

The Bologna Process in the Context of Teacher Education – a model analysis

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Abstract

Teachers and pre-school teachers' education appears as a vital strategic issue to operate changes of different kinds in education and, consequently, on concepts about the profession and teachers' professionalism. The present legislation concerning Professional Qualifications for Teaching (Law n.4372007) 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.

Another crucial aspect in this law relates to the possibility of extending teachers' practice into two basic education cycles.

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.

We conclude with the presentation and analysis of the results obtained in the experimental version of questionnaire "Concepções sobre Processos Investigativos e Prática Docente" (Concepts on Research Processes and Teaching Practice) to the master' students.

Introduction

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

profession and teachers' professionalism. The World Declaration on Higher Education of UNESCO (1998, p. 86) asserts *"though teaching-learning situations are important, teachers are crucial as far as education quality and relevance is concerned. Their education and preparation for their activity is a major critical indicator of the kind of educational quality and relevance we intend to achieve"*.

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 qualifications of teachers and pre-school teachers to be.

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.

According to these premises, the present paper will be organised as followed: first, we'll present an analysis concerning models and contexts that characterize teachers and pre-school teachers' education in Portugal since the last century's 70's and 80's and furthermore we'll shed a light on forthcoming challenges namely the ones resulting from the Bologna Process. Afterwards we'll focus on the fact that it is mandatory for the formative process to operate in a network system involving theory, research and practice, in a progressive proximity to reality and supported on reality as well. We present in this respect some of the foundations of the curriculum organization for the Master's Cycle in Pre-School and Primary School Education, reflecting the possibility that the established restructurings are trying to give response to some confinements identified in former formative models.

We conclude with the presentation and analysis of the results obtained in the experimental version of questionnaire "Concepções sobre Processos Investigativos e Prática Docente" (Concepts on Research Processes and Teaching Practice) to the master' students. This questionnaire (CRPTP) aimed at identifying the concepts 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.

1. Teachers and Pre-school teachers' education within the Bologna Process

1.1. Forthcoming challenges

Last century's 70's and 80's in Portugal were characterized by the formation of specific institutions for the education of teachers in a university and polytechnic context, since it was when the Schools of Education (E.S.E.(s)) were created. During this period of time, new educational praxis were implemented and they were the integrated models taken up in the Schools of Education, as far as the degrees concerning the formal educational systems are concerned (Pre-school teachers and 1st and 2nd stages of Basic Education) and in Universities following the format of Integrated Centres for the Teachers' Education and for Pre-school teachers and Primary teachers. The designation "integrated models" concerns an organization that aims at articulating the so

called theoretical dimension (programmes as well as teaching contexts and forms) with the professional practice throughout the formative period, having in mind a progression in the pedagogical intervention, that is a permanence and engagement in the professional activity with supervision (Roldão, 2002). Therefore, we are talking about a kind of education that is not organized in independent stages but one that integrates a general and scientific qualification with professional training, aiming at a balance between both components: theoretical and practical (Ribeiro, 1989; Lanier e Little, 1986).

In our perspective, this educational model is a stone mark in the Portuguese educational system, for it embodies the need of a specific education for teaching professionals and it has similarities with a supervised training for teaching, that is held as an integrated process and gathering of several knowledges.

From a time, however not so long ago, when research was scarce and the education of teachers focused mainly on its pedagogical-technical component for the first stages of schooling or on an early higher education qualification concerning scientific disciplines plus some later pedagogical training (pedagogical sciences and supervised training according to the classical training), a clear change happened from the 70's onwards (Roldão, 2001). Nonetheless, due to constraints resulting from the schooling boom and the imperative need to give response to qualifying and certifying thousands of new comers to the profession of teaching who had different academic qualifications but without a pedagogical training, there was a demand for on-going qualifications and a strong investment on that part. It was only in the 90's that the primary qualifications appeared in a revitalized shape in some schools and universities through the creation and development of research and training guidelines associated to the concept of the teacher as a reflective individual (Schon, 1983; 1987) and to the specific professional knowledge of the teacher, which was based on conceptual references of their early education.

As we fit pertinent, we here now present some data referred in the survey "Research Synthesis on Teachers' Early Qualification in Portugal" published in 2002 and by a research team from the Faculty of Psychology and Education Sciences, University of Lisbon, coordinated by PhD Teresa Estrela.

Though the analyzed researches do not clearly point out what particular model should be adopted, they indicate some principles, in which the formative curriculum should be based on:

- The need to adopt an integrated education model as far as theory and practice are concerned and the development of interdisciplinarity;
- The formulation of education goals should be according to the role performed by future teachers and pre-school teachers;
- The development of a reflective and interventive ability and of future teachers and pre-school teachers;
- The necessity of a cooperative work between all the teachers intervening in the training process;
- The development of research projects in order to assess on-going formative processes.

This study's outcomes revealed an increasing awareness and concern with the concept of teachers' professionalization that is accordingly to the new guidelines of research on teachers and pre-school teachers' training but they have also identified gaps and difficulties in managing to ally these knowledges in a formative praxis, that is, to improve significantly the scientific education and the professional skills of teachers and pre-school teachers to be. We are going to enhance some of the difficulties and confinements diagnosed in the research (Pereira, 2004):

- a) There are evidences that point out a gap between theory and practice and as a result some difficulties are felt by inexperienced teachers in supervised teaching and in their first year of professional activity;
- b) The concept of professionalism that stands out of the research is based on two reasons: *one stands on trainers' speech about the training process, which they should encourage and that should be coherent with an active, reflective and innovative professional opened to school and its surrounding environment and the other one that is taken from the observation and/ or description of practice, which reflects that the provided qualification is more adjusted to the concept of the teacher as a technician* (Estrela, et al., 2002, p. 24).

When analyzing the formative processes, Maria do Céu Roldão (Roldão, 2001) has asserted that even in the so called integrated models there was still a tendency to maintain the organization systems as "stage separated" since there was still a segmented view of acquisition of knowledge, where the pedagogical practice components worked

separately from the remaining formative ones and the scientific disciplines appeared predominantly as isolated disciplines.

If an education model depends on regulatory standards then the real conditions of its implementations and the directly involved interveners are crucial variables to its materialization. By analyzing the integrated models throughout the years we can assert that this formative scenario is far from being free from difficulties that have often not been connected with the combination of scientific and psycho-pedagogical components along with the first contact with teaching but with an additive juxtaposition of those fields.

All through this procedure, some educators have become more and more aware of the fact that teachers and pre-school teachers' education models must promote a well grounded teaching practice and a development of knowledges and skills assembled in guidelines resulting from teaching practice analysis (Perrenoud, 1996). The research field has simultaneously evolved to an approach based on the articulation between the formative and research processes and therefore becoming clear that it is crucial to organize teams composed by researchers, educators and teachers, and the last being seen as experienced individuals able to reflect, investigate and conceive knowledges related to teaching practice (Formosinho e Nisa, 2001).

In this sense, the research processes in the field of education have gradually adopted an action-research methodology, since it is believed that the professionals are competent to formulate relevant issues within their teaching practice, to identify goals to achieve and to choose the fitting strategies and methodologies in order to supervise not only the processes but the outcomes as well.

This concept is a great qualitative improvement regarding the teachers' image and education – the teachers step out of being objects of academic research and become objects of their own researches.

Accordingly, the restructuring that occurred due to the Bologna Process should be organized as an opportunity to reformulate the formative and research capacities of the institutions accountable for the early education of teachers and pre-school teachers, bearing in mind that the proficiencies that nowadays are demanded to these professionals claim a solid and versatile education, articulating several knowledges. The new formative models should however be pondered according to the restrictions and confinements of earlier ones, but also according to an analysis of the path that

different higher education institutions drawn out and that has allowed the construction of important guidelines for the education of teachers and pre-school teachers.

1.2 Pedagogical practice and research practice – how should they relate?

The previous mentioned ideas lead us to one of the main issues of this paper for they enhance 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.

Regarding the formative settings displayed by the Bologna Process and more specifically the Master's Cycle, supervised teachers' practice gains a greater significance, which is reflected on the weight given to this component. In the Legal Framework for Professional Qualifications for Teaching this component has 40 to 45 ECTS credits from a total of 90 ECTS credits mandatory for the completion of the Master's degree on Pre-school Education or Primary Education.

This option is centered on the acknowledgement that 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 knowledges to elaborate pedagogical intervention projects.

By analyzing the Legal Framework for Professional Qualifications for Teaching regarding the formative component in educational research methodologies, we can assess that though it emerges as one of the mandatory scientific areas for that qualification, it is also referred to as having the following characteristics:

- It appears explicitly only in the curricular structure of the cycle of studies leading to the degree in Basic Education and a future teacher may not acquire any education concerning this scientific area throughout the cycle of studies leading to the Master’s Degree;
- Even in the first cycle of studies it has no specific weight and the relative number of credits for this component, that are somewhat reduced, should be included in the 15 to 20 ECTS credits attributed to each of the formative components: General Teaching Education; Specific Didactics and Initiation to Professional Practice;
- It has the following goals: *it covers the knowledge of principles and methods that allow future teachers to adopt a research attitude in their professional practice within a specific context, being the understanding and critical analysis of the educational researches the basis for their work* (Professional Qualifications for Teaching - Law n.4372007, page 1324).

It is our belief that this description is far from being what we suppose is necessary for a qualified education leveled with the new professional demands and challenges and therefore putting at risk one of the notions mentioned in the previous part of this study referring that research processes in the education field have progressively adopted the idea that professionals should be competent to formulated relevant questions concerning their practice in order to identify objectives to follow and to choose the proper strategies and methodologies to supervise processes and outcomes.

Critically analyzing the Legal Framework for Professional Qualifications for Teaching we strive to organize the research in the Master's Cycle as a central and integrating core of all formative processes.

The layout, we have suggested, for the curricular organization for the Master's Cycle in Pre-school Teaching and Primary Teaching in our institution, has its roots in integrating the scientific area of educational research in the formative component of initiation to professional practice. This choice was made not because it represented a strategy to overcome the rigid distribution of credits by the different components bound by the present Legal Framework for Professional Qualifications for Teaching, but because it stood has a pertinent hypothesis to introduce new dynamics of constructing professional knowledge.

We share Viegas Abreu (2004) view that within the school dynamics of the twentieth century teaching will be about developing action programs and research processes and not merely about teaching classes and disseminating knowledge.

Following this path it becomes urgent to conceive the formative processes of teaching professionals as a space/time where/when an actual articulation between theory, research and education practice exists allowing to build intervention specialists aware of the worth of their education's field and able of grounding their options when contacting with pedagogical reality.

Having a closer contact with research, regarding the specific sciences and the educational sciences as well, it is crucial to encourage the trainees to promote a comprehension about the nature, issues, methods and worth of producing knowledge in these fields permitting them to build an attitude guided by research and opened to reflection and questioning of their own knowledge.

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.

1.3. 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 reassert the determinant role of Schools of Education in the education of these professionals;
- 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 layout of the curriculum with the one that is now implemented 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 coordinated by the professors responsible for the

curricular units of *Methodologies of Educational Research and Supervised Practice in Pre-school Teaching and Primary Teaching*.

- 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.

2. 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.

As we have previously mentioned, 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 knowledges: 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:** The accurate depiction of pedagogical contexts is only achievable 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

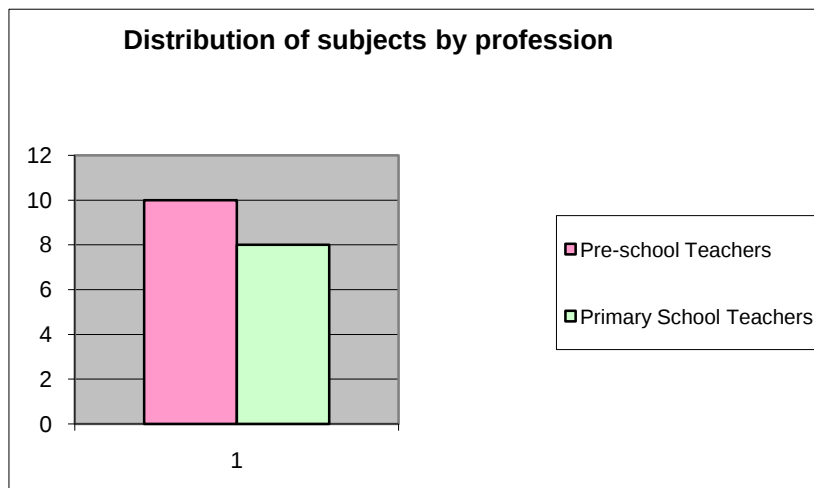
of the scale it was needed to reverse the response value for each of these items before summing the total.

3. Response presentation and analysis to CRPTP questionnaire

3.1. Characterization of people who answered to CRPTP questionnaire

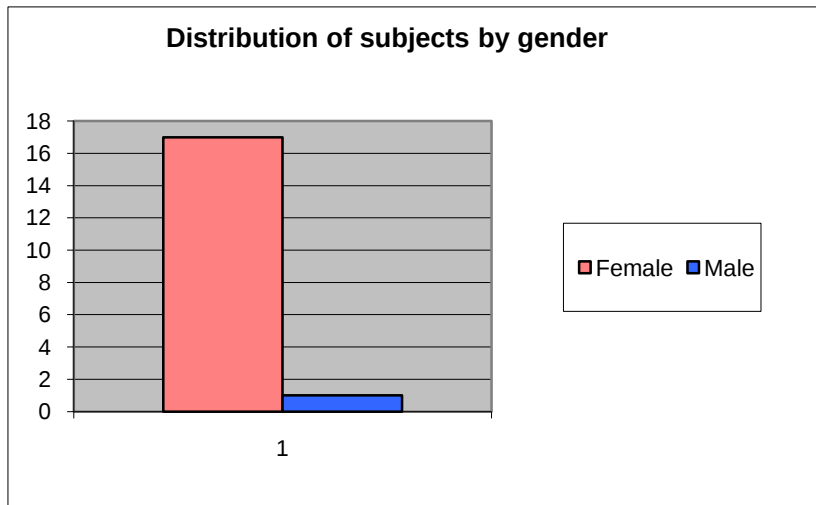
The subjects of our sample are students attending the 1st edition of the Master's Cycle in Pre-school Teaching and Primary Teaching, the total of the 18 respondents are evenly distributed regarding professions, for 10 of them are pre-school teachers and 8 primary teachers.

Graph nr 1: Distribution of subjects by profession



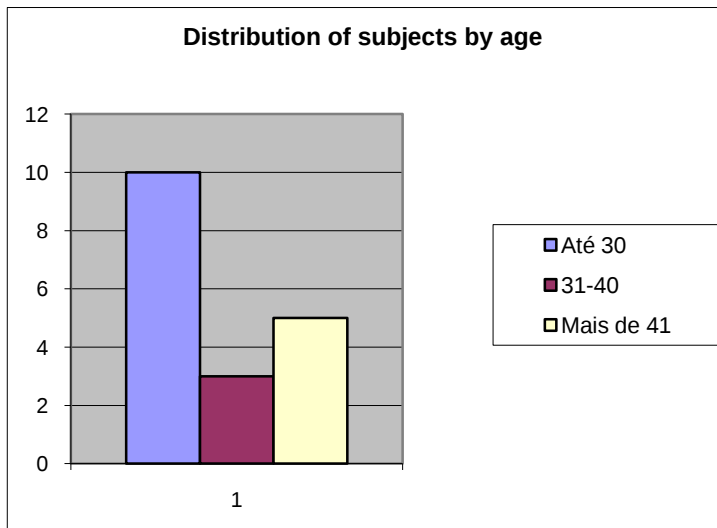
As far as the variable gender is concerned, only one subject is male.

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.

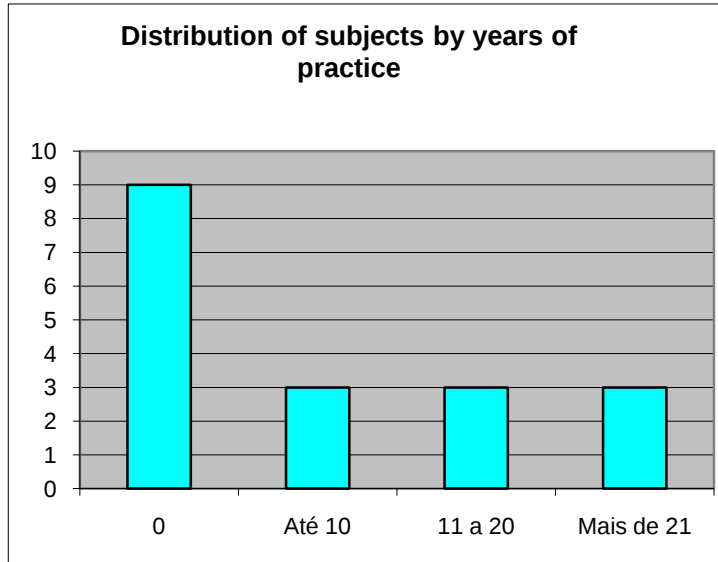
Graph nr 3: Distribution of subjects by age



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).

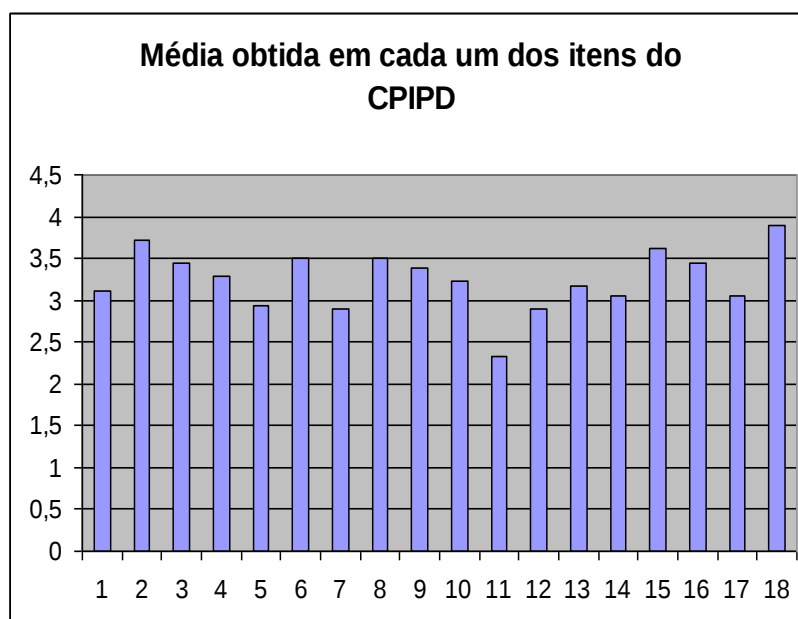
Graph nr 4: Distribution of subjects by years of practice



3.2. 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 knowledges, 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:

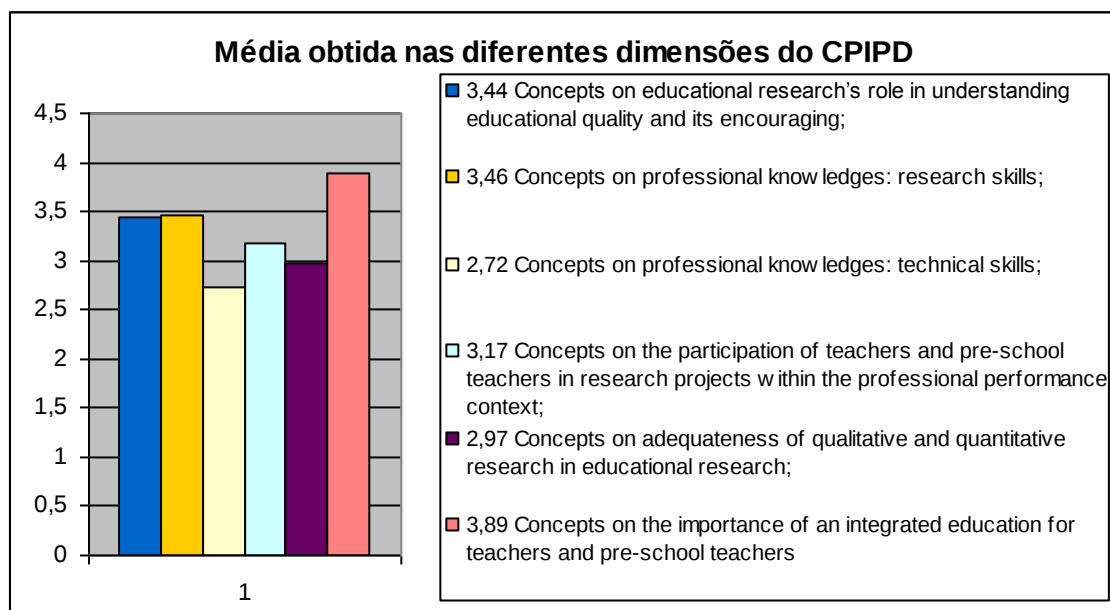
- The average rating of the item number 11 makes us perceive that the social representation teaching had during decades that in the first years of schooling it was merely based in technical-pedagogical knowledges and underrated scientific and researching knowledges, is being demystified. If we continue 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 qualitative 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 dichotomic 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.

Last we present a graph indicating the average ratings in each of the questionnaire dimensions and which strengthen some analyzed aspects regarding the average ratings in the different items of the CRPTP questionnaire.

f) As we can observe the highest rating was in the dimension of “Concepts on the importance of an integrated education for teachers and pre-school teachers” (3.89), followed by “Concepts on professional knowledges: research skills” (3.46) and “Concepts on educational research’s role in understanding and promoting educational quality” (3.44). These were the most valued concepts by the respondents. Presenting a rating below 3 were “Concepts on professional knowledges: technical skills” (2.72) and “Concepts on suitability of qualitative and quantitative research in educational investigation” (2.97). As we have mentioned earlier the average rating in this last dimension concerns the fact that the items in it are formulated exclusively valuing a quantitative research versus qualitative research.

Graph nr 5: Average ratings in each of the questionnaire dimensions



3. Final Analysis

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 knowledges. 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 our sample shares common concepts on teaching professionalism, which are close to the ones mentioned by educational experts and researchers (that we analyzed in 1.1 of this paper), teachers and pre-school teachers' education faces a greater challenge nowadays which is to promote formative processes able to operate connections between theory, research and practice and learning-teaching strategies concerning the development of research capability, intervention skills and critical analysis. Clearly aware of the complexity to overcome this challenge, we believe that it is the mandatory for the teachers responsible for these professionals' education to give response to some expectations that were not completely fulfilled, shaping more autonomous, responsible and assertive professionals.

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