

The Teacher Mentoring Role and the Reflexive Teacher Formation during Supervised Internships in the Science Education Area

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ABSTRACT

In the initial teacher education scenario, the supervised internships are considered as privileged spaces for the teacher's professional development, while a reflexive practice is one of the paradigms which guide this formation. Hence, a significant part of the formation of a future professional lies on the university professor who takes the responsibility for the orientation of these practices. In this context, this study has the objective to identify and analyze how professors at the beginning of their career paths, who have just taken the role of supervising the practices, conceive and deal with their mentoring role and with the function of orienting reflexive practices in the education of trainee teachers. Eight professors from different teacher training courses in the Science Education area at a public federal university in Brazil have participated in this case study, where semi-structured interviews and content analysis were used as the main techniques. The results have suggested that, for one group of these professors, the reflection would have a transformative and critical function over their practices and their professional contexts. On the other hand, for the other group, the teacher mentoring role seemed to present a more pragmatic preoccupation, as well as the function and the way to conduct this reflection. While they are moving towards accomplishing their role as teacher mentors, other factors also show some influence in building their identities. Regarding the field of teacher education and the professionalization of education, this study has pointed out to some paths towards which it is possible and necessary to advance and it may contribute to leave teaching from a critical and reflexive orientation as a heritage for the next generations.

Keywords: Supervised Internship. Internship Orientation. Initial Teacher Education. Reflexive Practice.

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O Papel do Orientador e a Formação do Professor Reflexivo no Estágio Supervisionado da Área de Ciências

RESUMO

No cenário da formação inicial de professores, os estágios supervisionados são considerados como espaços privilegiados para o desenvolvimento profissional do professor, enquanto a formação para a prática reflexiva, um dos paradigmas que norteiam essa formação. Portanto, uma parte significativa da formação do futuro profissional compete ao docente universitário que assume a responsabilidade pela orientação dos estágios. Neste contexto, este trabalho teve como objetivos identificar e analisar como os docentes novatos, que assumem o lugar de orientadores de estágio, concebem e lidam com o papel de formadores e com a função de orientação de práticas reflexivas na formação dos futuros professores. Trata-se de um estudo de caso do qual participaram oito docentes de diferentes cursos de licenciatura da área das ciências de uma universidade pública federal, utilizando-se como técnicas a entrevista semiestruturada e a análise de conteúdo. Os resultados apontam que para um grupo desses docentes, a reflexão teria uma função transformadora e crítica sobre as práticas e sobre os contextos profissionais. Para outro grupo desses docentes, o papel do orientador assumiu uma preocupação mais pragmática, assim como a função da reflexão e o modo de conduzi-la. Enquanto caminham para efetivar seu papel de formadores de professores, outros fatores também mostram sua influência na construção de suas identidades. Em se tratando do campo da formação de professores e da profissionalização do ensino, este estudo nos indicou alguns caminhos por onde é possível e necessário avançar, podendo contribuir para deixar a docência como herança para as próximas gerações a partir de uma orientação reflexiva crítica.

Palavras-chaves: Estágio Supervisionado. Orientação de Estágios. Formação Inicial de Professores. Prática Reflexiva.

INTRODUCTION

The task of training a teacher in a position to meet the demands of a world in constant and rapid change requires that training institutions break with mechanisms, structures and conceptions that have long been solidified in educational spaces and practices. For Imbernón (2001), education approaches other demands (ethical, collective, communicative, behavioral, emotional) and the teaching profession puts into practice other functions (motivation, struggle against social exclusion, participation and community relations). In this sense, it is up to the teacher to become aware of, denounce and participate as a dedicated agent in the creation, innovation and change of teaching actions and practices that no longer make sense in the context of the education of students in the 21st century. This position is necessary since the initial education, as a component in the construction of the professional identity within the educational institutions and must last throughout the exercise of the teaching profession (Crisostimo, 2003; Schnetzler, 1998).

In the scenario of the initial education, supervised internships can be understood and approached as privileged spaces for professional development (Libâneo & Pimenta, 1999) and for the exercise of awareness of the role of a questioning and investigative teacher (Ghedin, 2012), aiming at overcoming the technical rationality that is incapable

of responding to the challenges that emerge from the daily situations of professionals (Schön, 2000).

Thus, one of the perspectives for training questioning and investigative teachers is to understand internships as research spaces, creating the bases for the formation of the reflexive teacher and researcher of their own practice. According to Pimenta and Lima (2013), in this line of education, the internships began to value activities for the development of the capacity for critical reflection involving not only future teaching professionals, but also the contexts where teaching takes place.

Although a very significant and complex part of the education of the future professional is under the responsibility of the university professor who takes over the academic internship advisory, the research works involving this professional when in the role of an advisor are still very incipient in Brazil. Assai, Broietti and Arruda (2018) analysed 56 journals in the area of Science Teaching, classified with Qualis A1, A2 and B1, finding only 87 articles published on supervised internship in initial teacher education between the 2000 and April 2018. As results, 8 categories emerged, representing the main aspects addressed by researchers/educators on supervised internships, 6 of which focus on the degree student. Only 3 articles make up the only category that involves research with the advisors – university professors and the teachers conducting the internship field schools, one of which describes the situation of internships outside Brazil.

Therefore, by emphasizing how important it is to understand better the role of an internship advisor – since the interactions they promote are fundamental for teacher education – this work aims to identify and analyze how new professors, in the beginning of their career paths, who work as internship advisors, conceive and deal with their role as educators, particularly with the function of guiding reflexive practices in the education of future teachers.

THEORETICAL ASSUMPTIONS

From LDBEN 9394/96, the paradigm of formation of “Educators” (Brazil, 1961) was changed to the paradigm of formation of “Education Professionals” (Brazil, 1996), aiming at the professionalization of teaching. By professionalization we understand how an occupational group seeks to improve its *status* in society through professional development (Hargreaves, 2000), and how, based on a knowledge basis that supports their professional practice (Tardif, 2010), it may be aimed at the achievement of autonomy (Contreras, 2002).

Therefore, the new guidelines for teacher education began to contemplate the need for knowledge foundations and practical training (Brazil, 2002b; 2015), considering teaching as a complex and high-level activity (Holmes Group, 1986). In this way, the development of professional competences (Brazil, 2002a) and the education, or formation, of a teacher who uses the research to analyse the pedagogical practice (Brazil, 2015) will be considered in teacher training. Although the curriculum basis maintains links with the

technical-scientific curriculum model and university professors have difficulties in leaving the disciplinary sphere (Borges, 2008), a change of mentality is expected.

As a result of these changes, the role of the agents involved in this process, such as teacher educators, is considered. In the new teaching policies, concerning university, this educator was recognized in the Referenciais para a Formação de Professores (Teacher Education Guidelines) (Brazil, 1999) also with the name of professor supervisor and, more recently, as a professor advisor (Brazil, 2008) and preceptor (Brazil, 2018). Thus, the next two topics will focus on the demands of this education and on the education of the educator.

The Supervised Internships and the Demands for the Professor Advisor

The supervised internships correspond to a compulsory curricular activity of the teacher training – except for higher education – planned and supported by the legislation (Brasil, 1996; Brasil, 2002a; Brasil, 2002b) aiming at “offering to the future licensee a knowledge of the real situation of work... to verify and prove the fulfillment of the competences required in professional practice” (Brasil, 2002a, p.10).

The training guidelines also emphasize the specificity of the professor who will be responsible for conducting the internships within the training institutions:

[...] the supervised curriculum internship presupposes a pedagogical relationship between *someone who is already a recognized professional in an institutional work environment* and a trainee student. [...] the supervised curricular internship is the moment to carry out, under the *supervision of an experienced professional*, a teaching-learning process that will become concrete and autonomous when this trainee is professionalized. (Brasil, 2001, p.10, emphasis added)

Thus, it becomes understandable and desirable that, given the complexity of the task, the demand for an institutionally recognized and experienced professional to take the trainees' follow-up is legitimate. For Lamy (2000), knowledge from experience and expertise are not enough for someone to undertake this role, and it is necessary that the educator builds a new set of skills that will manage this period of professional development. In addition, advisors should implement resources other than those used when they are teaching, in order to help trainees to see problems from a new angle, as well as stimulating their capacity to reflect and assume a professional attitude (Chaliès & Durand, 2000; Altet, 2000).

If we consider the reflective teacher paradigm, in this context, as a further challenge of the role of the advisor, it seems reasonable to expect that “only a an educator prepared for a reflexive behavior can manage a to provide a reflexive formation [...] that is also in the process of search and development of the self” (Paquay & Wagner, 2001, p.159).

Among other words, if we want a reflective critical student, we need a reflective critical teacher (Libâneo, 2012).

According to Perrenoud (2002), in order to train reflective professionals, institutions must have an intentionally clear plan in this regard. Otherwise, there is a very common risk of valuing methodologies and techniques, limiting them to solving problems about the didactic-pedagogical practices of the classroom. However, the goal is to prepare professionals with critical involvement to play their role as citizens in a society.

Although we can agree with such assumptions, the fact is that it will be the university professor's decision whether to experience or not, within the universities and institutions of higher education, the responsibility of advising internships. Part of this role will be to face a series of challenges, such as: linking teaching and research (Amorim & Bagnato, apud Crisostimo, 2003); comparing the dichotomy theory and practice (Pimenta & Lima, 2013; Pimenta, 1994; Libâneo, 2012); bringing university and school closer (Vedovatto Iza & Souza Neto, 2015; Ludke, 2009); and, in a reflexive perspective, forming independent professionals and researchers (Pimenta, 1999).

Inexperienced professors, who are beginning their career trajectories, are expected to be affected by conflicts in the face of new practices (Corazza, 1996), through the deconstruction of certainties, beliefs and knowledge acquired in training and practices (Crisostimo, 2003) and of the awareness of their own schemes of action and the *habitus* of their profession (Souza Neto, Sarti, & Benites, 2016; Perrenoud, 2002).

The Formation of the Educator and the Reflexive Practice

According to Altet, Perrenoud, and Paquay (2003) many researchers ask themselves and research on three aspects: who the teacher trainers are; what their specificities are; and what the differences between a teacher and a teacher trainer are. In search of this identity, or professionalization, some researchers try to answer how they acquire or build their skills, their knowledge, and finally, how they develop within the profession.

In this context, Snoeckx (2003) concludes that the trainer, or educator, is a potential self-educator, because their formation takes place in their very workplace, amid growing institutional demands and with increasingly limited personnel. Faingold (2003), concerned with the teacher trainer, based on a reflexive practice, advocates a "clinical" work with them, aiming to provide them with skills such as listening and interviewing techniques, as well as strategies of analysis of their practices with the trainees, raising awareness of their attitudes and expressing their difficulties when in the role of tutors.

For Ghedin (2012), if the perspective is to transform teaching experience into a knowledge producing and generating space, the professors must take a critical stance on their own experiences. And it is not enough to be limited to those classroom experiences, but to include the questioning of the institutional structures in which they work, their social practices and their working conditions (Contreras, 2012).

Thus, beyond the difficulty inherent to the reflexive act – for which most trainers were not prepared – it is expected that, as a social practice, it is carried out in groups, so that professors can support and encourage each other (Zeichner, 1992). In this way, the professors who play the role of internship advisors would reach not only their self-development, but also help with their peers' professional development by sharing knowledge, conflicts, beliefs and models (Altarugio, 2017). It should be noted that it is as difficult for the professional alone to be aware of their *habitus* as it is for them to promote changes (Souza Neto, Sarti, & Benites, 2016).

Thus, it seems understandable that, for a number of reasons, institutions do not always have properly trained or experienced professionals to undertake the follow-up of internships. Upon entering an educational institution – especially the professors who are beginning their careers – this role would already be presumed as its attribution in teacher training.

In this case, the internship advisors eventually construct their role from the knowledge they bring from their academic backgrounds or from the knowledge of the programs and materials used in the work – such as the ready manuals made available by the institution – or from their very professional experience (Tardif, 2010).

RESEARCH METHODOLOGY AND CONTEXT

This work is part of a research carried out in a young federal university in São Paulo, which completed 11 years of existence, and started to offer undergraduate courses in Physics, Chemistry and Biological Sciences from 2009. In these courses, the 400 hours of compulsory supervised internship are divided into 5 modules of 80 hours each, with two modules reserved for Elementary School II (Science) and the other three modules for High School in their respective disciplinary areas. Unlike what is observed in other universities, these internships are not linked to a subject of Teaching Practice, but are inserted in a specific discipline called Supervised Internship. From the 80 hours of the module, a total of 24 hours is reserved for meetings between the advisor and his/her group of trainees at the university.

Another important characteristic about internships in these degree courses is the existence of different formats in terms of plans for the activities developed (methodologies, strategies, evaluation) depending on the course of origin, the pedagogical project of the course and the professor who advises. Although there are two documents, the Institutional Resolution and the Supervised Internship Manual that establish standards and some parameters for advisors and trainees, the pedagogical freedom for advisors to lead their groups is preserved. Furthermore, trainees can, during their internship, work under the guidance of different advisors.

It is noteworthy that most of the professors investigated in this research began their experiences as university professors and/or as internship advisors within the institution in question, that is, they are beginning their careers, with between one and five years of

teaching experience in higher education. This study was approved by the University Ethics Committee (review 2.423.610), involving eight professors, five from the Chemistry (Q1, Q2, Q3, Q4, Q5), two from Biological Sciences (B1 and B2) and one professor from the Physics Degree Courses (F1).

Only the video recordings of the semi-structured individual interviews will be analyzed, based primarily on the references cited above. Each of the interviews sought to explore basically two approaches in the reports on pre-professional and professional experiences: professors' conceptions about the role of the internship advisor, and the practices in the conduction of the formation process of a reflective teacher. Therefore, in our analysis, we will highlight the statements we believe to be the most relevant for the objectives proposed in this study, also considering the limited space of this article.

This is a case study (Ludke & André, 1986; Stake, 1995; Stake, 2000), whose basic principle is the attention given to the context in which the object of study is situated, which allows for both a more particular and more complete apprehension of the object. In this sense, it is “[...] necessary that the analysis be not restricted to what is explicit in the material, but try to go deeper, revealing implied messages, contradictory dimensions and systematically ‘silenced’ themes” (Ludke & André, 1986, p.48).

RESULTS AND DISCUSSION

The Role of the Advisor of the Supervised Internship

Among the most noticeable conceptions the interviewees disclosed about the role of the internship advisor is *to mediate between theory and practice*. However, its meanings were not indisputable, so it would be important to have them discussed further, since differences in meaning can jeopardize substantially the advisor's posture in the exercise of the reflexive practice, consequently, the formation of the reflexive professional.

According to Pimenta (1994), the dichotomy between theory and practice is supposed to be overcome when the discussion of teaching praxis is introduced in the context of the internships. In this discussion, the internship is, at the same time, a theoretical and practical activity of dialogue, re-signification of knowledge and intervention in the reality. Professor F1, for example, shows us signs of this dialogicity in her way of conducting the internships:

[...] [the internships] makes the student [trainee] face situations of reality so that they can problematize the theories. Likewise, when I teach science, I put the student before the [scientific] phenomenon, so that they can learn the theories about the phenomenon. The internship, in the same way, enables me to bring the phenomenon [of the classroom] to problematize and generate the need for theory. (F1)

F1's example is interesting, as she uses her experience as a teacher and mediator of knowledge in the field of physics teaching analogously for the internships. For F1, both the scientific phenomenon and the classroom phenomenon can maintain the same dialogic relationship with its generating and/or explanatory theories. Thus, a student can be transformed from a physics class in the same way that he can be transformed from an experience in the internships by re-signifying theory and practice about the phenomena they witnessed.

Professor Q2 is an example of an educator who approaches the analysis of praxis and considers that internships are a space where the trainee learns to make decisions, make choices, seek solutions, and understand the meaning of being a teacher (Pimenta, 1994):

It is the professional education, it is the formation of the teacher, understanding it as a process of professionalization. Professional training in any area, not just teaching, it presupposes the development of autonomy, do you understand? The people think for themselves; they make their own – good or bad- choices. Where the aspirations, wishes and choices of the individual are valued. (Q2)

For this professor, the internship is the *locus* for the construction of a professional identity (Brazil, 2002), which also takes place through the meanings that teachers give to everyday activity from their values, their ways of being in the world, their histories of life, their representations, knowledge, anguishes and anxieties (Pimenta, 1999).

Understanding the internships as a place of professionalization also means resizing it as a “space of negotiation, a place of creation, freedom, proposition, but also of making commitments”, as Q2 says in another moment. Here, the role of the advisor as a mediator in the internships can function as an encouraging agent in the development of autonomy, starting with the activity plan that is proposed for the trainees. Q2, for example, shows a lot of concern about “an internship format where the advisor comes with a ready-made plan for the student”.

To promote trainees' autonomy, advisors should be able to exercise it, too, choosing and deciding on the best strategies on how to conduct their internships. As an example, we have professor Q1's attitude, when discussing the Supervised Internship Manual of the university's degree courses, according to him, “a super-rigid document”:

I said [to the students]: ‘Look, I’m sorry, this [the manual] is going to stay out [of the class], let’s do something else’. [...] this is a space of knowledge production, rather than a space to reproduce, read manuals. (Q1)

Through Q1's example, we understand that this is not a mere confrontation or disobedience to the norms of an institution, but the perception of a need to reflect on contexts of bureaucratization, standardization and control that do not take into account real and concrete problems faced by professionals. Schön (2002) clarifies this situation brilliantly when defending the reflexive attitude in the professional environment, with this passage:

A professional who reflects on action tends to question the definition of their task, the theories-in-action of which they are part, and the measures of compliance by which they are controlled. And by questioning these things, it also questions elements of the organizational knowledge structure in which their functions are embedded [...]. Reflection-in-action tends to make emerge not only assumptions and techniques, but also the values and purposes present in organizational knowledge. (Schön, apud Contreras, 2002, p.122)

On the other hand, while we find through the conceptions and attitudes of those professors that they are aware of the role of the supervisors as mediators engaged with the need and search for dialogue between theory and practice; the development of the trainees' autonomy; as well as when exercising their task, we also find in the statements of professors B1 and B2 indications of the theory-practice duality present in their conceptions of the role of advisors:

[...] try to establish the connection between the many things worked during the course and what they do in school. The internship is not the [only] moment for this, the internship is one step of this practical activity. (B2)

So, the idea is that they get to know this school setting and that we give them some guidance, how they [the trainees] should work, the possibilities, what can happen in the classroom. So, they have this more dynamic view of teaching [...] they already have a notion of this, but they see the reality, how teaching, in a way, happens. (B1)

For both professors the places of theory and practice seem defined, demonstrating a certain distance between them. In this context, the role of B2 as an internship advisor would be to make the connection between "the many things worked during the course" and the "what they do in school". For B1, in turn, the "school setting" would correspond to the "reality" where "teaching happens". In these cases, as it happens with professor F1, it is not possible to perceive the mark of both the fluidity of a dialogicity, characteristic of the praxis, and of a "shuttle from one plane to another" (Ghedin, 2012, p.154) established between theory and practice resulting in the construction of teaching knowledge.

Although it is possible to observe how different is the comprehension that the professors being investigated here have on the role of a mediator – what is expected

from a university professor –, the role of a teacher educator, within the perspective of a reflexive education, would require a step further, in the sense of leading students to conclude evidence on teaching and the teaching process (Hargreaves, 2000).

The Role of the Advisor as a Reflexive Practitioner

Among the professors interviewed – in spite of the more rigid or embedded conceptions and postures, and of the more critical, dialogic and autonomous visions in the form of mediating the internships – we found another indisputable conception on the advisor's role: that of a *promoter of trainees' reflections*. And among the elements that try to operationalize a reflexive practice in the follow-up of the trainees, dialogue, questioning, exchange of experiences, sharing of ideas and the establishment of partnerships were highlighted.

Although the concept of reflection is polysemous and has undergone numerous revisions and extensions, including the idea of a reflexive professional, what we deem pertinent to analyze is what kind of reflection we are trying to promote. It is worth asking: what is the object of a reflexive analysis in the supervised internships?

According to Ghedin (2012, p.149), “there is always a substantive difference and different degrees between the reflections that the various human beings produce”. In the statements by professors F1, Q1 and Q2, for example, there are descriptions in which the reflection would have a transforming function, extrapolating the mere discussion about the disciplinary contents and the teaching methodologies:

The advisor is there to help the student problematize that reality; to create questions about that reality, to make strange what seems natural. So, you need someone from outside to provoke you and help you to see different. (F1)

I think the internship work is there to shake your certainties. Showing that you need to shake your certainties. [...] What justifies my work is the possibility of transforming something in education, [...] because, if it is simply for a student here to enter public school to buy a menu of common-sense visions, then I am a good-for-nothing as an educator. (Q1)

The advisor is there to direct some lights, question them, show contradictions, it is almost a psychoanalytic work in a way, where not only the domain of a specific content counts, but other questions related to that space where the person is. I remember the last internship, I had two students and we had very interesting conversations, we talked about racism, about religion problem in school, secular and non secular state, class prejudice, fears, anguish. (Q2)

The sense of reflection, for this first group, would move away from a more pragmatic technicist model, approaching a dialectical reflexivity, or praxis, which considers that

actions are guided by a theory, the subject being aware of it (Ghedin, 2012). We could deduce, from the proposal of advisory of this group, a critical conception of reflexivity (Libâneo, 2012), in the sense of teaching the students to think critically about their form of action, considering the contexts in which they are inserted.

The reflexive potential generated by this group goes beyond the reality of the school, the classroom, the teaching, the institutions, reaching a “almost psychoanalytic” dimension of consciousness about the more internalized and deeply rooted students’ personal beliefs and convictions, which could hinder their full development and make unfeasible a transformation project. Let’s look at Q2’s testimony about his trainee who had “everything to be a good teacher”:

[...] every time I asked things, about teaching, education, it seemed that I received an answer that would fit well into a contest. [...] but there was still something missing, there is no “he”, there is no subject. [...] It was not him talking. And this I had noticed a long time before, even before he was my student in the supervised internship. And I knew I needed to get this boy out of his comfort zone. (Q2)

When Q2 tells us that he “had to take this boy out of his comfort zone,” he reveals his concern to go beyond the technical dimension, to help the student shift from his technician pragmatism to the contextual dimension (Candau, 1987). It means to rescue the subject by means of self-analysis, their implicit questions, their culture, their subjective theories, their relation with others, their forms of action and reaction (Altet, 2001). This analysis, based on a clinical training procedure (Perrenoud, 2002), is not unrelated to the theoretical, didactic, pedagogical knowledge and contexts of action of the subjects, but parallels the development of learning abilities, self-observation, self-diagnosis and self-transformation.

Finally, to consider the professionalization process implies the analysis of the practice and the context, a condition to have teaching treated as a profession (Tardif, 2010). For this first group of professors, the supervised internships point to a perspective of conceiving it as a more critical and professional reflexive process, approaching what is expected of the role of a teacher trainer (Souza Neto, Sarti, & Benites, 2016).

Yet, the second group of professors, Q3, Q4, Q5 and B2, showed a more pragmatic concern about the object and how to conduct reflection.

The way I lead the internship today, as an advisor, is to get students to reflect on their pedagogical practice from all the disciplines they have undergone in undergraduate courses, starting with chemical content and above all, I bring a lot of sharing, sharing of experiences. (Q3)

At the moment, I would say that it is the knowledge about the school reality, of the material conditions itself. When I say materials, I don't mean only things, I mean time, administrative matters. (Q4)

[...] always make this collective discussion [...] and sometimes, one's doubt is just the same as the other one's doubt, but the other did not have that awareness, but this awareness emerges from the other, so I think this sharing is a very rich moment. That's why I think the internship meetings to discuss this are fundamental, not just the student doing the internship alone, because he does not reflect there. (Q5)

Although the notion of reflection that is more focused on practical issues, somewhat dissociated from theory, is perceived, it is necessary to consider operational aspects such as sharing, exchange of experiences and collectivity as the facilitating elements of a reflexive practice. For Perrenoud (2002), reflexive practice in the context of professional reflection can be more effective if carried out in a group, because in some phases of life solitary reflection does not allow for advances, not to mention that it also lacks the often needed support. Within the reflexive process, a point to be highlighted is the need for a more experienced mediator in the group, particularly during internships, where not everybody will be in a position to take full responsibility for the classroom, but will be already observing complex educational situations (Perrenoud, 2002). Professor B2 raises this concern:

It is my job to walk together [with them], to talk a little about myself, about my knowledge. I, as a teacher of basic education; I, as a university teacher; I, as an intern; I, as a graduate student, put a little of my trajectory, but, at the same time, allowing them to build theirs. [...] It's kind of a partnership, if I can help, but a lot of things they'll figure out on their own. (B2)

From B2's testimony, even considering the university professor as the main experienced mediator of the internships, we cannot ignore the importance of the school's supervisor. In this sense, Souza Neto, Sarti and Benites (2016) call attention to the partnership that must exist between the university advisor professor, the school supervisor teacher and the trainees, since each one has a specific function. In this context, Cyrino and Souza Neto (2014) emphasize that teacher formation, through supervised internships, cannot do without an articulation and integration work between university and school, in which all actors – particularly in school (principal's office, coordination and collaborating teacher) – are involved and committed to the task of training the future teaching professional.

Thus, by analyzing this second group of professors, although it reveals important elements to be considered for the good progress of the internships, and although they exercise their role of mediators of the process enthusiastically, it would be necessary for them to take a step further to become actual educators.

Some Considerations about the “Research Findings”

Training reflective students, who are centered on their practice or focused on more internal and subjective questions, demands reflective teachers, too (Libâneo, 2012; Contreras, 2012). However, considering as a milestone in the history of reflexivity in Brazil the period between the 1960s until the emergence of the reflective teacher paradigm in literature, in educational reforms in the mid-1990s (Libâneo, 2012), it could hardly be said that professors who are working today in the courses of teacher education and supervised internships have experienced reflexive practices in their academic educational environment.

Moreover, the imbalances and advances found in the context investigated result from a transitional period of a teacher formation curriculum which, until the beginning of the 21st century, was based in the Brazilian reality by a set of pedagogical subjects (Brazil, 1969): Psychology, Didactics, Structure and Functioning of Teaching, Teaching Practice/Supervised Internship, which gave a pedagogical veneer to this preparation. At the dawn of the 21st century, pedagogical subjects were replaced by a knowledge basis (Tardif, 2010), and mediated the question of reflexivity. However, this was also founded on a set of competencies (Brazil, 2002a) that ended up being rated as a new technicality, confusing practice with technique. In the end, neither of them was done satisfactorily.

So, to what extent can we rescue the experiences or the knowledge of the academic formation of these professionals and use them to explain the current conceptions or reflexive behavior of these professors as internship advisors?

By analyzing the memories of the academic experiences in undergraduate courses brought by the professors we observed, we found that some complained about the lack of guidance and showed resentment for the bad use of the hours of the internships: “I had no guidance, all too loose [...] I would have loved if a colleague had gone to my classes and pushed me out of my comfort zone, so that I could always improve” (Q2); “Half the hours were made in a very bureaucratic way, there was no follow up of the university, of the school, of the supervisor teacher, of the advisor, as we conceive today” (Q3). For most of these professors, the striking episodes of their experiences with the internships are centered on doing, on practices, on the application of theories, but with no indication that these experiences have been thoughtfully explored. However, even within this scenario, the episodes that were brought by professors B2, F1, Q1, B1, Q4 and Q3 reveal that exercises that expressed freedom, creativity, transgression and transformation were carried out.

So I took two professors who had alternative methodologies, so, I remember doing activities that had a different bias, that did not dialogue with the traditional one. (B2)

So, I remember a sequence of investigative teaching that I elaborated with a colleague, and it was very enriching, because we could work out what we saw in

theory. My internship was very active, the professor himself was already someone who was open to putting me to work, so I wasn't passive, right? Another thing that was remarkable was that we went on an excursion with the 5th grade students, and how difficult it was to take care of those children. Because I had a responsibility there that went beyond the conceptual content. (F1)

I could have done an internship at school, sat there watching class, etc. and seeing what I had seen at another internship, but I thought I had an opportunity there, given the total freedom I had to do something different. I did an internship outside of school, but which had all of a relationship with the school. [...] And, no doubt, I think it's related to what I do today. (Q1)

And this for me, it was a different internship, in that sense, because it was a different point. It's not just getting there, 'look, do, meet the hours, come back'. So, he called me to be a teacher, he said 'come on, help me,' he put me in that role. [...] One positive point of this internship was that I had put myself as a teacher. [...] The other professor, she had a different, more playful practice, so it was cool, so I could do different things. (B1)

How does the lesson happen despite the fact that these students are barely able to read the texts or do the math? It bothered me, the fact that those two were not in the class's rhythm, even though they were in the same grade. [...] So that impressed me a lot, but I think I was most annoyed because I have not gotten the answer so far, that is what to do in that case. It seemed I could not interfere. It was a problem that was in the classroom, despite my acting and I couldn't control. (Q4)

But an episode that struck me a lot, it was a student who said that chemistry discipline had changed his view [of chemistry], and how he perceived the real world. That was so remarkable, something that moved me, and put me in the right way, how I managed to change a person's reality. And I was even happier because I saw that student had taken the entrance examination (vestibular) for Chemistry some 2 years later. This was actually a striking episode, seeing how a teacher can effectively make a difference in the way the learner perceives the world and how they can scale it up, and how they can influence learners for good and evil, according to how he implements their practice. (Q3)

Given these reports, we believe that it would not be possible to establish a direct relationship between the lived experiences and the personal experiences of these educators as trainees and the trends of their current role as internship advisors in a linear way. However, for some professors, they served to develop a guiding practice that was different from what they had, adopting a reflective posture as internship advisors, since the curricular guidelines point to this perspective (Brasil, 2002a).

Q2's report shows us that there are other factors at stake that can contribute to modify the conceptions and, consequently, the practices of the teacher trainers:

I have only one assumption. First, I think we were lucky. I fully believe that the faculty we have [...] something unites us all, that is the bond with the work. [...] There is a group that is always talking to each other, always in contact with each other. Because of this, there was a more fossilized, more protocolized initial format, if you experienced this. And then you have a time to mature, where the group goes on thinking, experimenting things. And these dissatisfactions became more latent, more internal. Then people came in, [the group] got bigger and bigger, they became more and more disappointed. I think an important point there was Q1's input, he soon realized that disappointment and he was the one who knew how to verbalize it, and then all that was already latent found an echo, or a place, or a voice, or a point of concordance. But look, that voice could have been lonely, could have been isolated, could have been repressed. Do you see how much could have happened? It could have been the criterion: the old ones rule, the new ones obey. But there was a fertile ground for the exchange of ideas, and then things started to happen, I do not know, let's look for alternatives, let's break out of the comfort zone. (Q2)

Q2 realizes the evolution of a group of educators who went from "a more fossilized, more protocolized initial format" to another, in which they tried to innovate, driven by some ingredients such as generalized disappointment with the current model, the formation of work relationships, the time of maturity, the reception and the exchange of ideas that made sense for the group. Ghedin (2012) calls this movement "uninstallation", because

There is always a desire for change, for the new, for the revolution that is subdued by the difficulties and risks that it entails. [...] because he/she [the human] is marked by the pursuit of stability and bureaucratization, as a tendency of institutions. [...] Faced with the permanent tension between change and accommodation, it is necessary to establish the reflexive-critical-creative process [...] Such a process is never automatic, but is the result of a series of conflicts and transgressions, allowing the autonomy of the human being, who is disengaged to break up and, breaking up, autonomously perceives themselves as the subject of their own history. (Ghedin, 2012, p.170)

However, because of this complexity and the challenge of forming the reflective teacher, Perrenoud (2002) states that this practice cannot be occasional, running the risk of not necessarily leading to awareness and change. Therefore, both the author and Souza Neto, Sarti and Benites (2016) defend a methodical and regular practice, in the sense of constructing the teacher *habitus*, in other words, the teacher identity.

SOME CONCLUSIONS

Identifying and analyzing the role of the internship advisor was what challenged us to develop this research, from the conceptions of a group of professors in the beginning of their careers from a young university. In this way, the work was developed with a faculty in formation, seeking their individual and group identities, with their contradictions, fears and desires. Some professors had more daring proposals for internships, others preferred to be guided by a ready-made supervised internship manual. Certain conceptions on internship, on the role of the advisor and reflexive practice contributed to the development of a reflexive capacity in the trainees, while others, in a certain aspect, were able to add positive elements to the professional formation of the teacher.

However, in the case of the formation of a reflective teacher and in the professionalization of teaching, this study has indicated some ways in which it is possible and necessary to move forward, in order to value the place of the internships, systematizing and institutionalizing the work, fostering more collective and collaborative actions, aiming that this place be occupied by professionals who are increasingly prepared and aware of their actions and importance of their role.

Despite the transitional, troubled and tense current times for teachers' education, a young university, free from pre-established institutional rules, which had the opportunity to include in its faculty young professors in the beginning of their career paths, has great chance of inaugurating new supervised internship experiences that can contribute to leaving teaching from a reflexive critical education as an inheritance for the next generations. In part, this is a little upon which we are led to reflect.

AUTHORS' CONTRIBUTIONS STATEMENTS

S.S.N. supervised the project and participated in the discussion of the results. M.H.A. collected and analyzed the data. Both authors worked on the writing of the manuscript.

DATA AVAILABILITY STATEMENT

Data supporting the results of this study will be made available by the corresponding author, M.H.A., upon reasonable request by e-mail.

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