

Introduction

“Teacher training” is a sensitive theme in the context of Brazilian Education. The amplitude of its object encompasses multiple aspects with distinct natures, and the complexity of its constituents intensifies as time passes. The literature and researches developed in the area highlight the fact that problems, impasses, dilemmas, and stress points in the formation of basic education teachers in Brazilian public institutions have been the same for decades.

Over time, the discussed themes have been recurrent and broadened; theoretical foundations have been deepened; perspectives have been outlined; and intervention projects have been implemented on different levels of education. A whiff of perplexity, however, involves part of the community of teachers, researchers, and society in general, sensible and attentive to educational issues in local and national levels.

It is true that the debate on teacher education dates from a long time. It is also true that the results of national and international learning assessment exams reveal a chaotic situation in school years. There is no way of closing our eyes to this reality.

We must look at the effects of the principle of universalization of Elementary Education, which is guaranteed by law in the Brazilian territory. It is not news that there is no bulk of prepared teachers in face of the demands – obviously, more students in school demand a greater number of teachers. Simultaneously to the intended universalization process, there should be enough educated, prepared teachers, to comply with it. In other words: the logic behind the universalization of Elementary Education was not followed by a logic of institutionalized teacher education, one that could supply the number of prospected students with quality. Thence, public policies of teacher education arose, or policies to assure their institutional adequacy to the labor market. There is a subliminal issue in the presented scenario: is training teachers enough? Is the quantitative perspective on qualification/training in order to suit both realities – number of Elementary School students and number of qualified/trained teachers – enough? If the focus is quality, in a qualitative perspective, it seems precarious and insufficient.

The lack of teachers in certain areas of Elementary Education poses an intriguing question. If there are unfulfilled vacancies in teaching undergraduate courses, the argument for the necessity of increasing teacher training vacancies in universities does not support itself. Also, there is a considerable amount of teaching graduates who do not follow the teaching career, and there is also a considerable amount that abandons the career. Discussing the genesis of this occurrence is instigating. Is it in the career attractiveness; in the shaping and re-shaping of

curricula; in the discrepancy between curricular promotion and, in some cases, the school and its peculiarities; in the verticality of the programs of studies?

The theme gets even broader if we reflect on the still existent distinction between bachelor and teacher training courses and, when it comes to teacher training, the fierce dichotomy between specific contents to teach and pedagogical contents, also expressed as Specific Training versus Pedagogical Training.

As a matter of fact, in the spectrum of teacher education, the amplitude of aspects with distinct natures intensifies the complexity of its constitutive elements. The narrowness of institutional actions, the lack of convergence between them and the country's educational emergence, the lack of connection among research results, the lack of pedagogical dialogue between academic production and the formative venues, the lack of intersection among different instances of the educational process, they are all easily spotted. Questions are frequently denounced; solutions are presented. Positive results, though, are few.

It was by no means accidental that we chose Escher's lithography, "Relativity" (1953), to illustrate the cover of this dossier. The contemporaneity of his work; the beauty of its artistic production; the advanced techniques employed at a time when technological resources were scarce; the uneasiness provoked in adults and children alike through a simple look, whether they are literate or not; and the curiosity it triggers; these are aspects that fascinate us. Escher's genius is impressive. Our choice, however, is not justified by these facts, but by the relations we established between "Relativity", the Brazilian Education movement, and the present. Relativity, Perspective, and Dimension are characterized as nouns, roots of thought, positions, and actions that are inherent to Brazilian Education, focused on teacher training. "Three different gravitational fields, three different worlds, three groups of inhabitants that walk each of them in their own world without sharing with the others the unity of the work of art" (ERNST, 1991, p. 42)¹. Brazilian Education walks in a similar fashion, in regard to teacher training for Elementary Education.

This Dossier, entitled "Teacher training themes in discussion", was born from the concerns of its organizers with what has been exposed until now and its objective is to present research themes of Brazilian and European authors who discuss teacher training in different perspectives. On one hand, the approached themes analyze the effects of public policies in Elementary Education, support of beginning teachers, in multiple government plans of Education. On the other hand, reoccurring questions, related to the organization of curriculum and pedagogical work, are also analyzed. Finally, it presents concrete possibilities of articulation between Specific Knowledge and Pedagogic Knowledge

1 ERNST, Bruno. *O espelho mágico de Maurits Cornelis Escher*. Berlin: Taschen, 1991.

that, in spite of portraying experiences in mathematics teachers' education, can be expanded to other fields of knowledge. We conclude it with Ilma Passos Alencastro Veiga's "The adventure of building teachers", which approaches the problematical chronicle of Brazilian Education and discusses pedagogical education in light of a Science of Education conception based on scientific, philosophical, and social understanding of Education as practice.

We start with the article *Teacher training at public high education institutions in Brazil: a diversity of problems, impasses, dilemmas, and tension points* in which the authors, Clara Brenner Mindal and Ettiène Guérios, through an exploratory research of abstracts from the Capes's Theses Database, articles on the SciELO/Brazil website, and works presented at ANPEd meetings, identify recurring, conflicting elements on the debates about teacher development. As the dossier's structural chapter, it starts the discussions and approaches in the following chapters.

Marli André states that the factors which define public policies focused on the improvement of education are multiple, and that the concentration of researches centered on teachers may reinforce the culturally disseminated misconception that the investment on teachers is the only necessity to improve the quality of Education. The contribution of the author with her article, *Teacher policies in Brazilian states and municipalities: some issues in teacher education*, is the presentation of her research results in which the object of study are public policies for teacher training. The author contextualizes her discussion in mapping the researches on teacher education in the national scenario, and in examples of teachers' support policies in the international scenario. The results are focused on items that encompass material resources, and pedagogical and didactical support to schools, in processes of continuing education, and support of beginning teachers.

Bernadete Gatti provokes the reader, asking why deep changes do not occur in Education courses, since the crisis of teacher training has been discussed for a long time for its formative frailties. The article entitled *Education, school, and teacher education: policies and impasses* deals with the goals of education and the elementary school in contemporary society. Gatti adds up to those authors that highlight the existence of a global education crisis regarding the models of teacher development in Elementary Education, and discusses the impasses teachers experience in facing an educational paradigm that requires from them pedagogical actions in their philosophical, historical, sociological, anthropological, and psychological articulations, having the job as the source of knowledge. She brings facts from the 1932 "Pioneers of the New Education" manifesto to light, evincing that little has changed in the quality of the teachers' professional training. The author inquires on the education that is offered to future teachers in the universities, and analyzes the PARFOR (the national plan for training teachers of the Elementary Education), the UAB (the Open

University of Brazil), and the PIBID (the Institutional scholarship program to begin teaching), all of them under the National Policy for Teacher Training (BRAZIL, 2009)². In short, the author signals the need of a true revolution in regard to curricular structure and dynamics related to teacher education for the Elementary Education at the academic level.

Antônia Vitória Soares Aranha and *João Valdir Alves de Souza* also address the mismatch between the processes of beginning and continuous education of teachers, and the requirements from social life demands in contemporaneity. If *Gatti* talks about the teacher education crisis for its formative frailties, in the article entitled *Teacher training courses in the present time: new crisis?*, *Ara-nha* and *Souza* add up the worry of the decrease of interest in teacher education courses and the consequent lack of teachers to act on the universalization of Elementary Education, as previewed by the PNE. The authors provoke the reader bringing what they call a paradox into view: the more we talk about the crisis in school education, the more schooled our society becomes; and the more we see the public that fought for education during the last two centuries going to school, the bigger is the feeling that school education is in a crisis. The authors ponder about the meaning of the word “crisis”, specify present characteristics of the education system, bring curricular points regarding pedagogic development – bachelor/teacher training courses – to light, and point out elements that are part of the present crisis on the teacher training courses.

Janaina S. S. Menezes and *Gabriela Rizo* discuss a specific case whose circumstances can be considered on national level, in their article *The National Plan for Elementary Education Teacher Training in the State of Rio de Janeiro: contributions and challenges*, in which they analyze the effort from public universities of the aforementioned state allied to the offer of vacancies designated to the initial education of public school teachers. Based on data from INEP/MEC, the Capes, and information in the proceedings of the meetings from the Permanent Forum to Support Docent Formation-RJ, the research reveals the plan’s potential in a state where education policies lack unity and continuity. It evinces the strategy of the PARFOR program, in which it is vital that the public education nets themselves elaborate strategic plans to make the entrance and permanence in a process of education with quality professors possible, which means, it evinces that it is not enough just to offer vacancies.

Luís Távora Furtado Ribeiro contributes with a sensible theme in education with his article *Teacher formation: questions about the inclusion of young*

2 BRAZIL. Ministério da Educação. Portaria Normativa nº 9, de 30 de junho de 2009. Institui o Plano Nacional de Formação dos Professores da Educação Básica. *Diário Oficial da União*, Brasília, DF, 1 jul. 2009.

people who are out of school and labor market. The author shows the educative potential of an education practice which inserts undergraduate Education students in pedagogical activities based on human education that is reflexive and pledged to social changes. *Ribeiro* analyzes the results of a GED education program in which those undergraduate students act as teachers, whose objective is to ease the entrance of people from 18 to 24 years old that have already finished high school, do not participate in the formal labor market, and are from a specific area in the city of Fortaleza in which there are high levels of unemployment, violence, and drug consumption, into the university. The author finishes emphasizing that the interaction between high education institutions and the school perform a vital educational role in the construction of professors' knowledge.

The article written by *Salvador Llinares* is on teaching and learning as components of the mathematics teacher professional practice over the development of the "professional noticing" skill. Though focusing the Mathematics field, the foundation the article deals with is basic for the education process of teachers in all fields of knowledge. In *The development of the "professional noticing" skill in teaching-learning mathematics*, *Llinares* argues that this development occurs in the dialectic relationship of theoretical knowledge of teaching, and for the teaching ability to which he describes characteristics of teacher education programs that promote the occurrence of said dialectic relationship. The author defends the idea that the "professional noticing" skill is an educator's ability that has to be developed in the teacher education courses so that they realize it as an educational possibility, in order to signify the teaching practice and have it as a motto in their professional development, understanding that the expertise is a continuous process.

João Pedro da Ponte and *Neusa Branco* present their worries about a common dilemma in teacher education, the either separated or integrated treatment of specific contents of the subject and didactics. In the article entitled *Algebraic thinking in initial teacher education*, the authors analyze an experience of initial training oriented by the development of algebraic thinking in children educators and future teachers of the beginning years of Elementary school. They describe in-class episodes, relevant from the formative point of view, and conclude that the exploratory work, based on specific contents and real classroom situations, as well as the provided opportunities for reflection and discussion, contributed to promote an effective development of the students didactical and mathematical knowledge. The article is a contribution for the as historical as it is current discussion on the theme of articulation between specific and pedagogic knowledge in teacher education even though it starts from Mathematics.

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