

International Conference on Education and Educational Psychology (ICEEPSY 2011)

The Bologna Process in the Context of Teacher Education – The case of Master's Cycle in Pre-School and Primary School Education

Cristina Maria Gonçalves Pereira – PhD

Escola Superior de Educação do Instituto Politécnico de Castelo Branco, 6000 – 266 Castelo Branco - Portugal
Instituto de Psicologia Cognitiva – Faculdade de Psicologia e de Ciências da Educação da Universidade de Coimbra, 3000 Coimbra - Portugal

Abstract

The present legislation concerning Professional Qualifications for Teaching (Law n.437, 2007) was created in the context of the Higher Education reorganization according to the Bologna Process. By situating the professional qualification of pre-school teachers and primary school teachers at the second cycle level (Master's), this law may contribute to reinforce the recognition of these actors' importance in the promotion of quality development, which is so necessary in the Portuguese society, and necessarily refers to the need of a demanding, qualitative initial teacher education.

Having this context as background, the present communication intends to present and analyse some of the foundations of the curriculum organization for the Master's Cycle in Pre-School and Primary School Education from the Castelo Branco School of Education, giving special attention to the integration of educational research methodologies in supervised teaching practice.

Whereas the "voice" of the master's is a fundamental tool for the analysis we want to achieve, we conclude with the presentation and analysis of results obtained with the administration of the experimental version of the questionnaire "Conceptions of Research Process and Teaching Practice" and the "Reflective Report" asked students in the final phase of the curricular component of the course.

© 2011 Published by Elsevier Ltd. Selection and/or peer-review under responsibility of Dr Zafer Bekirogullari.

Keywords: Professional Qualifications for Teaching; Curriculum Organization; Educational Research Methodologies; CRPTP Questionnaire; Reflective Report

1. Introduction

Teachers and pre-school teachers' education appears as a vital strategic issue to operate different kind of change in education and, consequently, on concepts about the profession and teachers' professionalism.

The importance of teachers and pre-school teachers' education in so called industrialized countries is shown by the fact that professionals' early education takes place at a higher education level, in universities or similar institutions. This also applies to Portugal that in the last few decades has suffered a restructuring in order to surpass some confinements and limitations imposed by earlier models and to improve significantly the scientific education and professional qualification of teachers and pre-school teachers to be.

Corresponding author: Cristina Pereira
Escola Superior de Educação, Rua Faria de Vasconcelos, 6000 Castelo Branco - Portugal
Tel: 351272339100; Fax: 351272343477
E-mail address: cristina.pereira@ipcb.pt

The present legislation concerning Professional Qualifications for Teaching (Law n.43/2007) was created in the context of the Higher Education reorganization according to the Bologna Process. By situating the professional qualification of pre-school teachers and primary school teachers at the second cycle level (Master's), this law may contribute to recognize the importance of these actors in the promotion of a quality development, which is really necessary in the Portuguese society, and essentially refers to the need of a demanding early education with more quality.

Another crucial aspect in this law relates to the possibility of extending teachers' practice into two basic education cycles. This broader coverage allows the teachers to move between the several levels and cycles of teaching and simultaneously allows them to follow up the students during a larger period of time and favours an articulated learning dynamics among the different teaching levels.

Having this context as background, the present paper intends to present and analyse some of the foundations of the curriculum organization for the Master's Cycle in Pre-School and Primary School Education from the Castelo Branco School of Education, giving special attention to the integration of educational research methodologies in supervised teaching practice. This option aimed at training intervention specialists aware of the worth of their education's field and able of grounding their options when in contact with pedagogical reality. Thus, we are giving privilege to the development of intervention projects on an action-research basis within the context of supervised teaching practice.

Whereas the "voice" of the master's is a fundamental tool for the analysis we want to achieve, we conclude with the presentation and analysis of results obtained with the administration of the experimental version of the questionnaire "Conceptions of Research Process and Teaching Practice" and the "Reflective Report" asked students in the final phase of the curricular component of the course.

2. Features of the curriculum organization for the Master's Cycle in Pre-School and Primary School Education

At a time when the restructuring of Higher Education Teaching due to the Bologna Process demanded new changes in higher education, our institution in Castelo Branco, had as a main concern to put into practice a formative model that may contribute to a more competent teaching professionalism but that has its foundations in a formative experience formed and restructured during the last two decades and at the same time has reflected upon its difficulties and limitations.

The suggestion of creating a Master's Cycle in Pre-School and Primary School Education according to the legal disposition of the law n.4372007 is linked with the perception of its strategic pertinence and, simultaneously, allowing:

- to give a more flexible response to the present labour market fluctuations, as far as teaching is concerned;
- to embody a demanding and qualified education for professionals teaching the early school grades. The strategic importance of those years is far known and it is consensually agreed upon that they have a structuring and founding role in development processes and subsequent schooling processes. *The scientific attitude, the curiosity, the sense of sharing and citizenship can be stimulated or discouraged during the first stages in order to express and develop the language and relational experiences which will occur during the first steps in school. Thus our concern with the quality of educating teachers for these early years of schooling* (Pereira, 2004, p.8).
- to promote education quality through educating professionals that can continue this practice giving place to bridges between Pre-school Education and Primary Education. We believe that a joint education in these two stages will allow the development of an integrated perspective and in harmony with the established learning goals for these stages of teaching.

We will now identify some features established in the joint curricular units of the suggested study plan that we think to be relevant in promoting education quality for this professionals' new profile. This analysis comprehends the 1st and 2nd cycle of this education since that in the suggestion made by the School of Education of Castelo Branco they are conceived in an integration and continuity basis and in a progressive path of professional autonomy, responsibility and development.

When comparing this with the previous curriculum we can attest that:

- a) There is a significant reinforcement of the scientific component and of didactics in teaching areas;
- b) The pedagogical practice in former curricula had a significant weight considering the different stages of education and it was integrated along the formative process and therefore we intend that this formative dimension continues to display this importance and centrality in the current study plan (in the Master's Cycle equals 42 ECTS credits of total

of 90 ECTS credits). According to our perspective the pedagogical practice is a component that mobilizes and promotes skills, attitudes and knowledges that characterize the professional work.

This education component happens in two moments of the formative course:

- In the 1st Cycle, in observation activities and analysis of different children's education contexts and in articulating activities between Pre-school teaching and Primary School teaching;
 - In the Master's Cycle, in two training processes in the professional practice context based on a system where trainee and Pre-school and Primary school training supervisor develop a co-responsible attitude, and are supervised by the institution of Higher Education.
- c) The integration of the educational research in the scientific curricular area of initiation to professional practice. This integration aims at developing skills we believe are crucial in an educational process that intends to give response to new challenges occurring in professional performances, namely:
- Critically interpret research about the educational reality;
 - Identify problems;
 - Develop a research attitude opened to reflection and to questioning their own knowledge in the context of professional reality.

The research projects will be drawn out in articulation with the different formative components, particularly the knowledge coming from didactics and simultaneously reflected and registered in a report of supervised teaching practice.

- d) In the Master's Cycle we give privilege to a time scheduling and spatial organization based on the autonomous work made by the students, on tutorial supervision, theoretical-practical classes, workfield, seminars and trainings. The professors responsible for the education should make an effort to operate teaching-learning strategies in order to develop research and intervention skills and critical analysis, for they can perform a decisive role in the education of professionals that are more and more autonomous, responsible and confident.

These options point to the identification of two determinant aspects in the implementation of quality paths in the teachers and pre-school teachers' formative processes:

- a) The articulation between theoretical education and actual experience in teaching practice;
- b) An education that promotes and is supported on research processes.

The pedagogical practice experiences are crucial in the building up of a professional knowledge. It is a privileged context for the trainees to develop understanding processes of reality and to integrate their acquirements through different activities including observation, analysis and progressive accountability for teacher's performances. Thus, this formative component is vital to acquire essential skills for their future professional performance, namely:

- a) Developing a progressive autonomy;
- b) Able to critically reflect and assess the teaching strategies which they put into practice;
- c) Building up an identity and a sense of professionalism.

However it is our belief that this formative component can only achieve the goals previously set and overcome the barriers to accomplish an integrated education if we rethink the curricular organization and articulation of the current curriculum. The reflections drawn out from our professional experience concerning teachers and pre-school teachers' education have made clear that the dichotomy still made between the theoretical component and the pedagogical practice represents a wall we have to put down. This dichotomy spreads also to educational research methodologies, which have frequently appeared as "stage separated" and seen in a merely theoretical-descriptive way. Therefore it urges us to rethink the place of the formative component within the educational research methodologies in teachers and pre-school teachers' education, testing new ways for this component to achieve its role as a foundation in observation, register and pedagogical evaluation processes as well as in mobilizing different knowledge's to elaborate pedagogical intervention projects.

In our suggestion and accordingly to the desired goals, we gave privilege to the development of intervention projects on an action-research basis within the context of supervised teaching practice. The appraisal of the action-research methodology in articulation with supervised teaching practice has its foundations in Kemmis and McTaggart's (1988) views, among others, who conceive the action-research as a self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own social and educational practices and their understanding of those practices and of the surrounding contexts.

3. The Importance of Education Professionals Developing Skills in Research Methodologies - The students' perceptions

3.1. Presenting the questionnaire "Concepts on Research Processes and Teaching Practice" (CRPTP) - experimental version

The questionnaire "Concepts on Research Processes and Teaching Practice" (CRPTP) aimed at identifying the concepts of students attending the Master's Cycle in Pre-School Teaching and Primary School Teaching about the importance of education professionals developing skills in educational research methodologies as well as of being the actors in research projects within their professional performance.

This Master's Cycle was implemented for the first time in the school year of 2009/2010 in the School of Education of the Polytechnic Institute of Castelo Branco and it is organized according to the Legal Framework for Professional Qualifications for Teaching and which regulates the education of teachers and pre-school teachers according to the Bologna Process. Its curriculum integrates two curricular units of *Educational Research Methodologies* present in the component of *Supervised Teaching Practice* and in process during the two semesters while the students develop their pedagogical practice. Bearing in mind that this option has the underlying concern to develop research skills of the trainees that take form in accomplishing intervention research/ projects in the context of professional reality, we have decided to add an item in the CRPTP questionnaire that evaluates the concepts about the importance of promoting the integration of theory, research and educational practice in this type of education.

This scenario led us to think that the CRPTP questionnaire can be seen as a work basis in the organization and implementation of the curricular units analyzed in this paper. When applied in the beginning of the educational process, it aims at identifying students' concepts about educational research methodologies concerning professional performance and at the same time we can assess if the goals are adequate.

In the experimental version, we have chosen an 18-item-structured instrument representing the analyzed dimensions in this research and which we promptly identify:

- a) Concepts on educational research's role in understanding educational quality and its encouraging;
- b) Concepts on professional knowledge's: research and technical skills;
- c) Concepts on the participation of teachers and pre-school teachers in research projects within the professional performance context;
- d) Concepts on adequateness of qualitative and quantitative research in educational research;
- e) Concepts on the importance of an integrated education for teachers and pre-school teachers.

According to these dimensions, we have identified some of the items present in the CRPTP questionnaire:

- **Item 8:** Engagement in action-research projects by teachers can be a huge contribution to promote educational quality;
- **Item 1:** A teacher's professional performance has its roots in mastering a set of know-how techniques;
- **Item 4:** A teacher should have skills concerning research methodologies;
- **Item 16:** During teaching practice it should be set a time to engage in educational research;
- **Item 12:** Objective characterization of pedagogical contexts is only possible through quantitative research.
- **Item 18:** Pre-school teachers and teachers' education should promote the integration of theory, research and educational practice.

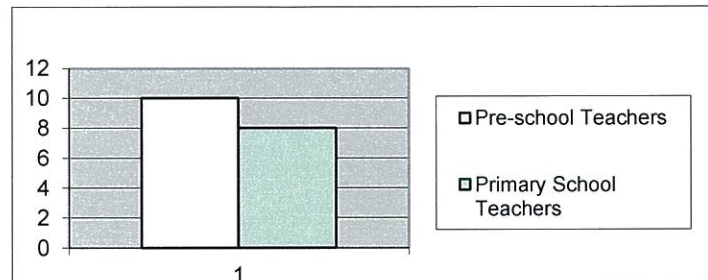
The questionnaire is presented on the Likert format with variable values rated between 1(Strongly Disagree) and 4 (Strongly Agree). As the CRPTP questionnaire has a total of 18 items, the final score has a minimum score of 18 and a maximum score of 72. It is important to refer that as four items are reversed in meaning from the overall direction of the scale it was needed to reverse the response value for each of these items before summing the total.

3.1.1. Response presentation and analysis to CRPTP questionnaire

3.1.1.1. Characterization of people who answered to CRPTP questionnaire

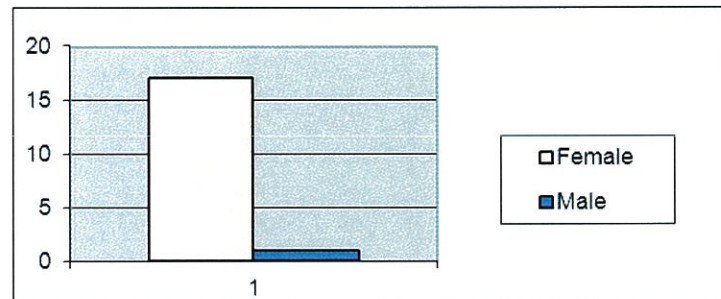
The subjects of our sample are students attending the 1st edition of the Master's Cycle in Pre-school Teaching and Primary Teaching, the total of the 18 respondents are evenly distributed regarding professions, for 10 of them are pre-school teachers and 8 primary teachers.

Graph nr 1: Distribution of subjects by profession



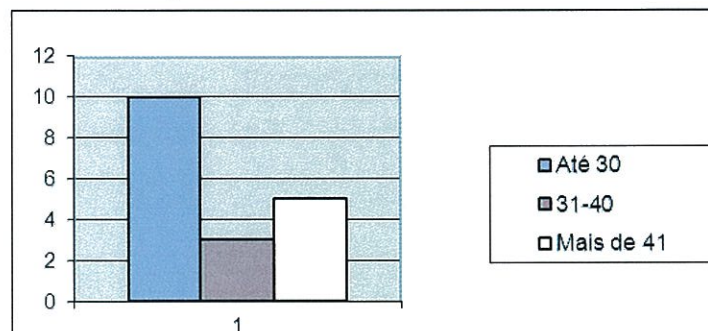
As far as the variable gender is concerned, only one subject is male.

Graph nr 2: Distribution of subjects by gender



The age range of the subjects is between 22 and 54 years old. Ten of them are between 22 and 30 years old, three of them are between 31 and 40 years old and 5 of them are between 41 and 54 years old.

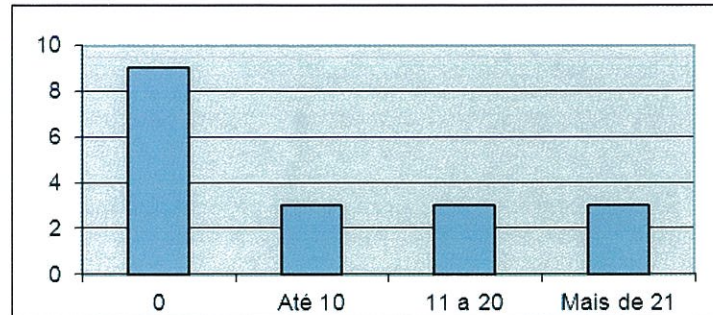
Graph nr 3: Distribution of subjects by age



This uneven distribution in age range will inevitably display an uneven distribution according to number of years of teaching practice, because 50% of the subjects haven't started their practice yet. The remaining subjects

are equitably distributed by the following intervals: up to ten years of practice ($n=3$); 11 to 20 years ($n=3$) e over 21 years ($n=3$).

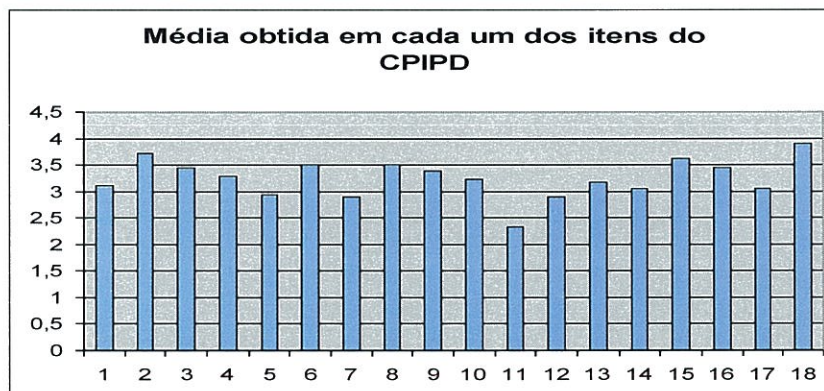
Graph nr 4: Distribution of subjects by years of practice



3.1.1.2. Descriptive statistics of the results and their analysis

Considering the reduced number of subjects of our sample, we decided to make only one descriptive statistics of the questionnaire's outcomes. The following graph presents the average of the ratings for each of the items of the questionnaire.

Graph nr 5: Average of the ratings for each of the items presented in the questionnaire CRPTP



Regarding the 1-4 response scale of the questionnaire we attested that the results are generally positive responses indicating that the respondents acknowledge the importance of the dimensions scrutinized, namely the fact that a teachers' education should promote the integration of different knowledge's, that teaching professionals should acquire and develop skills in the field of educational research methodologies and the importance of performing a role in research projects in their professional context.

The item 18 (*Teachers and pre-school teachers' education should promote the integration of theory, research and educational practice*) shows the higher average (3.89) and it is in fact the closest rate to the maximum possible and followed by item number 2 (*A teacher's proficiency is concerned with the permanent questioning and pedagogical situations' analysis*) with an average of 3.72.

The item number 11 (*Teaching practice is essentially based on practical knowledges*) presents the lowest score (2.33), followed by the items number 7 (*The complexity of teaching practice inhibits the development of research projects by the teacher*) and number 12 (*Objective characterization of pedagogical contexts is only possible through quantitative research*), both presenting the same rate (2.89). The item 5 (*Educational research should be undertaken by specialists outside analyzed contexts*) still presents a rate below 3 (2.94). All the remaining items have a rate above 3.

These outcomes are worthy of the following comments:

- The average rating of the item number 11 makes us perceive that the social representation teaching had during decades that in the first years of schooling it was merely based in technical-pedagogical knowledges and underrated scientific and researching knowledges, is being demystified. If we continue to value learning with practice that does not imply a simple acquisition of observed routines performed by supervisor teachers but it implies a way of flexibly and thoughtfully learning, analyzing, intervening in educational situations, which are inevitably complex.
- The result of item number 7 indicates a sort of disagreement concerning the concept that the non-engagement of teachers in research projects can be legitimized by the scarce time teachers have due to the complexity of their profession. The average rating not only shows a pro-active attitude towards the engagement in research projects but also supports the rating of item 11, since teaching practice demands this kind of engagement and it contributes to an understanding and to a grounded/ appropriate intervention.
- It is curious to observe that in item 17 (*Qualitative research methodologies are more appropriate in order to understand pedagogical reality*) though it presents a positive rating (3.06), it reveals a less clear agreement than in other items of the questionnaire. By crossing this rating with item number 12's (*Objective characterization of pedagogical contexts is only possible through quantitative research*) we observe that the Master's students don't think that there is a more appropriate educational research, that is, they don't view the dichotomist concept of qualitative research advantages versus quantitative ones.

We believe it is still important to enhance some outcomes that though they don't represent the highest ratings, they indicate concepts valued by respondents, namely item 15 (*A teacher should be a researcher*) with a 3.61 rating, item 6 (*Teachers should organize networks/partnerships to develop research projects in schools*) with a 3.5 rating and finally item 3 (*Educational research has brought an indispensable contribution to the understanding of processes and pedagogical contexts*) with a 3.44 rating.

Though the CRPTP questionnaire is, at this stage, just a experimental version and its sample is not significant in order to make a more accurate and precise analysis, we believe that we may assert that it allowed us to identify the most relevant concepts according to the goals of this study.

In general the outcomes point out that the students currently attending the Master's Cycle in Pre-school teaching and Primary Teaching show concepts that are close to the ones in which the curricular organization of the Cycle is based on and more precisely in the curricular units of Research Methodologies and Supervised Teaching Practices. Therefore, we can say that it reveals that there were significant changes made in the concept of teaching professionalism.

These outcomes may be justified by the fact that the respondents are teachers and pre-school teachers who took their degree before the Bologna Process came into force and who free willingly decided to complete a Master's Degree without a career progression in sight or in order to achieve better incomes. Thus we can conclude that their motivation was guided by their ambition to deepen and integrate professional knowledge's. Accordingly, we believe it is pertinent to apply the questionnaire to professionals that are not attending any degree and are not motivated to engage in a Master's degree so that we can identify their concepts establishing bridges and comparisons between the two professional groups.

Bearing in mind that the sample in our study shares concepts of teaching professionalism echoed in the statements of educational specialists and researchers which we have had an opportunity to analyse, the major challenge we face is to promote training activities that can operate through an interaction of theory, research and practice, as well as teaching-learning strategies aimed at developing abilities in looking for information, intervention and critical analysis. This was the task we set ourselves with the curricular organization of the study plans presented, remembering the complexity of overcoming this challenge.

3.2. Presentation and data analysis obtained in the Reflective Report

The achievement of the study plans in question has been a complex process that has raised doubts and indecisions, whether in terms of those involved in teaching these educational courses, in terms of research methodologies and supervised practice, or regarding its academic committee. We are aware that the connection between knowledge and its transfer to professional practice is one of the most complex and demanding processes for any trainee and that this is a consequence of curricular organization and the teachers themselves not knowing how to make this reality function.

To introduce mechanisms that allow us to assess the adequacy of the formative process and while being responsible for the curricular units of *Metodologias de Investigação Educacional I e II* [Educational Research Methodologies I and II] we thought it would be important to ask those taking the Masters Course, at the end of the course to give a *Reflective Report* in which they could respond to the following question: 'Do you consider that the curricular units of Educational Research Methodologies I and II increase the value and help the transfer of knowledge in supervised pedagogical practice?' It is important to remember that, alongside these curricular units, those taking the course should, from the beginning, work on a project on the subject of 'The Practice of Supervised Teaching' and, afterwards, make an assessment or suggest changes.

3.2.1. Definition of the content analysis categories

Considering the aim and organizational structure of this instrument of analysis, we thought it a good idea to come up with a definition of analysis categories in retrospect, guided and supported from the start by a subjacent conceptual framework to undertake this study.

To achieve this end, in the first phase we proceeded with a general reading of the reports with the principle concern of gaining overall knowledge of the content that the subjects chose to emphasize. The first reading enabled the formation of 'schemes of topics' that, according to Zabalza (1994), has the advantage of restricting the areas under analysis. On the other hand, the content of these topics should not be specified *a priori*, which means that various aspects of each report can be included.

With the 'group idea' about information that should be included for analysis, we made a second reading, this time concerned to identify and note the most significant statements, to which, in the third phase, we attributed a central idea or category. In this manner and in the words of Vala (2001, p. 111) 'a category is usually made up of a key-phrase that indicates the central meaning of the concept that you want to grasp, and of other indicators that describe the semantic area of the concept.'

It was our concern, after defining the categories, to assure ourselves of its completeness and exclusivity, or rather, to guarantee to begin with that all of the units registered could fit in one of the categories and then that the same registered unit could only belong to one category (Bardin, 1988; Vala, 2001). We also wanted the categories to be transferrable to a theoretical framework and to the analysis objectives, that is if they were pertinent. In accordance with procedures previously referred to, it was possible to identify three analysis categories:

- Benefits for professional life;
- Difficulties in its realization;
- Suggestions.

3.2.2. Presentation and analysis of the answers

The number of those taking the Masters course (18) is an indication of the importance of the curricular units of Research Methodologies for professional work, but different degrees of critical analysis may be identified in their answers. Ten subjects properly answered the questions set and showed their ability to reflect critically the theme under analysis; with two, though they were able to do critical analysis, it was not centred specifically on the question set; six presented a linear and simplistic text, showing their difficulties in analysing the problems in question.

Below are some of the answers we consider representative of the opinions expressed by the majority of the Masters students for each of the categories identified:

3.2.2.1. Benefits for professional life

- 'The Curricular Units from Research Methodologies I and II have played an important part in my training as a teacher-researcher, which meant I was able to develop skills to meet research challenges, as well as gaining skills in the area of educational practice and in sharing results and processes with colleagues...In my opinion, spending time with teachers who have a spirit of research is a valuable experience and helps to create an atmosphere that encourages the development of our spirit of investigation.' (Subject A)

- '...On the other hand, we could consider our research as an example of 'learning to do': learning to research, researching. In contrast to the terms limited to the theoretical teaching of research, decontextualized, our learning and abilities were performed in a practical manner. The lessons gave us the possibility of familiarizing

ourselves with research methodology, including the variety of techniques of analysis of data and the forms of presentation...' (Subject B)

- 'Generally we believe that valuing the role of researcher in the work of teachers is, obviously, an attitude to be developed in the first place by the teachers themselves...In the on-going implementation of our studies we believe that it will be a process of constructing knowledge about our work and, therefore, an activity that will contribute to our professional development.' (Subject C)

- 'The decision to integrate a Masters course did not take into account its potential and scope. There is a mark in the places where I have worked as a teacher of my search for a strategic identification with which I thought the group would react better to my suggestions. Often we intuitively look for alternatives which could add to the purpose of our work. However, I now recognize that, though the process was directed with the best of intentions, it lacked the basis of a more fundamental objective supported by the search for a more credible theory.' (Subject D)

3.2.2.2. Difficulties in its realisation

- 'Stopping to reflect was not easy. But it was good. I risked questioning myself. Understanding that what we had taken as correct and guaranteed was not so, made me develop various forms of self-criticism...In the research, I as a teacher, beyond my role as a researcher, also had to intervene, which is not always easy. I cannot always register everything the children refer to, I cannot always film or photograph the important moments to review afterwards.' (Subject E)

- '...This curricular unit had as its primary objective the development of skills for conceiving, planning and performing research/intervention in an educational context. From this perspective, I am rather uncertain about my skills, whereas at the start of planning the practice-project work I did not feel so uncomfortable, that is, the more I know the more I question the viability...' (Subject C)

- '...The number of difficulties, which were not few, are related to the principle that being insecure and fearful means you will not be able to produce a study which is credible and of quality. It is complicated by having a constant fear of failing. The fact is that gathering information has helped me to think less about this, revealing itself as a constant and intense learning experience...' (Subject F)

- '...There were more difficult moments during this curricular unit, normally related to doubts and the time available for answers. I was often asked questions that remained unanswered for a time, making decisions when there may have been better alternatives, but where it was necessary to respond and go forward. I did not feel very clear and unequivocal and this problem arose from the monitoring which I felt sometimes needed to be closer and more effective...' (Subject G)

3.2.2.3. Suggestions

'...I do not know if it would be viable, or even possible to change this situation, but the fact that this curricular unit is at the start of the second semester and the fact that *Supervised Pre-school Teaching Practice* starts simultaneously, does not allow time for the effective learning of as many concepts that are taught in this part which could be practiced...Other aspects that could be improved in the future stem from the fact that all classes are taught simultaneously to all members of the class. Would it not be possible that some of these could be as tutorials? I know that we would not have such a comprehensive vision of all educational research techniques and we would lose some content related to everybody's experiences...I believe that the ideal would be a half-term of the two approaches, that is part of the time as class-work and part in individual tutorials.' (Subject H)

3.2.3. A possible analysis

The reading of selected excerpts has allowed us to refer to some aspects which we considered relevant to an analysis of learning and of the constraints inherent in analysis:

- The majority of answers revealed abilities in critical analysis, in which the subjects constructed a narrative that satisfied the objectives of the *Reflective Report*.

- The difficulties identified revealed that the students were aware of their own insecurities and hesitations in a learning experience, indicating awareness of the limits of theoretical and practical knowledge. It is interesting

that the narratives about difficulties showed abilities in self-analysis, not simply looking for external causes as the source of the difficulties or constraints.

- The fact that the answers as a whole indicated the curricular units under analysis were beneficial for professional work is in accord with the results in QIPD, which showed that the subjects thought research is an essential part of being a professional teacher.

- As regards the category 'Suggestions' it is important to mention that the majority of Masters students shared Subject H's opinion, which is that the curricular unit *Educational Research Methodologies I* should be early in the first semester before doing teaching practice.

The Masters Educational Commission had the chance to look at this suggestion and though it was considered relevant, it was found to clash with the strict distribution of credits per semester imposed by the Bologna Process.

We thought that the second suggestion was especially interesting and that it showed an interest in some attendance sessions being organized on a more individual basis, in accordance with the project developing each student, it could help, in a more effective way, to transfer knowledge of educational research methodologies to the professional life.

Although the data indicates a positive appreciation of the curricular units, and that the majority of students have the ability of critical analysis, we have to mention that in the *Reflective Report* six Masters students had difficulties in answering the set questions, which indicates limitations in understanding the nature and objectives of the curricular units under analysis.

4. Final Thoughts

Schools are better at creating disciples than researchers.

Dewey

We assumed, throughout this text, the presupposition that the connection between theoretical training and the experiences of practical teaching, along with a course that supports and promotes research processes, are crucial factors for quality in the training of pre-school and primary school teachers. With this in mind, the structure and organization of the Masters course curriculum should answer this demand effectively, making the training process a space/time motivated by issues linked to theory, research and practice in education, with the aim of training interventional specialists, aware of the value and potential of their area of training and able to base their choices on contact with pedagogical experiences.

The instruments used in this study meant we could identify, from the start, the students' concepts of the importance of educational professionals developing abilities in the field of educational research methodologies and of participating in research projects in the context of their professional life (*CIPD*), as well as, at the end of the curricular part of the Masters course, knowing their opinion/analysis of the contribution of the way Research Methodologies I and II curricular units could benefit their work and the transfer of this knowledge to the supervised teaching practice (*Reflective Report*). We think that the data obtained is organized into important elements for evaluating the opportunities and weaknesses within the curricular organization of the Masters in Pre-school and Primary School Education, as well as of strategies used in teaching-learning processes.

We are aware that while some steps have been taken to integrate research processes into teaching, many pre-school and primary school teachers are alien to this concept, or think of educational research as inconsequential or irrelevant for their work.

One of the main reasons for a teacher to be oblivious of the need to undertake research into their work is ignorance about aims, methodologies and studies of educational research that traditionally dominate their training experience. As one of the Masters students said in the *Reflective Report*, 'spending time with teachers who have a spirit of research is a valuable experience and helps to create an atmosphere that encourages the development of our spirit of investigation.'

Bibliography

Bardin, L. (1988). *Análise de conteúdo*. Lisboa: Edições 70.

Decreto-Lei nº 43 (2007). *Regime Jurídico de Habilitação para a Docência*. Lisboa: Imprensa Nacional.

Kennis, S.; McTaggart, R. (1988). *Como planificar la investigación-acción*. Barcelona: Laertes.

Pereira, C. (2004). *Desenvolvimento psicológico e mudança conceptual nos processos formativos: Uma investigação-acção no âmbito da formação inicial de educadores/professores*. Dissertação de doutoramento (não publicada). Coimbra: Faculdade de Psicologia e de Ciências da Educação da Universidade de Coimbra.

Vala, J. (2001). A análise de conteúdo. In A. Silva; J. Pinto, *Metodologia das ciências sociais* (Cap.IV). Porto: Afrontamento.

Zabalza, M. (1994). *Diários de Aula. Contributo para o estudo de dilemas práticos dos professores*. Porto: Porto Editora.