EDUR • Educação em Revista. 2021; 37:e33828 DOI: http://dx.doi.org/10.1590/0102-469833828

https://creativecommons.org/licenses/by/4.0/

Dossier: TEACHER EDUCATION AND PEDAGOGICAL PRACTICE - TIMES, TENSIONS AND INVENTIONS

FORMATIVE TOOLS ON UNDERGRADUATE PROGRAMS: ANALYSIS OF BRAZILIAN EXPERIENCES IN THE LIGHT OF FRANCOPHONE LITERATURE

GISELA LOBO TARTUCE1

ORCID: https://orcid.org/0000-0002-2645-7231

CLAUDIA LEME FERREIRA DAVIS²

ORCID: https://orcid.org/0000-0002-0003-3510

PATRÍCIA CRISTINA ALBIERI DE ALMEIDA³

ORCID: https://orcid.org/0000-0002-4081-4573

ABSTRACT: There has been considerable discussion, from a theoretical perspective, around the topic of Initial Teacher Education (ITE), but there has been little focus or understanding relating to ITE with respect to Brazilian undergraduate programs. Building on the unpublished results of previous research, the objective of this article is twofold: (a) to analyze and disseminate the pedagogical proposals for initial teacher education in French-speaking countries, an important reference group for Brazil, and (b) to identify how - and in what form - aspects derived from this literature appear in Brazil. With this objective in mind, we have drawn on the experiences of winners of the Professor Rubens Murillo Marques Award (PPRMM), which places great value on the education and development of teachers and has shared experiences that contribute to this end. The results indicate that, despite the obstacles seen at a macrolevel, there are specific initiatives that can unite theory and practice, promoting opportunities for contact with the class environment at other times on the program than simply during the internship phase. From this contact, future teachers learn how to implement the theories discussed on the university programs in the context of basic education, assessing and evaluating the tools used in the light of the results obtained.

Keywords: Teacher training, Francophone literature, Inspiring pedagogical practices, Training devices.

DISPOSITIVOS FORMATIVOS NAS LICENCIATURAS: ANÁLISE DE EXPERIÊNCIAS BRASILEIRAS À LUZ DA LITERATURA FRANCÓFONA

RESUMO: Muito se discute, do ponto de vista teórico, a formação inicial de professores, a despeito de se saber pouco do que se passa no âmbito das licenciaturas brasileiras. Com base em resultados inéditos de pesquisa anterior, aqui ampliados e aprofundados, o objetivo deste artigo é duplo: (a) analisar e divulgar as propostas pedagógicas voltadas à formação inicial docente nos países francófonos, importante grupo de referência no Brasil, e (b) verificar como – e com quais configurações – aspectos afeitos a essa literatura aparecem no país. Para tanto, recorreu-se às experiências vencedoras do Prêmio Professor Rubens Murillo Marques (PPRMM), que valoriza o formador de professores e divulga as experiências que contribuem para aprendizagem da docência. Os resultados indicam que, apesar dos entraves de ordem macro, há também iniciativas pontuais que conseguem promover a unidade entre teoria e prática, ao

¹ Carlos Chagas Foundation. São Paulo, SP, Brasil <gtartuce@fcc.org.br>

² Carlos Chagas Foundation and Pontifical Catholic University of São Paulo. São Paulo, SP, Brasil <claudialfdavis@gmail.com>

³ Carlos Chagas Foundation and Unasp. São Paulo, SP, Brasil <patricia.aa@uol.com.br>

favorecer a aproximação do licenciando com a escola em outros momentos do curso que não apenas nas disciplinas de estágio. Com isso, os futuros professores aprendem a utilizar as teorias disponibilizadas nas universidades no contexto de escolas de educação básica, refletindo, analisando e questionando os dispositivos que utilizam, à luz dos resultados esperados e obtidos.

Palavras-chave: Formação de professores, Literatura francófona, Práticas pedagógicas inspiradoras, Dispositivos de formação.

DISPOSITIVOS DE FORMACIÓN EN CURSOS DE LICENCIATURA: ANÁLISIS DE EXPERIENCIAS BRASILEÑAS A LA LUZ DE LA LITERATURA FRANCÓFONA

RESUMEN: En Brasil, la formación inicial del profesorado es muy estudiada desde un punto de vista teórico, a pesar de que poco se conoce sobre lo que ocurre en el contexto de sus licenciaturas. A partir de resultados inéditos de investigación anterior, aquí ampliada y profundizada, el objetivo de este artículo es doble: (a) analizar y difundir las propuestas pedagógicas orientadas a la formación inicial docente en los países francófonos, importante grupo de referencia en Brasil y (b) verificar cómo – y con qué configuraciones – aparecen en el país aspectos relacionados con esta literatura. Para ello, utilizamos las experiencias ganadoras del Premio Profesor Rubens Murillo Marques (PPRMM), que valora al formador de futuros docentes y difunde las experiencias que contribuyen al aprendizaje de la enseñanza. Los resultados indican que, a pesar de los macro obstáculos, también existen iniciativas específicas que logran promover la unidad entre teoría y práctica, al favorecer la aproximación del estudiante con la escuela en otros momentos del curso que no sean los de las asignaturas de prácticas. Con esto, los futuros docentes aprenden a utilizar las teorías conocidas en la universidad en el contexto de las escuelas de educación básica, reflexionando, analizando y cuestionando los dispositivos que utilizan, contrastando los resultados esperados y los obtenidos.

Palabras-clave: Formación del profesorado, Literatura francófona, Experiencias pedagógicas intrigantes, Dispositivos de formación.

INTRODUCTION

With respect to research into initial teacher education, many studies have been dedicated to the formative experiences required, exploring the theoretical knowledge (SHULMAN, 1987), the skills and know-how (TARDIF; GAUTHIER, 2001; FEIMAN-NEMSER, 2003), and the competencies (PERRENOUD, 2001; DESIMONE; HOCHBERG; MCMAKEN, 2016) essential for teaching. It is thus clear that while the content of what should be taught to teachers is important, the pedagogical practices to be used in teaching are equally important, especially for those who will work with younger generations. Thus, as Ball and Cohen (1999) suggest, there is a great need to investigate, develop, and implement new ways of acting, thinking and feeling that can, in learning to teach, serve the students who will work with basic education.

In fact, there is a wide body of work (both national and international) that, by discussing different theoretical proposals for educating teachers, seeks to facilitate learning in future teachers, helping them understand and manage aspects inherent to teaching, which range from the motivation to learn to the assessment of student performance (DARLING-HAMMOND et al., 2005). However, in Brazil, these formative proposals are little known on undergraduate programs, with respect to what they are, whether they are deployed effectively and, notably, how they are deployed. Seeking to help bridge this gap, the research "Teaching teachers how to teach", carried out between 2018-2019, had the twin objective of, first, researching and exploring academic production in Brazil, the US, and Francophone countries that covered the initial training (theoretical and pedagogical) of future teachers; and, second, analyzing the formative practices of ten teachers who worked with undergraduate programs in the country. Participants were selected from a database held by the Professor Rubens Murillo Marques Award (PPRMM⁴), as part of an initiative from the Carlos Chagas Foundation, whose objective is to develop teachers who teach on undergraduate programs (in all areas of knowledge) and to disseminate formative experiences⁵ that contribute to the learning of teaching in basic education.

This article partly builds on the research cited above and, likewise, has two objectives: (a) to analyze and disseminate pedagogical proposals aimed at initial teacher training in French-speaking countries⁶; and (b) to identify how - and in what form - they appear in Brazil, referencing, for this purpose, the initiatives recognized by PPRMM in the last five years.

With respect to the methodology, the effort focused, in the first instance, on reviewing the French language literature that discusses formative tools adopted in initial teacher training programs, in order to identify and analyze them. This literature was selected because, in Brazil, authors such as Maurice Tardif and Claude Lessard form⁷, according to Gatti (2005), "reference groups" whose proposals are studied, followed and implemented. For this author, these groups are fundamental in education and, notably, research because:

The teacher does not work alone, nor does he produce alone. Intercommunication with peers, teamwork, networks for exchanging ideas and disseminating research proposals and findings, as well as thematic reference groups, are today an essential condition for carrying out scientific investigations and for the advancement of knowledge. (GATTI, 2005, p. 30).

Having done this, the selected teaching experiences were expanded to include the years 2019 and 2020. Thus, we investigated the cases receiving awards in the previous five years, from 2016 to 2020.

All 19 texts from these years were reviewed and it was found that, in the initial stages ten made use of at least one type of formative strategy suggested by the literature described herein. From these, approximately one third of the initiatives were selected for the purposes of this article, with the

⁴ Since 2011, 741 projects have been registered, of which 33 have received awards, following a rigorous selection and evaluation process. These projects represent, therefore, a sample of practices implemented at undergraduate programs throughout the country.

⁵ These formative experiences are required to have been developed with undergraduate students no more than three years prior to their submission for the Award.

⁶ The theoretical part of the study has not been published; the empirical part can be found in the book MORICONI, Gabriela M. (org.). *Teaching future professors*: inspiring formative experiences. Curitiba; São Paulo: CRV; Carlos Chagas Foundation, 2020. 248 p.

⁷ In Brazil, research in the field of teacher education is also influenced by American authors, such as David Schön, Lee Shulman, Kenneth Zeichner, Marylin Cochran-Smith, and Linda Darling Hammond.

aim of ensuring diversity in relation to the strategies employed and the areas of training. Thus, the *corpus* of the analysis was composed of seven experiences developed for the following areas and courses:

- Anthropology, as part of the Pedagogy course;
- English, as part of the Language and Literature course;
- Psychology, as part of the Languages course;
- Pedagogical Training, as part of the Biology and Agricultural Sciences courses;
- Instrumentation for the Teaching of Chemistry and Supervised Curricular Internships, as part of the Chemistry course;
- the Methodology for Teaching Physical Education, as part of the Physical Education course;
- Supervised Internship subjects, as part of the Music course.

In the process of reviewing these seven experiences, we seek to understand how tools present in the literature and in the French-speaking reality were deployed, even if they were not explicitly named. Finally, having reviewed this literature from the perspective of both the theoretical aspects and practical implications, and having also described the selected Brazilian experiences, we discuss the possibilities and challenges faced by future educators of teachers as they attempt to improve the quality of teaching offered with respect to basic education in our country.

GROUP OF AUTHORS FROM FRENCH-SPEAKING COUNTRIES

The reform movement in teacher education - itself linked to curriculum reforms in primary and secondary education – has been active worldwide since the 1990s, using an "identical conceptual framework [...], which calls for professionalization, the skills approach, interdisciplinarity, transversality, education for citizenship, the constructivist perspective" (LENOIR, 2002, p. 91). However, this author and several others from the Francophone world state that this structure only appears to be equal, since deeper analysis allows us to identify important differences of interpretation and appropriation of the notions and concepts present in these reforms (LENOIR, 2002; TARDIF, 2010; TUTIAUX-GUILLON, 2011). Maurice Tardif (2010), for example, argues that the highly cultural nature of the teaching profession leads to international homogenizing trends to be filtered and transformed at a national and local level.

What is driving this movement to reform the models used for initial teacher training programs? What are the concepts behind it? How do they differ when looking specifically at the Francophone and Anglophone worlds? Do these two diverse traditions and cultures have aspects in common or are they derived from separate rationales that conflict as some level? We seek to address these questions, albeit not exhaustively. It is important to stress that, in order to talk about the concepts of teacher education adopted by French-speaking reference groups, alternative perspectives - especially those arising from the United States - are also very much considered, not only because the new model has its origins in that country, but also because French-speaking researchers take this approach when reflecting on themselves.

For the most part, the reformist wave can be associated with globalization and the neoliberal movement that arose in the late 1970s and has been gathering strength since the 1990s. Some authors have gone further, trying to pinpoint transformations that have impacted education and, more specifically, teacher education. Lenoir (2002) highlights professionalization, the competencies approach, the constructivist perspective, and interdisciplinarity as causes and/or characteristics of these changes, to which we can add the notion of "reflective practice". All these concepts are closely intertwined and have the same underlying assumption - an action-based logic (LENOIR, 2002; TARDIF, 2010) - influencing the training model advocated by the Francophone reference group.

Paquay and Sirota (2001) and Tardif (2010) have explored the concept of "reflective practice" imported from North America – which is based on the work of Schön - demonstrating that the work of teachers and the know-how deployed is central to the analysis, which focuses on action, and "postulate

-

⁸ These are all free translations.

that professional practice is an original and relatively autonomous space for the development and training of teachers." The influence of this view has been very present in professions centered around human interaction, especially in education, where there have been studies and the development of tools⁹ that help teachers to organize what they already know and how to put this knowledge into practice. It is a new, practice-centered epistemology:

The professional is not an applicator of theoretical principles or methodological rules. [...] They build their professional knowledge through action and reflection in and on the action [...] and are able to deliberate on their own practices, objectify them, share them, improve them and introduce innovations likely to increase their effectiveness. (PAQUAY; SIROTA, 2001, p. 5)

Despite the differences between and within countries highlighted by Paquay and Sirota (2001) and Tardif (2010), there has been a clear impact arising from discussions about professionalization and the 'reflective professional' on the development of new models for initial training: if "what is to be taught" is important ("knowledge to teach"), so are the means by which concepts, skills and practices are transmitted by educators to novice teachers ("knowledge about teaching"). In this regard, although - "historians of education have been more sensitive to the content to be taught than to teaching practices and the way to acquire them" (CARRAUD, 2010) - the professionalization movement and the reforms it entails put teaching knowledge at the center of the debate and place professional performance at the center of training.

It is no longer only about mastering content and knowledge of a discipline, but about acquiring the knowledge and skills needed to deal with complex and unique situations that require pedagogical and didactic training (BORGES; TARDIF, 2001; PERRENOUD, 2003): "teacher education has seen a shift from its traditional center of gravity, moving from a disciplinary and theoretical approach to training to a more pedagogical, reflective and practical approach" (TARDIF; LESSARD; GAUTHIER, 1998 apud LENOIR, 2002, p. 93).

In parallel with the professionalization movement, the dynamics of the knowledge-oriented society, in which people have to deal with complex and unpredictable situations at work and in everyday life, have reached the field of teacher training, because not only are teachers expected to become 'professionalized', they are being asked to do so by revisiting established concepts and teaching practices. In this sense, teaching can no longer be considered a simple transfer of knowledge, which was the premise of so-called "traditional teaching". Now the emphasis is on student-centered teaching and active learning - which are not new concepts in the literature. They are based on the constructivism of Piaget and Vygotsky and the "new school" of John Dewey, which also influences teacher education.

There is a strong discourse regarding the need to both seek an understanding of the mechanisms by which students learn and to promote teaching that leads, beyond the acquisition of knowledge, to the development of basic competencies and "learning how to learn" (ALTET, 1997). This shift of emphasis from teaching to learning, from "traditional teaching" to "learning pedagogies", changes the role of the teacher, who becomes a guide, a mediator, an organizer of the external learning environment (ALTET, 1997).

Here we can see a very close link between this concept, which puts the focus on the student, and the prevailing one, which proposes competency-based teaching, in assisting the learning of both students of basic education and their teachers, since the former "advocates a holistic and systemic view of training, where the traditionally fragmented structure of teaching gives way to new curricular forms that ensure better internal coherence of the programs", given that professional practice and its requirements – rather than knowledge of the discipline - are taken as the organizing principle for the curriculum (BOURDONCLE; LESSARD, 2003 apud DESJARDINS *et al.*, 2012, p. 4).

⁹ Boudjaoui and Leclercq (2014, p. 10), when studying the Co-operative Education pedagogy, show that the "system concept" is a theoretical concept that identifies ideal, functional, and behavioral arrangements, which together form a system comprising pedagogical objectives, contexts, actors, actions, and relationships, together with the materials needed. In this sense, there is in the training tools a virtual aspect (because it is not yet known whether this approach will be effective) and a material aspect (the actions and resources used to achieve the intended goals). When implemented, the systems concept gathers substance, which allows it to be the object of study and reflection.

In a text that discusses the university and the professional training of teachers, Lessard (2006, p. 210) states that "competency benchmarks are at the heart of policies for professionalizing the workforce," but the author demonstrates, over several pages, that these benchmarks cannot be taken en masse, because there are differences between the Anglo-Saxon logic and the Francophone logic: in the first case, the competency-based benchmark relies on American "standards" of knowledge and knowhow, which are centered on performance and practical skills, and should be applied to all teachers regardless of the different objectives pursued by different training programs - so that they can be assessed through the standardized tests that measure student learning:

The competency benchmark serves as a framework to build "standards" of performance and thus contribute to streamlining the performance evaluation of practicing teachers. Such a development is very present in the United States, where the ideology of performativity prevails. In fact, rather than the professionalization of teaching, what concerns American politicians to the highest degree is the effectiveness of teaching, conceived as a direct effect and measure of student learning, or, to put it another way, professionalization appears in this case as a means to ensure greater effectiveness, rather than as an end in itself. (LESSARD, 2006, p. 211)

In the Francophone case, the author points out that the inspiration is socio-constructivism: competence is not defined by performance standards or by the standardization of so-called effective practices, but is rather constructed by a subject who thinks, interprets and appropriates references in acting in a given professional situation. This is an approach that Lessard (2006) calls situational-interpretative (as opposed to empirical-analytical), characterized by more open prescriptions, supported by a reflective practice:

Developing competencies is not so much learning by precise and specific behaviors - as it were, extirpated both from the experience and trajectory of the subject and the situation and thus objectified and "essentialized" - or "methods" (i.e., the methodical triggering of a previously established procedure), but rather knowing how to mobilize and combine a set of cognitive and non-cognitive resources to take into account the complexity of the educational situation and act in it in a finalized, adapted, and "effective" way. There, competence and performance are distinguished, or at least one is not reduced to the other. (LESSARD, 2006, p. 211-212)

Thus, the pursuit of performance can conflict with the needs of a reflective professional who is concerned with the development of all of his or her students. Lessard (2006) takes the interesting, important, and difficult position of challenging and reconciling the two approaches, articulating both effectiveness and reflexivity - poles that, incidentally, are "sociologically necessary" to all professions.

Opting for one or the other has limits: in one case it can lead to technicist perspectives, pretentious language, and meaningless prescriptions, supported by a controlling bureaucracy [...] that invokes too imperiously the authority of "science" and "research" to regulate practice. In another, it can lead to an enclosure in the singular, the unique, the local, the situational, and ultimately in non-transferable, non-exportable, or non-generalizable practices. [...] In the name of efficiency, the former tends to standardize, normalize, and reduce the variance or dispersion of practices, while in the name of pluralism and the subject author of his practice, the latter insists on the development of a personal style of teaching, etc. (LESSARD, 2006, p. 214)

From this quote, it seems almost obvious that one position or another will not lead, alone, to better development in teacher education. And this is where the role of the university comes in.

The university, a place where doubt and questioning are usually practiced, can be conducive to such a placement in tension, provided that, unlike the Leaning Tower of Pisa, it does not always lean in the same direction! [If, in teacher training, the university cannot bring into fruitful tension plural approaches to improving practice and schools, have a sophisticated response to the obligation of results, nor develop in teachers a critical relationship with science, who can? For once, the university and the social and human sciences are objectively allied in this struggle. (LESSARD, 2006, p. 214-215)

Lessard (2006) ends her article with some questions and a recommendation that directs us to the model of teacher education proposed by the reference group selected here:

In this spirit, for university teacher trainers, the central question is no longer: What is the participation of the disciplines that contribute to teacher training? Nor even: How to train good teachers, as defined by a reference of competencies? But: How can we train teachers who are able to learn from their practice, which is subject to open-ended prescriptions? In this case, the privileged entry is not that of knowledge, nor even of tasks; it is that of the subject confronted with complex and partially indeterminate professional situations. (LESSARD, 2006, p. 224)

The selected francophone reference group advocates and proposes, for initial teacher training, an integrative, Co-operative Education model that alternates between theory and practice, between academic training and pedagogical training, between the training institution and the classroom (PERRENOUD, 2003; ALTET, 2013; SARTI, 2013). This competency-based model seeks to develop in teachers a reflective approach, i.e. "to train reflective practitioners, able to make decisions in action, relying on a solid knowledge base" (DESJARDINS *et al.*, 2012, p. 4). As Sarti (2013, p. 219) states,

it is no longer about observing the model [of the "exemplary" teacher] to apply it to teaching situations, but about experiencing the teaching work under the guidance of a trainer capable of employing teaching tools that offer face-to-face support to a beginner or a less experienced professional, so that he/she discovers his/her own ways of teaching.

Behind this model is the assumption that the school is the privileged locus in the teacher education process, and the internship a central device for the hands-on development of future teachers. For this, it is essential to have an effective partnership between higher education institutions and schools, with clear definition of the agents involved in both spheres and the roles and statutes to be assigned to them (BENITES; SARTI; SOUZA NETO, 2015). In other words, it is necessary to plan, guide and recognize the collaborating teacher, either the one who accompanies the trainee in academic training, or the one who receives the future teacher at school.

An example of an attempt to apply the integrative Co-Operative Education model was the creation of the Instituts Universitaires de Formation des Maîtres (University Institutes for Teacher Training) (IUFM) in France, in the late 1980s. This initiative balances the traditional logic in force at the time, which was based on knowledge of the discipline and of the science behind it – the belief that the science of education contributes significantly to professionalism in teaching and is, alone, sufficient (LENOIR, 2002). In 1989, France officially introduced the motto that "the student is the heart of the educational system" (ALTET, 1997; ROBERT, 2005), shifting the focus from teaching to learning, thus implying a teacher training model that emphasizes hands-on teaching practice, peer mentoring and the classroom as the focal point for training: "the emphasis is placed on professional practice in establishing learning opportunities and on a set of school activities involving a range of students rather than knowledge per se" (ROBERT, 2005, p. 89).

The IUFM then instituted the Co-Operative Education model the following year. Future teachers were approved, via entrance exams, to work in the primary or secondary cycle. In the primary cycle, students would undergo a period of classroom observation with more experienced teachers, before then teaching unsupervised – the so-called "stages of responsibility". In the secondary cycle, the Co-Operative Education model was geared towards the trainee teaching their specialist subjects to the final years of elementary school or high school (WITTORSKI, 2014).

Although this model has been questioned regarding its ability to effectively integrate theory and practice – to combine knowledge gained from research and that gained from practice; knowledge of the specific discipline with that from general education; "knowledge to teach" and "knowledge about teaching" – Altet (2010 apud CARRAUD, 2010) argues that tensions and conflict relating to this aspect have diminished. However, the integration of IUFMs into universities in 2005 – following reforms to European higher education that advocate teacher training at the level of a master's degree – has had consequences for the practical component of training, that is, classroom learning (SARTI, 2013). With

this change, one year of work-related training has been eliminated, with classroom training reduced to a few hours of internship, with inadequately structured monitoring.

Another recent idea discussed by the Francophone group, which shapes concepts around initial teacher training and which also originated in the United States, is coherence. This was the subject of a book, in 2012: La formation des enseignants en quête de cohérence (Teacher training in search of coherence). In the introduction to this work, Desjardins et al. (2012) refer to the American works, especially those led by Linda Darling-Hammond, as the source for identifying the issue of coherence. Based on the analysis of initial training programs considered the most effective, the US researcher demonstrated that the internal coherence of these programs was one of the most important factors in ensuring quality training for teachers: "programs that propose a coherent vision shared by all actors in teaching and learning have the greatest impact on teachers' indicial conceptions and practices" (DARLING-HAMMOND; BRANSFORD, 2005 apud DESJARDINS et al., 2012, p. 5).

However, the Francophone literature does not omit possible criticisms surrounding this idea of coherence. On the one hand, the organizers of the work question whether there is the risk that the search for internal coherence engenders a framing, an indoctrination, and a simplification of the theoretical frameworks necessary for the student to understand the challenges of education (DESJARDINS *et al.*, 2012). They question whether it would be better to offer students multiple perspectives so that they might understand the complexity of education and develop their own philosophy for teaching and learning. On the other hand, the authors also refer to cognitive psychology – which states that learning is favored when the context facilitates articulation between different content, experiences, etc. – in questioning whether it is not the responsibility of the institution's educators (and not solely the student) to seek and provide the conditions that favor this integration.

Tardif and Petropoulos (2012, p. 19) advocate a systemic model based on student learning and internal coherence, stating that this coherence requires the plurality of perspectives, not their framing: "internal coherence, conceived as the completion of learning in the profession, requires that the complexity of professional situations be constantly at the center of training and of all learning situations". This view seems to support what Lessard (2006) wrote a few years earlier, although she was not talking specifically about coherence, but precisely the complexity of professional situations:

In teacher training, it is not necessary that all the trainers share the same epistemology of practice. Pluralism is a guarantee of skepticism towards all orthodoxy and, regardless of the students' need for security, the development in them of a true sense of competence certainly passes through the directed learning of the craft, but also through the construction of a critical and pragmatic relationship towards the rule. [...] It is better to help future teachers understand that teaching, like any human craft, is crossed by dilemmas, value choices, bets, and uncertainties, than to delude them with false guarantees of a scientific engineering of learning. (LESSARD, 2006, p. 214-215, 223)

It is true to say, as previously attested by Perrenoud (2003) and taken up by Tardif and Petropoulos (2012), that "educators do not share a common view of the teaching profession, especially with regard to the nature of pedagogical and didactic practices that best underpin student learning" (TARDIF; PETROPOULOS, 2012, p. 16). However, in the view of advocates of the integrated and coherent training model, more important than having a consensual view of teaching and learning, is recognizing the complexity of professional situations and, therefore, the need for the teacher to be able to exercise judgment rather than merely applying the methodology acquired. In relation to this aspect, Perrenoud (2003, p. 217-218) advocates a "less magical view of competence building" in training programs and emphasizes that the orientation of a training program towards reflective practice changes expectations about the field:

It is not a matter of offering a "reality bath", nor of presenting an admirable practice, but of participating in the construction of competencies by a clinical and reflective procedure. The exemplary pedagogical mastery of the practitioner matters less than his ability to explain his choices, to comment on his failures as much as his successes, to introduce the trainee to the "backstage of the action." (PERRENOUD, 2003, p. 207)

In the same vein, Lessard (2006, p. 218), when distinguishing the Anglo-Saxon and Francophone logic relating to competencies, states that, more important than training an effective teacher, is to develop in them "a competence to understand what makes him efficient (or not) within a given situation with any given group of students." He points out that in this type of training with more open prescriptions, it is about the (co)construction of innovative practices, which dwells "less on what teachers know or should know" and more on "how teachers learn and could learn from practice, and how they construct their knowledge and professional identity while at the heart of practicing communities," (LESSARD, 2006, p. 213). Or, as Paquay et al. (2007) state, "in a reflective model of teacher training, the goal is not to tell the novice teacher how to do things, but rather to help the novice teacher understand what is going on in their class and how their profession works."

Lessard (2006), Thurler and Perrenoud (2006) and Carraud (2010) argue that didactic innovations, or simply the crystallization and resolution of pedagogical problems, should be "constructed, tested, and modeled by teams of teachers" (LESSARD, 2006, p. 213), practicing communities that have cooperation at their core – be it in initial and continuing education, or in the workplace - so that different practices are recorded and analyzed, along with difficulties and successes. However, these authors call attention to the concern that the structure of higher education institutions does not favor high-level cooperation, denying opportunities for students to experience what is required.

To overcome these structural impediments in higher education institutions, Carraud (2010) recommends complementary practices in the Co-Operative Education model, which should not be viewed as informal or related to camaraderie (an "artisanal company"), but rather should be professionalized and institutionalized: "what is essential is the way in which the Co-Operative Education model is planned and monitored" (CARRAUD, 2010, p. 124), which requires a long-term relationship with stable groups working to build true cooperation in the field of training and development. In the years that follow, internal coherence should be introduced to the training programs to reinforce that the formative practices need to previewed and planned, rather than sprouting spontaneously; and they must be previewed and planned with a view to the objectives of the teaching profession and the professional responsibilities that its members assume (TARDIF; PETROPOULOS, 2012).

Keeping in mind the potential and limitations discussed above, let us turn now to the training tools and methodology (or developmental practices) suggested by the Francophone reference group for training the teacher to be able to recognize the complexity of professional situations, to be aware of the practices implemented and to be able explain his/her choices. While these have not traditionally been named "best practices," "effective practices," or "successful practices," the Francophone literature reviewed herein recommends several types of training methodology that are also used in the United States: "clinical procedure, reflective practice, competency orientation, theory-practice articulation, partnerships with the field and schools" (Perrenoud, 2003, p. 217-218) – or, in other terms, cites similar procedures for establishing "integration units":

Reference groups, practice analysis seminars, didactic laboratories, explicitness or ethics workshops, professional problem analysis groups, supervision groups. These denominations do not cover exactly the same devices. I have gathered them here because of a common ambition: to take practice as an object of analysis and knowledge, in its globality, its complexity, its multiple references, its ambiguity, its opacity, including its non-reflected, non-rational, unspoken aspects. [These units aim to train the knowledge to analyze, professional writing, reflective practice, awareness and work on the habitus. (PERRENOUD, 2003, p. 216)

Other training strategies, using different nomenclatures, are cited by other authors as enablers for making practice an object of reflection: reflective writings, professional memory, biography, portfolio, classroom observation, training visits, teaching cases, explanatory interview, seminars for discussing practices, video-training, etc., but Altet (2013) points out that training practices are still poorly analyzed. It should be noted that all the ways of analyzing training practices or methodology described by the French-speaking literature seem to refer to, and take place during, internships, which makes us wonder how the theory-practice discussion can effectively take place in the other components of initial training courses.

FORMATIVE TOOLS IN THE FRANCOPHONE CONTEXT

In France, to enable future teachers to consider how complex teaching is, different formative strategies are employed during the teaching internship, as discussed previously. The formative practices can be grouped into three main categories and are used alone or in combination, involving intense interaction between trainers and trainees. They are: (a) activities that make use of lesson observation and discussion between trainees and teachers linked to the university or school; (b) activities that employ audiovisual resources to analyze pedagogical practices; (c) writing activities. Each category will be discussed below.

Observation and discussion consider pedagogical practice itself as an important object of study, observation, reflection, and knowledge building that can be improved, which is why this approach is most frequently used during internships. The observation of what is done and the verbal discussions held among the trainees themselves, and with more experienced teachers, allow the sharing of multiple perspectives of the same situation. To describe what happened, making explicit the interdependence of roles, postures and attitudes (LINARD; ALTET; BRITTEN, 1985), schedules for both observing and interviewing are set up. Some of these strategies are worth highlighting here:

- (a) micro-teaching is considered, in France, as a means of highlighting to future teachers that teaching is part of an intricate system of psychosocial interactions. According to Jacquet-Francillon (1996), teaching in short, well-delimited situations reduces the complexity of the classroom by allowing the identification of aspects to be improved relating to form and content. The planning, implementation, recording and analysis of trainees' performance is usually done in pairs assisted by the supervisor, who seeks to discuss and improve the actions observed. Feedback is, therefore, considered essential, as it broadens the know-how, by contrasting one's own perspective with that of others (JACQUET-FRANCILLON, 1996); (b) case studies, ethnographic in nature, require going to schools to get to know them closely, observe their management, their classrooms, their teachers, their students, and the nature of social interactions that take place in and around them. The immersion in the school makes it a "social laboratory to be studied, criticized, discussed and potentially transformed" (DE COCK, 2007, p. 21), allowing the study of aspects that require direct and prolonged observation where they occur, to understand their specificities and articulate factual and observable aspects in the light of the point of view of those involved. The results obtained through this strategy configure a learning process that is exploratory in nature, which allows us to theorize about a formal teaching process, such as literacy;
- (c) teaching cases propose, in the formative context, the study of a problem to be solved by trainees. Although specific to a given situation, the findings of the case make it possible to understand similar processes experienced by others, by seeking solutions to similar obstacles (LALANCETTE, 2014). Through observation and group discussion, trainees build and refine the competencies and skills necessary for teaching, weaving analyses that link the findings of the case to theoretical knowledge. The trainer guides and supports the trainees' discussions and proposals, requiring them to make explicit the feelings experienced; adequacy between the procedures followed and the objectives sought; verification of how much of what was planned was accomplished, etc. (ALTET, 2016);
- (d) the interviews are based on the assumption that many competences and skills involved in teaching are tacit, mechanized and therefore inscribed in the action, but not always directly accessible. On the other hand, the possibility of talking about pedagogical practice (representing it, verbalizing it, and objectifying it) can be shared, focusing on how the action was planned, executed, and evaluated. In order not to get away from its focus, the interview follows a script, but without inducing the trainees' answers. The interviewer (usually the trainer) accompanies and guides the conversation, asking questions that describe and explain what happened (MARTINEZ, 1997).

Activities that employ videotaping make it possible to record pedagogical sequences, which could be lost in the wider dynamics of the classroom, studying both specific aspects of the teacher-student interaction and the physical and social context in which it takes place. Because they can be viewed,

Educação em Revista | Belo Horizonte | v.37 | e33828 | 2021

reviewed and evaluated with greater accuracy and detail, and because they allow the study of fleeting phenomena (such as reactions to gestures and facial expressions), they are widely used in the analysis of pedagogical practices. Moreover, they make it possible to build a common reference for those involved: the subject filmed, the trainer, and the trainees, making the discussion more objective. In general, the recorded scenes are cut into episodes defined according to the formative purposes. For Altet (2016, p. 66), cutting the recorded scene into one or more episodes makes it possible to identify and understand the organization, the interlinking, and the development of the pedagogical sequence, according to the theoretical approach adopted.

The use of writing is considered central to the initial training of teachers, because it mobilizes knowledge already gained and allows a certain detachment from the situation under study, which, by being more objectively analyzed, leads to better decisions. Writing fosters cognitive and metacognitive skills that tend not to be intentionally taught; promotes critical thinking; and identifies values that may hinder teaching performance. Writing is an opportunity for the trainee to transform his/her actions, which is why it should be employed from the start of initial training. Due to the importance of this aspect, some of the situations will be discussed here:

- (a) portfolio is a strategy that can serve different purposes, although it always involves selecting and organizing the work done for formative purposes, for certification or, more commonly, both. Trainees learn, in interaction with their peers and the supervisor, to make writing a means of identifying, reflecting on, and assessing the unfolding of their own learning, the progress made, and the formative needs to be met. In this sense, portfolios "can be seen as reflective instruments of a mixed nature, combining systematic selection of written materials and reflective writing" (BUYSSE; VANHULLE, 2009, p. 88);
- (b) logbook is a strategy that, when trainees have a real classroom under their responsibility, requires the writing of a text in which they can reflect on the activities carried out in the internship, their impressions and discoveries, and can structure their knowledge, conceptualizing and giving meaning to the activities, building their own perspective on teaching (BUCHETON; DECRON, 2003);
- (c) the internship report is a critical record of each trainee regarding the decisions he or she has taken during this period, justifying them on the basis of theory and the contexts of the schools and their students. It thus represents necessary reflection on the internship experience itself. Trainers lead trainees to crystallize problems they experienced in schools, considering the historical and conjunctural contexts; the reasons that guided the actions taken and the configuration that was intentionally given to the pedagogical practice carried out, justifying it by means of the theoretical frameworks studied (MERHAN, 2007).

SOME TRAINING PRACTICES ANALYZED IN THE BRAZILIAN CONTEXT

Below we will analyze some formative practices selected through the PPRMM that have been developed for initial training courses in Brazil and that employ methodologies present in the French-speaking literature and context. It is worth noting that these cases are not inspired by or named after the methodologies described herein. Most were developed by course instructors who do not always dialogue with - or produce - the literature on teacher education. Be that as it may, because they are in the field of teacher education and because there is a great interaction of Francophone academics with Brazilian authors - especially through the exchange of researchers - it can be inferred that the Francophone discussion, directly or indirectly, has had a strong influence here in Brazil.

Before continuing to the analysis of the cases, it is worth mentioning one aspect common to all of them: the desire of the educators to bring together theory and practice, promoting opportunities for the undergraduate student to get close to the school - a situation that is in line with the Co-Operative Education model presented at the beginning of this article. In the same vein, most of the experiences presented utilize more than one of the tools and methodologies described above. However, there are methodologies present in the Francophone references that were not used in the selected experiences, such as "teaching cases", "interview" and "portfolio".

Among the cases from the last five years awarded with the PPRMM, there is one that explicitly claims to employ micro-practices, in the sense of the micro-teaching previously mentioned. Through an extension project in the course of Bachelor of Arts - Portuguese/English, Federal Institute of Education, Science and Technology of Rio Grande do Sul (IFRS) - campus, Rafaela Drey (2019) developed the project: "Teaching English Language in practice: micro-teaching practices as a strategy for initial training of foreign language teachers". The main objective was to provide undergraduates experience of the school context and its administration, "the practical performance in classroom environments, so that they could effectively perform the didactic transposition between the theoretical content discussed throughout the course and classroom practices" (DREY, 2019, p. 40). To this end, the semester's activities were divided into stages of preparation and first-hand experience, which encompassed: (i) theoretical discussions about foreign language teaching, followed by simulated practical activities in the classroom; (ii) preparation of lesson plans involving the analysis of teaching materials, interaction with other undergraduates, and guidance from the teacher trainer; (iii) the use of this plan in the school environment, involving observation of the basic education school and the classes where they would teach, as well as interviews with the regular English language teachers; (iv) execution of the micropractices in pairs, in final year elementary school classes previously chosen by the teachers of the partner school, with the presence of the teachers and the teacher trainer. As an extension project, this experience was facilitated by the presence of some students. However, it reveals the importance of developing practical teaching activities prior to the undergraduate internship and integrating these activities throughout the initial teacher training curriculum.

The experience developed by Taitiâny Bonzanini (2019) follows the same lines as Drey: being able to "learn by doing", through experiences in real classroom situations, with guidance from the teacher trainer and sharing with more experienced teachers from the school. Thus, although it does not name its strategies as micro practices, the project "Teacher training and the different moments of instrumentation for the exercise of the profession" - from the Degree in Biology, Degree in Agricultural Sciences, Escola Superior de Agricultura "Luiz de Queiroz", Department of Economics, Administration and Sociology, Piracicaba (SP) - can also be seen as a micro-teaching strategy applied to basic education schools. The method was centered on Pedagogical Workshops for Teacher Training (Opid), which sought not only to integrate theory into "learning with and in practice", but also to provide future teachers with diversified teaching tools, so as not to reproduce the traditional model of lecture classes that prevails in basic education. Bonzanini planned the workshops based on the assumption that the undergraduate trains and educates simultaneously. Thus, what the teacher educator called University Time (formative workshops) and School Time (didactic workshops) were carried out simultaneously: in the former, the undergraduates participated in the subjects and out-of-class meetings to discuss, plan and produce didactic material; in the latter, the actions were carried out at school, through observation of the school context, records, inspections and interventions, always with the guidance and monitoring of the teacher educator. The future teachers "participated in the formative workshops while planning and conducting workshops for basic education students in a sequence of studying, thinking, doing, reflecting" (BONZANINI, 2019, p. 57).

Unlike Drey's micro-practices, Bonzanini's Opids involved three disciplines, one of which was the internship itself. What is interesting to note, in either case, is that both trainers draw attention to the problems of the supervised curricular internship in undergraduate courses in the country. Referencing several studies, they point out that the future teacher ends up occupying a passive position in the observation of classes, with little or no opportunity to lead proceedings. The role of the supervising teacher is also questioned because, in many cases, he or she does not know the context of the school in which the internship took place. Perhaps this is why many schools resist accepting interns, despite the fact that the legal norms recommend the articulation between theory and practice. In this respect, the cases presented by Bernadete Beserra and Claudia Prioste are very interesting, both developed in disciplines relating to the fundaments of education, with abstract theories that are generally considered difficult to visualize and apply in a practical sense.

Bernadete Beserra's (2016) experience can be seen as another example of a methodology that uses class observation and discussion to turn the pedagogical practice itself into an object of study. Even for teaching the subject Anthropology of Education, a field that has ethnographic research as a tradition,

Beserra proposed that her undergraduates convert the university teachers and their practices/lessons into an object of study, which to be later discussed between the trainer and the future teachers. Thus, despite not having the basic education school as a research locus, the project "The construction of the anthropological perspective in teacher training" - developed in the Pedagogy course at the Federal University of Ceará - can be seen as representative of the <u>case studies</u> described above. The project aimed to provide undergraduates from the Pedagogy course with the opportunity to reflect on otherness and the consequences of encountering it, leading them to reflect anthropologically about their own school practices. To achieve this, the trainer developed strategies to stimulate the practical learning of the concepts of Anthropology in teacher education, through the writing of field diaries, made from observing the whole college. The process involves identifying and exploring the formative processes of socialization that make teachers what they are, with the aim of deconstructing them and turning them into objects of reflection (BESERRA, 2016).

Initially, students were invited to observe and record, in field diaries, the classes of all teachers on their course, including those of the teacher trainer. However, this activity generated criticism within the institution, with a result that only the teacher's class could be the object of observation and reflection by the undergraduates. The diaries, as a didactic resource, allow the systematization and analysis of the relationships established in the context of the institution (in this case, the university, and in the future, the school), the desire for authorship and individualized treatment. They also become a powerful instrument of evaluation: of the student's learning and of the teacher's own didactics, now viewed through the eyes of the student. Both become, therefore, the subject and object of analysis (BESERRA, 2016).

The project of Cláudia Prioste (2020) - "Internship in Educational Psychology: contemporary problems in the Brazilian educational context", developed for the course of Licenciatura em Letras da Universidade Estadual Paulista "Júlio de Mesquita Filho" (Unesp), Araraquara campus - is also a <u>case study</u>, thus defined and named by the author. Like the others previously described, Prioste's experience sought to articulate theory and practice, reflection and action, providing the undergraduate students of Letters, in the disciplines of Educational Psychology and Supervised Internship in Educational Psychology, significant didactic interventions in real and varied teaching contexts. To achieve this, she used the internship-research approach, focusing on current and more contextualized themes in the field of Educational Psychology, such as: school failure, ethno-racial issues, gender inequality, *bullying*, attention deficit hyperactivity disorder (ADHD), and the medicalization of learning problems.

These themes were studied at the university with the teacher trainer, who gave orientation in how to conduct the case study, from the delimitation of the problem and development of the main question, through to the development of hypotheses, data collection (questionnaires, interviews, observation) and analysis. If the school hosting the internship allowed interaction with students, the interns could propose teaching assignments and discuss, with the teachers, possibilities regarding intervention. If it was not possible to solve the problem or the situation encountered, the trainees would bring from their investigation examples of actions for collective reflection, with the help of the university trainer, through seminars, in which they were encouraged to "rethink future interventions in the face of the problems and contexts studied" (PRIOSTE, 2020, p. 20). These didactic interventions allowed undergraduates to get in touch with the challenges the school was facing and analyze problem situations, articulating them within the context of both new and classic theoretical perspectives in Educational Psychology. By researching the impact of these themes on learning, the future teachers developed investigative attitudes relevant to teaching, and reflected on the many possible approaches to teaching.

The project "The implementation of multi-strategic teaching units in the initial training of chemistry teachers", carried out by Amadeu Moura Bego (2016), from the Paulista State University "Júlio de Mesquita Filho" (Unesp), was the only one among those to receive an award in the last five years that used videotaping, although this is not the main focus of the initiative. It is discussed here due to the relatively rare use of videotaping on initial teacher training courses. The experience was based on the concept of Multi-strategic Didactic Unit (MDU), which consists of a teaching procedure that integrates, in an organized and sequenced way, several didactic strategies according to previously defined learning objectives. The process of implementing the MDU in two disciplines involved three stages: (i) planning the DMU; (ii) didactic-pedagogical intervention in the classrooms of the partner school - where the

videotaping took place; (iii) replanning the DMU through critical reflection on the intervention carried out, via videotaping.

To prepare the interventions, the undergraduates completed a period of observation at the partner schools for about one month and a half, in order to become better acquainted with the site of the intervention and the characteristics of the students. Based on the observations, the undergraduates produced class diaries and prepared the contents of the MDU sections, a period that took approximately two months of the course. During this period, the groups presented the MDU to the instructor, received feedback and revised the material, until they reached the final version to be implemented. The application of the activities in the schools lasted eight classes, filmed and monitored by the supervising teachers and, on a sample basis, by the trainer. At the end of each class, each group of undergraduate students met to discuss the development of the classes and to reflect on the lessons:

the appropriateness of the didactic strategies used in the lesson (motivation and interest of students; complexity of execution; student participation; appropriateness of the time allotted; achievement of objectives); the appropriateness of the learning materials and resources used in the lesson (understanding of the information by students; the energizing capacity of individual or group work; level of autonomy of work); reflections on the prior conceptions, epistemological obstacles, the goal of the didactic sequence and the results of the assessment. (BEGO, 2016, p. 65)

At the end of the interventions, the trainer conducted focus groups with the students, in order to watch episodes of classes and critically reflect on the potential and limitations of the use and execution of the DMUs. Finally, based on their class diaries and the collective discussions in the focus groups, the undergraduate students redesigned the respective DMUs, proposing adjustments, in case the undergraduates were to use them again. Bego's proposal is an example of the simultaneous use of tools that utilize class observation and discussion, audiovisual resources for analyzing pedagogical practices, and writing. Most of the projects analyzed combine different strategies to some degree, seeking to ensure moments for individual and collective reflection by the trainees.

As with the micro practices, it was observed that written records are frequently used as a formative strategy on undergraduate programs. The <u>field diary</u>, for example, is mentioned in five projects, although not all trainers detail how it was used. Beserra, for example, reports that he used this method so that students could, on the pedagogy course, learn to observe anthropologically their own school context, in this case the Faculty of Education or the classroom of the subject Anthropology of Education. In Bego's proposal, the diaries were used so that the undergraduates could better understand the location where the intervention would take place, especially the characteristics of the students. Based on these results, they planned the didactic and pedagogical intervention that, once applied, would require a return to the diary to re-plan the MDU.

Out of the set of cases, two projects developed in supervised internship courses used experience reports¹¹ as a formative device. The first was developed by Marcos Neira (2017), from the Faculty of Education at the University of São Paulo, with Physical Education undergraduates. The second was carried out by Thaís Lobosque Aquino (2018), from the School of Music and Performing Arts at the Federal University of Goiás, with music undergraduate students.

Challenged to close the gap between what is taught at the university and the reality at schools, Neira created the project "Analysis and production of experience reports of cultural physical education: an alternative for teacher training", which centered on the analysis and production of experience reports, which were later adopted as teaching resources. Initially, the trainer utilized written (or oral) narratives from practicing teachers and, later, the trainees were encouraged to write their internship records. That is, "they developed their own narratives by writing and rewriting reports regarding the didactic interventions developed during the internship" (NEIRA, 2017, p. 59). In this process, students were stimulated by the comments of their classmates and the teacher.

^{10 &}quot;Class diaries" and "field diaries" are also designations that correspond to the "logbook" device described earlier.

¹¹ These experience reports correspond to the "internship reports" described above. Educação em Revista | Belo Horizonte | v.37 | e33828 | 2021

The reports used initially came from an experience of the trainer in continuing education that involved the production of experience reports. These served as teaching materials to be analyzed in class by the undergraduates in the light of theoretical assumptions that underpin the cultural perspective of physical education. The undergraduates were challenged to identify the theoretical influences in the teaching narratives and the didactic orientations that characterized the teachers' proposals. Neira explains that the experience report "is an important device in the initial and continuing education of teachers, as it illuminates the author's understanding of the impact of the pedagogical work, or rather, how he or she conceives what happens, and what has happened to them (NEIRA, 2017, p. 55).

After the undergraduates read the experience reports, there were debates in which questions and criticisms were mediated by the trainer. The debates regarding methodological issues related to the teaching of physical education were based on the analysis of academic reports in which the pedagogical practice of cultural physical education was the object of study; on the oral reports of invited teachers, accompanied, most of the time, by the presentation of digital portfolios or footage; and, finally, on the writing up of the internship experiences. The undergraduates' reports included everything from the theme, the definition of the objectives and the organization of the classes, to the answers given by the children, teenagers, youngsters or adults, as well as the coherence of the activities with the objectives, the strategies adopted, the evaluation instruments, and also the description of how the subsequent classes would be developed. A considerable amount of time was set aside for these reports, which occurred in parallel to the internship. Neira (2017, p. 60) reports that the "work with oral and written reports enhanced the debate and analysis not only of the experiences shared, but also of those experiences that permeated the lives of the future teachers, encouraging them to become narrators". He explains that this process has a cyclical effect, since the reading and analysis of the reports stimulated the students to produce their own narratives. As the internship supervisor, Neira insisted that the doubts, problems, and difficulties experienced in the realization of what had been planned should be part of the written record and that these reflections, first at the individual level and then collectively, would make many contributions to the training: "there were many times when the class looked at a narrated situation, made comments and collectively proposed ways forward. Almost always the process continued the following week, when the group was eager to hear about the results that the classmate had achieved" (NEIRA, 2017, p. 60).

The second case, entitled "Music, internship and research: formative actions with the theme women in music", developed by Aquino, aimed to provide trainee teachers - based on the theme Women in Music - the understanding and experience of the internship as a time for research and development into indispensable aspects relating to the construction of identity and self-knowledge in teaching music. In the developing the project, Aquino used two devices that involve writing: the field diary and the experience report, both based on the assumptions of ethnography and participant observation. In the words of the trainer: "the internship encompasses both the approach to the pedagogical practices of educational institutions, via participant observation, and the direct intervention in these practices in order to transform them, through planned and reflective teaching activities" (AQUINO, 2018, p. 85).

The trainer reports that participant observation was used for the undergraduate to learn not only to perceive the educational phenomenon, but also to record it for scientific purposes, something that also favored the integration of the trainees with the culture of the school and its actors. The undergraduates were instructed to use the field diary to record their experiences and the didactic resources used in the activities: scores, texts, images, etc. It was the field diary that provided the data to be analyzed in detail when writing the experience report. During the internship, the future teachers planned and carried out teaching activities (individually or in groups), which were recorded in the field diary and, later, discussed collectively, with a view to promoting a joint reflective evaluation, which involved the following sequence: (i) self-evaluation of the lesson by the undergraduate(s); (ii) collective student evaluation, when the other trainees presented their notes; (iii) shared teaching evaluation by the teachers who accompanied the trainees. In this process, the discussion was guided by the crystallization of issues based on the report of the experience described in the field diary and, also, by the references reviewed during in the internship disciplines and in the other curricular components of the Music-Licenciatura course. Aquino addresses the difficulties with transitioning from ethnographic fieldwork to developing scientific discourse, highlighting that, although these difficulties permeate the whole process of text construction, the

experience report - when objectivity, methodological clarity, and the need to use theoretical support are taken into consideration - "offers greater freedom for weaving considerations into a more personal language. Its character is, therefore, hybrid: it pays attention to the demands of scientific rationality, but is open to the subjective aspects raised by the actions in the internship field" (AQUINO, 2018, p. 89).

It is observed that both trainers - Neira and Aquino - give meaning to the experience report by promoting systematic reflections in the collective sphere at different moments of the internship. Its use is not restricted to the solitary record of the trainee, because it is the result of a systematic process of shared reflections that occur at different times.

FINAL CONSIDERATIONS

In view of the recognition of the importance of the teacher in the learning process of students in basic education; of the lack of research into pedagogical practices in initial teacher education; and of the sparse records of these practices by the teachers themselves; this article has sought to analyze some formative experiences recognized as inspiring in Brazil, in the light of what has been discussed in the French-speaking literature.

The idea has been to gather these initiatives developed by undergraduate teachers, with the purpose of systematizing and naming some of the methodologies used by them. It is not about proposing "recipes" or disseminating 'technique for technique's sake,' but rather about recognizing that the knowledge and know-how of professional teachers - including, for example, experiential knowledge, according to Tardif (2012), and pedagogical content knowledge, according to Shulman (1987) - are fundamental to the practice of teaching and characterize the specificity of teaching. In other words, there is a component in the technique and practice of the act of teaching that cannot be neglected. As Gatti (2020, p. 25) states, "the debate is not simple, since the fear of returning to unfounded technicalities in training is present in the educational culture and is a very important point for consideration."

As we know, this debate intensified with Resolution CNE/CP n. 2, of February 19, 2002 (BRASIL, 2002), when the idea of *Practice as a Curricular Component* was adopted. Since then, the guidelines for teacher education in Brazil recommend that the practice should not be restricted to the supervised internship or detached from the other curricular components of the course. This theoretical-practical approach is favored in the planning of training programs and provides for different experiences in different environments: a) within the areas or subjects; b) in an interdisciplinary perspective with emphasis on observation and reflection procedures to understand and act in contextualized situations (case studies, oral and written narratives, simulated situations, etc.); c) in the internships to be carried out in basic education schools.

Nevertheless, according to Gatti (2020), there is still a need to discuss training practices on undergraduate programs. In fact, as the author points out, these practices need to be better understood, since curricula tend to be vague and generic, with internships lacking projects or follow-up. This situation calls for a more detailed study of what goes on in undergraduate classrooms and in the activities that are taught there in training basic education teachers.

The importance of articulating theory and practice and of developing reflexivity in initial training courses is a point of consensus. The difficulty lies, therefore, in knowing the reasons why this theoretical consensus cannot be implemented in the country's undergraduate courses. Certainly, there are issues related to the structure and organization of the courses that strongly impact this possibility of institutionalizing the integration of theory and practice. However, this article has shown that, despite the more macro-obstacles, there are initiatives carried out by educators in initial training courses that manage to bring together theory and practice and to bring students closer to the school - and not only during the internship courses.

Micro-teaching, case studies, videotaping and class diaries were some of the methodologies present in the French-speaking literature that were found in the Brazilian experiences analyzed. In different ways, the PPRMM awardees and, more specifically, the trainers analyzed here were able to simulate reality, or even put it into practice, combining the theories learned at university with the reality of a partner school. If the systematization of these practices is important in recording the process, its

relationship with the methodologies listed by the French-speaking literature is also relevant, as it allows the visualization of different ways in which theory can be integrated with practice. But it should be emphasized that not only are the boundaries between the methodologies very fluid but their success depends on reflection about the way they are used by the teacher trainer.

* The translation of this article into English was funded by the Fundação de Amparo à Pesquisa do Estado de Minas Gerais – FAPEMIG – through the program of supporting the publication of institutional scientific journals.

REFERENCES

ALTET, Marguerite. Les pédagogies de l'apprentissage. Paris: PUF, 1997.

ALTET, Marguerite. Formes de résistence des pratiques de formation d'enseignants à La posture et à la pratique réflexive dans une formation professionnalisante et conditions d'aide à la reflexivité. *In:* ALTET, Marguerite; ÉTIENNE, *Richard*; DESJARDINS, Julie; PAQUAY, Léopold; PERRENOUD, Philippe (dir.). *Former des enseignants réflexifs.* Obstacles et résistances. Bruxelles: De Boeck, 2013. p. 24-39.

ALTET, Marguerite. Profissionalização do ofício de professor e da formação em questão: explorar as contribuições da pesquisa para fortalecer e refundar a profissão. *In:* SPAZZIANI, Maria de L. *Profissão de professor:* cenários, tensões e perspectivas. São Paulo: Unesp, 2016. p. 39-66.

AQUINO, Thaís L. Música, estágio e pesquisa: ações formativas com o tema mulheres na música. *Prêmio Rubens Murillo Marques 2018:* experiências docentes em licenciaturas. São Paulo: Fundação Carlos Chagas, 2018. p. 79-145. (Textos FCC: relatórios técnicos, 55). Disponível em: http://publicacoes.fcc.org.br/index.php/textosfcc/issue/view/351/188. Acesso em: 2 mar. 2019.

BALL, Deborah L.; COHEN, David K. Developing practice, developing practitioners: towards a practice-based theory of professional education. *In:* SYKES, Gary; DARLING-HAMMOND, Linda (ed.). *Teaching as the learning profession:* handbook of policy and practice. San Francisco: Jossey Bass, 1999. p. 3-32.

BEGO, Amadeu M. Implementação de unidades didáticas multiestratégicas na formação inicial de professores de química. *Prêmio Rubens Murillo Marques 2016:* experiências docentes em licenciaturas. São Paulo: Fundação Carlos Chagas, 2016. p. 55-72. (Textos FCC: relatórios técnicos, 50). Disponível em: http://publicacoes.fcc.org.br/index.php/textosfcc/issue/view/330/118. Acesso em: 30 abr. 2018.

BENITES, Larissa C.; SARTI, Flávia M.; SOUZA NETO, Samuel de. De mestres de ensino a formadores de campo no estágio supervisionado. *Cadernos de Pesquisa*, São Paulo, v. 45, n. 155, p. 100-117, jan./mar. 2015. Disponível em: http://dx.doi.org/10.1590/198053142928. Acesso em: 28 abr. 2018.

BESERRA, Bernadete L. R. A construção do olhar antropológico na formação docente. *Prêmio Rubens Murillo Marques 2016:* experiências docentes em licenciaturas. São Paulo: Fundação Carlos Chagas, 2016. p. 93-121. (Textos FCC: relatórios técnicos, 50). Disponível em: http://publicacoes.fcc.org.br/index.php/textosfcc/issue/view/330/118. Acesso em: 30 abr. 2018.

BONZANINI, Taitiâny K. A formação docente e os diferentes momentos de instrumentação para o exercício da profissão. *Prêmio Rubens Murillo Marques 2019:* experiências docentes em licenciaturas. São Paulo: Fundação Carlos Chagas, 2019. p. 53-86. (Textos FCC: relatórios técnicos, 57). Disponível em: http://publicacoes.fcc.org.br/index.php/textosfcc/issue/view/362/214. Acesso em: 13 abr. 2020.

BORGES, Cecília; TARDIF, Maurice. Apresentação. *Educação e Sociedade*, Campinas, SP, v. 74, n. 22, p. 9-26, abr. 2001. Dossiê: Os saberes dos docentes e sua formação. DOI: http://dx.doi.org/10.1590/S0101-73302001000100002.

BOUDJAOUI, Mehdi; LECLERCQ, Gilles. Revisiter le concept de dispositif pour comprendre l'alternance en formation. *Éducation et francophonie*, v. 42, n. 1, p. 22–41, 2014. DOI: https://doi.org/10.7202/1024563ar.

BRASIL. Ministério da Educação. Conselho Nacional de Educação. Câmara de Educação Básica. Conselho Pleno. Resolução CNE/CP 02/2002 de 19 de fevereiro de 2002. Institui a duração e a carga horária dos cursos de licenciatura, de graduação plena, de Formação de Professores da Educação Básica em nível superior. Brasília, DF: CNE, 2002.

BUCHETON, Dominique; DECRON, Alain. Le journal de bord en formation: une parole de travail. *Tréma:* Innover en formation d'enseignants, n. 20-21, p. 1-19, 2003. Disponível em: http://trema.revues.org/1362. Acesso em: 12 set. 2017.

BUYSSE, Alexandre A. J.; VANHULLE, Sabine. Le portfolio: une médiation contrôlante et structurante des savoirs professionnels. *Revue Suisse des Sciences de L'éducation*, v. 31, n. 3, p. 87-104, 2009. Disponível em: https://sjer.ch/article/view/4827/7101. Acesso em: 13 abr. 2018.

CARRAUD, Françoise. Faut-il être accompagné pour apprendre à enseigner? Recherche & Formation, Lyon, n. 63, 2010. Disponível em: http://journals.openedition.org/rechercheformation/332. Acesso em: 28 fev. 2018.

DARLING-HAMMOND, Linda; HAMMERNESS, Karen; GROSSMAN, Pamela; RUST, Frances; SHULMAN, Lee. The Design of teacher education programs. *In:* DARLING-HAMMOND, Linda; BRANSFORD, John (ed.). *Preparing teachers for a changing world:* what teachers should learn and be able to do. San Francisco: Jossey Bass, 2005.

DE COCK, Geneviève. Le Journal de bord, support de la réflexion sur la pratique professionnelle pour les futurs enseignants en stage. 2007. Thèse (Doctorat) – Université Catholique de Louvain. Louvain-la-Neuve, 2007.

DESIMONE, Laura M.; HOCHBERG, Éric D.; MCMAKEN, Jennifer. Teacher knowledge and instructional quality of beginning teachers: growth and linkages. *Teachers College Record*, v. 118, n. 5, 2016. Disponível em: https://www.tcrecord.org/books/PrintContent.asp?ContentID=19367. Acesso em: 27 abr. 2018

DESJARDINS, Julie; ALTET, Marguerite; ÉTIENNE, Richard; PAQUAY, Léopold; PERRENOUD, Philippe (dir.). La formation des enseignants en quête de cohérence. Bruxelles: De Boeck, 2012. p. 4-8.

DREY, Rafaela. F. O ensino de língua inglesa na prática: micropráticas de ensino como estratégia de formação inicial de professores de língua estrangeira. *Prêmio Rubens Murillo Marques 2019:* experiências docentes em licenciaturas. São Paulo: Fundação Carlos Chagas, 2019. p. 33-51. (Textos FCC: relatórios técnicos, 57). Disponível em: http://publicacoes.fcc.org.br/index.php/textosfcc/issue/view/362/214. Acesso em: 13 abr. 2020.

FEIMAN-NEMSER, Sharon. What new teachers need to learn. *Education Leadership*, v. 60, n. 8, p. 25-29, 2003. Disponível em: http://educationalleader.com/subtopicintro/read/ASCD/ASCD_231_1.pdf. Acesso em: 13 abr. 2020.

GATTI, Bernardete A. Formação de grupos e redes de intercâmbio em pesquisa educacional: dialogia e qualidade. *Revista Brasileira de Educação*, Rio de Janeiro, n. 30, p. 124-132, set./dez. 2005. DOI: https://doi.org/10.1590/S1413-24782005000300010.

GATTI, Bernardete A. Perspectivas da formação de professores para o magistério na educação básica: a relação teoria e prática e o lugar das práticas. *Rev. FAEEBA* – Ed. e Contemp., Salvador, v. 29, n. 57, p. 15-28, jan./mar. 2020. DOI: https://doi.org/10.21879/faeeba2358-0194.2020.v29.n57.p15-28.

JACQUET-FRANCILLON, François. Note de synthèse: retour sur le micro-enseignement. Recherche et Formation, n. 21, p. 89-103, 1996. Disponível em: https://www.persee.fr/doc/refor 0988-1824 1996 num 21 1 1322. Acesso em: 4 maio 2018.

LALANCETTE, Rosalie. L'étude de casentant que stratégiepédagogiqueauxétudessupérieures: recension critique. Québec: CRIRES, 2014. Disponível em: https://lel.crires.ulaval.ca/sites/lel/files/etude_de_cas_strategie.pdf. Acesso em: 3 ago. 2018.

LENOIR, Yves. Les reformes actuelles de la formation à l'enseignante en France et aux États-Unis: éléments de mise en perspective socio-historique à partir du concept d'éducation. Revue suisse des sciences de l'éducation, Fribourg, v. 24, n. 1, p. 91-126, 2002. Disponível em: https://www.usherbrooke.ca/crcie/fileadmin/sites/crcie/documents/SZBW_2.1_Lenoir.pdf. Acesso em: 5 dez. 2017.

LESSARD, Claude. A Universidade e a formação profissional dos docentes: novos questionamentos. *Educação e Sociedade*, Campinas, SP, v. 27, n. 94, p. 201-227, jan./abr. 2006. Disponível em: https://www.scielo.br/pdf/es/v27n94/a11v27n94.pdf. Acesso em: 23 out. 2018.

LINARD, Monique; ALTET, Marguerite; BRITTEN, J. Donard. Micro-enseignement et formation des enseignants. Revue Française de Pédagogie, v. 71, p. 63-65, 1985. Disponível em: http://www.persee.fr/doc/rfp 0556-7807 1985 num 71 1 2361 t1 0063 0000 1. Acesso em: 2 abr. 2018.

MARTINEZ, Claudine. L'entretien d'explicitation comme instrument de recueil de données. *Association GREX*, 1997. Disponível em:

https://www.grex2.com/assets/files/ede instrument de recueil de donnees.pdf. Acesso em: 28 nov. 2017.

MERHAN, France. Alternance et dynamiques identitaires: enjeux du rapport de stage. Symposium: *Dynamiques identitaires à l'œuvre dans différents champs de pratiques sociales*, Strasbourg, 2007. Disponível em: http://www.congresintaref.org/actes-pdf/AREF2007 France MERHAN 461.pdf. Acesso em: 12 dez. 2017.

MORICONI, Gabriela M. (org.). *Ensinando futuros professores:* experiências formativas inspiradoras. Curitiba; São Paulo: CRV; Fundação Carlos Chagas, 2020. 248 p.

NEIRA, Marcos G. Análise e produção de relatos de experiência da educação física cultural: uma alternativa para a formação de professores. *Prêmio Rubens Murillo Marques 2017:* experiências docentes em licenciaturas. São Paulo: Fundação Carlos Chagas, 2017. p. 53-103. (Textos FCC: relatórios técnicos, 53). Disponível em: http://publicacoes.fcc.org.br/index.php/textosfcc/issue/view/341/160. Acesso em: 23 abr. 2019.

PAQUAY, Léopold; ALTET, Marguerite; BRU, Marc; PASTRE, Pierre; ROBERT, Aline; TUPIN, Frédéric. Quel est l'intérêt du concept d' "organisateurs des pratiques enseignantes » pour la formation

des enseignants? Recherche et Formation, Lyon, n. 56, p. 139-153, 2007. DOI: 10.4000/rechercheformation.1004.

PAQUAY, Léopold; SIROTA, Régine. Éditorial: la construction d'un espace discursif en éducation. Mise en œuvre et diffusion d'un modèle de formation des enseignants: le praticien réflexif. Recherche et Formation, Lyon, n. 36, p. 5-16, 2001. Disponível em: www.persee.fr/doc/refor 0988-1824 2001 num 36 1 1686. Acesso em: 05 dez. 2017.

PERRENOUD, Philippe. O trabalho sobre o habitus na formação de professores: análise das práticas e tomada de consciência. *In:* PAQUAY, Léopold; PERRENOUD, Philippe; ALTET, Marguerite; CHARLIER, Évelyne (org.). *Formando professores profissionais:* quais estratégias? Quais competências? 2. ed. Porto Alegre: Artmed, 2001. p. 153-176.

PERRENOUD, Philippe. A divisão do trabalho entre formadores de professores: desafios emergentes. *In:* ALTET, Marguerite; PAQUAY, Léopold; PERRENOUD, Philippe (org.). *A profissionalização dos formadores de professores*. Porto Alegre: Artmed, 2003.

PRIOSTE, Claudia D. Estágio em psicologia da educação: problemáticas contemporâneas no contexto educacional brasileiro. *Prêmio Rubens Murillo Marques 2020:* experiências docentes em licenciaturas. São Paulo: Fundação Carlos Chagas, 2020. p. 8-43. (Textos FCC: relatórios técnicos, 58). Disponível em: http://publicacoes.fcc.org.br/index.php/textosfcc/issue/view/368/233. Acesso em: 12 dez. 2020.

ROBERT, André. A experiência dos IUFM na França (1991-2004). Balanço sócio-histórico e perspectivas. *Nuances:* Estudos sobre Educação, Presidente Prudente, SP, v. 12, n. 13, p. 86-103, jan./dez. 2005. Disponível em: http://revista.fct.unesp.br/index.php/Nuances/article/view/1689. Acesso em: 5 dez. 2017.

SARTI, Flávia M. Pelos caminhos da universitarização: reflexões a partir da masterização dos IUFM franceses. *Educação em Revista*, Belo Horizonte, v. 29, n. 4, p. 215-244, dez. 2013. DOI: https://doi.org/10.1590/S0102-46982013000400010.

SHULMAN, Lee S. Knowledge and teaching: foundations of the new reform. *Harvard Educational Review*, v. 57, n. 1, p. 1-27, 1987. DOI: https://doi.org/10.17763/haer.57.1.j463w79r56455411.

TARDIF, Jacques; PETROPOULOS, Georgios. Professionnaliser les enseignants: la cohérence dans la pluralité des perspectives plutôt que la diversité dans le morcellement. *In:* DESJARDINS, Julie; ALTET, Marguerite; ÉTIENNE, Richard; PAQUAY, Léopold; PERRENOUD, Philippe (dir.). *La formation des enseignants em quête de cohérence*. Bruxelles: De Boeck, 2012. p. 10-25.

TARDIF, Maurice.; GAUTHIER, Clermont. O professor como ator racional: que racionalidade, que saber, que julgamento? *In:* PAQUAY, Léopold; PERRENOUD, Philippe; ALTET, Marguerite; CHARLIER, Évelyne (org.). *Formando professores profissionais:* quais estratégias? Quais competências? Porto Alegre: Artmed, 2001. p. 177-197.

TARDIF, Maurice. Influences internationales et évolutions de la formation des enseignants dans l'espace francophone. Recherche & Formation, Lyon, n. 65, 2010. Disponível em: http://journals.openedition.org/rechercheformation/163. Acesso em: 22 mar. 2018.

TARDIF, Maurice. Saberes docentes e formação profissional. 13. ed. Petrópolis, RJ: Vozes, 2012.

THURLER, Monica G.; PERRENOUD, Philippe. Cooperação entre professores: a formação inicial deve preceder as práticas? *Cadernos de Pesquisa*, São Paulo, v. 36, n. 155, p. 357-375, maio/ago. 2006. Disponível em: https://www.scielo.br/pdf/cp/v36n128/v36n128a05.pdf. Acesso em: 28 maio 2018.

TUTIAUX-GUILLON, Nicole. Baillat Gilles, Niclot Daniel & Ulma Dominique: La formation des enseignants en Europe. Approche comparative. Recherche & Formation, Lyon, n. 67, 2011. Notes critiques & lectures. Disponível em: http://journals.openedition.org/rechercheformation/1452. Acesso em: 5 dez. 2017.

WITTORSKI, Richard. A contribuição da análise das práticas para a profissionalização dos professores. *Cadernos de Pesquisa*, São Paulo, v. 44, n. 154, p. 894-911, out./dez. 2014. DOI: https://doi.org/10.1590/198053143039.

Submitted: 10/05/2021 **Approved:** 04/08/2021