

## **SOBRE A EPISTEMOLOGIA DA FORMAÇÃO DE PROFESSORES**

### ***SOBRE LA EPISTEMOLOGÍA DE LA FORMACIÓN DE PROFESORES***

#### ***ABOUT THE EPISTEMOLOGY OF TEACHER EDUCATION***

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**RESUMO:** Este artigo de abertura do número especial sobre epistemologia e formação de professores busca apresentar um panorama parcial da área. Elaborado na forma de um ensaio, o objetivo é descrever algumas teorias que têm norteado a formação docente, inicial e continuada, a partir de práticas vivenciadas em territórios distintos. Não se trata de um estudo comparado, pois não se analisam as diferenças ou proximidades. O objetivo principal é refletir sobre o suporte epistemológico, consistente e/ou emergente, que tem embasado normas, formas e metodologias de formação de professores. Ao final, espera-se colocar em evidência a epistemologia como algo fundante da carreira docente, a qual deve ser revisitada amiúde por aqueles que são responsáveis pela formação de professores.

**PALAVRAS-CHAVE:** Formação docente. Teoria educativa. Prática docente.

**RESUMEN:** *Este artículo de apertura del número especial sobre epistemología y formación de profesores busca presentar un panorama parcial del área. El objetivo es describir algunas teorías que han orientado la formación docente, inicial y continua, a partir de prácticas docentes que se han llevado a cabo en territorios distintos. No se trata de un estudio comparado, pues no se analizan las diferencias o similitudes en la práctica profesional. El objetivo principal es reflexionar sobre el apoyo epistemológico, consistente y/o emergente, que ha fundamentado normas, formas y metodologías de formación de profesores. Al final, se espera poner en evidencia la epistemología como algo fundante de la carrera docente, la cual debe ser revisada concienzudamente por aquellos que son responsables de la formación de profesores.*

**PALABRAS-CLAVE:** *Formación docente. Teoría educativa. Práctica docente.*

**ABSTRACT:** *This opening article of the special issue on epistemology and teacher training seeks to present a partial overview of the area. Elaborated as an essay, the objective is to describe some theories that have guided initial and continuing teacher education, based on practices lived in different territories. This is not a comparative study because the differences or proximity are not analyzed. The main objective is to*

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*reflect on the consistent and / or emergent epistemological support that has been based on norms, forms and methodologies of teacher training. In the end, it is hoped to highlight epistemology as a founding of the teaching career, which should be revisited often by those who are responsible for teacher training.*

**KEYWORDS:** *Teacher education. Educational theory. Teaching practice.*

Epistemology: it is the science of science. Philosophy of science. It is the critical study of the principles, hypotheses and results of the various sciences. It is the theory of knowledge (TESSER, 1995, p. 92).

This opening paper of the special issue on epistemology and teacher training seeks to present a partial overview of the area. Thinking about epistemology is tantamount to thinking about the fundamentals of a particular field of knowledge. In a way, an epistemological examination involves deep analysis of what is known and therefore of what is being done. Here, we do not intend to embark on the etymology of the word, nor on the historical evolution of the concept, which is the object of studies of the philosophy and philosophy of science (ABBAGNANO, 2007; JAPIASSU, 1988), thus assuming multiple meanings in different contexts. Elaborated as an essay, the purpose of this paper is to take epistemology as a concept that implies knowing the knowledge and thus to make an incursion for some of the actions experienced in and for teacher training that are carried out in two different territories.

One of them is in Brazil, more specifically in southwestern São Paulo, in the initial training and specialization courses for teachers of the Federal Institute of São Paulo (IFSP), Itapetininga campus. The other, in Spain, at the University of Salamanca (USAL), in teacher education programs for teachers offered by the Faculty of Education. This is not a comparative study, because we do not analyze the differences or proximity between what we do in Brazil and in Spain. The main objective is to reflect on the epistemological support, consistent and / or emerging, which is t m grounded rules, forms and methodologies and teacher training. In the end, after dealing with particularities of our experience, we briefly dialogue with the proposals contained in this dossier. And rough is, therefore, to highlight the epistemology as something founding of the teaching profession, which should be revisited often by those who are responsible for teacher training.

In this respect, Romanowski (2013) retrieved or the history of teacher training, returning to the creation of the Normal School that, in Brazil, was institutionalized in the late nineteenth century. The author noted that the first concern of the Brazilian graduate with teacher training can be evidenced by a dissertation defended in 1987. Since that year, she has identified a growing number of theses and dissertations that deal with the subject, dealing with the courses training, curriculum and documentary analysis to empirical diagnoses regarding specific courses; theses and dissertations of the state-of-the-art type, mapping the most varied ways of thinking about teacher education; and intervention work, in which researchers immerse themselves in a school or offer continuing education courses. These studies achieves significant ram 12% of all national production of post graduate education, highlighting the importance of teacher training field.

Diniz-Pereira (2013) traced the history of the field of teacher education in Brazil, beginning its course in the 1970s, when there was a technical and behavioral approach to education, with the teacher "an organizer of the components of the teaching-learning process "(P.146). From the critique of technical rationality, the focus of teacher education became, in the 1970s, practices of social, economic and political transformation. This approach lasted until the transition to the 1990s, when it came to conceiving the teacher as a reflective professional, who should become a researcher in action. At the beginning of this century, the author's exposition, teaching identity and professionalization became central objects of teacher training.

In this same direction, Cunha (2013) also pointed out some ways to build the field of teacher training. The author has sought to delineate this field as a tripartite that involves research, practice and the very social conception of teacher. Instantly conceives u training as something that is neither neutral nor purely technical, but subjective, established on a continuum from non - formal education processes - which we are all immersed when we live in society - through the university degree course, to the daily involvement with the profession and its contextual challenges. In the paper, Cunha (2013) Recover or the trajectory of the teacher training area in Brazil, falling back to the 1960s, advancing until the end of the first decade of the 2000s, in which deline or different trends that marked teacher training in the country. According to the author, we are in a moment in which the tendency in the formation of teachers is that of cultural narratives and professional development, characterized by studies in which "the teacher acts based on the structural knowledge, coming from different sources and

contexts. It builds its knowledge from the multiple influences of formation, in comparison with the cultural and institutional context in which it operates” (p. 620).

Looking back to the year 2014, the first year of activity of educating teachers in the IFSP of Itapetininga, it seems that these trends outlined by Diniz-Pereira (2013) and Cunha (2013) were not chosen for the development of subjects related to didactics and teaching practice. At the beginning of his career, without knowing how to deal with this responsibility of working with teacher education, the use of the classic national bibliography, such as Piletti (2004), Libâneo (1994) and Pimenta (2000) for the conduct of academic lectures, since the notoriety of these authors conferred credibility to the theoretical work carried out. In the 1960s, Füller (1969) had already outlined how to build a teaching career, and this author has identified that the initial concerns of the teacher are almost always aimed at a kind of "survival" career. For the author, in this search for survival, almost all detached energy is focused on mastering the content, controlling the class, and seeking a self-affirmation that one is effectively a teacher.

What Füller (1969) describes as a natural career development, curiously it can only be achieved after the author himself revealed: the concerns centered on the student and their learning. That is to say that without the considerations of the American author, it would not have been possible to perceive that the activities developed for teacher training in the IFSP, in the subjects of didactics and teaching practice, were centered only on the teacher responsible for them. Although they were anchored in classical texts, one can say that this ballast was like a safe haven for those who were living the initial concerns to survive in their careers. However, the most current trends, centered on teacher identity and professionalization (DINIZ-PEREIRA, 2013), and/or cultural narratives (CUNHA, 2013) were not present in teacher training classes.

It was a few semesters of academic work, to the realization that all diligence was shaped by career survival, without any concern for the effective learning of future teachers. Thus, by the elucidation of Füller (1969), other supports needed to be incorporated, particularly those that dealt with the daily teaching. This is not to say that the baldness of classical theory was not important for teacher education, but insufficient. The first action taken was the search for a bibliography consistent with the daily practice of teachers, which could collaborate not only with a more realistic understanding of the teaching activity, but with the very construction of the identity and challenges of the profession.

Among others, Célestin Freinet's powerful work was taken as a solid example of working with future teachers, since there are strong criticisms of mass school education, as well as fruitful development of a theory and educational practices consolidated by the effective exercise of teaching in schools. All the support given by Freinet can be read in other essays, in which his harsh critiques and prodigious educational practices are evidenced as support for the contemporary formation of teachers, especially for his avant-garde ideas regarding education (FORTUNATO, 2018, 2017, 2016a, 2016b, FORTUNATO, CUNHA, TEMPLE, 2017, CUNHA, FORTUNATO, 2017).

In the search for the evolution of the form of work with the teacher training, the professorial classes were taking new directions from Freinet, and the concrete field of action of the future teachers was being mapped, recognized and incorporated in the formative process. Thus, teacher training classes were no longer only composed by the study of classical theory on didactics and teaching practice, and their respective assimilation through readings, seminars and reviews. This is because the visitation and development of intervention practices in different educational everyday (elementary and secondary schools, technical education institutes, non-governmental organizations, prisons) began to form the role of training activities. Some of these initiatives have been shared in other texts, which help us to better understand how the presence in the field of teaching during the initial training processes enhances the construction of professional identity and allows a broader, more complex and reflective view of what it means to be a teacher (FORTUNATO, 2018b; 2018c; FORTUNATO; FALCHI, 2018).

In Spain, although there are some institutions responsible for teacher training before the nineteenth century (e.g., schools and Standard chair of Education), that this century is that the first training reference was created, the Central School of Teachers. The mission of the institution was to seek a formal education and a unified curriculum for the whole country. This institution will be the basis for the creation of others that later hoisted forms known as the Normal Teacher Training Schools (ANGUITA, 1997), which lasted until a little more than half of the twentieth century.

According to Anguita (1997), there were five characteristics of teacher training in this period: (1) an abundance of legislation, since the governments of the time wanted to control what future teachers learned, since in the end they would be in charge of applying the educational reforms; (2) the influence of the Free Institution of Education in the late nineteenth and early twentieth century, which made us reflect on the new pedagogical conceptions of education; (3) the influence of religious power on the

inclusion of aspects of Christian morality (except in the period of the republic: 1931-1939); (4) low profile of the training curriculum compared to other professions: the curriculum focuses on learning the official state language, grammar and arithmetic, geography, history and morality; (5) low vocational training as opposed to culturalist training.

With regard to programs for teacher education at the University of Salamanca (USAL), this comes down to three: training preschool teachers, primary and secondary education. The first two are concurrent programs, while the second is a consecutive program.

The concomitant programs offer both disciplinary and pedagogical training in theoretical and practical contents. The concomitant models tend to be predominant in initial teacher training. These programs provide theoretical training in terms of academic content (both disciplinary and pedagogical) and professional content (focused on teaching practice in schools). Under these models, the content of initial teacher education programs is offered in an integrated manner. In particular, in Spain, teacher training courses are four years long (previously they were three years in undergraduate courses).

In consecutive programs, trainees must first study the specific subjects of the academic field (e.g., geography, mathematics, music etc.) and, second, to study the pedagogical themes, plus a probationary period at school. Many countries, especially in secondary education, are organized in consecutive models such as the Netherlands, Ireland, Spain and Portugal (MENA, 2017).

In both types of programs, professional training highlights the theoretical and practical skills required to be a teacher. This training includes practices in schools. These practices are paid in some of these European countries (in others not), and usually last a few weeks under the supervision of a specialist teacher. The two types of programs have advantages and disadvantages when it comes to fitting them into the curricula of higher education institutions. However, in recent years there has been a trend towards increasing the duration of training programs and raising their standards across Europe, mainly due to the reform of the European Higher Education Area (LADD, 2007).

The supervised curriculum internship (*practicum*) in all programs has a special relevance. The internship is the period of professional practices carried out by teachers in training during the university career (MENA; RODRÍGUEZ; HUBBAL; CLARKE,

2014). Several authors have emphasized the importance of providing practical contexts in the initial training process (ZEICHNER, 2010). The internship, a compulsory discipline for the formation of a teacher, offers a training space within the schools, in which the teacher in training has the possibility to face real problems, experiencing different situations, being able to compare theories with the teaching action. In a way, it is a period that allows "to select, organize and elaborate the information that allows him to evolve in the planning and development of his professional work as a teacher" (AZCÁRATE, 1997, p. 107).

The internship is the action that the teacher in training develops in the classroom, and concerns the teaching process. Among its most characteristic features is the fact that it is a practice that occurs in a given time and space and therefore can be subjected to successive analyzes that allow us to investigate, analyze or transform what is done within a particular context (IMBERNON, 1997). Therefore, this first professional experience of the teacher in training is constructed by the re-elaboration and combination of the different knowledge obtained in the university course, being reformulated based on the academic formation obtained. All this is what, in the end, constitutes professional knowledge (MENA; CLARKE, 2015; MENA; HENNISSSEN; LOUGHRAN, 2017).

The internship in teacher training programs for pre-school and primary education consists of two disciplines: Practicum I and Practicum II. These subjects have a theoretical part and a practical part developed in the schools, lasting seven weeks, in Practicum I, and nine weeks in Practicum II (PRACTICUM GUIDE, 2018a). During this period, the teachers in formation are staying in the Primary and Secondary Schools. According to the regulations in force, the modules of Practicum for Primary Education have a number of specific competences (Annex to Order ECI / 3857/2007):

1. Acquire a practical knowledge of the classroom and its management.
2. To know and apply the processes of interaction and communication in the classroom and to master the social skills and competences necessary to promote a classroom climate that facilitates learning and coexistence.
3. Control and monitor the educational process and, in particular, the teaching-learning process, mastering the necessary techniques and strategies.
4. Relate theory and practice to the reality of the classroom and an educational institution.

5. Participate in teaching activity and learn to do, act and reflect from practice.
6. Participate in proposals for improvement in the different areas of action that can be established in an educational institution.
7. To regulate the processes of interaction and communication in groups of students from 3 to 6 and from 6 to 12 years.
8. To know forms of collaboration with the different sectors of the educational community and the social environment.

The stage in secondary education is the third training module, in what is known as the master in compulsory secondary education and secondary education, vocational training and language teaching. The two previous modules are general training (e.g. generic disciplines in education: psychology, education and sociology) and another specific module (for example, knowledge-oriented specialization). The secondary school stage is developed in the Secondary Education, Vocational Training and Language Teaching Centers of the university district corresponding to the University of Salamanca. The fundamental objective of the internship is for the students to know, under the supervision of a Secondary Tutor, the operation of an educational center and to put into practice the teachings received in the theoretical disciplines the master (GUIDE DEL practicum, 2018b).

The two main objectives would be: 1. To know the school environment based on the approach and direct experience. 2. Become familiar with the behaviors and attitudes of students in the educational stages associated with their teaching. The internship is divided in two: (a) observation stage (60 teaching hours): dedicated to analyzing and observing the teaching practice of a secondary classroom; and (b) practical internship (60 teaching hours ) whose mission is to assume some of the teaching hours of one or several high school classrooms.

Ultimately, the initial training of teachers in Spain, like other countries, has a dual disciplinary and professional character. Discipline in relation to the curriculum of training given in the universities from the teaching of specific disciplines on education, psychology and sociology. And professional in terms of practical training received by some of the colleges in elementary, middle and high school. This combination ensures that students have a theoretical and practical knowledge of the teaching profession, although they have begun to claim the need for practical preparation with more presence and more credits in the teacher training programs.



Having briefly highlighted the rationale behind our practice of teacher education in the IFSP and USAL, it is hoped that such ways of doing will be reviewed, criticized and improved in the future. After all, the construction of knowledge and practices of teacher training should be seen as a perpetual motorcycle. This, to a certain extent, was dealt with in the first article of the dossier, written by Herrán Gascón (2018). The author develops a deep epistemological examination about the continuing formation of teachers, from what he calls a radical approach, that is, from the root. The article goes deep into the sense of education, considering it incomplete when it is only an academic formation. This translates into incomplete teacher training, which disregards the complexity of education as a human training. It proposes, then, to think about several connections that are established on a daily basis and that influence the way of educating, from the relationship with teaching colleagues, with students and the management team, with families and the community around an educational institution, to relationships with the education, economic and political system, national and international. It also proposes that we consider historical time and go further, understanding teaching as something transcendental, since it is based on the principle of the future.

One way to think deeply about teacher training appears in the second paper in the dossier, proposed by Raimundo and Fagundes (2018). The authors sought to problematize the continuing formation of teachers through a reflection provoked by dialectical historical materialism, in their own words, “as a basis for the construction of knowledge of a critical and emancipatory formation” (p. 1935). Something very similar was thought in the following paper, written by Barros and Vicentini (2018), because, in seeking a “dialectical epistemology” for teacher education, these authors also present the need for a critical, emancipatory and therefore transforming context in which the teacher acts directly and on a daily basis.

An interesting proposal for teacher training was designed by Duarte and Moreira (2018), in Portugal, with undergraduate students, and by Pena, Toledo and Kramer (2018), in Brazil, with teachers working in early childhood education. The fourth and fifth papers of the dossier, although from different contexts, both worked with narratives as a way to allow teachers, in formation or exercise, to perceive the construction of their own professional path, perceiving themselves as authors of their teaching journey.

With a specific look at a recurrent classroom situation, Nogaro, Jung and Simões (2018) detail, in the sixth paper of the dossier, the issue of students' attention/inattention

to teacher training to deal with this circumstance of the teaching- learning. According to the authors, it seems that attention is fundamental to learn, and the teacher plays a fundamental role in this matter of keeping the student attentive. To do so, we must recognize the internal and external elements of the classroom, which can negatively interfere with students' attention, as well as being aware of how teaching techniques and technology can be combined to overcome this challenge of teaching practice.

As a follow-up to the dossier, and further developing teacher training, we have seen Septimio, Mendes and Costa (2018) discussing the knowledge that is lacking in the teacher training process for working with students with disabilities. The authors offer paths for reflection, presenting this work as one of the most striking challenges of professional practice.

It is known that the political situation interferes in the teaching work. Nevertheless, Costa, Souza and Cabral (2018) can capture such interference by postulating, in the eighth paper of the dossier, the control of capital in the formulation of public policies and other processes that tend to limit the action of teachers. This is symptomatic of a globalized political context, which ends up having a strong influence on the epistemological assumptions that underpin all initial, and / or ongoing, teacher training work.

As a way to illustrate the impact of the political situation in teacher training, we have the following paper, Santos and Maciel (2018). A analyze the epistemology in this initial training of literacy teachers, the authors find ra m considerable gaps, hindering effective action at school. They are gaps that concern the curriculum and the choice of curriculum content to be taught, but also teaching techniques, particularly the development of didactic sequences. With difficulty in understanding “what” and “how” to teach, work as a literacy teacher seems to face difficulties in meeting the National Pact for Literacy in the Right Age, the PNAIC, a Brazilian public policy of improving the “quality” of education.

In the tenth paper of the dossier, Soffner and Kirsch (2018) discuss the epistemological perspective of a graduate program in education. Their own program, which gives a fundamental subjective dimension to the analysis they propose, after all, seeks to uncover the sense of teacher training from the very work they do. If postgraduate education is not the place for initial or continuing teacher training, research in it is indispensable for guiding practices, policies, theories, and therefore establishing new ones or strengthening already established epistemologies.

Finally, the last paper of the dossier portrays the epistemology for teacher education in the IFSP Itapetininga, backed by empiricism, as learned by the educational experience developed during decades of militancy on the school floor by Célestin Freinet (FORTUNATO, 2018a).

This constellation of themes is only part of a much larger and more complex whole of the epistemology of teacher education. What is expected is that this has been evidenced and that epistemology is effectively understood as a foundation of the teaching career, which should be revisited often by those who are responsible for teacher education.

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