

DOSSIÊ “Formação de professores na contemporaneidade: da universidade à escola e da escola à universidade”

Professional development of novice Physical Education teachers: continuities / discontinuities between initial training and teaching induction^{1 2 3 4}

*Desenvolvimento profissional de professores de Educação Física
iniciantes: continuidades/descontinuidades entre a formação inicial e a
iniciação à docência*

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Abstract:

This article presents the results of a research whose main objective was to analyze the perceptions that Physical Education teachers have about the Teacher undergraduate degree, taking in to account the challenges and dilemmas faced in the period of induction. This is a qualitative descriptive research. Thirteen teachers trained by Universidade Federal de Minas Gerais (UFMG) participated in the study, with a maximum of three years of professional practice in the school. Teachers report that pre-service training was fundamental to the early years of the profession, but they point out weaknesses in pedagogical didactic training.

Keywords: teacher training, pre-service formation, teaching induction, physical school education

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³ Support: Pró-Reitoria de Pesquisa, Universidade Federal de Minas Gerais (PRPq); Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq); Fundação de Amparo à Pesquisa do Estado de Minas Gerais (Fapemig); Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (Capes).

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Resumo:

Este artigo relata os resultados de uma pesquisa que tem como objetivo central analisar as percepções que professores de educação física têm sobre o percurso formativo na licenciatura, tomando como referência os desafios e dilemas enfrentados no período da indução. Esta pesquisa é de cunho qualitativo, de caráter descritivo. Participaram da pesquisa 13 professores/as formados pela Universidade Federal de Minas Gerais (UFMG), com no máximo três anos de exercício profissional na escola. Os professores relatam que a formação inicial foi fundamental para o enfrentamento dos primeiros anos da profissão; todavia, apontam fragilidades no que tange à formação didático-pedagógica.

Palavras-chave: *formação de professores, formação inicial, iniciação à docência, educação física escolar*

Introduction

In the last decades, the theme of professional induction of novice teachers has been a concern of political authorities in the field of education, as well as academic researchers. Such concern is justified because studies have long shown that the first years in the career are critical - be it for the high number of teachers who leave the career, or the challenges faced by novice teachers to grow, develop, and learn the tricks of the trade.

Based on this general scenario, the issue of teaching induction has been analyzed by different angles, namely: the development of a professional identity; the characterization of the induction phase; problems related to maintaining novice teachers; recognition of early training in contrast with the experiences during professional induction; follow-up programs to retain novice teachers; teachers' learning.

Considering the diversity of themes in the research field, in this article we will focus on the process of professional development of novice teachers, especially the relation of continuity/discontinuity between two phenomena in the teaching career: (i) the pre-service training at the university (undergraduate teaching degree, in Portuguese called *licenciatura*) and (ii) the professional insertion of Physical Education (PE) novice teachers in the school. We try to connect the processes of pre-service training, induction to teaching, and the teaching actions of PE teachers.

The main object of this research is linked to the national and international theoretical debates that deal with the cycles of teachers' professional development. This subtheme in the research field of teacher training understands that the teaching career is established by a continuous education marked by cycles or phases of professional development. Under this analytical perspective, we recognize that the teachers, under the "learning to teach" point of view, would go through different phases that would represent specific and different personal, professional, organizational, contextual, and pedagogical demands (Marcelo, 2006).

In the analysis on the theme of teachers' professional development, there is a recurrent perspective that this is a long-term process, that integrates different types of opportunities and experiences, systematically planned to promote teachers' professional growth and development (Villegas-Reimers, 2003). These diverse experiences of training, through the contact with different subjects, practices, reflexive processes, and contexts, intentionally or not, could potentially improve teachers' training and practice. These definitions are based on the idea that teachers' professional development is a continuous process that starts when entering a teaching undergraduate degree (*licenciatura*) and continues during all their professional lives, in various spaces and moments, encompassing personal aspects (generational), familiar, institutional (their own K-12 and higher education), and sociocultural (the culture of a country and/or a regional context) (Fiorentini & Crecci, 2008).

Having this initial perspective, the literature on the theme in the last decades has been trying to designate or speculate on the existence of marking phenomena that would characterize the evolution of the teaching career. Some authors in this area point out that the teaching career can be defined as a continuum marked by cycles and phases of professional development. To Feiman-Nemser (1983) there would be four cycles: pre-training phase, initial preparation, moving on to induction and continuing through the teacher's years of service. However, in other article, the author points out three phases: initial preparation, induction (a transition phase between initial preparation and starting in the profession), and development (Feiman-Nemser, 2001). Nóvoa (2017) agrees with the perspective that the teaching career would be marked by three phases: pre-service university education, induction to teaching, and stability in the profession. Flores and Day (2006) reinforce the thesis that there would also be three demarcation phenomena that have a strong influence on the processes of construction, deconstruction, and reconstruction of teachers'

professional identity: the influence previous to the experiences of professional training, the pre-service academic/professional training, and the work on educational contexts.

On this theoretical debate on the professional development cycles and phases, we can perceive that, to a certain degree, there is a consensus that pre-service training and the first years of teaching are two singular training moments in teachers' trajectory and can potentially determine the construction of their professional history, influencing the type of relation established with work. Based on this theoretical assumption, we will develop in the next part of this article, some reflection on these two moments on teachers' training and work trajectories, aiming to problematize the processes of continuity/discontinuity between these two moments in teachers' professional trajectory.

Pre-service training *versus* induction to teaching?

As we could see so far, the debate on the theme of teachers' professional development has embedded the idea of evolution and continuity that overpass the traditional and current juxtaposition between pre-service and in-service teachers' training. However, national and international diagnoses have shown that the reality reveals a clear discontinuity between the pre-service training, the professional dilemmas, and the processes of teacher learning during the early years of teaching.

The discussion on the need to invest in policies and actions that guarantee a certain continuity in the process of teachers' professional development is largely present in the theoretical debate in the field of teacher training and international evaluative reports on public policies. In both areas of reflection the issue of quality and pertinence of the training models in the pre-service programs and the induction policies are discussed. In general, we can perceive a great dissatisfaction from the political instances and the in-service teachers on the capacity of the current training institutions to answer teachers' demands. The criticisms that consider it a bureaucratic institution that separates theory and practice, an excessive fragmentation of the content, and a weak connection with the schools find echo in some voices that propose a reduction on the time granted for pre-service training and an increase on the attention given to the period of professional insertion (Cochran-Smith & Fries, 2005).

In Brazil, the studies on pre-service training offered in higher education is not much different from the international diagnosis. The studies on Brazilian teaching undergraduate degrees have shown a series of limits and dilemmas that hinder the development of training action in synch with the challenges presented by the school reality and the teachers' work in Brazil: the separation between the content-oriented subjects and the pedagogical ones; the dichotomy between bachelor's and teaching degrees (due to the devaluation of teaching at the university, including among teachers in the area of education); the disarticulation between academic training and the practical reality of schools and teachers, which assign only a small portion of its curriculum to teachers' professional practice and the questions regarding school, didactic, and school learning; the lack of attention to the school placement/supervised internship, that end up not being effective practices and a source of reflection on the pedagogical actions (Diniz-Pereira, 2011; Gatti, 2014).

This somber diagnosis on the quality of the training in the Teaching degrees and its questionable repercussion on the process of teachers' professional development is endorsed by international reports of multilateral bodies, as can be seen in the conclusion of the Organisation for Economic Co-operation and Development (OECD, 2006) report:

The stages of initial teacher education, induction, and professional development need to be much better interconnected to create a more coherent learning and development system for teachers. (...) A lifelong learning perspective for teachers implies that in most countries much more attention will need to be focused on supporting teachers in the early stages of their career, and in providing the incentives and the resources for ongoing professional development. In general, there could be better value from improving induction and teacher development throughout teachers' careers rather than increasing the length of pre-service education. (p. 13)

As a counterpoint to this pessimistic view that even relativizes the important of pre-service education as a key phase for the continuous process of becoming a teacher, there are authors who defend the thesis that this cycle of training would be crucial to face the dilemmas of professional induction in later phases of the teaching career. On that, Berliner (2000) refutes part of these criticisms that normally targets the pre-service education (that knowing the content is enough to teach, teaching is easy, that teacher trainers live in an ivory tower, that the subjects of methodology and didactic are superficial, that in education there are no general valid principles, etc.). For the author, these charges reflect a very narrow perspective on the contribution of pre-service education to teachers' performance. According to him, little

attention is given to the development of evolution aspects of the 'learning to teach' process, since pre-service education, until the first years of teaching and in-service training.

The relevance of the experiences in the Teaching degrees, and the insertion during the first years in the profession (induction period) as a continuous development of the profession, is portrayed in a meaningful number of national and international studies. The analyses done in various pre-service education programs have shown that this time and place of education can provide: the development of a teacher identity and/or a more positive teacher identity; the refinement of a sense of self-efficiency in the classroom; the development of an ability to reflect; development through the encouragement of research actions in practical situations; school placement experiences that can provide a more realistic perspective on the school and the teachers' work with would guide stronger choices on the continuity (or not) in the career; and the experiences of sharing the autobiographies of teachers and students who can resignify their initial perception on teaching and the social role of school (Barreto, André, & Passos, 2012; Beauchamp & Thomas, 2009).

Though recognizing the limits of pre-service education as a moment of simulation and anticipation of the professional reality, we have to recognize that it has an important and irreplaceable role on the process of teachers' professional development, an assumption completely different from the one suggested by some groups or institutions. As reminded by Gatti (2014),

Teachers develop their professional condition, through their basic education during their undergraduate, and also their experiences as teachers, starting during the undergraduate and solidified during their work in the educational systems. However, we have to highlight that this professional development seem, nowadays, to establish itself with conditions that go beyond operational and technical experiences associated to the teaching work, becoming an integration on the ways of acting and thinking, implying a knowledge that includes the mobilization not only of work knowledge and methods, but also intention, individual and group values, school culture; it includes the confrontation of ideas, beliefs, practices, routines, objectives, and roles, in the context of daily actions, with children and young people, with colleagues, administrators, aiming to better educate the students and themselves. Initial basic types of learning to ground this configuration should be provided by Teaching undergraduate degrees. (p. 36)

The consensus that a good pre-service education has a key role to understand teachers' work more realistic makes us recognize that this cycle of professional training can also have a crucial role in building induction experiences that favor the retaining of new teachers in the career, as well as their professional development. The relation of continuity/discontinuity

between these two demarcation phenomena in the career (pre-service and induction) constitute a critical element to teachers' professional development.

This is justified because the encounter with professional reality is often described in the literature with harsh terms, as “crisis with the profession”, a type of “baptism by fire” (Kelchtermans & Ballet, 2002). The start in the profession is also portrayed as a “reality shock” and a “transition shock”. Such terms are used to refer to the situation experienced by many teachers in their first years teaching, which correspond to the impact of the first contact with the social-professional environment and the rupture with the ideal image of teaching. It is the breakdown of the missionary ideas shaped during their training, due to the difficult reality of dealing with the challenges emerged from the daily life in the classroom; and the lack of resources and support from the school community. In some cases, this traumatic period lasts longer; this will depend on the assimilation and the understanding of the complex reality teachers must face (Veenman, 1984).

Such crisis dimension in the professional life experienced by novice teachers is motivated by personal aspects (low level of commitment with the profession due to a wrong career choice), lack of support from the academic and administrative community, the lack of induction projects (the follow-up of novice teachers by more experienced teachers in mentoring projects), low salaries, lack of material resources in the schools, multiple tasks and institutional roles to fulfill, few opportunities to participate in the decisions about the school project, inadequate professional education (low quality of pre-service training).

This reality has created material and symbolic obstacles to enact a formative action that should be characterized as continuous, systematic, and planned. What we can see on the studies on the theme is that the responsibility to manage the titanic task of developing the teacher career is, often, in charge of the individual actions of teachers, marked by informal training experiences, almost always punctual and unsystematic. In this framework that lacks organic and continuous follow-up policies of novice teachers, the experiences of pre-service education are, in our opinion, even more relevant.

Thus, one important element to consider in the analyses on the transition between pre-service education and induction time is the perception of novice teachers on this experience. Which more evident discontinuities mark this training continuum that, theoretically, should be subsequent, complementary, and organic? Do teachers recognize in this trajectory any points of intercession in this continuous process of becoming teachers? If so, what contents in their training reverberate and are resumed and broadened during induction? To what measure such training contents contribute to establish, protect, and restore their self-perception as teachers?

On these issues, we can use the reflection made by Huberman (1992), when discussing the idea of a sequential order in the professional life, punctuated by a series of phases, which would presuppose a formative continuum. Contrary to this belief of continuity, the author reminds us that each phase is essentially a new state, what would point towards a discontinuity. Theoretically, each phase would be a preparation to the next one and would limit the array of possibilities that can be developed in it, but that cannot, however, determine its sequence. At the same time, the author points out that the various sequences are not simply lived, phenomenologically, in terms of continuity, as, for instance, the induction to teaching that follows the pre-service training.

The need to analyze the intricacies of this phenomenon of transition or sequence of phases so striking in the process of professional socialization of novice teachers seem to have a direct relation with the increasing need to revert the dramatic scenario of professional abandonment, and the difficulties to retain new teachers in the educational systems.

Instigated by this problem, we developed a research that aimed to better know the perception of PE notice teachers graduated in *Universidade Federal de Minas Gerais* (UFMG) on their formative trajectory in the Teaching degree, using as a reference the to this evaluation the dilemmas experienced by them during their first years as teachers. We articulate to this central idea another important element of analysis: the condition of teachers graduated in PE (Teaching degree) who are responsible for teaching this subject in schools. With this research we aimed to find answers to the following questions: which intersections do these teachers find between their pre-service education and their induction period? What elements of continuity do they perceive in this process of professional development? Which discontinuities are more evident between these two training cycles?

Methodology

Research subjects

The research was done with 13 graduates in Physical Education Teaching (4 men and 9 women) in the *Escola de Educação Física, Fisioterapia e Terapia Ocupacional* (EEFFTO) of *Universidade Federal de Minas Gerais* (UFMG) in the last four years (since the end of 2009). We considered three central points when choosing the research subjects: time of professional induction (maximum three years of experience teaching PE in schools)⁵, educational level taught (K-12), and university degree (higher education diploma in PE Teaching in UFMG, regardless of the graduation year). The other characteristics of the subjects emerged *a posteriori*, that is, the final table of research participants had a random profile in some aspects (graduation year, institutional nature of the schools, age range, school years they taught).

In the end, we had a total of 13 teachers who had a maximum of two years in the school and aged between 23 and 27 years old; therefore, they were not only new teachers, but also young. Regarding the schools, all worked in public (municipal and state) and private schools in the metropolitan region of Belo Horizonte.

We opted to work with graduates from a single institution and curricular structure so that we could establish more credible relations between pre-service education and its repercussions when facing work challenges, typical on the first years of teaching PE in schools. Therefore, we would have more solid parameters to analyze the possible intersections between university training and the induction period, as well as to identify elements that point out a discontinuity in the professional development of these teachers, taken as a reference in these two training cycles.

⁵ The literature that deals with two cycles of professional development has a certain divergence on what would be the temporal framework of the beginning of teaching career. Generally, this period is designated in the theoretical debate as a time of professional induction that goes from zero to seven years at work. We have opted to work with the framework proposed by Huberman (1992), of 2 to 3 years since entering in the profession, as we understand that in this period there would be a higher intensity on the aspects of “survival” (shock with reality) and “discovery (teachers’ learning).

Data collection techniques

Interviews

We have conducted semi structured interviews considering four main axes: (i) the perception on teaching induction; (ii) the actions and strategies thought and enacted by teachers to face reality; (iii) the most meaningful teachers' learning; (iv) the relation between pre-service and teaching induction. With the interviews we aimed to answer the following questions: how do teacher perceive their current situation in the career? How do they think and act when starting their career in the field of PE pedagogical intervention? How do they perceive and evaluate their pre-service education (university), considering the dilemmas, challenges, and teaching learning experienced in their first professional years⁶?

Document analysis

The use of document analysis in this research aimed to broaden and enrich the description of the theme studied. Cellard (1996) helped us to better understand the importance of using the documents in sociological studies when stating that its use would help to add a time dimension to the social understanding. Thanks to the documents, we can make a longitudinal cut that favors the observation and the contextualization, the processes of maturation and evolution of individuals, groups, concepts, types of knowledge, behaviors, mentalities, and practices. The document analysis can then strongly decrease the level of influence exerted by the researcher over the subjects and reduce possible embarrassments when observing the events and behaviors to be studied, erasing the possibility of a reaction by the subjects researched on the data collection.

In our research, we analyzed a single document: the pedagogical project of the PE Teaching undergraduate degree in EEFFTO/UFMG. To analyze this documents, we tried to establish a dialogue between the perception of the subjects on their training in the Teaching

⁶ It is important to highlight that in this research we developed a content analysis and not a discourse one. The empirical material collected in the investigation was dealt with as a way of the subjects to express themselves, through which we have tried to categorize repetitive unities of the text (words or phrases), inferring the analytical denominations they represent.

degree – under the perspective of the challenges and dilemmas faced during their induction time-, shown in the interviews, and the set of pedagogical principles expressed in the guidelines described in the text of the curriculum project of the Teaching degree.

Some research findings...

Based on the analysis of data raised in the research, we could, initially, say that it was not an easy task the construction of categories of analysis that pointed out common aspects, and, at the same time, reflected the particularities of the experiences of the formative continuum of 13 subjects. Such difficult is related to the fact that these subjects had peculiar trajectories in the pre-service education (though having the same curriculum), as well as the singular contexts of professional induction in the education system. Despite the struggle to deal with such diversity of pathways in training and early years of careers, we have built some analytical axes that indicated broader aspects of the dilemmas, limits, and possibilities that marked these teachers' processes of professional development.

Initially, we asked the research subjects to identify and describe the main challenges faced during their first moments teaching in the schools. On this initial question, they reported that one of the professional dilemmas they faced and that distresses them was the direct relation with situations that involved the didactic treatment of PE specific knowledge, considering the different phases of K-12 education and the singularity of the students.

Such nuisance is caused, according to the teachers, by the few didactic references that can help them in this process of organizing the curriculum of PE. Most schools they worked did not have guidelines or strict prescription on this directions. The teachers reported that, in K-12, there is no clear *a priori* definition of the contents that should be studied during the year, and how to organize them during the school time in a more organic dialogue with the school project. This shows the high level of autonomy PE teachers have compared to other subjects. In most cases there is not a strong demand, from their colleagues or the pedagogical sector of the school, for accountability, evaluation, or the follow-up of these teachers. Consequently, they do not have to obey a certain schedule of contents following the period of school evaluations or other dates determined by the school calendar.

Outside the schools, this can be seen on the editorial market on didactic PE books which is still very restricted (in quantity and plurality). Thus, without a didactic book, the organization of the classes is one of the greatest challenges for these teachers. What contents should be taught? How to organize these contents during the school time? What objectives to reach? How long should each content last? How to deal with them according to the different phases of students' lives? How to relate them with the school project?

When questioned on the contribution of the pre-service education when facing these professional dilemma, it was possible to identify the first recurrence in the discourse of our research subjects: the difficulty of many teachers to didactically work the contents of PE (teaching of games, dance, fights, gymnastics, sports) considering the social role of K-12 schools; its different phases and modalities, and also students' characteristics, demands, and needs. The following excerpts show this incompleteness of the training process:

The issue here of the School of Physical Education [university], the teaching subjects, dance teaching, swimming teaching, fights teaching, no, I can't give any of those classes I've learnt here at the school, this is a fact. The teaching here is not for the school. The teaching here is not for the Teaching undergrads but for the Bachelor's, we aren't even close, this teaching we see here, in the subjects of teaching, of course we use something, we tweak here and there, and something to the class, but it is miles away what we learn on the teaching classes from what we have to work in the PE classes. There is a lack...this is because, willy-nilly, here we should learn, and not only learn what is swimming teaching, not just learn it, but to learn that you should do this way with your students, at school you can do it like that, at the school you can't do it like this, at school you can change this, you can change that, but not those. We weren't focused on the school. This teaching subjects. Very little. So I think this was a flaw. (Renata)

I belief there is a lack of practical classes, but those targeting school teaching, because we had many practical classes at the university, but focused on school, to a class, a year, a age, a certain number of students, this we didn't. We always had a standard class to teach, to put into practice our knowledge, sometimes it was even the students, our classmates, so, you know, we didn't have much problem and many, many things happened that would be closer to school at the university, in the scope of the university you know? (Samuel)

These reports point towards a first epicenter of discontinuity in the training trajectory of these teachers. It might seem obvious the idea that teachers who graduated university would have, by the end of their initial trajectory of professional socialization, incorporated in their didactic repertoire a set of reflexive and operational tools needed to face the challenges

of what is the core of their profession: teaching.⁷ In other words, that the pre-service courses would have taught how to make someone learn something (Roldão, 2014).

A first analysis on the reasons for this unevenness in the pathway between university education and the professional induction of PE teachers is connected to the experiences they had within the curriculum of Teaching degree in UFMG. When analyzing the curriculum structure of the *Projeto Pedagógico de Licenciatura em EF* (PPL- Pedagogical Project for PE Teaching degree) of UFMG we can see that a good number of normative principles from the National Curriculum Guidelines has been incorporated to the education of K-12 teachers (Brasil, 2002).

When deepening the analysis on the PPL, it is clear that the project makes a commendable effort to break away from the separation between the content-oriented subjects and the pedagogical ones. It is evident the attempt to escape from the idea, historically rooted in the curriculum of pre-service training courses, that the School of Education is responsible for teacher education or that a Teaching degree is synonymous of pedagogical subjects taught in this School. In the PPL of PE in UFMG, the School of Physical Education is co-responsible (together with the School of Education- *Faculdade de Educação* – FaE) for the didactic-pedagogical education of teachers.

When examining the curriculum structure described in the PPL document, this co-responsibility was evident. Among the five thematic axes that establish the PPL⁸, one is called “Pedagogical Knowledge of Physical Education in K-12”, that “encompasses a set of didactic-pedagogical knowledge that structure teachers’ interventions, regarding the planning, guidance, operation, and evaluation of Physical Education in K-12” (UFMG, p. 39). In this axis, there are 26 subjects and internships. We present below a list of these subjects:

⁷ On this point, Roldão (2007) highlights that the professional specificity of the teacher is the action of teaching, make others learn the contents.

⁸ The five thematic axes are: Axis 1: Knowledge on society; Axis 2: Knowledge on the human being; Axis 3: Scientific-technological knowledge; Axis 4: Knowledge on Physical education; Axis 5: Pedagogical knowledge of Physical Education in K-12.

Physical Education Teaching in Preschool; Physical Education Teaching in Elementary, Middle, and High School; Psychology of Education; Sociology of education; Educational policy. Teaching Didactics; Teaching of Gymnastics; Teaching of Games, Toys, and Plays; Teaching of Artistic Gymnastics; Teaching of Volleyball; Teaching of Soccer; Teaching of Games, Toys, and Plays; Teaching of indoor soccer; Teaching of Athletics; Teaching of rhythmic gymnastics; Teaching of Basketball; Teaching of Fights; Teaching of Swimming; Teaching of Brazilian dances; Contemporary Dances; Teaching of Capoeira; Teaching of Fights; Critical Analysis of the Practice (I, II, and III) and Internship. (UFMG, p. 40)

As we can see, there is a clear intention not only to guarantee teachers' didactic-pedagogical knowledge in students' education, but that this training is shared by the professor in EEEFTO and in FaE. It is important to say that out of the 26 subjects of this curricular axis 6 are in FaE: Psychology of Education; Sociology of Education; Educational policy; Teaching Didactics, Critical Analysis of the Practice (I and II). Besides this, out of the 405 hours of compulsory school placement at schools, 135 hours are under the responsibility of professors from EEEFTO, and 270 hours with PE professors working in FaE.

Though recognizing that, in the written curriculum, EEEFTO, through its PPL, announces the intention to assume its responsibility in the didactic-pedagogical education of their Teaching undergraduates, in the curriculum in action, there are noises in the dialogue between specific-content and pedagogical-content knowledge. When contrasting what is foreseen in the PPL with the testimonies of our subjects, we could say that, in the training experiences of these subjects, there is an unevenness, a discontinuity, an incongruity between how and what is taught in these subjects and the challenges imposed to the novice PE teachers during their first years. Paraphrasing Michael Huberman (1992), phenomenologically, the pre-service experiences directly connected to the knowledge in the field of didactic education have little contributed to create an effective continuous education.

We do not have many empirical elements for a more solid and conclusive interpretation on the reasons why such a meaningful number of didactic-specific subjects have little contributed to the evolutionary development of 'learning to teach'. A first attempt of explanation, more generic, comes from the many difference between the formative processes in the initial professional socialization at the university and the contexts and ways of teachers' learning typical of the induction period. It is important to recognize that we are talking about two very different experiences of professional socialization. However, there is and there will be, in this an apparent training continuum, unavoidable situations of discontinuities. The beginning in the profession may involve, at the same time, the learning of new knowledge,

reflections, practices, and the unlearning of ideas and beliefs. The word ‘unlearn’ may mean a non-linear professional growth, more painful and slow, or a deconstruction/reconstruction of this professional development process. Such contradiction signs not only the potential, but also the enormous complexity inherent to the continuous education of teachers (Cochran-Smith, 2002).

A second attempt to interpret the non-apparent reasons that produce the discontinuity between these two moments of teachers’ career development can be related to the historical establishment of PE academic field. On that, Bracht (1999) points out that, since the 1960s, the production of knowledge on PE in Brazil is strongly impacted by sport. As a consequence, the academic production turns towards the sport phenomenon. Thus, the sociopolitical importance of this phenomenon makes it legitimate to invest in the science in this field. On its turn, those who work in the area or on its interface privilege the sports theme because it offers the best possibilities to accumulate symbolic capital through the scientific production. Therefore, the social-political importance of the sport phenomenon (or the sport performance of the country internationally) grants legitimacy to PE. In this sense, sport imposed itself as a content and as a meaning of and for PE. Due to this hegemony in the academic field, the pedagogical discourse of PE was almost suffocated by the discourses on sport performance, drowned by the sociopolitical importance of the Olympic medals, or the public desire for medals.

This history of the constitution of PE academic field explains, to a certain degree, the following paradox: the curriculum of PE Teaching in UFMG offers students an ample and varied set of subjects dealing with specific didactic – subjects mainly taught by professors in the area/specific school - , thus assuming a certain protagonism in the education of these new teachers. Simultaneously, our research subjects reported that these subjects (or most of them) have found it difficult to effectively contribute to the didactic-pedagogic education of its undergraduates. A possible explanation for this paradox comes from the fact that a great part of the professors who teach these PE Teaching subjects have established their academic-professional career with no strong bonds with the theoretical and pedagogical practice of PE in schools.

This history of the academic-professional education of teacher trainers in PE creates obstacles to the epistemological mediation between the content knowledge, the aims of a integrative curriculum, and each learner in his/her singularity. According to Roldão (2017),

... risking losing the possibility of efficiency in teaching: it is important to didactically connect the scientific curriculum content to each student in his/her diversity, guided by a third element, the global curriculum aim that gives meaning and intentionality to the others. Many of the alleged learning difficulties that some authors re-baptized as teaching difficulties originate exactly in the didactic difficulty, on the teacher, to harmoniously operate the mediation among these three epistemic universes: the knowledge of specific scientific content to teach; the students' knowledge on the contextualized singularity of their cognitive learning process; and the knowledge of the curriculum and its ends, as a construction and a social mandate guided towards the equity of the recipients (p. 1145)

Though generally recognizing that there is an unavoidable discontinuity in the passage from the student life to the work life, we have to recognize that the reality here narrated has potentialized the gap, the breaks, and the structural unevenness during the professional development of these teachers. The radicalization of such discontinuity can become a powerful element to intensify the most painful aspects of teachers' induction experiences, a fact that would delay teachers' professional growth, as well as often leading to traumatic and irreversible processes of professional divestment and leaving the profession.

Parallel to the criticism to the didactic-pedagogical education received during their undergraduate course, our subjects recognize that this trajectory of professional training, was key to face the challenges faced in the first years of teaching. Below we present some excerpts that point out positive aspects of the experience of becoming a teacher:

This need to research that UFMG has taught me; so this was the greatest contribution of all, of going after the sources, of knowing what is nice and what isn't, have some good sense, UFMG has helped a lot, has contributed a lot. And I believe that one thing missing, and that is exactly because we as human beings are very lazy, is not having a planning ready, because I think that, when we leave college, we kind of have this in our mind, I already have a planning there, of handball, of gymnastics, so I just have to get there and enact it. So I believe that I kinda left with this idea, I have all ready, I just have to take this and go with this, but it's completely different. If you don't re-plan that, don't give a meaning to that in the school you are, all that is worthless. And, when I left, I had this impression that I had few class plans, I had few work tools. Later I started to make them, I started to go for it, the university definitely taught me that, what to research, all, so I think I overcame this....Documents that helped in the class. Not necessarily the content. I really missed having a plan for preschool on gymnastics. So I didn't have this plan. So I had to create. But college gave me this support to research, where I've researched, with what, to have an idea of what could work or not, if it was suitable to that age or not, college helped me with that. (Samuel)

Today I see that the training has helped me, and I perceive that the way I was trained has helped me a lot when I need resources in the moment and I can do it because of my education here. This own, this own incentive to reflection. I'm emphasizing this because it is important. But I just noticed how important it was when I started to practice. (Ludmila)

I think that the main, maybe a broader question of Physical Education to become a subject is related to the issue of legitimacy, the issues of...I don't know if I can define it now, but this think of understanding what is Physical Education. The discussion is this: on what is Physical Education, a concept of Physical Education, what Physical Education teachers, what are the objectives, what are the contents, many situations in which we had, for example, in the school placement subjects that I think were very effective, because you won't arrive in the school completely lost. You know....At least I work like this: I need to know the broader first, I feel better this way. I think that a broader knowledge...Maybe what was provided through various moments, of discussion, of works, of texts we had during undergrad. (David)

I evaluate positively my education, mainly regarding the understanding of Physical Education as a subject, as an area of knowledge, I think this was very clear. I could reach school and know what I had to do in the school, this was very clear to me, this was never a problem to, my induction in the environment of the school. (Ramona)

These excerpts basically deal with three constituent aspects of the professional socialization process. Or, in the terms used by Nóvoa (2017), meaningful types of learning on how to be, feel, act, know, and intervene as a teacher. In these excerpts, the teachers highlight that the experience in undergraduate has helped them build a type of disposition to reflect and the practice of useful autonomous practice in a context of professional induction devoid of curriculum references that guide PE teaching in school (lack of the culture of a didactic book). In this environment of great uncertainty and didactic- pedagogic unpredictability, developing or incorporating initial dispositions of reflection is a crucial type of professional knowledge to develop a place of authority within the profession. As reminded by Roldão (2017), having a reflexive action on the practiced is key in building, renovating, and developing a professional knowledge.

On this first positive aspect of the educational experience in the undergraduate, it is important to highlight that these narratives are not built in the void but in a dynamic relation with the institutional environment in which the teachers were immersed during their course. We affirm this because in a university such as UFMG, whose academic authority was built on the assumption of the inseparability of teaching, research, and outreach, there are structural conditions that allow a broader field of participation in project involving research practice and the contact with practices of teaching simulation in projects of outreach and teaching.

On this point, we cite excerpts of the PPL of PE, which recognizes and stimulates, as part of the training process in the undergraduate, the effective involvement in varied set of academic activities, among them: undergraduate research, induction to teaching and to outreach; activities of students' improvement; participation in academic events, scientific or artistic; participation in study groups⁹.

Furthermore, they have to produce a *trabalho de conclusão de curso* (TCC- Final Undergraduate Work), which must be “on a theme related to Physical Education as a curriculum component of K-12 education” (Universidade Federal de Minas Gerais [UFMG], 2006, p. 34). Together with the experience on research practice that takes place when thinking and developing the TCC, the students of the Teaching degree in PE in UFMG have, within the university, the possibility to interact with 15 research groups, all of them developing studies on the themes related to the academic-scientific field in the area.

About this context, it is important to highlight that a significant part of the 13 teachers who participated in the research were involved in different teaching, research, and outreach projects offered in and out of EEEFTO. Beyond the prescribed curriculum, this plurality of possibilities of formative experiences seem to be phenomenologically experienced by some of them. We understand that almost all compliments on the pre-service education point out to the fact that, for the interviewees, in different degrees, such training experience presents itself as a preparatory phase for the next steps of the professional socialization process.

On this point it is important to stress that we would need to develop more longitudinal studies aiming to follow novice teachers more closely to observe this continuity. As reminded by Huberman (1992), a phase that prepares the following one and limits the array of possibilities that can be developed on it, but that cannot determine its sequence. This inevitability is built *a posteriori*.

A second aspect present in the teachers' interviews is related to a fact that might seem strange for teachers of other schools subjects. According to some of our interviewees, the pre-service training was key because it would have allowed a clearer identification/understanding on the teaching object of this subject in the school curriculum. Compared to other subject fields that are more established and/or have a higher academic/pedagogic status

⁹ In the PPL of EF in UFMG, it is stated that “the students must fulfill a minimum of 20 hours (minimum of 14 credits) in academic/scientific/cultural activities”.

(Mathematics, Portuguese, and others), the definition of the contents of the subject is delimited/conveyed, among other reasons, by the weight of the editorial market of school books and the control of policies and evaluation on what counts or not as knowledge.

Using as a reference Shulman's (1987) thesis, which established the integrating elements of teachers' knowledge, contributing to shed a light on the different dimensions mobilized by the complex act of teaching (content knowledge, pedagogical content knowledge, curriculum knowledge, students' knowledge and context knowledge), we can affirm that pre-service education provided key types of learning to understand some singularities of the content knowledge of PE teaching, the pedagogical knowledge of the content and the curricular knowledge. The importance of such professional learning establishes a relation with conceptual transformations in the area because it answers three challenges/dilemmas to which PE teachers have had problems to find clear answers: obstacles to create a sense to PE in consonance with schools' social function- the lack of organization and explicitation of knowledge that is due to a school subject (curriculum problem) –; and problems to teach old and new contents according to what is expected from a school subjects, as well as dealing with the complexity of the knowledge under his/her responsibility (didactic problems) (Gonzalez & Fraga, 2012).

The importance of these teachers' learning highlighted by novice teachers is also related to the process of delimiting a position not only in the personal level, but also within a given professional configuration (Nóvoa, 2017). According to this author, it is key to notice that this positions are not fixed, but depend on a permanent organization in a certain professional community. The position is always relational and it is important to perceive it as a taking an action, that is, as a public statement of a profession.

In the case of novice PE teachers, the achievement of this public statement of their condition as teachers goes through the personal and public recognition of PE as a school subject. Such achievement has more dramatic contours considering its subordinate/marginal place in the hierarchy of school contents. The position, in this case, is the result of the development of a place within the teaching profession. On this analysis, it is important to highlight that the experience of teachers' induction in subjects considered "second level" is something to be reflected in studies on the professional induction processes, as teachers' mandate also affects their status due to the hierarchy of subjects. Teachers, in general, pursue

objectives and make an effort to respect educational programs, but these do not have the same value for students, parents, and even the teachers themselves. Thus, the hierarchy among school knowledge is translated in a professional hierarchy of teachers' identity, that refers to partially different pedagogical practices depending on students' motivation, parental pressure, and the perception of colleagues. The mandate of teachers' work differs, according to the logic of symbolic power of the subjects, a power inherited or appropriated by those who teach them (Tardif & Lessard, 2005).

This point deserves to be stressed because, when asked on the main dilemmas faced on the first years as teachers, our research subjects report situations of professional vulnerability emerged from critical positions of disrespect towards their condition as teachers. This disrespect towards teachers' authority is directly related to the perception of school actors that PE would roughly be an appendix of the other school subjects. Often, the teaching actions of PE teachers are not seen as a pedagogical work that is capable of meaningfully influence students' education, and their classrooms and didactic objects are not recognized as such. Besides this, the environmental conditions of the classroom potentialize the lack of privacy for teaching activities, the low expectations of their peers and school administration towards the type of learning that takes place in PE classes, and the tensions with the students who perceive PE as solely a space for entertainment. This context of professional disrespect undermines the possibility to safe keep what makes teachers stay in the profession and develop themselves: the perception of their professional self-efficiency, the motivation, the commitment, and work satisfaction (Machado, Bracht, Moraes, Almeida, & Silva, 2009).

Final remarks

The reflections brought in this text aimed to face the challenge of understanding how novice PE teacher, graduated on the PE Teaching degree in UFMG, perceive their pre-service education based on the challenges and dilemmas faced during the induction period. Assuming that the pre-service training and the induction period represent two temporal marks of the teaching career, we have tried to understand the continuities/discontinuities in this apparent formative continuum.

A first point to be highlighted, our study confirms what the national and international studies have been showing for decades. There is still a distance between pre-service education offered in the universities and teachers' work in the schools. We stress, in the teachers' interviews, the difficulty to establish connection between the specific content and the pedagogical knowledge. On this, we stress the difficulty of the professors who teach "PE teaching subjects" to produce a more organic and qualified relation with the demands and singularities of the schools. Nonetheless, we recognize advances in the PPL of PE at UFMG, as the School assumes an apparent protagonism, though some fractures continue, imposing obstacles to the process of teachers' professional development.

We emphasize that such discontinuities are related to the history of the academic field in PE, especially the difficulty to train teacher trainers with a professional/academic knowledge anchored in the issues of school PE. This is hard to be solved given the fragmentation of the themes, and their consequent hierarchy. This reveals another important fact: our findings call attention to the need to consider teachers' belonging to a certain subject field as an element of analysis of the process of teachers' professional development. This belonging seems to create specific conditions to enter and develop their career, thus it is a powerful element to build meaning to the phases of professional development.

Another point to highlight in our study is the need to ratify the irreplaceable place of pre-service education in the process of becoming a teacher. As expressed during the text, many types of learning built during this time are key when facing the challenges in the first contact with teaching. As we described in the article, there are in the same course the anachronisms broadly described by the literature in the area, as dynamic poles that try to implement formative experiences with a broad dialogue with the school and its actors, and bet on the development of a reflexive process marked by action-reflection-action.

Still on this point, it is important to recognize that the university environment imposes a set of obstacles to teachers' training: the Teaching degree is a sub product of the university life; the emphasis on research and the post-graduation over teaching; the low status of the research in education; the abyss between the university and the public school and its actors; the difficulty to integrate the different subject fields (Candau, 1997). Though recognizing this discouraging framework, our research subjects also point out that the university experience is a field of possibilities to teacher education. The possibility of voluntarily participating in

teaching, research, and outreach projects is recognized by them as a time of professional learning that not only broaden the educational experiences of the subjects, but also allow other types of learning that these more formal times/spaces of the curriculum could not reach.

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Submission data:

Submitted for evaluation in August 11, 2018; revised in October 8, 2019; accepted for publication in June 23, 2019.

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