Accounting Education Research: Scientific Production and Preference of PhDs, 2005 to 2009*

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ABSTRACT

The present study aims at describing the lines of scientific research engaged in by doctors who presented their dissertations on “Accounting Education and Research” in the School of Economics, Business Administration and Accounting of the University of São Paulo (Faculdade de Economia, Administração e Contabilidade da Universidade de São Paulo - FEA/USP) during the period from 2005 to 2009. We evaluate whether publications in this field are treated in a prejudiced manner in Brazil – the phenomenon identified internationally by Pierre, Wilson, Richard, Ravenscroft, and Rebel (2009) – which may indicate disinterest on the part of researchers. We used descriptive research with a quantitative approach for our purposes. Data were collected from documentary research on the Lattes Platform and accounting dissertations defended at the USP, comprising a total of 203 PhDs. We found that the number of dissertations defended has practically doubled every decade and that the number of females obtaining doctoral degrees has increased significantly. Of the PhDs surveyed, 7% were productivity grant recipients from the National Counsel of Technological and Scientific Development (Conselho Nacional de Desenvolvimento Científico e Tecnológico - CNPq), 76% were linked to some research group and 56% identified a research line on their Lattes resume. Of the research groups and lines, 8% and 6%, respectively, were related to accounting education. We found that the research line, “Accounting Education and Research”, showed the lowest percentage of defended studies (8% of dissertations, 4% in the “Accounting Education” field). With respect to publications, the most prominent subjects were those dealing with specific accounting issues and topics related to teaching institutions; there was little research on instructional and pedagogical issues. These results may indicate a gap in researchers’ knowledge on the subject and highlights the need to better prepare accounting PhDs for teaching practice. Education and Research was the line that showed the greatest number of women. These findings highlight the need for accounting education research to be valued to benefit the development of the accounting profession and improve teacher training.

Keywords: Accounting Sciences. Stricto sensu graduation. Teaching. Publications.

1 INTRODUCTION

In recent decades, research has acquired a privileged status in academia. Two important benefits that it provides are highlighted by researchers as the following: (a) the scientific development of the field, providing benefits to society in general (Cunha & Cornacchione, 2011) and (b) the use of research as a teaching technique. In the field of education, the benefits of research in the teaching and learning processes have been well publicized (Alarcão, 1995; Franco, 2009; Libâneo, 2009; Pimenta & Anastasiou, 2002; Schön, 2000), and these benefits are now beginning to be noted by researchers in the field of accounting (Annisette & Kirkham, 2007; Cunningham, 2008; Kachelmeier, 2002; Njoku, Van Der Heijden, & Inanga, 2010; Slomski & Martins, 2008). The aforementioned studies suggest the need for the construction of knowledge that considers the specifics of the accounting area. In this sense, Pierre et al. (2009) argue that the epistemological basis of accounting calls for studies that are different than those that have been conducted in other fields, which makes the development of accounting research a pressing issue.

However, there are still major challenges in the development of accounting education research. At the international level, publications in this field may yet be looked at with prejudice by editors of journals (Pierre et al., 2009), whether because of the methodologies used or because of the research subjects themselves. Additionally, studies in the field of accounting education are seldom cited, which further decreases the impact factor of journals publishing articles about the topic. Thus, many editors give preference to research in other fields.

In Brazil, there has been little development in accounting education, as it is a relatively new field. Until 2008, there was only one stricto sensu graduate program offering a doctorate degree in accounting sciences in Brazil. Moreover, the paradigm shift in Brazilian accounting research from normativism to positivism was belatedly introduced in the late 1990s (Theóphilo & Iudícibus, 2005).

Nonetheless, Brazilian researchers' interest in the field has grown in recent years (Walter Cruz, Espejo, & Gassner, 2009); this growth has been driven primarily by the evaluation model used by the Coordination for the Improvement of Higher Education Personnel (Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - CAPES), in which scientific production dominates the programs' evaluation criteria. Some positive activities concerning accounting education may be cited, such as the preparation of conferences focusing exclusively on the field of education and research, the Meeting of Education and Research in Management and Accounting (Encontro de Ensino e Pesquisa em Administração e Contabilidade - EnEPQ) in 2007 that is sponsored by the National Association of Graduate Programs and Research in Management (Associação Nacional de Pós-Graduação e Pesquisa em Administração - ANPAD) and the creation – also in 2007 – of the Journal of Education and Research in Accounting (Revista de Educação e Pesquisa em Contabilidade – RePÉC). In addition, several conferences and journals have emerged in recent years with the research line "Education and Research”.

In general, research that attempts to map the scientific literature on accounting uses bibliometric studies to obtain information about the literature published at events and in scientific journals (Cardoso, Mendonça Neto, Riccio, & Sakata, 2005; Riccio, Carastan & Sakata, 1999, Walter et al. 2009). Furthermore, such research considers studies relating to "Accounting Education" and "Accounting Research" as a single research line.

The present study, in contrast, evaluates the "Accounting Education" field separately from the "Accounting Research" field and focuses on PhDs in accounting who graduated before December 31, 2009. The research question is as follows: What were the research lines and the subject of scientific publications of PhDs who defended their dissertations in Accounting Education at FEA/USP during the period from 2005 to 2009? We aim to determine the research lines and subjects of the scientific literature of students who defended their doctoral dissertations in the period from 2005 to 2009 in FEA/USP and thus to map literature production in accounting education.

The findings of the present study may contribute to a better understanding of research conducted on accounting education in Brazil. It may detect trends in accounting education research in Brazil, as well as support new research in the field by mapping the scientific production of PhDs on accounting education. In this sense, Singleton-Green (2010, p. 137-138) states that the current volume and diversity of studies has been problematic for those who are not researchers in the field and that the best way to overcome this problem is to develop studies that summarize the main findings and facilitate the search process for interested parties.

2 THEORETICAL PLATFORM

2.1 The Role of Research in Accounting Education.

According to Njoku, Van Der Heijden, and Inanga (2010, p. 59), the general axiom in academia is "publish or perish" because research productivity is used to discriminate between high and low performance. The assumption is that a faculty member who publishes frequently is more valuable to the educational community than someone who does not publish often. Just as accounting income is used as a measure of success in business life, recognized publications are used as the main indicator of success in academia. For certain scholars, the current excessive valuation given to academic research has negatively affected teaching. Almeida and Pimenta (2009, p. 17) believe that "the academic career of teachers (to publish a lot and as quickly as possible) takes precedence over the training of students".

Each additional hour of extra effort that a teacher dedicates to teaching most likely reduces the effort they devote...
to research by an hour and this hinders their career expectations and their remuneration in the long term. There is an almost perfect negative correlation between teaching hours and salary. Recognition and reward systems usually discourage teachers from taking teaching seriously. (Gibbs, 2004, p. 16-17).

Thus, in Brazil and abroad, established prestige and rewards systems, including financial systems, focus on research instead of teaching and discourage the commitment of teachers to their students (Ezcurra, 2009).

Therefore, research that directly promotes teaching is a teaching-learning resource in which students "learn to learn", creating and recreating knowledge, according to Demo (1993). In contrast, "pure" research might ultimately undermine the teaching-learning process if it is not well managed because it directs all the teacher’s efforts away from the classroom and towards his "laboratory". Thus, a teacher researcher does not necessarily need to be an author of textbooks on the subject he teaches, but research must be part of the planning and implementation of his classes. Severino (2009) explains that the teacher needs research to teach effectively, as far as the student is concerned, i.e., to practice teaching from an investigative approach. Everything used by the teacher in the educational process must derive from a continuous search activity; whoever addresses knowledge processes and products must be permanently studying because knowledge is a historical activity that is continually changing.

According to Slomski and Martins (2008), this understanding is not new because, since the 1930s, voices have emerged in defense of teachers as researchers of their activity. Several studies have been developed (Schön, 2000; Alarcão, 1995; Pimenta & Anastasiou, 2002), that value the so-called "reflective teacher". This concept recognizes the value of experience and is based on the principle that high-quality education begins with the teacher’s reflection on his activity. The concept also recognizes that the teacher becomes a producer and not mere consumer of someone else’s theories in this situation. Pedagogical practice is understood as a space for the building of professional knowledge. The link between teaching experiences in educational institutions, knowledge of pedagogy and instructional and the process of collective exchange of experiences and practices allows teachers to develop critical and reflective awareness and professional learning. Teachers think about what they do and reflect on their actions (Schön, 1995). This is a process through which it is possible to become a teacher-researcher who teaches, questions and researches one’s own classroom practice.

In this sense, Anissette and Kirkham (2007, p. 10) state that “where the research-practice link is non-existent or weak (as in the case of accountancy), the university is of little use to a profession as a means of diffusing, expanding and developing professionally relevant knowledge.” Collier (1998) – who is cited by Njoku, Van Der Heijden, and Inanga (2010) – states that there is a strong link between high-quality education and relevant research because a combination of teaching and research presents new opportunities to pass on new information and reinforce the intrinsic value of research, in addition to deepening the knowledge of the teacher on the subject.

### 2.2 Challenges for Accounting Education Research

If research on teaching is important to the very process of teaching and learning, its importance has not been recognized. As stated by Pierre et al. (2009, p. 123), "Research (and publications) in the field of accounting education does not earn the same recognition as research (and publications) which focuses on, say, accounting regulation or on other technical accounting matters" because journal editors make a distinction between the two. According to these authors, "Editors of some accounting journals refuse to publish education-oriented papers on the grounds that these articles are perceived to diminish the quality of the journals in question” (Pierre et al., 2009, p. 123). Furthermore, according to Singleton-Green (2010, p. 137), there is little incentive for accounting academics to make their research more widely known. The only incentives that do exist appear to lead researchers to publish in journals where the only readers are other specialists in the same field, i.e., in the case of accounting education, the audience tends to be comprised of other researchers interested in teaching accounting.

Light, Singer, & Willett (1990) indicate that there are many challenges for educational research because students – samples in studies – bring experiences that influence the research, making it difficult to define and select samples, define control groups and to select and clarify results. Students thus introduce several confounding variables to the study when they are the subjects of research, which makes it difficult to apply strict controls. Furthermore, as with any discipline, accounting presents certain specific characteristics that should be considered in the research process (Pierre et al., 2009).

According to Pierre et al. (2009, p. 126), accounting teachers may resort to educational literature to obtain knowledge that is useful in the classroom. Nonetheless, it is important to build knowledge that considers the specifics of the accounting field to develop accounting programs at various levels. Disciplinary differences have been largely ignored to date; however, these should be considered because the epistemological basis makes teaching practices different between areas of knowledge and research is therefore important to further the field of accounting education.

If research on accounting education is necessary to produce qualified teachers and to effectively teach the accounting professionals who will work in the various sectors of the profession, it is also necessary to improve research quality and to fight for a presence in the publications in the field. It is significant that there are specific thematic areas for teaching and research in business administration and accounting at the relevant professional conferences in Brazil, such as the USP Conference of Accounting and Financial Control, Conference of the National Association of Graduate Programs in Accounting Sciences (Associação
Lincoln, who posit that qualitative research is multi-}

authors rely on the definition by Norman Denzin and Yvonna}

p. 31), “quantitative research is virtually synonymous with

current situation. According to Gall, Gall, and Borg (2007,

pects and characteristics of the subject matter are critiqued

form, structure, activities, changes and relationships over

involves the description of a social phenomenon and its

research activities are important, as perceived by stu-
dents and coordinators; (b) the structure of the program is

research-centric; and (c) the incentive structure for

performing research development activities, such as the

publication of articles in journals and annals and partic-

ipation in conferences and symposia. This framework

has its roots in the CAPES evaluation model, in which

research takes precedence.

Employing a bibliometric study, Walter et al. (2009)
analyzed the most important figures in the evolution of
the field of scientific production on Accounting Education and
Research in the Brazilian context. The authors analyzed
139 articles from journals and annals that were divided
authors found that the field of scientific production on
Accounting Education and Research showed signs of evo-

dution during the periods 2004-2005 and 2006-2007, both

in terms of the number of publications and the density of

cooperation networks.

3 METHODOLOGICAL PROCEDURES

3.1 Characterization of the Research.

Because the goal of the present study was to describe
the research lines and scientific production of students
who defended their doctoral dissertations in accounting
education at FEA/USP from 2005 to 2009, we employed a
descriptive study with a quantitative approach. According
to Gall, Gall, and Borg (2007), this type of study mainly
involves the description of a social phenomenon and its
form, structure, activities, changes and relationships over
time. It contrasts with a qualitative approach in which as-
pects and characteristics of the subject matter are critiqued
and an understanding is sought of the determinants of
the current situation. According to Gall, Gall, and Borg (2007,
p. 31), “quantitative research is virtually synonymous with
positivism”. To distinguish qualitative research, these au-

thors rely on the definition by Norman Denzin and Yvonna

Lincoln, who posit that qualitative research is multi-meg-

classification by CAPES. Of the 2,037 articles published
during that period, 60 were in the field of accounting,

and these were broken down into the following cate-
gories of representational frequency: Cost Accounting
(23.3%), Managerial Accounting (23.3%), Accounting
and Capital Markets (16.7%), Public Accounting (8.3%),
Tax Accounting (8.3%), Budgeting (6.7%), Intellectual
Capital (3.3%), Financial Accounting (3.3%), Informa-
tion Systems (3.3%), Behavioral Aspects (1.7%) and Fi-
nancial Planning (1.7%). Notably, “Accounting Educa-

tion and Research” is not included as a field in the study,

and no explanation is offered for its omission.

Andere and Araújo (2008) asked students and coo-

dinators of stricto sensu graduate programs on account-
ting to outline the orientation of the programs. The au-

thors found that Brazilian programs are highly directed
towards technical-scientific training, i.e., towards

the training of researchers. The reasons for this are as follo-

ws: (a) candidates deem that scientific publications and

research activities are important, as perceived by stu-
dents and coordinators; (b) the structure of the program

is research-centric; and (c) the incentive structure for

performing research development activities, such as the

publication of articles in journals and annals and partic-

ipation in conferences and symposia. This framework

has its roots in the CAPES evaluation model, in which

research takes precedence.

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dution during the periods 2004-2005 and 2006-2007, both

in terms of the number of publications and the density of

cooperation networks.
3.2 Methodological Procedures in the Analysis of Lattes Resumes and Dissertations.

Initially, lists of dissertations defended before the Coordinators of Graduate Program in Financial Control and Accounting at FEA/USP were obtained, in addition to the respective areas of student concentration (from 2002). Then, a survey of Lattes resumes was conducted to identify PhDs who graduated before 12/31/2009 at FEA/USP, which totaled 203 individuals. When resumes were located, they were saved on the computer for analysis. All resumes were downloaded on the same date, 11/02/2010, so that there were no issues with updating available versions. The data collected for analysis thus correspond to those individuals who had made their resume available up to that date. Of the 203 graduates of the program, 178 resumes were found and downloaded; 25 teachers did not maintain resumes (some were foreigners, some died, others simply did not have resumes). Among the 178 resumes downloaded, 154 were considered up to date and are analyzed in Section 4.2.

From this database, we obtained information about the following variables for our analysis: a) research area in which the dissertations is included, b) participation in research groups on education, c) connection to research lines related to education, and d) publications on education in scientific journals.

Descriptive statistics were used for data analysis to enable a quantitative evaluation of researchers’ participation in, and scientific production on, the subject of accounting education during the study period.

4 RESULTS AND DISCUSSION

All 203 PhDs of Accounting Sciences in Brazil who graduated before 12/31/2009 were from the Graduate Program in Accounting and Financial Control at FEA/USP. The first dissertations was defended on 04/30/1962 by Hirondel Simões Luders. Table 1 shows the number of defenses per decade.

<table>
<thead>
<tr>
<th>PRODUCTION AGENT</th>
<th>DECADE</th>
<th>POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>USP</td>
<td>1960</td>
<td>6</td>
</tr>
<tr>
<td>USP</td>
<td>1970</td>
<td>6</td>
</tr>
<tr>
<td>USP</td>
<td>1980</td>
<td>26</td>
</tr>
<tr>
<td>USP</td>
<td>1990</td>
<td>59</td>
</tr>
<tr>
<td>USP</td>
<td>2000*</td>
<td>106</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>203</td>
</tr>
</tbody>
</table>

(*) Until 2009
Source: Prepared by the authors based on data supplied by FEA/USP.

It can be observed at first glance that, beginning in 1970, the number of graduates each decade was approximately double the number from the previous decade, which shows the increased demand for the field, corroborating the findings of Walter et al. (2009), who found increasing interest in accounting. In terms of gender, it was found that 169 dissertations (83%) were defended by male students, and the first defense by a female (Cecilia Akemi Kobata Chinen) did not occur until 1987. From that year onwards, the presence of women has gradually increased. Of the 17 defenses in 2009, six (35%) were by women.

4.1 Research Area of the Dissertation.

Since 2002, the program has created the following four research lines in which students have been enrolled: 1) Financial Control and Managerial Accounting, 2) Accounting for External Users, 3) Financial, Credit and Capital Markets, and 4) Accounting Education and Research. This information is important in assessing the interest of PhDs of Accounting Sciences in Accounting Education research. The program’s own classifications that have been in use since 2002 were used to construct Table 2. These before 2002 (1960 to 2001) were not classified according to research line; to meet the aims of the present study, we classified these pre-2002 dissertations into the same four lines based on the description of such lines on the program website and the respective subject of the study.

<table>
<thead>
<tr>
<th>RESEARCH LINE</th>
<th>NUMBER</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Financial Control and Managerial Accounting</td>
<td>75</td>
<td>37%</td>
</tr>
<tr>
<td>2) Accounting for External Users</td>
<td>70</td>
<td>34%</td>
</tr>
<tr>
<td>3) Financial, Credit and Capital Markets</td>
<td>42</td>
<td>21%</td>
</tr>
<tr>
<td>4) Accounting Education and Research</td>
<td>16</td>
<td>8%</td>
</tr>
<tr>
<td>Total</td>
<td>203</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: prepared by the authors based on data supplied by FEA/USP.
As can be noted, the research line with the lowest number is Line 4, Accounting Education and Research, with only 8% of the total number of dissertations. Among the 16 studies in that line of research, only eight (4% of total) are on accounting education; the first defense occurred only in 1989, as shown in Table 3. It is worth noting the prior context in which Brazilian accounting was inserted. Previous studies have documented similar preferences in study subjects (Riccio, Carastan, & Sakata, 1999; Cardoso et al., 2005). Outside Brazil, the lack of interest in education research may be related to the prejudice of international editors (also influencing national research) with respect to publications on this topic – because publications sometimes direct the research interests – as documented in Pierre et al.’s (2009) study; in addition, it is also difficult to conduct education research (Light, Singer, & Willett, 1990).

<table>
<thead>
<tr>
<th>DEFENSE</th>
<th>STUDENT</th>
<th>TITLE OF DISSERTATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>06/09/1989</td>
<td>Wilson da Silva Spinosa</td>
<td>Ensino de contabilidade baseado em microcomputadores: programação em basic e planilhas eletrônicas análise de uma experiência a nível de mestrado [Accounting education based on microcomputers: basic programming and electronic spreadsheets - analysis of an experience at Masters level].</td>
</tr>
<tr>
<td>12/06/1995</td>
<td>Nanci Pereira de Vasconcelos</td>
<td>Uma contribuição para a melhoria da qualidade do ensino superior da contabilidade – uma abordagem sistemática [A contribution to improving the quality of higher education in accounting - a systemic approach].</td>
</tr>
<tr>
<td>01/31/2000</td>
<td>Roberto Vatan dos Santos</td>
<td>Jogos de Empresas aplicados ao processo de ensino e aprendizagem de Contabilidade [Business games applied to the teaching and learning of accounting]</td>
</tr>
<tr>
<td>08/11/2000</td>
<td>Antônio Marcos Favaro</td>
<td>Uma contribuição à modelagem de simulador de transações aplicado ao ensino da Contabilidade Geral [A contribution to transaction simulator modeling applied to the teaching of general accounting]</td>
</tr>
<tr>
<td>12/19/2000</td>
<td>Jorge Ribeiro de Toledo Filho</td>
<td>O Ensino dos Mercados de Ações, Futuros e Derivativos nos cursos de graduação em Contabilidade no Brasil [Teaching of Stock, Futures and Derivatives Markets on undergraduate accounting courses in Brazil]</td>
</tr>
<tr>
<td>08/28/2006</td>
<td>Ricardo Lopes Cardoso</td>
<td>Competências do contador: um estudo empírico [Accountants competencies: an empirical study in Brazil]</td>
</tr>
</tbody>
</table>

Although there were only eight dissertations on Accounting Education, the subjects studied were diverse, as shown in Table 3 above. There is no discernible trend in research topics.

It is notable that two of the eight dissertations on research (25%) and three of the eight presentations on Accounting Education (38%) were conducted by women, a percentage of female participation that is well above the following averages for females in the other lines of research: line 1, 9 dissertations (13%); line 2, 11 dissertations (16%); and line 3, 9 dissertations (21%). Thus, in terms of percentages, Accounting Education is the line that showed the densest female participation. Moreover, it might be said that women value education research more as the percentage of research on Accounting Education conducted by women was 9% (three dissertations). Although this is still a small figure, it is a higher figure than the equivalent figure performed by men, which was 3%.

### 4.2 Results of the Analysis of Lattes Resumes of PhDs in Accounting Sciences

After analyzing the update dates of the 178 downloaded resumes, a cutoff date of 12/31/2008 was selected. Twenty-four resumes were found (13%) with earlier update dates and were therefore considered outdated. Thus, 154 resumes of PhDs were included in the study, and research lines, participation in research groups and publications in scientific journals were analyzed.

#### 4.2.1 Research lines for PhDs in Accounting Sciences according to Lattes resumes

Research lines outlined in the Lattes resumes were defined in various ways. To facilitate analysis, they were reclassified into the same four research line classifications determined by the Coordinators of Graduate Program in Financial Control and Accounting at FEA/USP. This measure, in addition to facilitating the analysis, enabled a comparison to be made with information regarding research undertaken in dissertations (Table 2).

Of the 154 resumes under review, 67 did not include the individual’s research lines and most of the remaining 87 resumes involved more than one line. Table 4 presents a summary of the results.

<table>
<thead>
<tr>
<th>RESEARCH LINE</th>
<th>NUMBER</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Financial control and managerial accounting</td>
<td>62</td>
<td>40%</td>
</tr>
<tr>
<td>2) Accounting for external users</td>
<td>50</td>
<td>32%</td>
</tr>
<tr>
<td>3) Financial, credit and capital markets</td>
<td>20</td>
<td>13%</td>
</tr>
<tr>
<td>4) Accounting Education and Research</td>
<td>13</td>
<td>8%</td>
</tr>
<tr>
<td>Not reported</td>
<td>67</td>
<td>44%</td>
</tr>
</tbody>
</table>

Source: prepared by the authors based on data extracted from the Lattes Platform.
No significant changes between research conducted at the time of the dissertations (Table 2) and later research as detailed in the Lattes resumes (Table 4) was observed, which suggests consistency in the findings. Likewise, the results obtained by Riccio, Carastan and Sakata (1999) and Cardoso et al. (2005) are very similar. Only Line 3 - Financial, Credit and Capital Markets - showed a more significant change, falling from 21% of dissertations to 13% in the Lattes resumes. Line 4, Accounting Education and Research, was kept exactly the same, i.e., declared by only 8% of PhDs (13 resumes). This scenario can also be related to the findings of Andere and Araujo (2008) and Miranda (2010) who showed that graduate programs in Brazil are highly targeted at technical-scientific training, i.e., for the training of researchers, rather than for practical, pedagogical and social and political training. In the present study, we found that programs are directed primarily to the training of researchers with theoretical and specific knowledge in Accounting, with a focus on scientific research.

As most of the researchers in Line 4 used the words Teaching and Research or Education and Research, it was not possible to separate those who were interested exclusively in Accounting Education.

### 4.2.2 Participation in Education Research Groups.

Two important indicators of interest for research on the part of PhDs are obtaining a productivity grant from CNPq and participation in research groups. Only 11 of the 154 PhDs received a productivity grant, i.e., 7%, which indicates low participation in the scientific development of the field, which corroborates the results found by Cunha and Cornacchione (2011). However, it should be noted that obtaining a productivity grant also depends on the amount of grants available in each area of knowledge.

Participation in research groups was also small because the study subjects were all PhD candidates. Among the 154 subjects investigated, 34 (24%) did not mention participation in any research group in their resumes, and only 10 PhDs (6%) were associated with the seven research groups in the field of Accounting Education. Table 5 shows the groups identified in the area in question.

### 4.2.3 Publications of PhDs in Accounting Sciences on the field of Accounting Education.

Initially, the search for all publications in scientific journals by the 154 PhDs analyzed in the present study (whose Lattes resume could be searched, as explained in the methodological procedures) was performed. A total of 1,483 references were found in their resumes from January 2005 until 11/02/2010—a date of the year in which the PhDs received a productivity grant on the part of PhDs is a point of concern for the evolution of research in Accounting Sciences.

<table>
<thead>
<tr>
<th>RESEARCH GROUP</th>
<th>No.</th>
<th>PhDs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FECAP Accounting Research and Education Center</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Study Group on Accounting Education Technology – (Grupo de Estudos de Tecnologia da Educação na Contabilidade - GETEC/USP)</td>
<td>3</td>
<td>23%</td>
</tr>
<tr>
<td>FEARP-USP Center for Accounting Education and Research (Observatório de Educação e Pesquisa Contábil -EDUPEC)</td>
<td>2</td>
<td>15%</td>
</tr>
<tr>
<td>Study Group on Accounting Education and Research (Grupo de Estudos sobre Pesquisas e Educação Contábil – GEPEC/UFMG)</td>
<td>1</td>
<td>8%</td>
</tr>
<tr>
<td>UFBA Center of Accounting Education and Research</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Knowledge and Learning in Accounting UFPB</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Accounting and Finance: Regionalism and Teaching Methodology – (Contabilidade e Finanças: Regionalismos e Metodologia de Ensino - CONFIRME UEMS)</td>
<td>1</td>
<td>8%</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: prepared by the authors based on data extracted from the Lattes Platform.

One PhD was affiliated with three research groups and another with two groups, which comes to a total of ten PhDs who participated in research groups.

This finding highlights the main Higher Education Institutions (Instituições de Ensino Superior - IES) with PhDs (who are few) who have been concerned with research on Accounting Education, including the following: Foundation School of Commerce Alvares Penteado (Fundaçao Escola de Comercio Alvares Penteado – FECAP), University of São Paulo / São Paulo (Universidade de São Paulo - USP/SP), University of São Paulo / Ribeirão Preto - (USP/RP), Federal University of Minas Gerais (Universidade Federal de Minas Gerais - UFMG), Federal University of Bahia (Universidade Federal Bahia - UFFB), Federal University of Paraíba (Universidade Federal da Paraíba - UFPB) and State University of Mato Grosso do South (Universidade Estadual de Mato Grosso - UEMS). These results contrast with the findings of Walter et al., who identified that the field of scientific production in accounting education and research showed signs of evolution between the periods of 2004-2005 and 2006-2007, both in terms of the number of publications and the density of cooperation networks. The small number of research groups in accounting and participation of PhDs is a point of concern for the evolution of research in Accounting Sciences.
very name of which demonstrates its focus on papers in the field of Accounting Education and Research. Other journals have published fewer articles, as shown in Table 6.

These data are important because they show the interest of Brazilian journal editors in the "Accounting Education" research line. This is by contrast to Pierre et al. (2009, p. 123), who found that there is prejudice on the part of international editors regarding publications on this topic.

### Table 6 Journals with the highest number of publications from Accounting Sciences doctors in the area of Accounting Education in Brazil between 2005 and 2010

<table>
<thead>
<tr>
<th>JOURNALS</th>
<th>NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revista de Contabilidade e Finanças [Accounting &amp; Finance Review] – USP</td>
<td>9</td>
</tr>
<tr>
<td>Revista de Ensino e Pesquisa em Contabilidade [Journal of Accounting Education and Research] - CFC</td>
<td>9</td>
</tr>
<tr>
<td>Revista UNB Contábil + Pensar Contábil [UNB Accounting Journal + Accounting Thought] - UnB</td>
<td>5</td>
</tr>
<tr>
<td>Revista Base [Base Journal] – Unisinos</td>
<td>4</td>
</tr>
<tr>
<td>Contabilidade Vista &amp; Revista [Accounting View &amp; Journal] – UFMG</td>
<td>4</td>
</tr>
<tr>
<td>Revista Universo Contábil [Accounting Universe Journal] – FURB</td>
<td>4</td>
</tr>
<tr>
<td>Brazilian Business Review - FUCAPE</td>
<td>4</td>
</tr>
<tr>
<td>Revista Brasileira de Gestão e Negócios [Brazilian Journal of Business and Management] - FECAP</td>
<td>3</td>
</tr>
<tr>
<td>Revista de Contabilidade da UFBA [Journal of Accounting of UFBA]</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: prepared by the authors based on data extracted from the Lattes Platform.

According to Table 6, the two journals that have published the largest number of articles on Accounting Education are "Revista de Contabilidade e Finanças" of USP and "Revista de Ensino e Pesquisa em Contabilidade" of the Federal Accounting Council (Conselho Federal de Contabilidade – CFC) (both with nine papers published in the study period), followed by Revista UNB Contábil + Pensar Contábil - UnB (with five published articles). However, it is important to note that other important journals with a national scope have published work in this area, as shown in Table 6.

Another important aspect here relates to the issues found in the Accounting Education research line. The 85 articles identified in this line were subclassified according to the subject matter discussed in the context of Accounting Education. Such information may be an important contribution for future research on Accounting Education at a national level. The research subjects are described in Table 7.

### Table 7 Distribution of publications by study subject

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>NUMBER</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issues in Accounting Education</td>
<td>24</td>
<td>28%</td>
</tr>
<tr>
<td>Higher Education Institutions</td>
<td>17</td>
<td>20%</td>
</tr>
<tr>
<td>Accounting Profession</td>
<td>10</td>
<td>12%</td>
</tr>
<tr>
<td>Teaching Methods</td>
<td>8</td>
<td>9%</td>
</tr>
<tr>
<td>International Accounting Education</td>
<td>8</td>
<td>9%</td>
</tr>
<tr>
<td>Distance Learning</td>
<td>4</td>
<td>5%</td>
</tr>
<tr>
<td>Interdisciplinarity</td>
<td>4</td>
<td>5%</td>
</tr>
<tr>
<td>History of Accounting</td>
<td>4</td>
<td>5%</td>
</tr>
<tr>
<td>Curriculum</td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>Learning Styles</td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>Teacher Training</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Total</td>
<td>86</td>
<td>100%</td>
</tr>
</tbody>
</table>

Teacher Training: This research subject addresses the training of teachers who teach accounting. The low number of such studies indicates little concern for the area and highlights an important issue because the current context is marked by changes that directly affect the teaching function, such as increased enrollment in higher education (making classes more heterogeneous), adoption of international accounting standards (International Financial Reporting Standards - IFRS), the lack of legal requirements in terms of pedagogical preparation for the exercise of teaching, and other factors. Nonetheless, few researchers have focused on this subject and only one study was found in 2008, as shown in Table 8.
Curriculum: This important issue has received little attention. Only three studies discussed curriculum issues, all in the southern region of the country, as shown in Table 9.

Learning Styles: Three studies were found that specifically addressed issues on cognitive and learning styles, all published in 2009, according to Table 10.

Distance Learning: This is a current and relevant topic but also with few publications. The co-author of three of them is Oliveira Neto, as shown in Table 11. However, only the study by Carnochiene, Casa Nova and Trombeta (2007) discusses accounting education.

Interdisciplinarity: This is another very topical theme. Although there is consensus among teachers regarding the need for interdisciplinarity, the means of achieving it are unclear. The identification of specific aspects of accounting can contribute to better ways of teaching through interdisciplinarity. This issue was addressed in the studies shown in Table 12.

History of Accounting Education: Certain scholars have dedicated themselves to researching the history of accounting education, including in the Brazilian context. The studies with this focus are shown in Table 13.

Teaching Methods: A concern with teaching methods has assumed a greater share of research interest, including the eight studies shown in Table 14. Research of this nature is important because it disseminates positive experiences of teaching content that is little researched in the area of education, which may be useful for accounting teachers’ practice.
Knowledge about International Accounting Standards: Since 2005, several studies have been conducted to measure students and teachers' knowledge of international standards, as shown in Table 15. These studies range from reflections on the relevance of international accounting to the implementation of Law 11.638/2007 and its consequences.

Research with an Institutional Focus: The second most relevant subject in terms of interest from researchers refers to institutions of higher education, as shown in Table 17. These studies are on management, higher education and graduation in Accounting Sciences.

Table 15: Research on knowledge of international accounting standards


Table 16: Research related to the interface between education and the accounting profession


Table 17: Research with institutional focus

Specific issues in accounting education: The studies and learning in accounting grouped broadly together. Twenty-four papers were categorized in this section, as detailed in Table 18.

<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting Education Research: Scientific Production and Preference of PhDs, 2005 to 2009</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 18
Research on the process of teaching and learning

- BOBRA, J.A. Estágio Pós-Doutoral no Canadá [Post-Doc internship in Cana-
- FREZATTI, F.; RELVAS, T. R. S.; NASCIMENTO, A. R. de; JUNQUEIRA, E. R. Análise crítica do contábil gerencial no Brasil: uma perspectiva dos profi-
- RAHMUNDI, S. L.; BIANCHI, M.; SANTOS, N.A.; FÁVERO, I.P.L.; SCHMIDT, P. Percepções sobre o ensino da contabilidade introdutória para não-
- GRANDE, J.; BURTON, R. D. [Técnicas de evaluation da contratação em livros pu-
- ODLANE, M. O.; SILVA, P. D. A.; FERREIRA, A.C.S. A percepção dos discentes quanto às práticas de contabilidade estratégica: um estudo compa-
It may be noted that issues directly related to pedagogical theories, such as teacher training, curriculum, learning styles, distance learning and interdisciplinarity, showed the lowest number of publications, revealing the dearth of knowledge about this content by researchers in the accounting field. Most of the studies (34 of 85) focused on issues closer to the accounting field, such as knowledge of content pertaining to international standards; accounting tools applied to IES, teaching and the accountant's labor market.

Certain relevant bibliometric information may be revealed by analyzing the 85 publications listed above. Regarding the number of authors per article, it was found that five (6%) had only one author; 28 studies (33%) had two authors, 33 were prepared by three authors (39% - the highest percentage), 15 studies (18%) had four authors and four articles (5%) had five authors. The percentage with five authors is explained in part by the coauthors limit established by some journals. We observed that 56 authors and coauthors (66%) of these 85 publications were male and 29 (34%) were female.

It was also possible to detect the most prolific PhDs in Accounting Education. These include the following, with no distinctions being made between authorship and coauthorship: CORNACCHIONE Jr., Edgard Bruno - 9 contributions (11%); BEUREN, Ilse Maria - 7 contributions (8%); BORBA, José Alonso - 7 contributions (8%); OLIVEIRA NETO, José Dutra - 6 contributions (7%); SOUZA, Marcos Antonio - 6 contributions (7%); CUNHA, Jacqueline Veneroso Alves da - 5 contributions (6%); NIYAMA, Jorge Katsumi - 5 contributions (6%); PELEIAS, Ivam Ricardo - 5 contributions (6%); Colauto, Douglas Romualdo - 4 contributions (4%), and MARTINS, Gilberto Andrade - 4 contributions (4%).

This is a highly qualified group of professors. All are involved in stricto sensu graduate programs and half are supervisors of doctoral programs; the remainder are supervisors of Master programs. In addition, four professors (40%) are CNPq productivity grant recipients. This percentage is significant because, among the PhDs under analysis in the present study, only 11 are CNPq productivity grant recipients. This finding indicates that PhDs who are more focused in research on Accounting Education are also those generally most active in terms of research. This is in agreement with Schön's (1995) concept of the teacher researcher, discussed above in section 2.1.

It is noteworthy that only one of the most prolific authors in the field, Jacqueline Veneroso Alves da Cunha, defended a dissertation in Accounting Education. The others performed research in other areas to obtain their doctorate degree.

5 FINAL CONSIDERATIONS

The present study aimed at describing the research lines of PhDs who defended their dissertations at the University of São Paulo from 2005 to 2009, with specific focus on the analysis of accounting education research. Initially, when analyzing dissertations defended up to 2009, we found that the number almost doubled with each decade. Considering that the new doctoral programs in Accounting Sciences [University of Brasilia – [Univerisade de Brasilia – UNB], Regional University of Blumenau [Universidade Regional de Blumenau - FURB] and FUCAPE Business School - FUCAPE] have not yet trained PhDs by the date of this study, it may be assumed that this trend will prevail in the future, which indicates the strengthening of accounting research in Brazil.

We found that the research line "Accounting Education and Research" is the one least represented in the dissertations and, when specifically analyzing the studies on "Accounting Education", this percentage drops to 4%, which indicates that PhDs' interest in the field remains in an embryonic stage. The youth of accounting research in Brazil must be considered in this context because, of the 19 stricto sensu graduate programs currently available in the accounting field, 16 were created after 1998.

One positive aspect of "Accounting Education" is female participation. This is the line that has the highest female participation (38%), which might show a greater affinity for women with accounting education. It is also noteworthy that the percentage of doctoral degrees obtained by women
has grown significantly because 35% of the defenses that took place in 2009 (6 dissertations) were by women. These data show that women are gradually finding their place in the world of academic accounting in Brazil.

By analyzing Lattes resumes, we found that 7% of those surveyed were CNPq productivity grant recipients, 76% were associated with a research group, and 6% participated in research groups with subjects on Accounting Education. Among those surveyed, 56% reported a research line in their Lattes resumes; of these, 8% were related to Accounting Education. These data reveal the small significance given by PhDs of Accounting Sciences to the field of accounting education, particularly if the great potential that this field of research has in terms of improving the education and training of professionals in higher education is considered because graduates have shown poor performance in the National Student Performance Exam (“Exame Nacional de Desempenho dos Estudantes”) and the Sufficiency Exam (“Exame de Suficiência”) (Miranda, 2011). This concern is even greater when one takes into account that these graduates all came from public IES; publishing research results might be one way to repay the public funding, as noted by Cunha and Cornacchione Jr. (2011).

In terms of publications in scientific journals, research PhDs show a clear preference for subjects that are closer to the accounting profession and show little affinity with content related to pedagogical theories and concepts. This reinforces the need for a systematic teaching qualification for accounting teachers (Alarcão, 1995; Franco, 2009; Libâneo, 2009; Pimenta & Anastasiou, 2002; Schöhn, 2000). It may also be noted that the most productive teachers in the field are those most involved in terms of research, whether by supervising stricto sensu graduate programs or receiving CNPq productivity grants.

These findings demonstrate the need for actions that will strengthen research in Brazilian Accounting Education, as well as those that would add value to publications in the field and strengthen teaching by researching problems in accounting education and particularly in teacher training. Moreover, these findings emphasize the need for stricto sensu graduate programs to consider the improvement of the instructional-pedagogic training of their students, in addition to technical-theoretical training and research. Finally, the editorial boards of scientific journals in the field should analyze the space given to this issue in light of the contribution and multiplier effect that it can have on improving education and vocational training. Internationally, there are several journals devoted specifically to studies on Accounting Education (Issues in Accounting Education; Accounting Education: an International Journal, Global Perspectives on Accounting Education, Advances in Accounting Education, Journal of Accounting Education, Contemporary Accounting Research). This exemplifies the concern of international institutions with the accounting education field, perhaps to counteract the aforementioned “prejudice” of some journals. In this sense, there is room at the national level for similar initiatives, i.e., for an institution or association to create a specific journal with its mission to disseminate studies on accounting education in Brazil or in Latin America.

The present study relied on a quantitative approach and sought to map out the “anatomy” of scientific production in the field of accounting education in Brazil. It has contributed to the understanding of the underlying subjects that are being addressed by highlighting the more prolific authors, showing which journals have published literature on the subject, which research groups exist and the participation of PhDs in those groups. Qualitative research might address other aspects of scientific production in the field of accounting education that would lead to an understanding of the paradigms that govern scientific production and knowledge building in the classroom, thus enabling the discussion about the school of thought that guides research and that affects education as a whole.

For future research, we make the following suggestions: a) an evaluation of the percentage of articles presented at conferences in the Accounting Education field and which are subsequently published in scientific journals, b) an epistemological analysis of the scientific production of PhDs in Accounting Sciences in the field of Accounting Education, to highlight possible trends, and c) an assessment of PhDs’ interest in studies on research, as well as a mapping of the main publications on the subject to draw a comparison with the results obtained in the present study.

References


