Critical-Collaborative Action Research: constructing its meaning through experiences in teacher education

Selma Garrido Pimenta
Universidade de São Paulo

Abstract

This text presents the process of reconfiguration of the meaning and sense of action research as a critical-collaborative research starting from two experiences we have coordinated involving teams from university and from public schools in the State of São Paulo, as well as discussing its potential for impact in teacher education and action and its implications for public policies in education.

Concerned with carrying out research in the school contexts, so as to help their teams to understand and give an answer to the intrinsic difficulties, we find in the qualitative approaches the most natural path. But, what perspective should we adopt? Should it be intervention-based? It did not seem to us to be the most adequate approach given its tendency to overtake the responsibilities of school workers. The ethnographic approach was not satisfying either, considering the risks of entangling ourselves in endless descriptions of phenomena. Neither did we want to carry out case studies. We were sure that we wanted to conduct research *with* the professionals in school contexts and not *about* them. Our expectation was one of contributing to their processes of continuing education. It thus seemed that the action research would be an adequate approach. However, considering the complexity that usually surrounds this approach, we were not tempted, at first, to give its name to the approach we were going to employ. As the study progressed, it gave shape to what we shall call critical-collaborative action research. It is with this process that the present text shall deal.

Keywords

Critical-Collaborative Action Research – Teacher education – Teaching knowledges – Didactics.

Contact:
Selma Garrido Pimenta
Faculdade de Educação – USP
Av. da Universidade, 308
05508-040 – São Paulo – SP
e-mail: sgpiment@usp.br

This text aims at uncovering the process of reconfiguration of the meaning and sense of action research as a critical-collaborative research starting from two experiences we have coordinated involving teams from university and from public schools in the State of São Paulo, as well as discussing its potential for impact in teacher education and action and its implications for public policies in education.

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school. Both studies were carried out in state public schools. From those studies it was possible to reaffirm what follows.

Action research assumes that the subjects involved in it constitute a group with common objectives and goals, interested in a problem that emerges from a given context in which they play various roles: university researchers and (in the present case) teacher researchers. Established the problem, the role of the researcher is that of helping the group to problematize it, that is, to situate it into a wider theoretical context, and therewith allow the growth of the conscience of those involved, with a view to plan the forms of transformation of the subjects' actions and institutional practices[3] (cf. Thiollent, 1994). Collaborative research, in its turn, has as its objective to create in schools a culture of analysis of the practices, allowing teachers, with the help of university teachers, to transform their actions and institutional practices (cf. Zeichner, 1993). The analysis of results from theoretical studies and from those in political-institutional contexts endowed collaborative action research with the adjective *critical*, according to the assumption and commitment of those involved that carrying out studies in schools is an investment in the quality education of their teachers, with a view to allow the transformation of institutional practices towards the fulfillment of their role in the social and political democratization of society (cf. Gramsci, 1968; Habermas, 1983; Kincheloe, 1997).

The import of research for teacher education takes place in the movement that understands teachers as subjects who can build

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1. "A didática na Licenciatura – um estudo dos efeitos de um programa de curso na atividade docente de alunos egressos da Licenciatura" (in Portuguese).
2. "Qualificação do ensino público e formação de professores" (in Portuguese).
3. We understand, along with Sacristán (1999) that *practice* differs from *action*. *Action* belongs to the subjects, it is typical of the human beings and they express themselves in it. In action, we act according to what we are, and in what we do it is possible to see what we are. *Practice* belongs to the social sphere and expresses culture objectified, the accumulated legacy, being typical of institutions. It is certain, however, that our *actions* express *social practices* and that those are constituted from the subjects historically considered.

knowledge about teaching in the critical reflection about their activity, in the institutionally and historically contextualized collective dimension. Along these lines, we find studies described as *collaborative* carried out in the relation between researchers-teachers from the university and teachers-researchers from schools, making use of action research as their methodology. In those studies, teachers constitute themselves as researchers starting from the problematization of their contexts. In the critical reflection jointly made with university researchers, they are instigated to problematize their actions and the institution's practices, and to prepare research projects followed by interventions (cf. Zeichner, 1998; Fiorentini; Geraldi; Pereira, 1998; Pimenta; Garrido; Moura, 2000).

Configuring the action research

The research *Didactics in the Licentiateship – a study of the effects of a course program in the teaching activity of former Licentiateship students*[4] (Pimenta, 1999b) had as its objective to analyze the contribution of our Licentiateship Didactics course to the teaching activities of its former students, now teachers in the public school system, evaluating their processes of identitary construction, based on their pedagogical knowledge, specific contents and experience. By asking *"to what extent does the teaching of the Didactics course have meaning to the teachers' activities in their work realities at public schools?"* we bring into question the contribution of didactics theory to the teaching activities of professionals concretely situated; and, in the reverse movement, what is the contribution of teachers' practical activities to the revision of Didactics courses and to the resignification of didactics theory.

The initial research question unfolded into others, which impacted on the research procedures: to examine and discuss the assumptions of didactics as a theory of teaching in teacher education; to examine and

follow the deployment of the program of a Didactics course offered at the Licentiateship at FEUSP; to follow the teaching activities of some of its former students, identifying in their practice the processes of construction of the teacher's know-how and their links with the Didactics course; to gather elements from the teaching activities of former students to reassess/propose Didactics course programs at the FEUSP Licentiateship; and to consider the limits and possibilities of a Didactics course program for teacher education.

In view of those objectives, the main category that guided the research became the activity carried out by teachers in public schools and, within that activity, how the process of construction of their know-how takes place.

We understand that the teacher activity connected with the widest education action in society is teaching. As it is currently understood, it is defined as a practical activity. The teacher under education prepares him/herself to accomplish the practical tasks of being a teacher. This indicates that it is not the case of educating him/her as a duplicator of dominant practical models, but as someone capable of carrying out the material activity to transform the natural and social human world. One should, therefore, investigate what contribution Didactics can give to such education.

Placing teacher activity as the object of our research required understanding it in its relations with historically situated social practice. Thus, the study of the everyday teacher activity of our former students involved examining the wider social determinations, as well as those of the work organization at schools.

From such considerations we asked ourselves *"to what extent the pedagogical-*

administrative organization of schools favors good teacher activity?"

Three research categories emerged from theoretical and fieldwork studies: how does the process of construction of the teacher know-how (teaching) happen inside the activity of concretely situated teachers at (two São Paulo State) public schools; how does the work organization at school (or the administrative, bureaucratic environs of the classroom) determine that construction; how do teachers position themselves vis-à-vis the knowledge of contemporary society (and how do they deal with it in the teaching activity at school), thereby constructing their own identities.

From a methodological point of view, a fundamental question emerged from this research: would this study, which we initially called *interpretive-practical*, be an action research?

The objective was not that of evaluating teachers, but to assess how they would mobilize their knowledges to make decisions at school and in the classroom, how would they make use of the teacher condition in the relationship with students to answer the questions posed by the various situations with which they would have to deal. We restricted ourselves to one Geography teacher and one Portuguese teacher, both former students of our Didactics course, and working in different public schools from the outskirts of São Paulo City. We recorded videos and voice tapes; we made use of life histories, interviews, observations, and semi-structured and open questionnaires.

Seeing that the researchers did not restrict themselves to collecting data, but also made reflections, oriented teachers whenever they asked them to, and also brought theoretical and instrumental elements, constituting with the teachers a small community of analysis and reflection, would this be an intervention research? Would this be an action research?

We had it clear from the outset that the researchers would not act to *evaluate* teachers' practices based on external criteria, and supposedly offer them suggestions. However, we also saw clearly that it was not a matter of simply *observing* and *recording*. What would then be the research attitude that would express the objectives of the study whilst guaranteeing the space for reflection sought by researchers and teachers? Jany Pereira's reflection is enlightening:

> From the perception of the way the teacher works on the issues of the teaching-learning relation, researchers should help him to reflect upon his own practice, to problematize situations, reflecting on why he had made a given decision, thereby encouraging the teacher to incorporate his own knowledge, what he is learning, because as the teacher rethinks and reflects upon his own practice, he becomes subject and object of the process experienced by him. (Pereira, 1997)

After reviewing the methodology of action research, we concluded that the researchers acted as participant-observers, one of the traces of that methodological approach. That fact allowed researcher Maria de Fátima Abdalla (a PhD Student) to express herself in the following terms:

> The question of how the process of construction of the teacher know-how takes place, alongside the reflection on teacher education, constituted the basis for the themes experienced by our research group: researchers and researched, subjects and agents of a social practice in motion. Themes that, according to Kincheloe (1997, p. 197), unveil the need of *thinking about our thinking, because we explore our own construction of our conscience, our self-production,* but above all reveal the need to share our thoughts to allow us to engage in a more effective, more educative pedagogical practice.

(...) After all, what research is this? We ask ourselves this question many times in an attempt to make it intelligible, interpretable and comprehensible. Intelligible to the extent that we could decode it; interpretable when we could exercise a critical attitude when faced with given situations and/or situations that determine the pedagogical practice; and comprehensible when we problematized and discussed the associated problems within the context of the different situations that were shared, in the exchange of our experiences. (Abdalla, 1997)

When he was taking part in one of our meetings, Silas[5], one of the teachers in the study, said that Fátima had helped him with his classes: *I had always been worried about that, but I never had the habit of recording, of systematize the classes; Fátima did a report, she recorded some of my classes and that helped me to create the habit of systematizing some of my classes.* From that moment on, he began to record some of his classes, helped by students: (...) *and there's always a student who wants to put it on video, something that even helps later to discuss with them what happened in the classroom.* The research of the practice thus became a modality of in-context teacher professional development.

(...) We understood the research when, in re-reading the most significant moments, the multiples experiences of the teachers with respect to the organized body of knowledge about the teaching material to be developed revealed themselves, the manner and coherence with which it was presented and/or built from the various interactive moments, the way in which the teacher tried to establish relations between text/content and context, bringing forth pedagogical situations and/or methodological questions that invited students to the reflection, to the critique, to the difference of opinions, to

uncertainties, deconstructing concepts, habits and attitudes, and re-constructing them.
(...) Thus, the research in such context configured itself as a *cognitive principle of comprehension of the reality and as a formative principle in teaching* (cf. Pimenta, 1997, p. 51). A *cognitive and formative principle*, for it encourages the collective construction of knowledges, attaches importance to the processes of *reflection in action*, of *reflection upon the action*, and *reflection on the reflection in action* (Schön, 1987, p. 32), in search of alternatives committed to the social practice; a principle that reveals selection, life choice, a space for construction, for the exchange of experiences, of desire and of becoming. (Abdalla, 1997).

Faced with the methodological problems raised by the study, the PhD student and researcher Maria Socorro Lucena Lima brought in references that helped us to establish the study as action research. Let us see a testimony by Patrícia[6]:

After the meeting and Socorro's visits I started to observe my 'pedagogical doing' with a more critical and constructive look. I began to dedicate more time to preparing classes and analyzing the 'why' of some of my attitudes in certain situations. That is, I began to associate my pedagogical doing with my school and personal lives. (Lima, 1997)
By taking place within the school context, and more specifically in the classroom, action research can constitute a pedagogical strategy, a space for conscientization, analysis and critique (...). Teachers that experience this mode of research have the possibility to reflect on

their own practices, their condition as workers, as well as the limits and possibilities of their work. The five requisites of the action research presented by Kincheloe 1997 deal clearly with the important tasks it intends to perform, namely: to have methods and political questions; to relate values and commitments; awareness of the construction of the profession; to identify aspects of dominant nature that undermine our efforts; and the improvement of the teaching profession. When it leads to the organization of information, interpreting them, action research opens up spaces for the critical production of knowledge and, in this process, makes us think about our own way of seeing and interpreting reality. (...) Thus, the pedagogical praxis of the teachers involved in the study, starting from the teaching action itself, reflected, theoretically supported, and systematized constitutes a modality of continuing education with far-reaching transforming and emancipative possibilities (Lima, 1997).

Two features of action research made themselves clearly felt along this study: self-education and teacher praxis situated in the wider contexts of the organization of schools and of the communities around them. We have thus concluded that we have carried out an action research with the following characteristics: encouragement to teachers initiatives; reflection upon the practice; and inclusion of the teachers researched in the research process. The latter took place through procedures of analysis of the goals and of qualitative research methodology, through the selection and sharing of texts, and through the redefinition of the research directions.

Those features come close to those pointed out by Kincheloe: to build a professional conscience; to open up space for the critical production of knowledge; to conduct to the organization of information,

interpreting them; to allow the association of values and commitments; and to allow changes in the everyday actions of teachers in the classroom.

It can be then concluded that action research was indeed the modality of research practiced in the present study. Its differences with respect to other modes can also be seen: the observation that teachers that go through a process of action research have the possibility to reflect upon their own practices, their condition as workers, as well as upon the limits and possibilities of their work. In this sense, the study constitutes a pedagogical strategy of conscientization, analysis and critique, and it also proposes, from the reflection afforded by the dialogue with the observers-researchers and by the involvement in the discussions with the research team, changes in their practices, of which the teachers are themselves the authors.

A few concerns did, however, remain. In the research process – initiated from a problematization defined by the researcher who coordinated the group, in which the PhD students and research assistant were included as participant researchers, and the school teachers, chosen by us, agreed to take part as researched – researchers and researched gradually constituted a group of analysis and reflection. On the other hand, the scope and time boundaries of the study did not include the wider contexts, beyond the classroom. In the case of school organization, only the aspects that manifested themselves explicitly in the classroom were considered. The aspects of the educational policies that appeared only in limited contexts, and were not regarded by the teachers as influential in their practices, were not considered. In the case of the community of students, only the general socio-economical parameters were investigated. We have therefore concluded that the knowledge produced by the study, as pointed out in the previous paragraph, can be generalized to situations that take the classroom as their object of study. They must, however, be

amplified by the analysis of wider contextual factors and by the observation of effective transformations in the students' learning. That would allow us to put into practice the characteristic of public and political commitment of action research, such as defined by Kincheloe, 1997.

Those concerns were dealt with in the study *Qualification of the Public Teaching and Teacher Education*, which we now analyze.

Of research in collaboration and of action research

The study *Qualification of the Public Teaching and Teacher Education*[7] was carried out from 1996 to 2000. Its objective was to analyze the changes in the pedagogical practices and theorizations of the school team (teachers and coordinators) in a process of pedagogical intervention that placed stress on the collective construction of knowledges at the workplace (a state public school). It was part of the research trend that encourages continuing education as professional and institutional development, according to the theoretical view put forward by Fusari, 1988, and more recently by Nóvoa, 1992, which regards the teacher as a *critical-reflective professional* (cf. Contreras, 1997).

Such perspective has revealed itself fertile for the studies whose focus is one of collaborating in the processes of teacher identitary construction, understanding that the exercise of teaching is not limited to the application of previously established models but, on the contrary, is constructed in the practice of historically situated subjects-teachers. Thus, a formative process would mobilize knowledges from the theory of education necessary to the understanding of the teaching practice, capable of developing in teachers competencies and abilities to allow them to investigate their own teaching actions, in a continuing process of construction of new knowledges.

We understand that a professional identity is built from the social signification of the profession; from the constant revision of the social meanings of the profession; from the revision of traditions. However, it is also built from the reaffirmation of culturally consecrated practices that remain meaningful. Practices that resist to innovation because they are pregnant with knowledges valid for the needs of reality, of the confrontation between theory and practices, of the systematic analysis of practices in the light of existing theories, of the construction of new theories. It is also built from the meaning each teacher attaches, as actor and author, to the everyday teaching activity based on his values, his presence in the world, his life history, his representations, his knowledges, his wishes and pains, on the meaning that being a teacher has in his life, as well as from his network of relationships with other teachers in the schools, worker's unions and other groups.

For that reason, it is important to mobilize the knowledges of experience, the pedagogical knowledges and the scientific knowledges as constitutive of teaching in the processes of construction of teachers' identities.

The research *Qualification of the Public Teaching and Teacher Education* was initially defined as a collaborative research, understanding that such a modality of research has as its objective to foster in schools a culture of analysis of the practices, with a view to allow their teachers, helped by university teachers, to transform their actions and the institutional

practices (cf. Zeichner, 1993). In this sense, the study can be conceived as an approach conducive to the professional development of teachers. It had its beginnings in a request made by some teachers from the Special Center for Teacher Education "Prof. Ayres de Moura"[8] to researchers from the Faculty of Education of the University of São Paulo, of whom some of them had been students when they did their undergraduate course in Pedagogy. The researchers themselves were already involved in studies with schools, for they saw their commitment to the university as a commitment with the production of knowledge for the improvement of the public education systems.

The research problem was then to verify to what extent a collaborative research can encourage processes of construction of group identities, placing the subjects in a position of analyzing and changing their teaching practices and the institutional culture, strengthening them personally and professionally to create collective pedagogical projects targeted at the qualitative improvement of the students' formative process.

The study started then with a gamble: that of the possibility and ethical need for the emancipative articulation between researcher and researched subjects, establishing in the scientific activity a commitment with the fertilization of theories and actions that gave support to the teachers' praxis, towards the transformation of the conditions of teaching and learning, through the transformation of the meaning they would confer to the institutional practices (cf. Garrido; Moura; Penteado; Pimenta, 2000).

It started from two basic assumptions. The first, about the role of researchers in the study, is that they should delve into the reality to be studied and should integrate themselves into the modes of production of the existence of reality created by the subjects to be investigated. The second assumption deals with the role of teachers which, through collaborative reflection, should become capable of problematizing, analyzing and understanding their own practices, of producing meaning and knowledges that would guide the process of transformation of school practices, engendering changes in the school culture, creating communities of analysis and investigation, personal growth, professional commitment and participative and democratic organizational practices. It therefore regards as fair that those subjects should participate in the researchers' observations, interfere in their conclusions, incorporate their outlook, sharing and contributing to the quality of the knowledge produced in the process, constituting themselves as researchers and authors of the changes needed in the schools.

Carried out over a period of four years, the study had as its objectives: to encourage changes in the organizational culture; to analyze the processes of construction of the pedagogical knowledges by the school team; to articulate the different types of institutions involved in teacher education; to offer elements for the public policies for teacher education. The methodology employed was initially conceived as that of a collaborative research (Zeichner, 1993). During the process it configured itself as a critical-collaborative action research (Thiollent, 1994; Kincheloe, 1997).

Agreeing with Zeichner, 1998, p. 223 that *"the collaborative research is an important path to overcome the division between academics and school teachers, but it is not just any collaborative research that will do that*[9]", it was important for us to configure the study as a critical action research (Kincheloe, 1998, p. 180).

8. This was a CEFAM, a secondary school dedicated specifically to the education of pre-school and primary school teachers. A project of the government of the State of São Paulo, the CEFAMs were schools with features that distinguished them from other schools: single shift, scholarships to students, definition of the group of teachers based on characteristics associated with the teacher education project, among others. The State of São Paulo had a group of 52 CEFAMs from their creation in 1986 until their extinction in 2002.
9. Here and elsewhere in this article, citations are our translations from the Portuguese edition of the works.

In this sense, it stands for a policy of valuation and personal and professional development of teachers and school institutions, since it assumes working conditions conducive of the teachers' *continuing* education.

Of the main challenges of collaborative research is the establishment of bonds between university researchers and school teachers. During the first two years of the research in this particular school, we tried to overcome teachers' misgivings and establish a true partnership with them, helping them to carry out action projects. For that, we started from their concerns, strongly associated to the everyday practices, which emerged from their needs. We avoided 'starting' the research by bringing texts to be read by the teachers, something that could reinforce the old dictum that 'in practice the theory is different'. It was also necessary to overcome the representation that the academics (particularly those from USP, one of the most highly regarded universities of the country) would bring with them – or would intend to – the answers or recipes for what teachers should do to solve their problems. At this time, the form and direction we gave to the project, to its establishment and to the actions set in motion starting from the questions that emerged from its context – school and otherwise – were revealing of the theories of which we researchers are carriers.

Once the partnership was established and the teachers' trust was gained, we began to prioritize the systematic dialogue about the daily issues, the problems, the dilemmas and difficulties within the classroom (in small groups) and within the school institution, about the pupils, the teacher career, the public policies (in groups with all involved, including the school principal). In these meetings questions emerged whose analysis, with the collaboration of films and text, allowed the problematizations. The group engaged in studies. Texts were selected, questions were proposed, texts were written and dialogues were carried out with the authors, students were involved (the future teachers) and the research issues were systematized around a few lines:

• the social purposes of school and education; what to educate teachers for: the teaching profession in contemporary society; what teacher I am/want to be: the knowledge, the savoir-faire, knowing how to be a teacher. What is it to be a teacher? How did I get here? Why and how do I remain? What do I intend for the future? Ethical competence and political commitment: what is ethical at school, and especially in this school? Relations at school: democracy? "Democratitis"? The commitment to teaching. The associations of the school with the education system and with higher bodies; the system's authoritarianism and the space for school's autonomy; collective work: what binds us together, what motivates us to be here, what are our individual projects vis-à-vis our being teachers? And the group tensions: from competition, authoritarianism and individualism when sharing experiences, when searching together for new knowledges.
• And what about researching? Am I a teacher-researcher? What does it mean to be a teacher-researcher? What are the parameters for gauging a teacher-researcher? Is it possible to be a teacher-researcher in the current work conditions? Are we?

The second set of themes about the nature of the research and each one's conditions in it emerged as the group began to realize that the research we were carrying out was different from the traditional study in which the university researchers go to the schools to collect data and then proceed to interpret them without the participation of the school professionals. Although they valued our procedures, the school professionals sometimes expected us to present solutions to their problems and difficulties.

The choice from the beginning of the project to utilize a qualitative research approach engendered at first some perplexities in the group of teachers, when they asked themselves what kind of research was this, so different from the traditional concept of research in which "*the academics arrived at school, observed, gathered data and information, asked questions, and then*

left, leaving at most a few recipes for teachers' actions and usually the feeling that all they did was suspicious and all they said was incomprehensible to us" (testimony). The uneasiness then remained: what kind of research are we doing? Are we teachers-researchers? If we are, how do we differ from university researchers? They have better salaries; they have the obligation to produce research. If they do research, they can solve questions that we cannot. But if they are going to solve our problems, they are going to disparage our work!?

Once such perception had been overcome, and the partnership relations had been established, there remained the task of clarifying our understanding of what was the research we were carrying out. For that, it was important to recover the objectives of the Project[10].

Collaborative action research

To make explicit the collaborative action research from the study carried out we went back to its objectives and fieldwork data and proceeded to a cross study between the characteristics of collaborative research as presented by Zeichner, 1998 and the contributions of Thiollent, 1994 when the characteristics, the objectives, and aspects of action research are introduced. We also relied on external evaluation of this study[11].

Indeed, the objectives of the research *Qualification of the Public Teaching and Teacher Education* were to articulate the professional development of the teachers involved; to analyze the processes of construction of the pedagogical knowledges by the school team; to stimulate changes in the school organizational culture; to contribute to public policies of teachers' continuing education. It assumed that every teacher is capable of producing knowledge on teaching. We expected, as a result from the collaborative action of the research, pedagogical changes that engendered the valuation of work, personal growth, professional commitment, development of a culture of analysis and of participative organizational practices.

The methodological paths followed allowed a negotiated common experience throughout the process, and can be summarized as follows:

• Organization of four subgroups divided by areas of interest, with weekly meetings;
• Fortnightly collective meetings at the school with the participation of everyone;
• Appointment of two teachers to coordinate the project at the school, selected among the participating teachers;
• Researching *with* (and not *about*) the teachers; valuation of common decisions and collective projects; reflection about the practice: problematization, sharing with peers, proposals for innovations.
• Creating and developing of research projects by the teachers[12]: formulating questions for investigation; experimenting innovations (testing hypotheses); gathering data; documenting;

10. Texts that resulted from this study are: Pimenta; Garrido; Moura: A pesquisa colaborativa na escola como abordagem facilitadora para o desenvolvimento da profissão de professor, in Marin, A. (2000); Collaborative research as an approach to foster teacher development, teacher´s production of knowledge and changes in School Practices, in *Educational Action Research Journal*, (2001); and La recherche em collaboration au sein de l´école: une manière de faciliter lê développment du métier d´ensegnant Nouveaux espaces de développement professionnel et organisationnel, In Rymond D. 2001.

11. Carried out through a seminar *Universidade e Escola: Pesquisa Colaborativa Para Melhoria Do Ensino Público* - Universidade – Fapesp – Escola Pública. FEUSP. 1999, organized by groups from other universities that composed the following projects within FAPESP's Improvement of Public Teaching program: Mizukami et al. *Desenvolvimento Profissional da Docência: analisando experiências de ensino e aprendizagem*, UFSCar; Leite et al. *Melhoria do ensino público: a formação de professores no curso normal*, UNESP/ Presidente Prudente; Pimenta et al. *Pesquisa colaborativa na escola como abordagem facilitadora para o desenvolvimento da profissão do professor*, USP; Marin et al. *Desenvolvimento Profissional Docente e Transformações na Escola: objetivos, procedimentos metodológicos, alguns resultados e pontos que podem favorecer alteração nas políticas públicas em educação*, UNESP/Araraquara; Russo et al. *Revisitando alguns aspectos da parceria desenvolvida entre a universidade e duas escolas da rede pública de ensino de Bragança Paulista*, USF; Almeida et al. *Pesquisa em Parceria – EE Barão Geraldo de Rezende e Universidade Estadual de Campinas: cenário, atores, enredo e ações*, UNICAMP; Compiani et al. *Cotidianidade e produção de conhecimento*. Coord.: Prof. Dr. Mansur Lutfi, USP; *Geociências e a formação continuada de professores em exercício no ensino fundamental: reflexões e resultados parciais*, UNICAMP. The seminar had as external analysts Drs. Vicente Benedito from the University of Barcelona, and Marli André from the Pontifical Catholic University of São Paulo.

reading auxiliary material; carrying out a systematic analysis and making the research work publicly available (creation and publication of Bulletins for the whole community, writing of individual and group texts, and presentations in scientific meetings and conferences). At this stage the teachers began to see themselves as authors, resulting in the increase of self-esteem and professional qualification, and complete engagement in the project.

With the issues raised by Zeichner, 1998, text where collaborative research is spelled out, we carried out a work of retrospective reflection about the first two years of the project, asking teachers to establish a dialogue between, on one hand, the objectives, assumptions, the methodology of the project, and the experiences so far, and, on the other, the questions put forward by the author. Questions that guided the discussion, and the testimonies from the teachers are as follows:

1. What are the meaning and the relevance of the research? It allowed *"to expand the knowledge and the vision of the practice; to question the practice and the actions; to make the teacher more demanding with himself, with students and with colleagues. It was that practice that 'matched' the theory (i.e. the practiced validating and questioning the theory). We became authors"*.
2. Is there collaboration between teachers (those from the school and those from the FEUSP), and between teachers at school? *"At first we wanted the (USP) teachers to participate in our practices; today we realize that we are partners. Today we build our practice playing different roles; a new valuation of the roles of the whole group. Not recognizing the individual paces and styles generates conflict: how do we work on that within the group? It is important to distinguish 'respect for the other' from 'recognizing the other'. In the latter perspective there is an attitude of incorporating, of doing together. There is genuine collaboration"*.

3. The project has offered elements for the individual projects and those of the subgroups?[13] *"Yes, since the information expands our perception of the practices; also important is the information and exchange between the subgroups"*.

By analyzing the movement of the collaborative research in this school it was also possible to configure it as an action research, from its characteristics, objectives, and aspects, such as defined by Thiollent, 1994.

About the characteristics of action research, we transcribe below excerpts from the text *Action Research and the 'Qualification of the Public Teaching and Teacher Education' Project*, prepared by the teachers coordinators of the Project at the CEFAM, based on the fieldwork data:

a) Continuing intervention in the system researched – How our group is intervening in itself?
We noticed that changes in the development of the Project are in response to needs and to

12. The teachers created, developed and presented (in meetings) small research projects and intervention projects. Prominent among the research projects were: a research project with former students to assess the merits of the education received; assessment of the difficulties brought by innovation to administrative sectors and the involvement of representatives from the hierarchy with the projects; investigation into the reasons that led colleagues to leave the project or not to engage in it (learn their representations with respect to innovative practices at school); the use of new communication and information technologies among teachers and students of the CEFAM; to what extent the equipments made available to the school by the funding agency and the information technology courses (within the scope of the project) were permeating the institutional practices; a study of the life history of the members of the project. Among the intervention projects we have: project of an apprenticeship period created conjointly by the CEFAM teachers and teachers from the primary schools (where the apprenticeships would be developed); project of interdisciplinary action among the different disciplines of pedagogical education, with teaching workshops; a study on the pedagogical project and the school's identity (involving the CEFAM, Fundamental Education and 'suppletive' – a substitute education – courses); actions in the other schools at which the teachers worked.
13. The dynamics of the research included fortnightly meetings with all participants and the meeting of the subgroups, organized according to the theme of research of the university teachers and the interests and demands from the CEFAM teachers. Four subgroups were then constituted: Art and Communication; Mathematical Education; Apprenticeships, and the 'C.R.I.ação' (Creation, in Portuguese) group – Citizenship, Reflection, Interdisciplinarity – action.

the resolution of everyday problems that emerged, which, after being considered and reflected upon, steered the research. For example:

• the arrival of the USP teachers – The construction of a partnership;
• creation of the subgroups;
• coordination of the Project at the school being defined according to the needs of the research group;
• systematization of the reflections of the group and subgroups;
• discussion and evaluation of activities, supplementary reading, re-elaboration of knowledges, preparation and discussion of the planning, of the sharing of experiences;
• joint reflection and reading changing or confirming our teaching action;
• reflections that allow the understanding of the level of our education, which will impact directly on the education of our students, future teachers;
• from the questions asked and the association of people a greater interaction between the knowledges specific to each group (university and school) was achieved;
• the interaction between the teams causes a change in the school system through the teachers' practice and the creation of new knowledges; and through the search for improvement and theoretical enhancement at the university (teachers from the school began to take part in courses and seminar at USP);
• our classes became more open to the participation of students, and more flexible; we began to create together plans, planning, and mini-projects for apprenticeship, articulating the education school and the fieldwork school;
• through the construction of our history we understand that there are no ready answers to our questions, but those can and should be constructed from reflective practice at school;
• the appearance of a culture of analysis;

change in the attitude of teachers, who now begin to investigate their own practice to understand students' behavior and difficulties;
• dimension of the teaching profession (to know, to know how to be, to know how to do, and to know how to do well);
• the beginnings of autonomous reflection upon the action;
• teachers' concern to participate in discussions of a political-educational nature;
• improvement and extension of the use of pedagogical resources;
• seeing ourselves as researchers, rethinking, evaluating our practice and using the scientific method;
• breaking taboos, viz., destroying the image that teachers from the university hold the power of knowledge, and understanding the latter as resulting from collective work and partnership;
• from the records of the activities carried out at school we realized that our work in the classroom can be shared, and the reflection upon it can take place in group;
• creation of specific projects with students and former students in the subgroups;
• participation of the teachers from USP in the Culture Week (1998);
• new signification of the concept of apprenticeship, seeing it as a space for reflection about teaching.

b) Involvement of the subjects in the research. In this item we realized that there is:

• commitment to schedules and meetings of groups and subgroups;
• reading of the texts;
• the need to share the activities carried out by teachers in the respective subgroups;
• commitment by the academic researchers to attach meaning and relevance to the research during meetings;
• the sharing of experiences by opening classes to other teachers;
• the search for theoretical enhancement by

teachers (courses, talks, seminars, even during their vacations);
• teachers' availability to the research even outside their working hours;
• the concern to divulge the results of the study (ENDIPE, FAPESP Seminar, at school, at the Education Regional Office;
• joint reflection among peers during coffee, lunchtime, etc.;
• valuation of decisions by the group;
• concern with collecting material for the preparation of classes;
• concern with individual and group records;
• contributions with relevant questions to the group discussions;
• following up on decisions and actions taken by the group;
• requests to the school principal and other bodies of the system for materials and equipment necessary to the research;
• care with the Project materials;
• creation of newsletters;
• development of research abilities, such as tabulation and analysis of results.
• In view of these results, one can see that the research is not neutral, that it interferes with the school daily activities, and that its results are slow to come, but are targeted at this community. The knowledge produced is applied in the school itself.

c) Changes following action, from reflection. As far as this aspect is concerned, we observed that we accomplished:

• organization of records and documentation of the teaching practice;
• request for additional reading;
• change of attitude towards the general meetings (more participative, and understanding that solutions do not come ready, but must be constructed there);
• search for new forms of practice improvement;
• use of new technologies in the classroom;
• change of organization and in the work of

coordination;
• transformation of the planning, with the participation of students;
• higher demands on their own production (texts, classes, etc);
• form of controlling materials and organizing the collection of records;
• transformation of attitudes and improvement in the level of group discussions.

The authors conclude the text with indications about what advances should be made:

• creation of spaces for exchange, incentive to interdisciplinarity, also in the fieldwork schools (availability for research);
• interchange between CEFAMs for the reflective analysis of the practice of apprenticeship, curriculum, planning;
• activities for the integration between fieldwork school and teacher education school;
• involvement of the community in the pedagogical projects – educating the teacher-citizen;
• overcoming individual limits in the process of continuing education;
• being conscious of each one's responsibility in a research involving a group of people;
• bureaucracy at school (our time got shorter – time for meetings, planning activities to improve the class, use of equipment);
• the understanding of being a researcher and observer of your own actions. (Camargo; Moraes; Molina; Leite, 1999).

Recalling that the text above was prepared after the first three years of the study, the majority of the needed advances pointed out were achieved by the end of the project in 2000.
Regarding the objectives of action research, still according to Thiollent, 1994, the following aspects could be analyzed:

1. *practical objective* (or problem-solving): action research aims at contributing to sketch a solution of the central problem of the

research from the possible solutions and proposals for action that help the agents (or actors) in their activity of transformation of the situation;

2. *objective of knowledge* (or of becoming conscious): action research gives access to information otherwise difficult to obtain and, in doing that, makes it possible to extend the knowledge about certain situations. Pertinent examples from the research are: requests from teachers; their representations and that of students and of society about the teaching profession, about the students, about pedagogical issues; their capacity for action or mobilization, etc;

According to the author the relation between those two objectives is variable. Generally speaking, greater knowledge leads to a better performance of the action. However, in the case of the present research, we observed that the daily demands of the practice, rooted in government policies, often appeared as limiting the time for knowledge. Researchers had then to take special care to keep the ba- lance between the practical objectives and those knowledge-related during the study.

3. *objective of producing and* socializing *knowledge* that will not only be useful to the community directly involved in the study, but that will allow a certain degree of generalization. This objective was present throughout the research process, perceived by the identification of other CEFAMs, in the socialization meetings, of the issues and propositions made the teachers from the CEFAM "Ayres de Moura". Also, in the texts produced by the teachers involved and presented in national scientific meetings, there was a systematization of the knowledge generated from the fieldwork data, which contribute to the expansion of the field.

Thiollent still points out the following aspects that give shape to the methodology of action research:

• wide and explicit interaction between the researchers and other people involved (here,

school teachers) in the situation researched;
• from such interaction the definition of priorities in the problems to be studies, and in the solutions to be presented as concrete actions are made;
• the objectives of the investigation are not the people themselves, but the social situation and its problems, which are of a different nature;
• the objective of action research consists in solving or, at least, clarifying the problems of the situation observed;
• there is, during the process, a follow-up of decisions, actions, and of every intentional activity by the actors involved;
• the research is not just a form of action (risk of activism): the aim is of expanding the researchers' knowledge or the level of awareness of the people and groups considered.

Examining these aspects with the group and using them as categories of analysis of the process carried out up until then we concluded that we were actually developing an action research.

The Report of the external evaluation to which we submitted the projects belonging to FAPESP's Improvement of Teaching Program[14] confirms the theoretical and methodological framework of collaborative action research present in the projects, and develops an analysis that extends the understanding of its meaning, of its potential and of its difficulties, pointing to the need to widen and deepen theoretical questions associated with this modality of qualitative research.

• The majority of researches display features of a constructive-collaborative model, which implies the processual definition of the elements that constitute the partnership between university and fieldwork school. They present as a feature the conduction of experiences that result in

14. See footnote 11.

products, where both the processes employed and products achieved – even when partial – are research data whose analysis continuously shows the way ahead for the investigation.

• Consequently, these researches have predominantly a processual character, and the analysis of the processes constitutes production of knowledge about the problems investigated, pointing towards the importance (and difficulty) of the partial organization of research data, so that it can constitute a more systematic production of knowledge, and to make it possible to be shared from different perspectives – and of the knowledge about the processes of teachers' professional development and learning at their workplace (...).

• As a general synthesis it is a type of research that is not outlined a priori in detail and in a controlled fashion, but that is constructed processually, guided by the problem under investigation, and as probable directions the analyses offered by the partial data obtained, which can even redirect proceedings to unforeseen foci. Under this view, maintaining the theoretical and methodological coherence is indispensable in terms of group alertness. One is dealing here with a constructive-collaborative model: strategies at the same time of action and of investigation conceived and developed along the research process, aiming at giving answers – even if partial – to the research question, and indispensable information for the making decisions with respect to the next steps in continuing the project (...). The understanding of this kind of research as an open process: each project builds its own paths from the general problem and from specific questions related to its investigation (...)[15].

Critical-collaborative action research

Having configured, at last, the collaborative action research in the process of the study *Qualification of the Public Teaching*, there remained still one issue: would this be a critical-collaborative action research?

Supported by Kincheloe, 1997, Franco, 2004 presents the following consideration when analyzing what defines a collaborative action research as critical:

When the search for transformation is requested by the reference group to the team of researchers, the study has been classified as collaborative action research, where the function of the researcher will be of taking part and making scientific a process of change previously started by the members of the group.

The research was carried out in response to the request of a group of teachers from the school, which faced complex, conflicting and unstable situations, situations that characterize the teaching activity. The university researchers carried out with the teachers and other members of the institution a collaborative action research whose purpose was of creating a culture of analysis of the practices at school, with a view to its transformation by the teacher with the help of university teachers.

Franco, continues:

If such transformation is perceived as necessary based on the initial work of the researcher with the group, as a consequence of a process that values the cognitive construction of experience supported on collective critical reflection, with a view to the emancipation of the subjects, and from the conditions that the group feels as oppressive, then this research begins to assume the character of being critical, and thus the classification of critical action research has been employed.[16]

15. Report of the Seminar University and School: Collaborative Research for the Improvement of Public Teaching – University – Fapesp – Public School. FEUSP. 1999.
16. The author states that not every collaborative action research is necessarily critical. If, on the contrary, the transformation is previously planned, without the participation of the subjects, and only the researcher will follow the effects and will evaluate the results of its application, this research loses the quality of being a critical action research, in which case it can be named strategic action research (Franco, 2005).

The study started from the assumption that teachers are capable of developing a method for the problematization, analysis and investigation of the practical reality of teaching, grounded on their previous experiences, their initial education, other people's experiences in the school context, and on the existing theories to find solutions for the demands that practice places upon them, and thence produce knowledge. The development of this method does not happen spontaneously. It requires collaboration. Thus, the methodology of collaborative action research imposed itself as the more adequate.

One of the leading factors that gathered the team of university researchers around the proposition and conduction of the research was the commitment to carry out a study in a *public school*, and such that the study had as its characteristic to be conducted *with* the teachers (and not just *about* them), and also that it was carried out with the school community, involving teachers, principals and coordinators. That is so because our assumption is that one of the most valuable kinds of continuing education is the one that takes the school contexts as objects of analysis. This favors the theory-practice relation, since in traditional modes of continuing education, such as courses and various training, the mediation between those modalities and the school contexts has not been established, resulting in an investment targeted more at the professionalization of the teacher and less at the changes of institutional practices necessary for the improvement of the results of schooling.

The choice of configuring the research in the school space unveiled the complete problem involving the school as an organization within a given system (in this case, the state public system), pointing towards important questions related to public and governmental education policies.

(...) The condition for being a critical action research is diving into the praxis of the social group under study, whence are extracted the latent perspectives, the hidden, the unfamiliar that sustains the practices, and the changes will be negotiated and engendered in the collective. In this sense, collaborative action researches often take on the character of criticality. (Franco, 2004)

To Kincheloe (1997),

(...) the critical action research does not intend to just understand or describe the world of practice, but to transform it; (...) it is always conceived in relation to the practice – it exists to improve the practice. Critical action researchers try to uncover those aspects of the dominant social order that undermine our efforts for emancipative goals. (p. 179).

Franco, 2005 carries on:

Critical action research considers the voice of the subject, his perspective, his sense, but not just for the records and later interpretation by the researcher, the voice of the subject will be part of the fabric of the research methodology. In this case the methodology does not happen through the steps of a method, but is organized in the relevant situations emerging from the process. Hence the emphasis on the formative character of this modality of study, for the subject must be conscious of the transformations that take place in him and in the process. It is also because of this that such methodology assumes an emancipative character, since through the conscious participation the research subjects have the opportunity to free themselves from myths and prejudices that organize their resistance to change, and reorganize their self-images as historical subjects.

The methodology of collaborative action research allowed this involvement. It considered issues related to the process of interaction between the group of university researchers

and the school team (nature and overcoming of conflicts); to the nature of reflection and to the knowledge that teachers engendered of their practices; to the process and rhythm of changes. Through collaborative reflection the teachers became capable of producing meaning and knowledge that allowed them to guide the process of transformation of school practices, bringing about changes in the school culture, creating a community of analysis and investigation, personal growth, professional commitment and democratic and emancipative organizational practices.

The dialogue between the authors referred to above and the aspects of the research makes it possible to identify it as a critical-collaborative action research.

Contributions of critical-collaborative action research to teacher education

In the 1990s the literature on the education of reflective teachers shifted from a perspective excessively centered in the methodological and curriculum aspects to a view that considers the school contexts. School organizations produce an internal culture of their own and that express the values and beliefs shared by the members of the organization. They are not just propagators, but also producers of social practices, of values, of beliefs and knowledges, fueled by the effort of searching for new solutions to the problems experienced.

The valuation of the contextual dimensions shifts the debate about teacher education from a view excessively centered in the classroom, in its disciplinary, methodological and curriculum aspects (Sacristán, 1983; Baird, 1987; Porlán, 1987), to a more complex perspective that considers new dimensions.

According to Zeichner (1993), the education always involves mobilizing various knowledges: knowledges of a reflective practice, knowledges from a specialized theory,

knowledges from a pedagogical militancy (Pimenta, 1997). According to Nóvoa (1992), the process of critical-reflective education implies *producing the teacher's life* (personal development), *producing the teaching profession* (professional development), and *producing the school* (organizational development).

Understood as such, the education constitutes not just a process of professional improvement, but also a process of transformation of the school culture, in which new participative and democratic management practices are implemented and consolidated. In this sense, the education of reflective teachers constitutes an emancipative pedagogical project (cf. Kincheloe, 1997; Pimenta 1998 e 1999).

Such proposal of transforming the school into a critical community faced obstacles to its fulfillment in the case of the *Qualification of the Public Teaching and Teacher Education* study. The obstacles were related to attitudes of resistance to change, to the bureaucratization of the education system, to the hierarchical and profoundly authoritarian structure of the school, and to the fragility of the professional statute of the teachers. Both from the point of view of job instability, of precarious working conditions that are more conducive of individual than of collective work, of a fragmentary and diffuse presence at school, and from the viewpoint of their low salaries pushing teachers to, whenever possible, work in other schools and/or activities. Nevertheless, despite their weight on the school team researched, these aspects were offset by the teachers' commitment to their profession and job, several times demonstrated during the four years of the study. Teachers resisted to the follies of authoritarianism. They resisted proposing solutions not always heard by the authorities. The research project was largely responsible for keeping the flame of resistance alive by increasing the teachers' self-esteem, and by supplying them with theoretical instruments for their analyses and proposals.

To allow the turn away from individual reflection towards emancipative commitments,

educational research must provide those involved in the action with the instruments for the critical analysis of the real. As Franco (2000, p. 13) suggests:

> In order to be effective, reflective practice, as a political-pedagogical proposal, needs to assume dialectics as the form of constructing historical reality; it needs institutional spaces not excessively bureaucratized (...) where collaborative, solidary, critical, intersubjective behavior is valued (...); it needs to materialize in the non-acceptance of ready truths (...); everyone involved in the reflective practice must constitute investigators in the context of practice.

Conclusions

Analyzing the results from the two experiences of critical-collaborative action research discussed in the present text, it is possible to add a few features that allow a better configuration of the sense and meaning of this methodological approach from a theoretical-methodological viewpoint and from a political-institutional viewpoint. As for the first:

a) the importance of carrying out critical-collaborative action researches involving the university and schools has been confirmed as a fundamental requisite in the process of professional development of teachers (investment in study, in the analysis of pedagogical and institutional practices);

b) in this process it is essential to start from the needs of the teachers involved, and then evolve from them, consensually, towards the objectives of the study;

c) the critical-collaborative action research produces the result of changing practices along the process. This, however, takes *time* to establish itself and mature;

d) as teachers perceive themselves as capable of analyzing, reflecting and changing their practices, they get stronger as persons and as professionals. Nevertheless, difficulties faced at the Alípio[17] School to establish a collective pedagogical project involving the Fundamental Education and CEFAM courses reveal the fragility of the professional statute of teachers from the public system: they are at the mercy of the 'authorities in charge'; it was impossible to tackle the comings-and-goings of the school administration and of the central bodies;

e) the researchers from the university cannot (and it is not up to them) change the education system, the hierarchy, the current authoritarianism. Their role is to strengthen the professionalism of the teachers through spelling out, recording, shared reflection, proposition, development, and analysis of participative projects from the needs of teachers and from their perception by the researchers. With that, they make it possible to widen the decision and autonomy spaces of teachers against the impositions placed upon them.

As far as public policies are concerned, the studies, and particularly the second one, have showed, on the one hand, innumerable difficulties to their realization at the school under study, specially with respect to the poor working conditions of teachers: paid by the hour, and under temporary contracts[18]. The collective and pedagogical time (HTPC) included in the working hours assume a merely bureaucratic character since, in practice, with temporary teachers working by the hour, the *collective* aspect becomes a fiction, for it is not possible to make teachers hours match under such diverse and unbalanced situations. On the other hand, the perspective of the bureaucratic school makes itself felt in the strongly authoritarian and hierarchical relationship with the Secretariat for Education, something that

17. Name of the school to which the CEFAM was moved by decision of the Regional Office after two years of the study.
18. In the case of the study sponsored by FAPESP, teachers involved received a scholarship. Several of them absorbed the cost of taking part in the study, going beyond their institutional obligations.

was made evident in those four years by the abrupt change of location of the CEFAM to a different borough, with severe consequences to students and teachers, as well as by the endless modifications to the school's managing staff, making it difficult to establish shared projects. Also by the authoritarian practice of defining projects at the central level, just from what those bodies believe to the good for the school. There is no room for pedagogical proposals *from the problems faced by the school.* When the latter do propose something, thanks to teachers' involvement, the material and human resources support is nonexistent. Studies carried out in other countries[19] reveal that in the absence of participation from the actors involved in the definition of innovations, particularly from teachers in the case of school institutions, those innovations do not materialize.

Despite this picture, the research showed the gaps in which it worked and those that it made wider. Many were the difficulties. However, the results could be identified: in the possibilities for teachers' continuing education – they had their professional statute amplified; they developed research abilities; amplified the spaces of collective action; they conducted in countless moments practices of analysis of the school problems, creating in it a culture of analysis; they made proposals and executed projects that resulted in improvements of the classes; they established democratic practices of discussion with students; they attempted new teaching practices with real results in the improvement of learning; they expanded their competencies with respect to specific contents of the areas, and with respect to pedagogical knowledges, and so many others.[20]

However, the study also made clear the difficulties in establishing collectives. The long-standing competitive practice present in society, highly stimulated by the teaching system through the fragility of a precarious statute of professionality, was one of the factors most strongly felt as being difficult to overcome. The established practice in the intermediate levels of the administration (Regional Office) of the policy of 'favors' and 'accommodations', which could be clearly seen in the attribution of classes, apart form the authoritarianism and administrative centralism that do not recognize competence as a criterion for promotion, also hampers any proposal of projects and transformation of practices based on the processes collectively discussed and assumed.

The fieldwork data of the researches carried out here have confirmed results from other qualitative studies conducted by researchers from Brazil and from other countries, which have pointed to the enormous potential for the transformation of the practices afforded by collaborative action research. They have also revealed the importance of their results fertilizing the development of transformations in public policies and, in particular, in the forms of management of education systems, valuing and supporting initiatives and projects originated in schools, creating the structural conditions for their establishment as spaces for analysis and political and pedagogical proposals, from a common goal of effective democratization of education, both quantitatively and qualitatively, with a view to a really inclusive school. Inclusive socially, politically, economically, culturally, scientifically and technologically.

19. Cf. Nóvoa, 1992; Garcia, 1995; Charlot, 1995; Canário, 1997; Almeida, 1999.
20. Apart from that, it is relevant to note that four teachers enrolled in Master courses in public universities; others were selected in public exams for tenure in the state and municipal school systems, and almost all of them are getting organized to carry on with their studies.

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Selma Garrido Pimenta is Assistant Professor at the Faculty of Education, University of São Paulo. She was Dean of the Faculty from 2002 to 2006 and is the Coordinator of a Group of Research on Teacher's Education (GEPEFE). Prof. Pimenta has written six books and numerous articles published in Brazilian and international journals.