



Article

Research on novice teachers: an integrative review

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Abstract

This paper presents an integrative literature review in which we tried to point out the trends of studies conducted on novice teachers and to identify whether and how those studies have made recommendations, based on the results of the research, to promote the professional insertion of teachers at the beginning of their career. The mapping period ranged from 2000 to 2019 and the corpus of analysis was the papers presented during the Anped annual meetings, the dissertations and theses available in the Capes Theses and Dissertations catalog, in addition to the papers available on the *SciELO* and *educ@* websites. It is worthy to highlight in the findings of the review that, after 2014, there was an important increase in publications on the topic. In more recent years, interest emerged on studies with graduates of public programs of initiation to teaching in initial training, with emphasis on Pibid and on continuing education actions proposed by state and municipal departments. There has also been an increase in studies focusing on training actions to support and monitor teachers who enter the profession, highlighting contributions made by the use of training devices and collaborative groups. On the other hand, some gaps persist, and it is concluded that there is still much to be improved in research so that there will be effective contribution in the constitution of the field, since there are few studies that problematize their results and make deep analyses and interpretations, so that one can generate more comprehensive, and consistent knowledge that enables to indicate paths, actions, and practices that favor the teachers' professional insertion.

Keywords: Novice teacher, Professional insertion, Professional development, Teacher training.

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Introduction

Since the end of the 20th century, researchers, especially international researchers, have been discussing the professional insertion period of teachers based on research focusing on feelings, adaptation, learning, knowledge and practices experienced by teachers at the beginning of their careers, as well as on professional insertion programs, which includes mentoring for teachers and induction policies. In Brazil, studies and discussions on this stage of professional development were late and there are few formal initiatives to support novice teachers.

In 2010, Papi and Martins, carried out a literature review in order to present a balance of the trends of studies on novice teachers, in the period from 2000 to 2007. On that occasion, the authors evidenced that the research was interested in investigating the pedagogical practice of the teacher at the beginning of his career, the construction of his identity, professional socialization and the difficulties encountered in the professional insertion process. Based on this survey, the authors also highlighted the nearly absence of educational actions for these teachers and the need for more dedication of Brazilian research to this subject, which have been underexplored in the country, in view of the relevance of this professional stage. The corpus of the analysis was works presented at the meetings of the National Association of Graduate Studies and Research (Anped), from 2005 to 2007, and the research available in the thesis database of the Coordination for the Improvement of Higher Education Personnel (Capes) from 2000 to 2007.

Continuing the review carried out by Papi and Martins (2010), Corrêa and Portella (2012) analyzed the works presented at Anped annual meetings in the years 2008 to 2011 and the dissertations and theses available at Capes' thesis database in the period 2008 to 2010. The authors reported some Brazilian initiatives aimed at the teaching initiation stage and reiterated the synthesis of Papi and Martins (2010) and the need for continued investments in research on the beginning of teaching, especially those that "focus on successful novice teachers and/or proposals to facilitate the insertion and professional development of the novice teacher" (CORRÊA; PORTELLA, 2012, p. 228), since the negative aspects of the insertion process, which include the difficulties faced and feelings isolation, abandonment and insecurity to work in the profession, were the most recurrent in studies.

Almost ten years after the review by Corrêa and Portella (2012), a new literature review was considered pertinent, including in the same survey, papers, dissertations, theses and works presented at Anped, in order to analyze not only the trends of studies on the insertion period professional of teaching since the 2000s, however, most of all, to identify *if* and *how* the works have presented/indicated recommendations to promote the professional insertion of teachers at the beginning of their careers, favoring the "transition" of undergraduate students to basic education teachers.

Thus, a literature review was carried out in the modality defined as an integrative review. According to Botelho, Cunha and Macedo (2011, p. 127), it is a methodology for the "review of empirical or theoretical literature, to provide a more comprehensive understanding of a particular phenomenon" with the purpose of drawing up an "analysis on the knowledge already built in previous research on a given topic" allowing not only the synthesis of studies already published, but also "the production of new knowledge, based on the results presented by previous research".

For this type of review, Botelho, Cunha and Macedo (2011) suggest a succession of defined steps that were used in the review that gave rise to this paper.

The first stage consisted of "identification of the subject and selection of the research problem", in that moment it was necessary to build on the concepts and define the objectives of the study, which, in turn, guided the specification of the search strategy descriptors and which databases would be consulted. The purpose was not only to continue the reviews by Papi and Martins (2010) and Corrêa and Portella (2012), but also to observe the trends and contributions of the studies on the period of professional insertion. We chose to carry out the survey in the period from 2000 to 2019 and took, as a corpus of analysis: (i) works presented at Anped's annual meetings in GT (working group) 4 – Didactics, in GT 8 – Teacher Education and in GT 14 – Sociology of Education, in the Oral Communication and Poster modalities; (ii) dissertations and theses available in Capes' Theses and Dissertations catalog and; (iii) papers available on *SciELO*⁵ and *educ@*⁶ websites. The terms used for the search in the title and keywords fields were: novice teacher, beginning teacher, professional insertion.

In the second stage, it was necessary to "establish criteria for data inclusion and exclusion". The main selection criterion used in this research was that the works had the novice teacher of basic education, regular modality, as its study subject. Therefore, works that dealt with teachers in Higher Education and in the Youth and Adult Education and Professional Education modalities were excluded.

The process of "identification of pre-selected and selected studies" – the third step – required a careful reading of the abstracts to verify compliance with the inclusion criteria and the organization of a table with the pre-selected ones for the integrative review.

The fourth stage, "categorization of selected studies", aimed to establish an analysis matrix to extract information from selected works.

In the fifth stage, "analysis and interpretation of results", the following categories of analysis were interpreted and discussed: (i) means of disclosure of the study; (ii) the year of publication of the study; (iii) the type of research; (iv) study participants relative to the scope of practice; (v) study participants relative to the area of knowledge; (vi) the topics covered in the research, and; (vii) the recommendations presented to promote the professional insertion of teachers at the beginning of their careers. It should be noted that the analysis resulted from reading both the abstracts and the results and final considerations of the works.

"Presentation of the knowledge review/synthesis" constitutes the sixth and final stage that focuses on the description of all the stages covered by the researcher and on the presentation of the main results obtained hereby.

Next, there is a brief reflection on the concept of a novice teacher who has guided research in the area to subsequently proceed with the presentation of the main findings. Finally, some considerations are made about the advances and gaps identified in the analysis of the works.

1. The concept of novice teacher

Discussing the concept of novice teacher necessarily implies considering the concept of *professional development of teachers* (DPD, *desenvolvimento profissional*

⁵ *SciELO - A Scientific Electronic Library Online. Website* <http://www.scielo.br> is an electronic library that groups a selected collection of Brazilian scientific journals.

⁶ *Educ@* – It is a virtual library that aims to provide broad access to collections of qualified periods in the educational area.

docente in Portuguese), used, as highlighted by Fiorentini and Crecci (2013, p. 11), as the umbrella term that was "introduced to emphasize the teacher's learning and development process instead of his education process". The authors explain that the DPD "appeared in the educational literature to distinguish it from the traditional and non-continuous process of teacher education" (p. 12). In this way, DPD is associated "with the process of constituting the subject [...], of becoming, of transforming over time or from a formative action" (p. 13). There is "a connotation of evolution and continuity, which overcomes the traditional juxtaposition between initial education and teacher improvement" (VAILLANT; MARCELO, 2012, p.167).

Therefore, the term DPD has been widely used among specialists in order to conceptualize the professional career of teachers, with a view to the stages of education and confrontations with the different factors that make up the teacher's professional life. And, since the teaching career came to be understood as a *continuum*, scholars of this subject analyzed the presence of cycles or phases of professional development. And, among the authors who dedicated themselves to studying the professional life cycle of teachers, Huberman (1995), in Brazil, is one of the most referenced.

For the author, "the development of a career is, thus, a process and not a series of events" (HUBERMAN, 1995, p.38). He points out that this "process may seem linear, but for others, there are levels, regressions, dead ends, moments of boost, discontinuities". Therefore, the study of the teaching career path evidences the constitution of different phases and stages that, together, assemble experiences, knowledge and practices distributed and experienced in different ways at each moment of the professional career.

Huberman (1995) explains that the teaching career consists of five phases that have specific characteristics: entry into the career (the initial three years), stabilization phase (four to six years); diversification phase (seven to 25 years); conservatism phase (25 to 35 years); and finally, the divestment phase (35 to 40 years). For him, these phases are not fixed stages, but a dynamic and very peculiar process.

The first phase, according to the author, is characterized as a period of survival and discovery. Survival refers to the initial impact of having to face new and unknown situations, also called "*reality shock*", a period when the teacher is faced with the real work situation, with all its complexity and challenges and comes to realize the distance between what was idealized as a student in the initial educational course and the reality in which teaching is carried out. The discovery reflects the enthusiasm, the willingness to experiment, the euphoria of having their own students, their classroom and feeling part of a professional group. This feeling is accompanied by a certain personal prestige. The author ponders that "survival" and "discovery" are lived in parallel and it is, precisely, the discovery that allows the teacher to withstand the hardships of "clashing with reality".

In addition to Huberman (1995), authors such as Veenman (1988), Silva (1997), Tardif (2002), Marcelo (2009), Vaillant and Marcelo (2012) and Nono (2011) are also used to explain the expression "shock of reality" and there is a consensus among them that the novice teacher may not feel prepared to face reality or to overcome career challenges and, in this case, they show insecurity, lack of confidence in themselves, difficulty in exercising the teaching profession and teaching students. For these authors, teachers who start in the profession would be more vulnerable to the weight of complexity and the demands of school life compared to those with more experience. And although the problems that affect novice teachers

are similar to those of experienced teachers such as, for example, unmotivated students, indiscipline, lack of pedagogical guidance, among others, teachers at the beginning of their careers are at an emotional and professional disadvantage compared to the more experienced teachers. This is what Vaillant and Marcelo (2012, p. 123) state: "[...] novice teachers experience problems with higher doses of uncertainty and stress, due to the fact that they have less references and mechanisms to face these situations".

For this reason, the "shock with reality" can lead to quitting the profession, as it is a period characterized by "intense learning". Marcelo (2009) explains that beginners have to adapt to the school culture, peer group, students, curriculum, school context and teaching, in addition to developing a teaching repertoire that allows them to survive as teachers.

However, it is important to emphasize that the cycles are not always lived in the same order, or in the same way, as several factors can affect this moment, such as: initial education, life stories; career conditions; work contexts; the support received by teachers in the initial phase of the work (HUBERMAN, 1995).

Another author who establishes phases that the teacher goes through in his process of learning to teach is Marcelo García (1999), who defined four phases: the first two precede the moment of teaching itself and are constituted by what the author calls pre-training that is characterized by the experiences that future teachers had as students and that can influence them during the exercise of the profession; and initial education, a moment of formal preparation to be a teacher in a specific institution. The third phase, called initiation, concerns the first years of professional practice, which are shown as fundamental years in the teacher's career. Finally, the last stage, called ongoing education, includes educational activities throughout the career, related to constant professional development. For the author, the phase of initiation to teaching, or professional insertion has a significant weight in the configuration of future professional actions and in the decision to remain or not in the profession.

Tardif and Raymond (2000, p. 227) are also cited to explain the cycles or phases of professional development. The authors explain that the entry into the professional career lasts approximately seven years, divided into two phases with unique characteristics, namely: the *exploration phase* (from one to three years) in which the teacher makes "a provisional choice of his profession, begins through trial and error, feels the need to be accepted by his professional circle (students, colleagues, school principals, parents of students, etc.) and experiences different roles". The authors add that this "phase varies according to the teachers, as it can be easy or difficult, exciting or disappointing, and is conditioned by the limitations of the institution" (p. 227-228). The second phase is that of stabilization and consolidation (from the third to the seventh year), "in which the teacher invests for the long term in his profession and the other members of the organization recognize that they are capable of doing so". In addition, this second phase would be characterized by a greater confidence of the teacher in themselves and in others – peers, coordinators, managers, parents, etc. – on mastering the various aspects of the work, especially those of a pedagogical nature, such as class management, teaching planning, personal assimilation of programs, etc.

It is observed that there is no consensus among the authors regarding the duration of this phase. For Huberman (1995), the first three years of activity are those that characterize the novice teacher. Reali, Tancredi and Mizukami (2010) and Marcelo (2009) highlight the first five years and Tardif (2002) argues that this phase takes place between the first seven years of his career.

Marcelo García (1999) clarifies that the stages or phases are not mandatory, they have an influence on personal life and are experienced by each one differently. He understands that the sensations experienced at the beginning of his career can reoccur whenever there is a change of school or when the teacher changes the segment and teaching modality. Thus, the author reinforces that learning in generally unknown contexts promotes tensions and intensive learning that are incorporated into the development of the profession.

And what are the main challenges and dilemmas faced by novice teachers in the teaching learning process? The authors who discuss the topic usually mention: (i) lack mastery of professional knowledge (specific, pedagogical and curricular content) that covers: the content – subject of teaching, planning practice, evaluation, etc.; (ii) lack of mastery of classroom management, especially in the relationship with students and meeting their needs, considering the stages of human development that include the understanding of learning processes, students' difficulties, discipline, language, diversity, etc.; (iii) lack of support from the school, which includes bureaucratic issues, basic guidelines for welcoming students at school, educational guidance and monitoring, collective/collaborative work, relationship with the family, etc.

In virtually all studies on novice teachers these challenges are addressed and there is a consensus that learning to be a teacher is related to a broader view of teaching and involves learning to think like a teacher, to know yourself as a teacher, to feel as a teacher and acting as a teacher (NÓVOA, 2017).

There is also a consensus on the need for education networks to invest in programs that welcome teachers at the beginning of their careers, giving them specific assistance to face the demands of activities that await them. These programs, configured as public policies, show "[...] that the process of professional insertion of teachers is not an individual responsibility, but an institutional challenge of public policies" (CUNHA, 2010, p. 4). In other words, this discussion gains a new proportion when related to the responsibility of the public power to guarantee the quality of teaching and the enhancement of teacher education, as proposed in the Law of Directives and Bases of National Education – LDB 9.394/96 (BRASIL, 1996).

Due to the particularity of this professional phase, Vaillant and Marcelo (2012, p.137) point out: "The insertion programs must be understood as a specific proposal for a stage that is different, both from initial education and in-service education". Based on this premise, it would be interesting for schools to mobilize themselves in search of ongoing education for teachers who enter their system in order to promote the reception of these new professionals in an attempt not only to contribute to their training, but also to favor quality of education offered by the institution. In this same sense, Silva (1997, p.76) concludes:

If, on the one hand, we cannot allow the loss of professionals in which we all invest during initial education, on the other, we cannot contribute to the abandonments, failures and frustrations of teachers projecting and multiplying in abandonments, failures and frustrations of the students who attend our schools.

However, it is essential to plan and discuss which elements need to compose these support programs for the novice teacher, as well as all other programs offered by the institutions that tend to continue the education of teachers, seeking to recognize their real needs and characteristics.

2. Main Findings

As mentioned in the introduction, the findings in the literature review were organized into seven categories of analysis, some of which will be presented together. Thus, the text that follows is organized into five subtitles, namely: (i) means of disclosure of studies and the year of publication; (ii) the type of research; (iii) study participants relative to the scope of practice and the area of knowledge; (iv) the topics covered in the research, and; (v) the recommendations presented to promote the professional insertion of teachers at the beginning of their careers.

2.1. Means of disclosure of studies were disseminated and year of publication

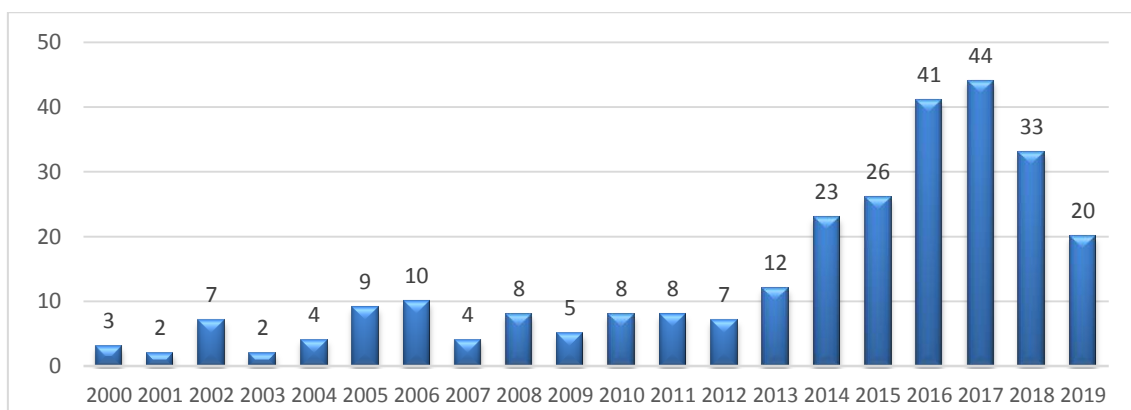
Two hundred and seventy-five (275) works were found, including 39 scientific papers, forty papers presented at Anped, 149 dissertations and 47 theses. For the purposes of analysis, with the exception of the means of disclosure of studies and year of publication, 261 works were considered, as twelve dissertations and two theses were not available for access.

These means of disclosure were published, in greater numbers, in the period from 2014 to 2019 (Figure 1), with greater concentration in the years 2016, 2017 and 2018, with 41, 44 and 33 publications, and also in the years 2014, 2015 and 2019, with 23, 26 and twenty works, respectively.

This data indicates that there has been an important increase in publications that have as their study subject the novice teacher and processes of professional insertion, compared to data from the period from 2001 to 2013.

In the surveys carried out by Papi and Martins (2010) and by Corrêa and Portella (2012), which covers the period from 2000 to 2011, the number of works was low, indicating that the novice teacher and the beginning of their careers had received little attention by research in the field of teacher education. However, the interest in this subject has risen in Graduate programs: in the period from 2013 to 2019, 112 dissertations and 34 theses were defended, which subject was the novice teacher and processes of professional insertion.

Figure 1 - Number of works about novice teachers published between 2000 and 2019.



Source: Prepared by the authors

Most of the dissertations and theses defended since 2000 were produced in university programs in the southeastern region totaling 103, followed by the central-

west regions, 29, the south region, 33, the northeast region, 22 and, finally, the region north with nine works. The Graduate Program in Education that stands out for the number of researches is held by the Federal University of São Carlos (UFSCar), with about 26 dissertations and theses. The Graduate⁷ Programs of the Pontifical Catholic University of São Paulo (PUC-SP) also present a large number of researches, seventeen in all. Four programs have around ten works, namely: Graduate Programs in Education at the University of Brasília (UnB), São Paulo State University of Rio Claro (Unesp), the Federal University of Rio Grande do Sul (UFRS) and the University of São Paulo (USP).

2.2. The type of research

For the type of research category, four subcategories were used: empirical research, documentary research, theoretical research and literature review surveys.

Empirical research was considered to be based on "obtaining data from direct sources, that is, people who know, experienced or have knowledge about the topic, fact or situation, using data collection instruments in the field" (AUTHOR X, 2019, p. 141). Documentary research, on the other hand, works with data that has not yet received analytical treatment and has not been published, for example, newspapers, magazines, reports, official documents, letters, etc. Theoretical research was that "dedicated to reconstruct theory, concepts, ideas, ideologies, controversies, with a view, in immediate terms, to improve practices" (DEMO, 2000, p. 20). And, finally, literature review surveys are those that involve the search, analysis and description of a certain body of knowledge published in books, journal papers, newspaper articles, theses and dissertations and other types, in order to answer to specific questions (AUTHOR X, 2019).

Among the 261 works analyzed, the majority was empirical researches, with 248 works, composed mainly of dissertations and theses. Only two documentary and four theoretical researches were found. There are seven literature review surveys.

Two of the reviews are those mentioned at the beginning of the paper, one by Papi and Martins (2010) and the other by Corrêa and Portella (2012), both were very important to shed light on a topic to which, until then, Brazilian researchers paid little attention.

Three of the literature reviews found are authored by Mariano (2005, 2006a, 2006b). The first is a text presented at Anped, in 2005, with data from the survey of works published on novice teacher in editions prior to 2006. The second concerns his dissertation, defended in 2006, in which he analyzed the Annals of Anped's Annual Meetings and the National Meeting of Didactics and Teaching Practice (Endipe) from 1995 to 2004. The purpose was to apprehend what the presented works said about the professional learning process of teaching that occurred at the beginning of the career. The third was presented at Anped, in 2006, regarding the data obtained in the dissertation.

There is also the review carried out by Cunha, Braccini and Feldkercher, of 2015, who took the papers presented in the three editions of the *Congreso Internacional sobre Profesorado Principiante e Inserción Profesional a la Docencia* (International Congress on Beginning Teachers and Professional Insertion into Teaching) to analyze subjects and trends in studies on novice teachers with a view to questioning the incidence and distribution of subjects that can serve as a reference

⁷ They are: Educational psychology; History, Politics and Society; Education of Educators and Mathematical Education.

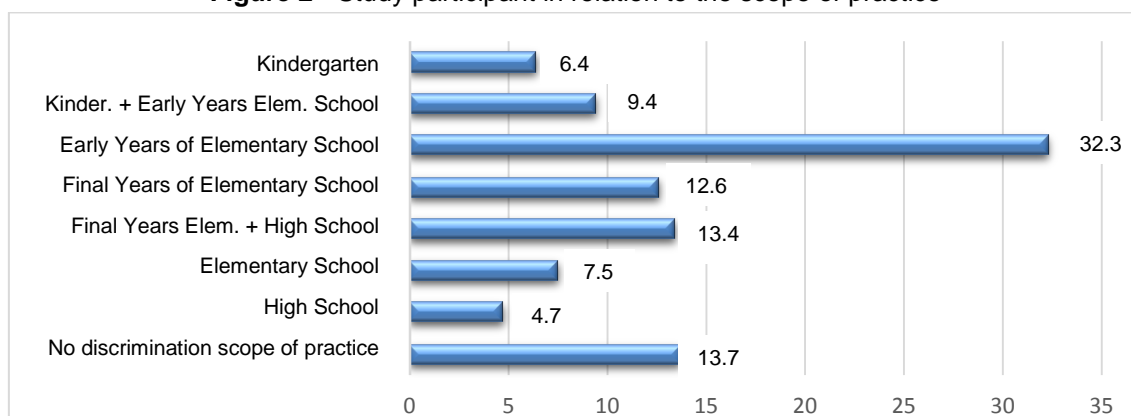
for a state of the art. And, finally, the review undertaken by Cardoso *et. al.* (2017) which aimed to understand the different theoretical and methodological perspectives of mentoring programs. Dissertations and theses available at Capes between 2005 and 2014 were analyzed. The authors point out that the debate about mentoring programs for novice teachers is recent, but essential for teachers at the beginning of their careers to be assisted in building the knowledge and practices of the profession, in order to minimize the impacts generated in this stage.

2.3. Study participants relative to the scope of practice and the area of knowledge

In the set of works, the interest of the researches on the scope of practice of the study participants, as illustrated in Figure 2, focuses mainly on novice teachers who work in kindergarten and early years of the elementary school. The percentage of those who work exclusively in the early years of elementary education (32.3%) or in kindergarten (6.4%) and those who work in both kindergarten and early years of elementary education (9.4%) represent almost half of the works (48.1%).

The expert novice teacher who works in the final years of elementary school and/or in high school is the target of 30.7%. There are also studies that do not discriminate the scope of the teachers who participated in the research (13.7%). It is also noteworthy that there are few studies on the teacher who works exclusively in kindergarten, 6.4%, and in high school, 4.7%.

Figure 2 - Study participant in relation to the scope of practice



Source: Prepared by the authors.

Bearing in mind that teacher education in Brazil is basically disciplinary⁸, the works were organized, at first, taking as a reference the curricular components of the performance of beginners in teaching. Given that the disciplines were very dispersed, it was necessary to group the curricular components by the areas proposed in the National Common Curricular Base, namely: Languages area, Mathematics area, Natural Sciences area and Human Sciences area. Most of the works that have as research participants teachers of kindergarten and early years of elementary school do not establish a specific area of knowledge, as usually these teachers work with all

⁸ There is a strong disciplinary tradition in the country that marks the teaching identity and guides future teachers in their training. The initial training of teachers for basic education has been carried out, for the most part, in undergraduate courses organized from disciplinary fields.

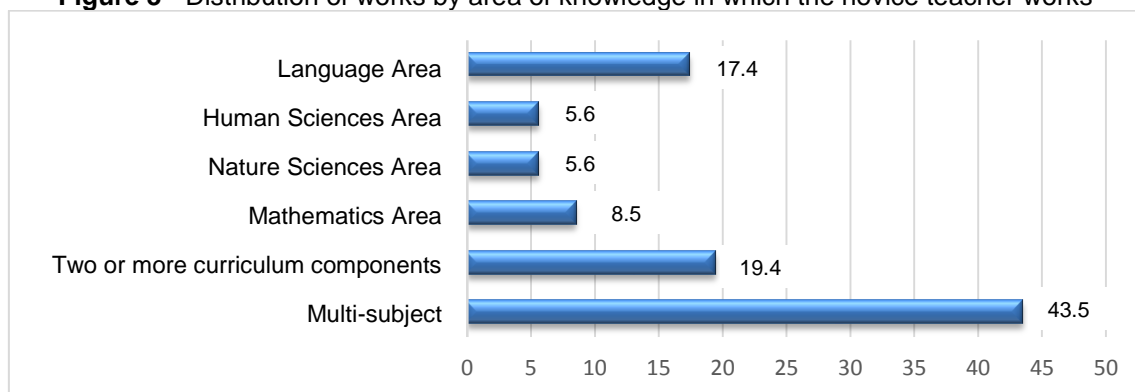
areas and/or curricular components. Thus, it was called as multi-subject. There are also studies with novice teachers of two or more curricular components.

As illustrated in Figure 3, the multi-subject teacher who works with various curricular components is the most focused by the works. In the set of areas of knowledge, Languages is the one that gathers the largest number of researches, with studies with beginning Physical Education teachers representing 60%. The other curricular components of the Languages area are: Foreign Language (16.3%), Literacy (9.3%), Portuguese Language (6.8%) and Music (4.6%).

Studies with novice teachers in the area of Mathematics represent only 8.5% and research with novice teachers in the area of Natural Sciences, 5.6%, bring together mainly works in Biological Sciences (64.3%). Few are the works of Physics and rare are those of Chemistry. Finally, the Human Sciences area, which represents 5.6% of works, has as main curriculum components Geography (57.2%) and History (42.8).

There are also surveys with novice teachers that involve teachers from two or more curricular components (19.4%). It should be noted that studies on beginning teachers of Philosophy and Sociology, for example, which are high school curricular components that make up the area of Applied Human and Social Sciences, were not found.

Figure 3 - Distribution of works by area of knowledge in which the novice teacher works



Source: Prepared by the authors.

2.4. The topics covered in the research

It was observed, in the set of works, that many had polysemic characteristics, and can therefore have multiple classifications. It was sought, then, by reading the titles, objectives and abstracts and, when necessary, the whole text, grouping them according to the central interest of the study and thematic similarity. Thus, considering the 261 studies analyzed, seven subcategories were identified organized into thematic axes, namely: (i) professional development of the novice teacher; (ii) reality shock: period of survival and discoveries; (iii) public policies and programs for teaching initiation; (iv) teaching learning; (v) educational and support actions for the novice teacher; (vi) pedagogical practices of novice teachers, and; (vii) others, as shown in Chart 1.

Chart 1: Categories and thematic axes related to the subjects addressed in the research

Subcategories	f	Thematic axes	F
1. Professional development of the novice teacher	61	Constitution of the teaching professionalism of the novice teacher	15
		Professional insertion processes	13
		Professional socialization of the novice teacher	11
		Constitution of the professional identity of the novice teacher	10
		Characteristic aspects of the professional development process	6
		Professional trajectory and teaching career	4
		Professional development of successful teachers	2
2. Reality shock: period of survival and discovery	50	Challenges, difficulties and conflicts experienced by novice teachers	21
		Perceptions, images and social representations of novice teachers on professional insertion	13
		Senses and meanings attributed by novice teachers to the beginning of teaching	13
		Satisfaction, discoveries and positive experiences	3
3. Public policies and programs for teaching initiation	44	Graduates of the Institutional Program for Teaching Initiation Scholarships (Pibid)	20
		Graduates of the Obeduc Education Observatory Program	9
		Graduates of the Pedagogical Residency Program - Unifesp	2
		Public policies for teaching initiation	13
4. Teaching learning	38	Teaching learning processes	13
		Knowledge mobilized at the beginning of a career	8
		Teaching learning processes: relationships between initial education and professional practice at the beginning of a career	6
		Educational needs of novice teachers	5
		Construction of the knowledge repertoire of the novice teacher	3
		Investigation of the own practice at the beginning of a career	3
5. Educational and support actions for the novice teacher	32	Mentoring Programs	9
		Support and monitoring actions promoted by pedagogical managers and coordinators	6
		Training of novice teachers using educational devices	5
		Contributions of collaborative groups in the professional insertion process	5
		Educational actions for novice teachers	4
		Other initiatives	3
6. Pedagogical practices of novice teachers	19	Pedagogical practices of novice teachers in specific areas	9
		Pedagogical practice of novice teachers in the early years	3
		Pedagogical practice of beginning literacy teachers	3
		Use of media in the professional practice of beginners	2
		Pedagogical practices based on intermulticulturality.	2
7. Other	17		17
Total	261		261

Source: Prepared by the authors

The professional development of the teacher at the beginning of their career was the umbrella theme of the 61 works that made up the first subcategory. In general, these studies sought to investigate, among other aspects, the constitution of the teaching professionalism of the novice teacher, with fifteen studies, the processes of professional insertion, with thirteen, and the professional socialization of the novice teacher and the constitution of his professional identity, with eleven and ten works, respectively. On the other hand, only two studies were found, by the same author,

related to the professional development of successful novice teachers, six that address characteristic aspects of the professional development process and four that investigate the professional trajectory of the novice teacher related to career aspects. It was observed that these themes that are part of the subcategory of professional development of the novice teacher are a continuous trend in the works since the 2000s and, together, these works address the factors and aspects that affect, positively or negatively, the professional development of the novice teacher from different perspectives and approaches.

The second subcategory, which totaled fifty works, covers works whose investigative axis is the "reality shock" considered in the literature as a period of survival and discovery. The concern with identifying the challenges, difficulties and conflicts experienced by novice teachers (21), as well as the reasons and meanings they attribute to the professional insertion process (thirteen) is recurrent in the period from 2000 to 2019. On the other hand, studies on perceptions, images and social representations of novice teachers on professional insertion (thirteen) had a greater presence since 2011. However, research dedicated to investigating aspects of the teaching work of novice teachers that are pointed out as a source of pleasure and satisfaction, including successful experiences, are still incipient and more recent.

Another subcategory present in the *corpus* of this work was called "Policies and public programs of initiation to teaching" which encompassed 44 works, of which 31 were dedicated to the study of graduates of professional insertion programs in initial formation and thirteen investigated public policies for ongoing education of early career teachers, promoted in Brazilian states and municipalities. In the first case, the studies focus mainly on the Institutional Program for Teaching Initiation Scholarships (Pibid), with twenty surveys, and the Education Observatory Program (Obeduc), with nine studies. In general, these works sought to analyze the implications of the experiences lived under these programs for the professional insertion process. It is recurrent in these studies the finding that the programs of professional insertion in the initial formation provide greater security to the graduates in their early career. In the second, the works focus on policies and actions to welcome and support the novice teacher in the context of public education networks, emphasizing that specific policies and actions for beginners are important for their professional development, in the face of a unique moment of learning of this profession.

It should be noted that the works that make up this subcategory portray a more recent trend in studies on novice teachers, since these programs and policies started in the late 2000s. Most publications date from 2014 to 2019.

The fourth subcategory addressed some aspects related to teaching learning and featured 38 works that sought to investigate teaching learning processes, as well as understand what novice teachers know, what knowledge they mobilize at the beginning of their careers and how this knowledge is acquired. It was observed that the study of teaching learning processes covered the period from 2000 to 2019; however, research into the knowledge mobilized at the beginning of their careers and the educational needs of novice teachers has been recurring since 2011.

The "educational and support actions for the novice teacher", make up the fifth subcategory with 32 works that, in general, investigated educational and support initiatives to teachers in the first years of professional practice or when entering an education network. Nine of them set out to investigate the contributions of mentoring programs to the teaching practice of the novice teacher, in particular, from the UFSCar mentoring program. These studies question the potential of mentoring for

learning that comes from the interaction between mentors and beginners, helping the teacher to overcome the difficulties experienced in the first years of teaching.

The works that focus on the potential of support, education and follow-up actions promoted by managers, pedagogical coordinators and education networks are still incipient. There are also few works on educational processes with the use of certain educational devices (teaching cases, portfolio, narratives, etc.) that can favor teaching learning, as well as on the contributions of collaborative groups in the professional insertion process. The few works found were published mostly between 2013 and 2019.

Understanding how the novice teacher builds his professional learning was the central focus of nineteen works forming the sixth subcategory, in which investigations on the pedagogical practices developed by the novice teachers in specific areas of the final years of elementary school and/or high school stand out due to the greater number of works (nine). There was a concern, mainly, during the period between 2011 and 2019, to analyze the pedagogical practices mobilized by the novice teacher to promote teaching, regardless of the area or segment of activity.

Seventeen works made up the subcategory called "others", which dealt with various aspects, such as: analysis of research carried out and works presented in congresses on novice teachers, study of the factors of permanence and dropout in public schools that affect teachers in professional insertion, among others aspects.

The analysis of the subcategories and their thematic axes related to the subjects of the works found reveal topics that persist over time, those that have emerged in the last decade, and still the ones that are incipient.

2.5. Recommendations to promote the professional insertion of teachers at the beginning of their careers

One of the objectives of this review was to identify *whether* and *how* the identified works have presented, based on search results, recommendations that can favor the processes of professional insertion of teachers at the beginning of their careers.

It was found that only one third of the works conclude their studies by questioning the potential of actions and practices to support the novice teacher, as well as induction policies. Thus, in view of the results that could be achieved, it was considered pertinent to present recommendations in the scope of public policies, undergraduate courses, ongoing education practices and schools.

In the scope of public policies, the following stand out:

- Promote the continuity of the public policy of initiation to teaching, such as the Institutional Program for Teaching Initiation Scholarships (Pibid), whose studies with graduates of this program revealed a positive impact on the interfaces between initiation practices, teacher education and professional learning, once that novice teachers were more prepared for classroom situations, as well as in relation to other school professionals.
- Encourage public policies for Programs such as the Education Observatory (Obeduc), closed by the federal government in 2019, which provided researchers in postgraduate courses in Brazil with the opportunity to conduct researches on and with novice teachers, favoring rapprochement and dialogue between university and school, learning in

research groups, becoming a space for education and professional development.

- Invest in the creation, maintenance and improvement of ongoing education programs that focus on support and monitoring actions for the novice teacher.
- Investing in the creation of Tutoring programs that favor teaching learning through the partnership relationship between tutor and tutee, such as the Educational Tutoring Program offered to novice teachers by the Municipal Education Department of Manaus - State of Amazonas, thus promoting ongoing in-service education for teachers of basic education in probationary internship.
- To value initiatives such as the Educationist Board for Early Childhood Program (PMEPI) implemented in the education network of São Caetano do Sul (SP) and recognized for offering novice teachers a permanent space for questioning and learning in the construction of different perspectives and views, through reflection on teaching action, studies and exchange of experiences that strengthen collective work.
- Restructure the ongoing training for the insertion of teachers at the beginning of their careers through probationary internships, such as the Educational Action Plan proposed by the Municipal Education Network of Belo Horizonte, as well as the proposal of the São Paulo State Department of Education with the creation of the Teacher Education and Improvement School "Paulo Renato Costa Souza" (EFAP).

In the scope of HEIs and undergraduate courses, the following stand out:

- Strengthen the role of partnership between universities and public schools of basic education, in order to develop proposals in initial education, which favor the needs and demands of public schools, contributing to increase knowledge in the educational field and teacher education. In this perspective, incorporating successful practices such as the Teaching Initiation Program (Pibid) and the Pedagogical Residency Program (PRP) of the Federal University of São Paulo (Unifesp)⁹.
- Encourage initiatives that favor, in partnership with schools and education networks, the education of mentors in meeting the needs presented by novice teachers, such as the Mentoring Program of the Federal University of São Carlos (UFSCar).
- Encourage the formation of Study and Research Groups that address the topic of teacher's professional development, in all its dimensions and scopes of practice, as is the case of the Program for Accompanying Teachers at the Beginning of their Careers (PADI) proposed by the Study and Research Group in Teacher Development and the World of Work in

⁹ The Pedagogical Residency Program (PRP), of the Federal University of São Paulo (Unifesp), articulates various scenarios of practical learning for educators in training and aims to link the initial and ongoing education of teachers and managers of public schools, based on the mutual cooperation of the institutions. The Pedagogical Residence occurs through the immersion of trainees in systematic and temporary experiences in pedagogical practices of professional teachers and school managers, accompanied by the guidance of a preceptor - university professor - and of teachers and managers of field schools, considered as collaborators in the initial education process.

Physical Education (GPOM), from the Graduate Program in Education at the University of the Extreme South of Santa Catarina.

- Encourage the participation of students in the Institutional Program for Scientific Initiation Scholarships (Pibic), by promoting positive learning for the beginning of teaching, especially by learning about teamwork made possible by participation in a research group.

In the scope of ongoing education practices, the following stand out:

- Use training intervention instruments, such as self-confrontation, whose objective is to anticipate possible questions related to entering the career.
- Encourage the use of autobiographical narratives by enabling the confrontation and sharing of the training needs of novice teachers, promoting critical reflection through collaboration between their peers.
- Develop training actions with the use of teaching cases to promote the sharing of experiences and teaching and student situations that reverberate in the classroom of the novice teacher, contributing to the professional development process of that teacher.
- Investing in the institution of collaborative groups in schools, as a practice of collective study, organization and planning of classes between more experienced peers and beginners in teaching, by enabling the exchange of experiences lived in the classroom by novice teachers and by realizing that difficulties do not come only from the little experience with teaching.

In the scope of schools, understood as a place of education and a receptive space for teaching learning, the following stand out:

a) Actions with undergraduate students of teacher credential programs:

- Create mechanisms that promote the approximation of future teachers with the daily practices experienced by teachers in their school context.

b) Actions with novice teachers:

- Offer information about the functioning of the school, through the presentation of documents, such as the pedagogical project of the school unit and the syllabus.
- Create spaces for reflective discussion on the pedagogical accompaniment necessary for novice teachers, considering their insertion in the world of teaching work as a phase of their professional development.
- Take on the process of educating novice teachers as a collective and ongoing construction.
- Use pedagogical meetings to meet the training needs of novice teachers, with meetings by area of knowledge and/or discipline.
- Promote welcoming and professional socialization for novice teachers in their process of teaching insertion and professional constitution.

c) School partnership actions with other agents of the education department:

- Enable institutional support for the novice teacher in schools, together with programs and policies for initiation/insertion and training.
- Recognize the figure of the school supervisor as the representative person of the network closest to the teacher who is starting in teaching in order to

promote the welcoming and monitoring of this teacher during his probationary internship.

- Indicate the formation of a team composed of technicians from the Municipal Department of Education and teachers of undergraduate courses, who can accompany the novice teachers and guide the management and technical teams of the schools regarding their reception.

3. Advances and gaps

The findings of this literature review allow us to conclude that there are some advances in the production of knowledge about the novice teacher. If, in the scientific production on the subject in the 2000s, there was a scarcity of research on the beginning of teaching and nearly absence of educational actions for these professionals, in the period from 2011 to 2019, there was a significant increase in investment in research and in actions and policies to support the novice teacher.

In the most recent years, there was an interest in studying with graduates of public programs of initiation to teaching in initial education, with emphasis on Pibid, and in ongoing education actions proposed in some state and municipal departments focusing on the novice teacher career.

Another element that shows the advancement of research are the works, even in small numbers, that deal with the relationship between initial training and professional insertion, and also studies on the training needs of both those who enter teaching and mentors, interests that are scarce in the period from 2000 to 2011 (PAPI and MARTINS, 2010; CORRÊA and PORTELLA, 2012).

However, some gaps persist, since studies on successful novice teachers, on successful experiences at the beginning of the teaching profession and on discovery situations, positive experiences and job satisfaction experienced by teachers at the beginning of their careers are almost silent. Discussions about the challenges, difficulties and conflicts experienced by teachers at the beginning of their careers still prevail in the works, which includes teaching and professional socialization processes. It was also found that works with novice teachers in the areas of Mathematics, Natural Sciences and Human Sciences are punctual.

Studies focusing on educational actions to support and accompany the novice teacher developed by principals and pedagogical coordinators and the work of Higher Education Institutions, highlighting the contributions of collaborative groups in the professional insertion process, have emerged in recent years, however, they are still scarce – which reveals the need for more research in the field.

It also drew attention that the works deal with teaching processes and teaching practices in a very generic way. Researches presenting analyzes and/or a more in-depth discussion on what is specific to the beginning of teaching in certain areas and scopes of practice are rare.

It is concluded that there is still much to be improved in researches so that they may produce an effective contribution in the constitution of the field, because, besides the silenced topics, there are few studies that question their results, deepen the analyzes and interpretations, so that it can be generated a more comprehensive and consistent knowledge that allows indicating paths, actions and practices that favor the process of becoming a teacher in the scope of public policies, undergraduate courses, ongoing education practices and the school.

Perhaps, the fact that more than half of the works are dissertations can explain the more punctual analyzes, in view of the short time in which these researches are

produced, with little time for reflection, criticism and the much-needed deepening of works.

Despite the increase in the interest of researchers on the subject, the emergence of new research focuses and approaches, the challenge of advances in the field remains.

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Contribution of each author

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