling these tasks. The research activities, in this logic, of postgraduate professors, are also subject to control, since there is an accounting of their work based on results when a certain number of publications is requested.

On the other hand, teaching work can be presented as a set of situations invisible to most people, since the activities are immaterial and subjective (Alvarez, 2004). Thus, the teaching work needs to be analyzed as it is developed and named by the actors themselves and according to the conditions, resources, and real pressures of their daily activities (Tardif & Lessard, 2009). This is because the profession requires intense human interaction, a characteristic that distinguishes it from other forms of work, especially work with inert matter (Tardif & Lessard, 2009). In this way, instead of highlighting the subject as a working instrument, which needs to be understood to be motivated and produce more, research in administration needs to present work activities as impact factors in the professors' life (Freitas, 2017).

Sagrilo (2009) showed a polysemy between Work and Education, with regard to the understanding of teaching work and listed two main categories observed in the works analyzed in its review: (i) intensification and precariousness of teaching work that presents the flexibility and accumulation of tasks that compromise the quality of teaching work, subjecting the teaching worker to contemporary capitalist logic that is limited to technical rationalities, and (ii) different perspectives on teaching work, which presents a diverse set of research that discusses gender, productivity, motivation, satisfaction and professional identities, such as values that emerge in the work activity, formation of oligopolies and implications for teaching work.

Research method

The systematic literature review of international teaching work was developed in line with the steps of the integrative review proposed by Botelho, Cunha and Macedo (2011). In this sense, a question was formulated, which marks the first stage for the construction of the systematic review: what is the scientific production regarding (tele) work of *postgraduate professors?* It was determined how descriptors the following keywords: *Teaching OR Professor OR Teacher AND "Post-graduation" OR Master OR Doctorate AND Telework OR Work.* The quotation marks were used to search for the words together and not separately, in postgraduate studies. *The OR* connector was used between similar words in order to achieve more results. According to the theme, and through the *AND connector,* we sought to find articles that discussed the work of the professor in postgraduate studies. It is noteworthy that, previously, searches were carried out with other possibilities of keywords and unsystematic searches of articles, resulting in the keywords previously highlighted due to the relevance to the theme and return of results. The search was performed by title, abstract, and keywords in three internationally known databases: SCOPUS, *Web of Science,* and *Scielo* on March 16, 2021.

In the second stage, the identification of studies that were excluded in the review took place: the need for the type of document to be an article, with open access and in Portuguese, English, or

Spanish, was used as an initial delimiter for the research. This delimitation reduces the 6,291 articles found to 1,105. In this limited portfolio, the databases had a distribution of 581 in SCOPUS, 448 in *Web of Science,* and 76 in *Scielo*. With the exclusion of duplicate articles (160), a portfolio of 945 articles remained.

In the third stage, the titles were read, excluding 812 for being aligned with other areas of science, that is, related to the area of health, mathematics, physics, basic education, and focusing on the students' perception. The reading of abstracts and keywords was continued, from which 76 articles that did not comply with the research question were excluded. Finally, the 57 remaining articles were read in full, excluding 30 for not dealing directly with postgraduate studies. The management of the articles was done with the Endnote software.

The fourth stage aimed to summarize and document the information extracted from the scientific articles found in the previous phases. This documentation was prepared with the information collected from the articles: Year, Journal, Authors, Title, and research objective. The following is a summary of the steps established for the selection of articles for review (Figure 1):
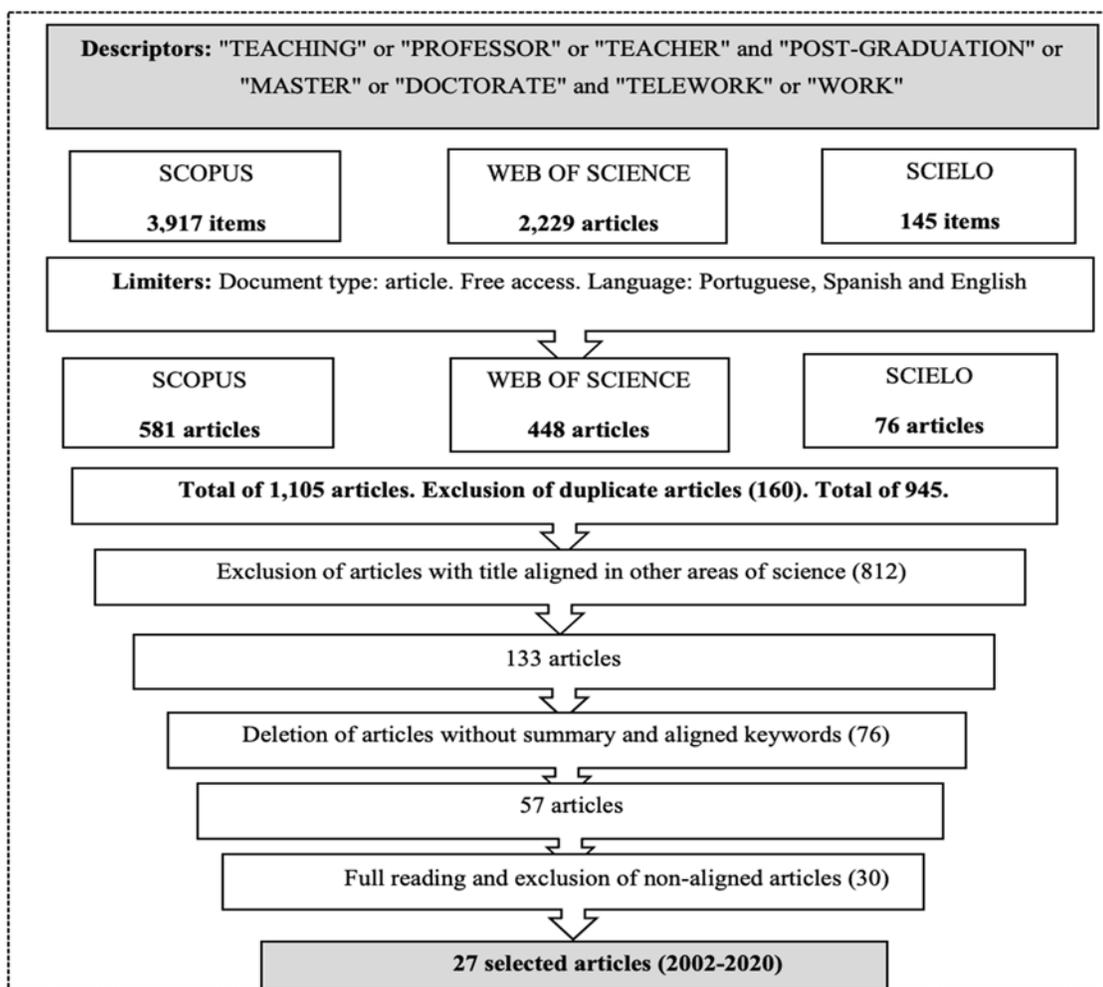

Figure 1. Description of the steps of the integrative review carried out
Source: Prepared by the author based on bibliographic research, 2021.

Additionally, a review of the literature focused on Brazil was carried out in order to find theses and dissertations in the Brazilian Digital Library of Theses and Dissertations (BDTD) on February 24, 2021. The same keywords and connectors of the research of articles in the databases. However, no results were found. In this way, it was sought to identify what has been researched in the field of postgraduate university teaching in general and what has been researched on professors' telework, through two blocks of searches, presented below:
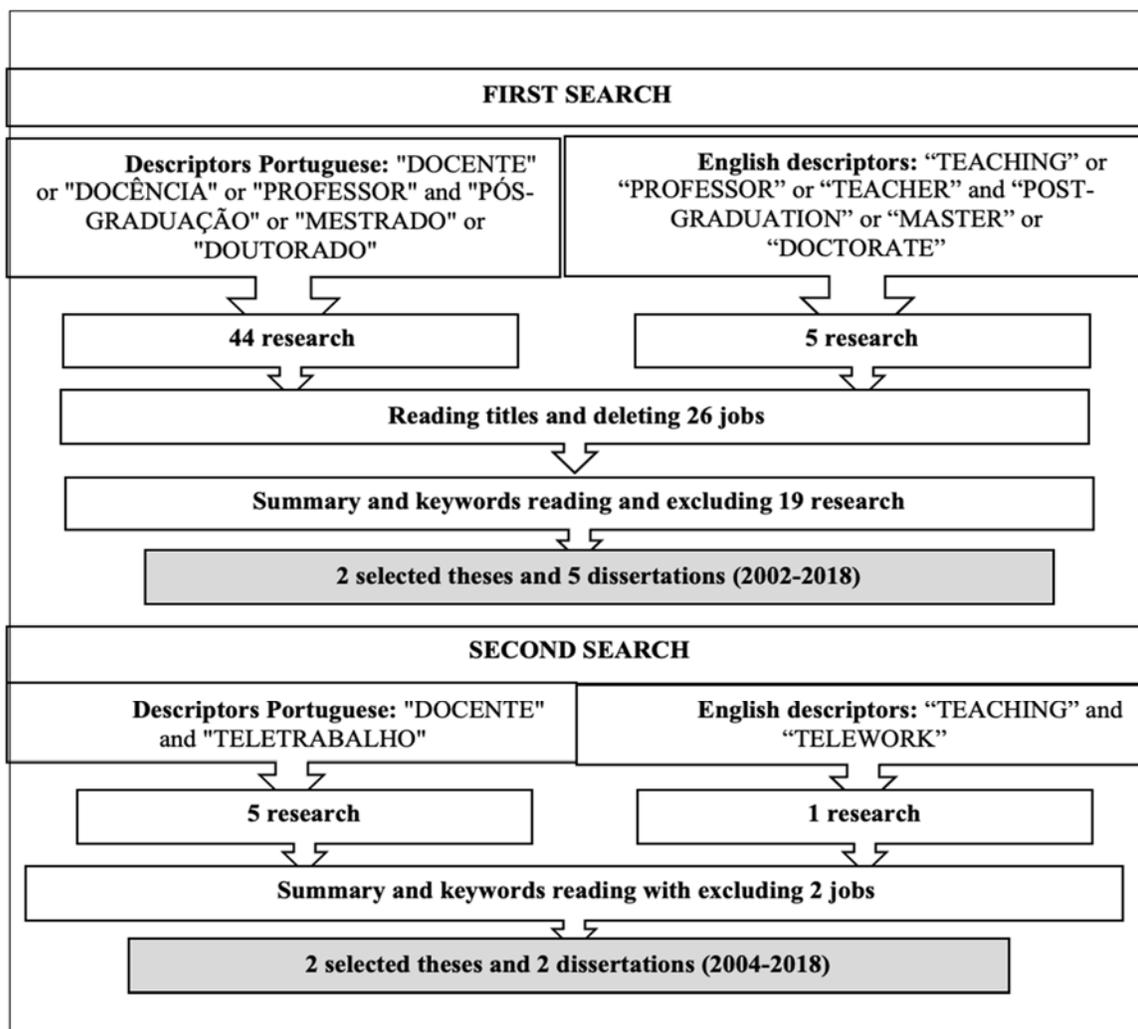

FIRST SEARCH

Descriptors Portuguese: "DOCENTE" or "DOCÊNCIA" or "PROFESSOR" and "PÓS-GRADUAÇÃO" or "MESTRADO" or "DOUTORADO"	**English descriptors: "TEACHING" or "PROFESSOR" or "TEACHER" and "POST-GRADUATION" or "MASTER" or "DOCTORATE"**
44 research	5 research

Reading titles and deleting 26 jobs

Summary and keywords reading and excluding 19 research

2 selected theses and 5 dissertations (2002-2018)

SECOND SEARCH

Descriptors Portuguese: "DOCENTE" and "TELETRABALHO"	**English descriptors: "TEACHING" and "TELEWORK"**
5 research	1 research

Summary and keywords reading with excluding 2 jobs

2 selected theses and 2 dissertations (2004-2018)

Figure 2. Description of the stages of the review of theses and dissertations
Source: Prepared by the author based on bibliographic research, 2021.

In the first search, a portfolio of 49 theses and dissertations was found. By reading the titles, 26 studies were previously excluded, which did not refer to university teaching work. Continuing, through the reading of abstracts and keywords, 19 theses and dissertations were excluded because they did not approach the research topic, constituting a portfolio of only seven theses/dissertations. In the second search, a portfolio of six theses and dissertations was found. Reading the titles,

abstracts and keywords helped in the selection of four works closest and most appropriate to the topic of this research. There was no temporal delimitation in any of the searches, thus, selected dissertations and theses are found from 2002 to 2018.

Analysis of Results

In summary, of the 27 articles selected for this review, 20 are from authors from Brazilian universities, one from the United Kingdom, one from Poland, one from Spain, one from South Africa, and three from Australia. Most empirical studies have a qualitative approach (14), while three use a quantitative approach, and one uses a mixed approach. A considerable number of theoretical articles were also noted (9). So that the presentation of each article was not too extensive, it was decided to classify the articles in blocks according to the theme and central idea, which can be seen in the Table 1:

Table 1. Central themes found in the Systematic Review

Theme	Central idea	Authors
Evaluation	Proposal for improvement in the evaluation of Brazilian and Spanish graduate programs; criticisms of the current Brazilian punitive evaluation system that has caused numerous consequences such as academic productivism; the influence of institutional self-assessment and educational policies on teaching work and training; capes history. Teacher self-assessment instrument; trajectory and sense of retired teachers.	Garcia & duim (2017), Ríos-carmenado et al. (2016), Cafe et al. (2017), Maraschin & Sato (2013), Bastos & Rovaris (2016), Oliveira (2005), Lima & Guerreiro (2019), Mesquita (2016).
Telework and teaching work	Ubiquitous character that permeates the teaching work; digital age and influence on teaching work; pleasure-suffering in the work of teachers; dimension of the work of the graduate teacher.	Lara et al. (2019), Cruz & Bizelli (2015), Moreira et al. (2018), Silva (2020), Muniz-Oliveira (2010).
Teaching and learning	Individualized and socialized teaching/learning online; virtual classroom; higher education teachers' skills for read; evaluation of learning; work-based learning for graduate students; teacher training for pedagogical practice, teaching internship as pedagogical practice, teacher-student relationship.	Andrew (2014), Santos (2011), Cassundé et al. (2017), Gurgel & Leite (2007, Stewart et al. (2019), Zaidan, Caldeira, Oliveira, & Silva (2011), Sengik et al. (2019), Ikeda & Bacellar (2008).
Research	Creativity, communication and knowledge production in research; dissertation and guidance process; consequences of the pandemic in research,	Sales (2008), Kowalczuk-walędziak et al. (2020), Woolhouse (2002), Callaghan (2018), Vereijken et al. (2018), Barbosa (2020).

Source: Prepared by the author based on bibliographic research, 2021.

There was a significant amount on the evaluation of the postgraduate or the professor, above all, in search of improvements for them. The second most discussed topic was related to didactics, teacher training, and skills for effective teaching. Another important task of the postgraduate professor was expressive: research. The articles on research basically resided in the dilemmas of the orientation process and the competencies needed to carry out the research. Finally, the theme

of this research (teleworking) was found in fewer articles, with different approaches: ubiquitous work and the digital age, pleasure and suffering at work, and classification of the dimensions that address teaching work.

Regarding the selected theses and dissertations, five works were carried out within the scope of the Postgraduate in Education, four of the Postgraduate in Administration, one of the Postgraduate in Social Communication, and one of the Postgraduate in Production Engineering. The works found were developed in universities located in the Southeast, Midwest, and South of Brazil. The first search presents work relating professors to work, while the second relates professors to telework. Both are necessary, since the professor exercises both modalities, although there has been an inversion in the frequency of each one due to the pandemic: an increase in teleworking and a decrease in face-to-face work at universities. Most studies follow a qualitative approach (six studies), with two studies with a mixed approach (quali-quantitative) and three quantitative ones.

Table 2. Selected theses and dissertations

Year	Title	Author/Advisor	Course/IES	Objective
2014	Teacher training for skills-based administration teaching: possibilities and challenges	Amanda R. Vieira under the guidance of Adriana B. Noronha	PhD in business administration from USP	Describe the possibilities and challenges of training for university teaching in master's and doctorate programs in Business Administration in Brazil considering the competency-based teaching model
2017	Retirement: work and the meaning of its continuity for the higher education teacher	Valquiria O. da Silva under the guidance of Zeila B. F. Demartini	Master's degree in education from UMESP	Understand the meaning of work for teachers in order to identify in their statements the place occupied by work in their lives.
2015	The working conditions of professors-researchers and the process of knowledge production in stricto sensu graduate studies in education	Andreza Cristina Souza Paula Ferreira under the guidance of Alvanize Valente Fernandes Ferenc.	Master's degree in education from UFV	To analyze the conditions of knowledge production of professors-researchers in the Graduate Programs in Stricto Sensu Education of two federal public universities in the state of Minas Gerais, in face of the demands imposed by the current CAPES evaluation model, in order to understand the consequences of this process on the knowledge produced by them.
2008	The pressure stemming the productive reconfiguration of stricto-sensu courses and their impact on the health of professors in public universities	Marcio Pascoal Cassandre under the guidance of Cristiane Vercesi	Master's degree in administration from EMU	Recognize and analyze the physical and mental situation of stricto-sensu course teachers in the face of intense charges for intellectual production resulting from the organizational reconfiguration of academic production of Brazilian public universities
2018	Attributions of professors-researchers at the federal university of goiás/regional jataí: teaching or sick work	Aurélia Magalhães de Oliveira Souza under the guidance of Ari Raimann	Master's degree in education from UFG	To investigate whether, and how, the conflicting situation that arose interferes with the health of the research professors of the Federal University of Goiás/Regional Jataí (UFG/REJ)

2007	Impacts of telework on the activities of teachers of the National Industrial Learning Service (SENAI)	Jerusa B. Schroeder under the guidance of Maria José C.S. Domingues	Master's degree in administration from FURB	To know the impacts of telework on the activities of teachers of the National Service of Industrial Learning - SENAI.
2018	Organization of Teaching Work in Distance Education: implications of polishing in the context of the Open University of Brazil	Braian Garrito Veloso under the guidance of Daniel Mill	Master's degree in education from UFSCAR	To analyze possible implications promoted by the organization of (poly)professor work, in the context of the Open University of Brazil, on the activities of educators working in the EaD
2004	Telework at university and communication processes	Greicy M. F. Q. da Costa under the guidance of Acques M. J. Vigneron	Doctorate in social communication from UMESP	Identify whether the teaching activity, especially of higher education teachers, is compatible with the idea of teleworking
2006	Distance education and virtual teaching work: about technology, spaces, times, collectivity and social relations of sex in the media age	Daniel Mill under the guidance of Fernando Fidalgo	PhD in education from UFMG	To analyze the implications suffered by the teaching work due to the space-time changes introduced by virtual pedagogical processes
2017	Production of subjectivities in teaching work in the administration course of UFES: an ergological view	Vanessa Carla de Freitas under the guidance of Susane Petinelli Souza	Master's degree in administration from UFES	Understand how the production of subjectivities is related to the exercise of teaching in the Undergraduate Course in Administration of UFES, through an ergological view
2002	From Accountant to Teacher: The trajectory of teaching in higher accounting education	Marcos Laffin under the guidance of Maria EsterMenegasso	PhD in production engineering from UFSC	Understanding the epistemological foundations of the organization of the work of the accounting teacher in higher education

Source: Prepared by the author based on bibliographic research, 2021

In short, only four works mention the professors' telework (Mill, 2006, Costa, 2004, Veloso, 2018, Schroeder, 2007). The other works present different aspects of teaching work, such as trajectory, retirement, and working conditions linked to professor pleasure and suffering. Continuing with the description of the results, the content of the main research that brought up the theme of work and teaching telework is then presented.

Muniz-Oliveira (2010), in order to understand the complexity of the postgraduate professor's work, its difficulties, conflicts, and the dimensions that involve it, verified one of the activities that the *postgraduate professor* - in this case also a researcher of funding agencies: elaboration of an opinion for funding agencies. In relation to the dimensions that involve the activity under study, three were mapped: acting impersonally; acting personally; and acting transpersonally (Muniz-Oliveira, 2010). The task consists of an impersonal act, prescribed by funding agencies, and the teacher must follow the rules for carrying out the task; of personal action, since the professor can do it through his own style, taking notes on paper or on the computer, for example, and a transpersonal action, as it is influenced by the history and memory of a work collective (Muniz-

Oliveira, 2010). The author also observed that even the experienced professor-researcher has his/her difficulties and conflicts, having to know how to manage the most appropriate moment to carry out the activity of preparing opinions, respecting the deadlines established by the hierarchical superiors, and following the technological transformations that occur in the society, which have an impact on work (Muniz-Oliveira, 2010).

Although Muniz-Oliveira (2010) has presented only one role of the professor, the complexity and subjectivity in carrying out the task were already noticeable. Not to mention that this and countless other tasks are carried out in the scope of postgraduate studies. Moreira et al. (2018) indicate that experiences about activities generate pleasure and suffering in teaching work, which is interdependent and coexists. The activities mentioned as sources of pleasure in their research were management, classes, research, and the defense of dissertations and theses (Moreira et al., 2018). As a source of suffering, the devaluation of work, and the accumulation of activities listed in different functions such as management, classroom, guidance, writing manuscripts, and evaluation of articles for journals were recognized (Moreira et al., 2018). In the same vein, Freitas (2017) found that teaching activities are marked by unpredictability, diversity, and the need for innovation, which requires balance, creativity, patience, effort, dedication, and the need for constant improvement.

In line with the various functions that the public school assumes, the professor needs to respond to demands that are beyond their training, which contributes to a feeling of de professionalization, disqualification, and devaluation, which has caused significant changes in their identity (Oliveira, 2005). Ferreira (2015) noticed that the way of organizing work to fulfill the different demands that fall on each professor is influenced by several elements, such as the profile of the institution and the graduate program; the stage you are in in your professional career; factors of knowledge and professional recognition.

Amid the dilemmas during the activities, the professor sees the graduate course as an environment marked by power games, competition, and symbolic disputes, revealing a diversity of factors that may or may not favor the professor's psychic-emotional balance (Moreira et al., 2018). An environment that has a punitive paradigm (backed by the training of researchers), contributes to the implementation of academic productivism in the country (Café, Ribeiro, & Ponczek, 2017), as well as to the maintenance of insufficient didactic-pedagogical training of active professors (Vosgerau et al., 2017). As an example, between 1981 and 2006, while the world scientific production doubled, the Brazilian production multiplied by nine (Tourinho & Bastos, 2011), and that, still, has debatable quality, since the impact and the number of citations of the publications are below the world average (Bianchetti et al., 2015).

Silva (2020) identified two fundamental axes that emerge in the discussion of work and subjectivity at the university: suffering and illness; the degradation, wear, and tear, and meaninglessness of university work. The psychic social structures, combined with the mediation of economic, ideological, political, and psychological elements, are intertwined in such a way that they induce a strong bond between professor and work, which causes him to have serious difficulties in disconnecting from his activities, in a relationship of near dependence (Silva, 2020).

Furthermore, although professors are involved in an ideology that cultivates and values difference, transdisciplinary, collective work, and the development of skills and abilities, these continue to be hired through individual employment contracts, to teach specific subjects and are paid per class hour (Oliveira, 2005).

Most of the professors interviewed by Souza (2018) know that they extrapolate their workloads, and stay away from their family and friends, but do not see themselves as detached from the intensity of teaching activities to which they are subjected, after all, it is through productions, research, and publications that compete for better funding for new research. Lara et al. (2019) noticed the intensification of the multitasking character of working and the in/extensification of work to other times and spaces, which redesigns and compromises the intellectual work of researchers. As a result, it was noticed that most professors are or have been ill in some way (Souza, 2018). What is also evidenced in the work of Ferreira (2015), is the lack of time to deal with a wide range of demands that are being imposed in terms of quantity and intensity. Another point that also brings enormous dissatisfaction to the professor because, in addition to dealing with the system's demands and productivism, he needs to look for ways to carry out his research and teach his classes under difficult conditions, such as lack of internet, division of rooms with other teachers, lack of laboratory and material, among others (Souza, 2018).

Cassandre's results (2008), in turn, already pointed to a significant dissatisfaction among professors in relation to their physical and mental health between areas and greater satisfaction among professors belonging to the programs with the highest concept of CAPES, which implies that the situations in which the physical and mental health of the worker is related to the way organizations manage the work. The professors of programs with grade 6 of CAPES showed a greater degree of satisfaction with their physical and mental health, greater satisfaction with safety, more sexually satisfied, and safer, and better material conditions, which does not happen with the same intensity with the of recommended courses with concept 3 of CAPES (Cassandre, 2008).

Cruz and Bizelli (2015) observed that information and communication technologies help in the dissemination of knowledge, but the faculty needs to be prepared to use these means, which include skills and abilities to teach, mediate, and learn (Cruz & Bizelli, 2015). Lara et al. (2019) showed that teaching work in graduate studies is not done without the use of digital technologies and is ubiquitous as it requires relentless shifts from offline to online. In addition to the work having a ubiquitous character, the professor himself becomes ubiquitous, due to the characteristic of his activity and by virtue of being imbricated in an increasingly digitized culture (Lara, Quartiero, & Bianchetti, 2019). Ubiquitous work constitutes an emerging and urgent theme in the fields of study on teaching work and for the Brazilian postgraduate agenda (Lara et al., 2019).

According to Mill (2006), if we start from the premise that distance education (DE) requires telework, it can be inferred that the emergence of telework dates back a long time. But that depends on what is conceived as distance education (Mill, 2006). Even conceiving distance education as an intentional and organized teaching-learning practice, with pre-established objectives and a pedagogical proposal, it is possible to affirm that it emerged more than a century ago, implying that teleworking, as a distance educational activity, would have emerged before the third

technological revolution or third wave (Mill, 2006). Veloso (2018) realizes that research on distance education and on teaching work in the modality, still represent a very small portion of the scientific production related to education in Brazil. The author also verifies that the Open University of Brazil System has standardized the configuration of teaching work in distance education, which is divided and fragmented so that each professional has a specific set of activities and functions.

With the objective of discussing the virtual classroom, Santos (2011) carried out a review of dissertations, where he realized that concepts such as network learning community, virtual collaborative work, horizontalization of the educational relationship, dynamic teaching materials, and pedagogical mediation based on interactivity gear the process of change to a new dynamic in relation to virtual education, far from traditional procedures already inoperative in traditional education. In the face of this movement to use the virtual classroom, there is a wide unease established in the school environment, whose teaching and learning dynamics do not integrate fundamental principles of the information society, such as autonomy, independence in the search for knowledge, the capacity for self-training, hypertextual thinking, creativity, among others (Santos, 2011). Cassundé et al. (2017) understand that a university is only able to guide and implement innovation-oriented technologies in the teaching-learning process in distance learning if: (i) professors are aware of the need to adapt the work culture to the changing environment; (ii) the distance learning environments are based on an infrastructure different from the one used in the face-to-face modality; (iii) professors make insistent use of the potential of technologies; especially; (iv) the development of the necessary competences for the professors to have support in conditions given by the organizational contexts.

Telework promotes freedom with responsibility for professors, and, in this way, they will have the freedom to develop part of their work anywhere, as long as it does not harm their institution and teaching, since, in distance learning, the teacher's location is not relevant for proper functioning (Schroeder, 2007). The junction between digital technologies and education emerges as a promising field of exploitation of wealth, having the professor as a worker, since distance teaching takes place, in the form of telework, transforming working conditions in the field of education (Mill, 2006). Costa (2004) warns that with the advancement of distance education, it is necessary to formalize the figure of the teleworker professor.

According to Costa (2004), the teleworker professor can be conceptualized as the professor who works at home for part of the week, with or without the use of information technologies, developing part of their activities. This concept intrinsically highlights the lack of need to travel to a specific place of work, presented by Nilles (1988) and Mello (1999). Activities such as reading, class preparation, correction of papers and tests, and research, are usually activities performed autonomously and can be performed at any time and place (Schroeder, 2007). Since his research in 2004, Costa (2004) has already stated that, informally, professors already carried out telework, performing some activities at home part of the week. However, this form of alternative work has been considered by the administration as non-compliance with the contractual workload,

and at no time has it sought to detect the reason for this option on the part of the professors (Costa, 2004).

Thus, following the criteria used to identify who carries out telework identified by Schewitzer and Duxbury (2006): (i) the location has generally been at home; (ii) the proportion of time spent on telework is not accurately presented in the literature, which indicates that some tasks are performed at home; (iii) generally the work performed is in the form of unpaid overtime, as the activities extend the normal working hours, identified by Kraut (1989) as supplementary teleworkers; (iv) technology can be used or not, since there are still teaching and research activities that do not require the use of technologies; and, (v) the status of the type of work of the professors analyzed by the research presented professors in full or part-time, permanent or temporary (Schweitzer & Duxbury, 2006).

Costa (2004) already noticed the variability of telework, due to the verification of its unsystematic occurrence in many higher education institutions and the convergence of education to the new education technologies, which seems to indicate telework as a form of the natural evolution of the professors' work at higher education. This is consistent with the phases presented by Hunton and Harmon (2004) and the future of work according to Morgan (2014). Therefore, it is necessary to acquire new skills and attitudes, as well as the search for alternatives that support these changes (Schroeder, 2007).

In the same way, Mill (2006) concludes that teaching work in distance education mediated by digital technologies (Internet, videoconferencing, etc.) is characterized as telework, being subject to all the resulting positivities and negativities. It is noteworthy that teleworking is not a solution for gaps and failures in higher education, but it is necessary to understand it in this context, which has been neglected by the formal channels of higher education institutions, being limited, roughly speaking, to the private and informal initiatives taken by the professors who manipulate the telework instruments efficiently, but not in an efficient way (Costa, 2004).

Finally, Barbosa (2020) presents what the reality of doctoral research was like during the pandemic and perceived more challenges than advantages. Both obstacles and facilities that existed before the health crisis were exacerbated during the pandemic; remote work was the main strategy used to overcome the difficulties imposed on research by the pandemic, and researchers, professors, and students paid the price of its emerging implementation; women were the most affected, as in this work model they are expected to do household chores and doctoral research, causing a sharp drop in female scientific productivity (Barbosa, 2020). In short, the challenges and advantages created by the pandemic have unequally affected male and female researchers, national and foreign, fellows and non-scholars, Brazilians and Portuguese, and doctoral students in the initial phase of research and in an advanced stage of thesis, at home and in international mobility (Barbosa, 2020).

Conclusions

The purpose of this research was to identify the scientific production regarding (tele)work of postgraduate professors, based on the analysis of twenty-seven articles and eleven

theses/dissertations. We sought to classify the research by themes, understand what has been researched, and delve deeper into the content of the results that the research found.

There was a significant amount of work on the evaluation of graduate studies or professors, especially in search of improvements. Several problematizations of the teaching work were noticed in relation to the lack of training for teaching, university environment with few resources, complex and large activities that extrapolate the time of service, strong evaluation by results that causes negative consequences both in carrying out activities and in the teacher's personal, professional and mental life.

The theme of this research (teleworking) was found in fewer works and in different contexts, such as ubiquitous work and the digital age, distance education, pleasure and suffering at work, and classification of the dimensions that address professors' work. In the same way, as highlighted by Costa (2004), it is understood that teleworking is not a solution to the gaps and failures identified in the various studies. But, a form of work that postgraduate professors have used informally and without preparation, intensified by the Covid-19 Pandemic. In other words, professors are subject to all the positivities and negativities that this form of work can cause (Mill, 2006), which may or may not facilitate the improvement of the numerous problematizations pointed out by the research.

In this sense, potential research gaps were identified, such as (i) identification of professor telework control, since it is subjective, complex and often, the real result of its activities has a periodicity greater than one month; (ii) more precise identification of the profile of teachers who work from home and how they work based on the criteria identified by Schewitzer and Duxbury (2006); (iii) how teleworking affects the issues raised by research on professors' work; and (iv) how was the experience of compulsory remote work during the Covid-19 Pandemic, as it was the main strategy used to maintain its activities.

Finally, the limitation of the research is highlighted, in terms of the globality of the data found, since most of the selected articles are Brazilian and only Brazilian theses and dissertations were investigated. The research seeks to contribute to the area of human behavior in organizations, by seeking to understand what there is in the literature on professors' telework in postgraduate programs, that is, the way that professors-researchers have used this modality outside universities.

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Conflict of Interests
No, there are no conflicting interests.