Teacher-researcher: conceptions and practices of master teachers working in primary education

Professor-pesquisador: concepções e práticas de mestres que atuam na Educação Básica

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Abstract

Although teacher education seeks to form a teacher-research and the research being wellness recognized as a key activity, excellent use and meaning has generated controversy. in this sense, we have investigated: which are the conceptions and practices of research master degree teachers who work in teaching at elementary schools? The objective was to identify the concepts and practices in search of master teachers. This qualitative study that we conducted in semi structured interviews with eight master professors. For the design of the teacher-researcher we have identified three aspects: a) the professional who remains up-to-dated, b) That the professional prioritizes the research over teaching, c) the professional who investigates his / her teaching practice. However, we have not noticed the correct understanding of research as a systematic process, in order to the science related to teaching. Most teachers demonstrated interest in and
ability conducting research in the school, however, they have expressed impossibilities due to limiting factors related to the physical structure, lack of time, low salary and poor support from the school managers. They have noticed that the master’s contributed in his /her training as a teacher-researcher. This study allowed us to analyze the educational literature which gives an emphasis on the need to train the teacher-researcher. However, it is not often discussed the history of the teachers’ training, working conditions, career, the financial resources and the infrastructure also necessary for the teacher to be able to conduct research in the schools.

**Palavras-chave:** Elementary School. Teacher-researcher. Master Professors.

**Resumo**

Embora na formação de professores busca-se formar o professor-pesquisador e a pesquisa seja reconhecida como atividade fundamental, o seu uso e significado geram polêmicas. Além das licenciaturas, a formação do professor-pesquisador é intenção também de diferentes programas de pós-graduação stricto-sensu no país. Neste sentido, buscamos investigar: quais as concepções e práticas de pesquisa de professores mestres que atuam na docência na Educação Básica? O objetivo foi conhecer as concepções e práticas em pesquisa de professores mestres. De abordagem qualitativa, realizamos entrevista semiestruturada com oito mestres docentes. Quanto à concepção de professor-pesquisador identificamos três vertentes: a) o profissional que se mantém atualizado; b) o profissional que prioriza a pesquisa em detrimento do ensino; c) o profissional que investiga sua prática docente. Nesta última concepção, porém, não percebemos o entendimento de pesquisa como um processo sistematizado, no sentido de se fazer ciência relacionada à docência. A maioria dos professores demonstrou interesse e habilidade em realizar pesquisas na escola, porém, manifestou impossibilidades devido a fatores relacionados à estrutura física, falta de tempo, baixa remuneração e ao pouco apoio por parte dos gestores. A maioria destacou que o mestrado contribuiu com sua formação de professor-pesquisador. Este estudo permitiu analisar que na literatura educacional há ênfase na necessidade de formar o professor-pesquisador. Entretanto, muitas vezes não se discute a trajetória de formação dos professores, as condições de trabalho e de carreira e os recursos financeiros e de infraestrutura necessários para o professor conseguir realizar pesquisas nas escolas.

**Keywords:** Educação Básica. Professor-pesquisador. Professores mestres.
Introduction

It is common to hear and read about the need of a teacher to be reflexive and a researcher nowadays. This perspective emphasizes reflection and research as the necessary elements for teacher training and transfers an important part of this training to the context of school teaching practice. As Silva (2008) points out, this proposal strengthens the teaching reflection on the practice and the results that this process can cause to happen in the redefinition of teaching experience and, consequently, in educational practice. From the reflection on his own practice, the teacher provides new possibilities for action on their teaching, and from this premise comes the epistemology of practice that underlies the theories of reflective teacher-researchers.

So the idea of the importance of research and reflexivity in the teachers' work is not new. Lüdke (2010) in the research program which he coordinates has been investigating the place of research in the training and work of teachers of Primary Education with his group of researchers. In the light of previous studies, the program found out that some teachers are doing research in public primary education schools, which confirms the possibility in this context. They point out that the type of activities considered to research "[...] go from the mere organization of a science fair, or reinforcing a subject of study by a group of teachers, to the development of quite sophisticated work, published in international journals" (LUDKE, 2010, p. 264).

The disparity of examples considered as research made the researchers of the previously mentioned program inquire about the concept of research of the investigated teachers. And in the search for answers to this question, they got as an answer an academic definition of research, though followed by the argument that there was this kind of research was not needed in school. This shows a certain gap between the research conducted in the academia and the one applied by teachers in the primary education schools.
In this direction, Zeichner (2009) also questions the types of research that are closer to teachers' reality, but without losing sight of certain basic requirements for its characterization. The author points out the training as an essential element in the pursuit of research credibility. However, Lüdke (2010) points out that teachers in general say they are very unhappy about the research training received in their undergraduate programs.

In Brazil, unfortunately, most teachers have contact with research in its entirety only in post-graduate level, more specifically in *stricto sensu*. It is from their Master's Degree course on that teachers need to write their own research and usually are usually trained as researchers. Thus, we performed a study that investigated: What are the ideas and research practices of teachers who have a Master's Degree and act as teachers in primary education?

In seeking answers to the question-problem formulated we defined as a general objective the identification of research concepts and practices of Masters working as teachers in the public municipal primary schools in Blumenau. As specific objectives we have: to identify the concepts of master teachers about the concept "teacher-researcher"; to identify whether they consider themselves to be teacher-researchers, and excelling in their teaching practice indicators that can characterize them as such, as well as analyzing the influence of the master course in the development of an investigative attitude in the teaching practice of Primary Education.

This paper is structured in four parts, beginning with this introduction that presents the approach and the justification of the problem, the research question and objectives. The second part deals with the methodological aspects of research, based on the specific literature, in which we explain the procedures used in research. The third part presents a description of the data obtained in interviews that, preceded by the content analysis, presents the results. Finally, in the fourth and final section we make some recommendations to consider and study.
Methodological procedures

This study has a qualitative approach. The subjects involved in this research were the master teachers who worked in the Primary Education in the city of Blumenau in the second half of 2010. From a diagnosis with the City Department of Education, we found a number of teachers with a Master Degree acting in the levels of kindergarten and elementary school in different educational institutions.

As for the procedures, after having their names and the schools where they worked as teachers, we called each one and asked for an interview, which was stipulated by them within their availability. According to information received by the Municipal Department of Education, from the ten teachers with a master degree acting as teachers at the time of data collection, eight agreed to participate as research subjects. The interview took place within the municipal educational institutions or at FURB premises, when the teacher had some connection with the institution or so he preferred.

To register the data obtained in the interview, we used direct recording through an MP4 device for later transcription and analysis. The researcher interviewed each teacher personally and individually, clearly and objectively, from a topic guide involving the following themes: a) Idea of teacher-researcher b) If teachers considered themselves to be teachers-researchers, c) indicators of their educational performance that characterize them as teachers-researchers; d) The Master Degree as a propellant towards an investigative attitude of teaching. The topic guide was developed in order to guide and focus the interview for the research central issues.

After transcribing the data we analyzed the content, respecting their different chronological phases according to Bardin (1977): 1, pre-analysis, 2nd exploration of the material; 3 treatments of results, interference and interpretation. From the first phase, reading, the choice of documents and the formulation of hypotheses and objectives are essential. The second phase is the "systematic administration of the decisions taken. [...] This long and tedious phase consists essentially of coding
operations, discount or enumeration, according to rules previously formulated." (Bardin, 1977, p. 101). With emphasis on the latter, the author points out that it is a provisional statement, which she proposes to verify using the analysis procedures.

In this analysis process, the key was to relate the data to the theory under study. Eight teachers were interviewed individually, whose identities remain confidential, henceforth called only as Teacher 1, Teacher 2, and so on.

Description and data analysis

Conceptions of teacher-researcher by the master teachers

We note that there is not a conception formed and well defined as to what is a teacher-researcher, even among the master teachers investigated. We realize there are conceptions with different meanings and not very accurate. In analyzing the concept that everyone has about what is a teacher-researcher, we identified different groups.

Among the eight respondents, two demonstrated understanding that the classroom teacher becomes a teacher-researcher through an investigative and reflective attitude towards his teaching practice and his teaching activity as a whole. The following brief episodes of transcripts of the interviews show such a claim:

Teacher 1: *I think a teacher-researcher is one who can study their own action and practice and perhaps also those of colleagues.*

Teacher 8: *For me, a teacher-researcher is one who makes the classroom their research universe.[...] From there, it depends on the interests of his research, if he wants to research how students learn, if he wants to focus on how he is acting within the teaching or the learning process.*

The definitions presented earlier by teachers approach the idea of Esteban and Zaccur (2002), when they mention that teachers-researchers
are the ones who actually produce knowledge about their teaching, so that the development of these attitudes and capabilities allows us to reconstruct ideas, articulate theoretical and practical knowledge and produce changes in their routine. Given the difficulties of the daily life, the teacher who seeks to relate practice and theory will have more support to solve the problem situations that may arise during the teaching/learning process. However, our concern is about the lack of evidence in their responses about understanding research as a systematic process, in order to be aware of the teaching process.

It is risky and too simplistic to accept a unique sorting for the research done in primary schools, because it could bring with it a restrictive and limiting connotation, impairing the very concept of research and its role in producing knowledge about problems that require solutions (LÜDKE, 2009, p.17).

One has to understand that research on teaching practice needs research as a science. That is, research is research in both situations. The issue may be that the object and purpose of the research are different. But one must understand that the teaching practices are not substantially redefined by just watching, thinking and recording it, without a structured process that allows knowing it in depth from a method that enables the understanding of the investigated object. For Silva (2008), it is essential that knowledge is organized from the critical-investigative reflection, with criteria that can ensure a scientific method.

Five other master teachers interviewed demonstrated to have a broad view of research, and believe that a teacher becomes a teacher-researcher when they develop specific activities in the classroom with their students or activities outside the scope of teaching, keeping themselves up to date. Among the responses we highlight:

Teacher 2: It is a teacher who is always looking for something that will complement their teaching knowledge. [...]Being curious.
Teacher 3: It is one activity that extends beyond the purely pedagogical activity in the classroom.

Teacher 5: A teacher-researcher in fact is every teacher who keeps updated. [...] every teacher who goes to the classroom necessarily has to, first of all, be prepared.

Such responses make us infer that for such teachers any situation is valid as research, the effort to find an object, the search for particular information or knowledge may become a mere mental effort, an action shifted from the pedagogical process. Because they are master teachers who have experienced a stricto sensu education process, we asked ourselves about the influence of training in the understanding of this concept. As noted in the study by Rausch and Schroeder (2010), we must move towards a conception of research as a systematic investigation and self-criticism that requires appropriate methods for the advance of knowledge, and the understanding of a teacher-researcher as the one that researches their teaching everyday problems aiming at developing a pedagogical practice that promotes successful student learning.

One of the teachers interviewed made an emphatic distinction between the teacher activity and the researcher activity: the teacher would be the one that graduates and is dedicated to teaching, whereas the teacher-researcher is not restricted to the classroom, being more related to scientific activities, to the field research and seminars.

Teacher 6: I think we can distinguish two types of teachers. There is the teacher who graduates specifically to work in the classroom [...]. The researcher, this would be a teacher who is preparing for the practice of ongoing research. He takes his master, doctoral, and postdoctoral courses, and is not only with students in the classroom, but he works with field research, studies, seminars and everything else. [...] He works with master courses, works with some students, but always with the research line and not the teaching line, specifically in the classroom.
This teacher illustrates another type of concept, which considers the teacher-researcher as someone who is not necessarily restricted to the classroom practice, being more concerned with the proper activity of scientific research along the lines of academia at the expense of teaching. This concept denotes some confusion between the idea of a teacher-researcher and the idea of a researcher-teacher. The latter is the one devoted to his research activity, despite having a teaching background.

**The teacher-researcher in the context of Primary Education teachers**

At one moment during the interview the subjects were asked if they considered themselves to be teachers-researchers and what their reasons were for being characterized as such. Regarding the first question, three of them consider themselves to be teachers-researchers; three declared to consider themselves 'partially' as teachers-researchers; one claimed not to be such, and another one was unable to answer. The main reasons given by respondents who see themselves as teacher-researchers were:

Teacher 5: *Yes, I consider myself a teacher-researcher, and I also develop and coordinate research projects.* [...] *The use of research as a teaching tool, the use in the classroom, to make the student understand what is in the books, this is extremely possible.*

Teacher 7: *Yes, I think so. Today I do have any research projects, it is difficult for us to develop research. What I do, I empirically observe, I do this and try to pose questions that come from observations, reflectively. I internalize, work out these issues, reflect about them and try to solve them somehow.*

Teacher 8: *Yes, I say this because I have conducted several experiments in my daily practice. My dissertation was based on a research practice in my classroom with my students.*
The teachers who consider they to be teachers-researchers "partially" justified:

Teacher 1: *In part. Because I can accomplish individually, for me, a way of enriching my pedagogical practice, some informal investigation with my children. And that is partially yes. And partially not, because it is not being systematized, it is not being disclosed. It is more an individual thing.*

Teacher 3: *In some parts yes, in some parts no. I understand that in order to be a teacher-researcher you need time. That means that for you to have this time you could not have a very heavy workload. [...] I think this is one of the factors that affect the teacher's performance as a teacher-researcher.*

Teacher 6: *[...] From the moment I prepare a new content, I try to see what is new in this situation, within the time available, I surf the Internet, new books and everything else. But to say that you can do further research, I would say no. There is no such time.*

One respondent declared no to be a teacher-researcher and justified:

Teacher 4: *I do not consider myself a teacher-researcher because I do not work with research. We do not have time to research. I am a teacher at the Municipal Education, working 40 hours a week [...].*

The answers given by teachers leads us to the difficulty faced by teachers to become teacher-researchers and that research itself is not yet taking place in Primary Education. What they do inside the classroom are pedagogical and educational activities. Without ignoring that this process is also fundamental in the educational process, and that it can become an initiation to research as a methodological principle of education for students of Primary Education, as advocated by Demo (1991), this process alone does not characterize the teacher-researcher.

Other responses refer to the idea of research as a reflective attitude, mixing up the ideas of teacher-researcher and teacher-reflective.
Several authors advocate reflectiveness as a key process in the training and educational performance, including Schön (1987) and Alarcão (2004), in which teachers reflect on their teaching and their knowledge in order to continually redefine the teaching-learning process, making it more meaningful for them and their students. However,

the reflection of the practice is insufficient when there are no theoretical and methodological resources that enable a new professional praxis. In this sense the theory plays an essential role in its dialectical relationship with the practice, being more productive in that it is guided by new theoretical references of scientific knowledge, insofar as is done with systematic methods (research action) that lead to a critical position of the practice in question (RAMALHO; NUÑEZ; GAUTHIER, 2003, p. 26).

That is why we advocate the need for the teacher-researcher to be reflective as well as a researcher by developing a reflective and investigative training of teachers (RAUSCH, 2008). Fiorentini (2004) also corroborates this idea when he points out that all investigative practice presupposes - and takes place through - a reflective process, and in this sense, all research is a special form of reflection. However, not all research can be necessarily considered reflection and both, research and reflection, are actually two distinct practices, which are complementary and essential in the process of teacher education.

Cross and Lüdke (2005) argue that articulating teaching and research in the elementary school teacher's work is something that has been for a long time requiring the attention of professionals who are dedicated to this study. The investigation revealed that the research should be the base of support of primary education; in order to do so a reform in the development of teachers as researchers of their own practices would be necessary, and from there insert the research in their classroom practices aiming at the teaching-learning process.

When we defend the research of primary education teachers, we see it as a process of awareness, and in the case of teachers-researchers, a
process of awareness about teaching practices. But for this, as argued by Silva (2008), together with the epistemological discussion and training it is necessary to create policies for research and discuss the issues of career and educational materials, encouraging the professionalization as well as professionalism. The professionalization has to do with the processes of training both in the undergraduate and continuing education levels, of skills and professional skills, of salary and career. The professionalism aims then at the teaching practice in a competent and responsible way, assuming a social, political and ethical commitment in relation to work.

Brzezinski (2007) also notes that there are few studies on policy formation and professionalization in the country. He warns that teacher training has been studied, but the approaches mentioned are jettisoned in face of the little understanding of working conditions, career and policies to support the work of teachers and the possibilities for research to occur in Primary Education.

The contribution of master courses to the formation of the teacher-researcher

The sensu stricto graduate-level in Brazil, organized in master and doctorate programs, is expanding and establishing itself as a reference in the development of scientific research. There is more and more search for this kind of training; however, as stated by Velloso (2004), the main target of the masters and doctors is working at universities around the country. Currently, through the pursuit of the subjects for this research, we can infer that there are some professionals working in the public primary education sector, but as principals and coordinators at education secretariats and in some schools. This corroborates our amazement to find so few masters working in classrooms in the city of Blumenau at primary education level.

As for the last question - whether teachers consider the master course as a propellant of an investigative attitude in their teaching, we found the highest rate of agreement between subjects. Of the eight
respondents, seven answered yes and really emphasized the importance of the master course in the teaching practice. Teacher 1 pointed out:

Teacher 1: It was really meaningful and transformative, because apart from realizing these issues that I was not aware of, I learned a lot about reading, about writing, about how to search. As a subject, it was very meaningful to me.

We found that teachers believe the master course changed their way of teaching, learning and teaching. Professor 8 argued that the master course was essential to his formation:

Teacher 8: It was a landmark in my posture as a teacher and researcher. It' is great to look back and see that the master course really transformed me. [...] It made me a better professional than I was. It is interesting that we often make mistakes as a professional because of the lack of knowledge. It is not because you don't want to, or for lack of dedication, it is because you really don't know. You don't know what is being produced out there, having no knowledge of innovative things, things that can provide a more effective practice. And in that sense the master course was crucial because it made me reflect about my practice. It made me think about what I was doing and how I could improve. So when I developed my research, my dissertation, I did it for that purpose of analyzing myself and searching what was positive and negative and what could be improved. And certainly I can see quite rightly now the way I used to act, how I act now and the evolution that I had. So it was really very important.

Only one respondent pointed out that the master course did not contribute much to his teacher training. His justification is that he already had an investigative attitude and developed research projects prior to the Masters, and that very little has changed its practice. When asked if he thought his master's degree was a stimulus for a more investigative attitude in his teaching, he said:

Teacher 3: No, because I already did this kind of work before joining the Masters.[...] The master course shows different methodologies, other ways beyond the ones I already had.
This teacher, different from the other respondents who started their processes as researchers in the Masters, had the opportunity to insert himself in the context of research during his undergraduate course, participating in undergraduate research programs and producing his final paper in the line of scientific research. This statement confirms the results presented in the thesis by Rausch (2008) about the relevance of the insertion in the undergraduate courses different possibilities for future teachers to experience practical research processes. These processes considerably contribute to a possible investigative and reflective attitude of the teachers.

Final considerations

In our view, it is essential that teachers of Primary Education be promoters of knowledge and carry out research within the teaching profession in order to advance the quality of education at this level. The challenge today is to be both a teacher and a researcher, as the research will lead to thinking and acting in a special different manner, and based on their profession. As Smith points out (2008), research in education can be considered a form of intervention and mediation in the process of social transformation.

In general, the results indicated different perceptions and actions of teachers concerning research in Primary Education. The life course and education training of each teacher is unique and singular, and this was evident in the answers obtained. The masters-teachers have also shown, in general, the difficulty in conducting surveys as teachers of the Primary Education; that is, they cannot be teachers, and at the same time, researchers. This work depends largely on the training they had, the conditions offered by the school and also their availability of time, since our respondents invariably work 40 hours per week and, in some cases, still carry out activities in other professions.
Nevertheless, there are some similarities between the testimony of teachers, especially in the question concerning the conduction of research activities at school, in the classroom with students or with other fellow teachers. What they achieve is more related to teaching strategies, such as studies, finding information and tools to develop their teaching practices than a research process. Most teachers demonstrated great desire and interest in conducting research in school, and consider themselves entitled to do so. However, they believe that they are unable to perform this task due to a number of factors related to the physical structure of schools, lack of time, low pay, and little incentive and support from the municipal schools and coordination of schools.

This reality makes us reflect that in the educational literature there is some emphasis on the need to train the teacher-researcher, proposing that teachers become researchers of their practice and knowledge producers. However, there is often no discussion on the history of teacher training, working conditions and career and even financial resources and infrastructure necessary for the teachers of primary education to produce research.

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