Characterization of graduation final paper work in occupational therapy of a public university

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Abstract: Introduction: The final paper has the purpose of bringing the student closer to the practice of research and experience with the ethical aspects which are relevant to intellectual property and research with human beings. Its elaboration facilitates the investigation of a problem and the elaboration of solutions that consolidate the knowledge acquired during the course. Objective: Featuring the graduation final paper in occupational therapy of a public university. Method: This is descriptive, qualitative-quantitative research that used data which were collected in 154 documents, as well as in questionnaires answered by 24 advisors. Results: The works were mostly literature review or documentary research, with a qualitative approach, which used the field notebook as a data collection instrument. The most studied areas were the Hospital Context and Family Health, in works related to the themes experienced by the students in projects of extension, research, disciplines or internship. The orientations were carried out only by the advisor, within their research areas, and the most found problem was the difficulty in the student’s writing process. The examination boards were made up of effective or temporary teachers from the own course, who signaled the methodology as the main failure of the work. Conclusion: The data showed that students need more opportunities to exercise and elaborate a scientific text before the moment of the final paper creation and those teachers need to support their pupils in the search for more diversified research objects, instruments, and methodologies.

Keywords: Monograph, Research, Occupational Therapy, Education, Higher, Professional Training.

Caracterização dos trabalhos de conclusão de curso da graduação em terapia ocupacional de uma universidade pública

Resumo: Introdução: O Trabalho de Conclusão de Curso (TCC) tem a finalidade de aproximar o aluno da prática de pesquisa e da vivência com os aspectos éticos pertinentes à propriedade intelectual e à pesquisa com seres humanos. Sua elaboração oportuniza a investigação de um problema e a elaboração de soluções que consolidam o conhecimento adquirido ao longo do curso. Objetivo: Caracterizar os TCCs da graduação em Terapia Ocupacional de uma universidade pública. Método: Trata-se de uma pesquisa descritiva, com abordagem quali-quantitativa, que utilizou para coleta de dados informações descritas em 154 documentos, assim como em questionários respondidos por 24 professores orientadores. Resultados: Os trabalhos eram majoritariamente pesquisas de revisão de literatura ou documental, com abordagem qualitativa, que utilizaram o caderno de campo como instrumento de coleta de dados. As áreas mais frequentemente estudadas foram a de Contextos Hospitalares e Saúde de Família, em trabalhos relacionados aos temas vivenciados pelos alunos em projetos de extensão, pesquisa, disciplinas ou estágio. As orientações foram realizadas apenas pelo professor orientador, dentro de suas áreas de pesquisa, e o problema...
1 Introduction

The Higher Education Chamber is responsible for deliberating the curricular guidelines proposed by the Ministry of Education and Sports for graduation courses (BRASIL, 1995). Each course has unique guidelines for the planning of its curricula, including the parameters for elaboration and a mandatory term paper.

The National Education Council (BRASIL, 2002) established the national curricular guidelines for the graduation course in occupational therapy, through Resolution CNE/CES nº 6/2002. This resolution provides on the specific skills and abilities of the occupational therapist, described in Article 5. These include knowledge of research methods and techniques and the preparation of academic and scientific papers and ethical principles for conducting research activities. Article 12 of the same Resolution addresses the requirement for a term paper (TP) for the graduation in occupational therapy, which should be carried out under the guidance of professors.

The occupational therapy course of a public university in the Southeast Region of the country emerged from the adhesion to the Program to Support Restructuring and Expansion Plans of Federal Universities -Reuni-2007, and began its activities in 2009 at the Medicine School.

Nowadays, the course is linked to the department of occupational therapy and consists of twenty-three effective professors, three of them are a substitute, six of them are Level E of Education technicians (trained in occupational therapy) and two of them are administrative assistants. The curriculum includes 3570 hours to be held in different subjects that include knowledge of the biological sciences, health sciences, human and social sciences, human occupation sciences and occupational therapy. The total course workload is divided into theoretical subjects, theoretical-practical subjects, extension activities, and compulsory curricular traineeship.

In this graduation of occupational therapy, the TP is part of the curricular training, being a mandatory requirement for graduation. Students must take the TP course from the 6th period, with a 30-hour workload and prepare their pre-project. After this stage, the TP should be developed by the students over two semesters, with the guidance of an effective professor of the course, and may or may not have the support of a co-advisor (MARINHO; ALMEIDA; PELOSI, 2011), and presented in a Journey Scientific Assessment, which takes place at the end of each semester, open to the community and organized by a committee composed of professors and students.

The development of the TP, supervised by a professor, is fundamental in the training process, as it helps the student to have [...] more security to question his reality and to train his research skills, contributing to enrich the teaching and learning process [...] (CRUZ, 2003, p. 32).

The elaboration of a TP allows the initiation to the scientific environment, starting with the investigation, choosing a problem and elaborating solutions, consolidating the knowledge acquired during the course, and it is still an incentive to the postgraduate (MARINHO; ALMEIDA; PELOSI, 2011). Also, with its presentation, the dissemination and socialization of its results, and the construction and expansion of knowledge through dialogue and exchange of knowledge are important.

The TP preparation is not an easy task, and difficulties have been studied from the perceptions of students (GUEDES; GUEDES, 2012) and professors (GUEDES; GUEDES, 2012; MEDEIROS et al., 2015).

The TP of a course contributes to a panorama of the research developed by the group and evaluates aspects such as the type of research most commonly used, the areas researched and the outcome of the work with the divulgation in events or scientific journals.

In this sense, the objective of this research was to characterize the term paper of the graduation course in occupational therapy defended between the first semester of 2013 and the first semester of 2017 and raise the perception of the guiding advisor about this work.
2 Method

This is descriptive, qualitative-quantitative research conducted in two phases. In the first phase, the characterization of the TP was carried out from an analysis of the presentations minutes and the presented works, from 2013 to 2017, totaling nine semesters. The second phase consisted of a questionnaire applied to the professors who had guided the TP in this period.

The following information was collected in the documents: title of the TP; semester of the presentation (2013.1, 2013.2, 2014.1, 2014.2, 2015.1, 2015.2, 2016.1, 2016.2, 2017.1); final grade; grade from the advisor; the coordinator’s grade, in cases where this occurred; the evaluator’s grade; grade of the guidance process; grade of the co-advisor process, where relevant; the person responsible for the highest grade; age group of the study population, according to the Brazilian legislation - Child and Adolescent Statute (ECA) (BRASIL, 1990), the Youth Statute (BRASIL, 2013) and the Statute of the Elderly Population (BRASIL, 2003), (children - from 0 at 12 years old, adolescents - from 12 to 18 years old, young people - 15 to 29 years old, adults, elderly people - from 60 years old, not determined, more than one population); gender/sex (gender, sex, transgenic men and women and unspecified), specialties recognized by Coffito: Acupuncture (CONSELHO..., 2011a); Social Contexts (CONSELHO..., 2011b); Family Health (CONSELHO..., 2011c); Mental Health (CONSELHO..., 2011d); Hospital Contexts (CONSELHO..., 2013); Gerontology (CONSELHO..., 2016); and none of the above; TP related to any research project, extension, subject, curricular or extracurricular internship; project name, internship or subject; type of approach (quantitative, qualitative or quali-quanti), if it was submitted to the Research Ethics Committee (yes and no); type of research (literature review, experience report, case study or field research); instrument used in the research (interview, field diary, validated evaluation protocol, evaluation protocol created for the research, other and not applicable); whether it was published on the TP website (yes and no); Banking recommendation for TP publication (yes and no); TP was published in a scientific journal and/or presented at congress/events (yes and no); type of bibliographic references used (national, international, both).

To complement the information from the study, 24 effective professors of the occupational therapy course, who had guided the TP work of the sample, were invited to participate by answering a questionnaire prepared by the research team.

The questionnaire was created by the authors of the study, with open and closed questions and addressed topics such as year of admission of the professor at the university; occupation area; preference in guidance work-alone or with a co-advisor; and reasons for choice; linking TP with research or extension projects; publication in a scientific journal; presentation in an event; work guidance of the professor that does not belong to his area of work; difficulties found by the students and by the professor in the guidance process; participation in the evaluation group outside their knowledge; main problems found in the evaluated works; and, finally, the importance of conducting TP in graduation courses of occupational therapy in the opinion of the professor.

The professors received a copy of the personalized questionnaire with the data of the students guided by each one, during the study period, and the Free and Informed Consent Term by hand or via e-mail.

The project was submitted and approved by the Ethics and Research Committee under Opinion nº 2,213,975 dated 08/11/2017 and the consultation of the documents related to the TP’s was authorized by the deliberative body of the department of occupational therapy.

2.1 Data analysis

A total of 154 Term Papers were analyzed. Eleven of them did not have the minutes of the defense (7.1%), reducing the number of papers analyzed in some of the studied variables.

The data of the defense minutes and the information of the closed questions of the questionnaire of the professors were organized in a spreadsheet and later imported to the software Statistical Package for The Social Sciences - SPSS, version 19.0. To meet the first objective of the study, the descriptive univariate analysis was performed, using absolute and relative frequencies for categorical variables, and measures of central tendency (mean or median) for the quantitative variables. The chi-square test (X) 2 was used to compare the categorical variables with the occurrence of recommended for publication, published and presented in an event, considering a significance level of p <0.05 and confidence interval (CI) of 95%.

The questionnaires were answered by 96% of the effective professors who had guided the TP work in the period studied, representing a total of 24 professors. To analyze this information, especially those related to the open questions, the content analysis was carried out for objectively
and exhaustively identifying and classifying all the registration units in the text, obtaining useful indicators for the purpose of the research (BARDIN, 2011). The following categories of analysis emerged from the analysis of the answers to the open questions of the questionnaire answered by the professors: difficulties and facilities in the guidance process; difficulties of the students in the research, importance of the term paper works of the course in the graduation of the occupational therapist.

3 Results

The data were presented considering the following aspects: characteristics of the TP; the process of evaluation and diffusion of knowledge of the occupational therapy, from the Tps defended in the graduation in occupational therapy.

3.1 Characteristics of the term paper works

There were 154 TPs defended in the graduation course in occupational therapy over nine semesters, with an average of 17 papers per semester. The maximum number of defenses per Scientific Journey was 29 papers in the first semester of 2014, and the lowest number was 11 papers in the first semesters of 2013 and 2016, as shown in Figure 1.

Regarding the thematic areas, the papers were classified considering the specialties recognized by the Federal Council of Physical Therapy and Occupational Therapy (COFFITO), with the most prevalent: Hospital and Family Health Contexts, both with 31.6%, followed by Mental Health (17.5%), Social Contexts (9.7%) and Gerontology (7.1%). In the analysis of TPs per semester, the predominant specialties were: Hospital Contexts, Family Health, and Mental Health, as described Table 1.

The papers with a qualitative approach obtained a higher percentage (91.6%). Regarding the technical procedures, most of the papers performed a document review or literature review technique (61.7%); experience report (22.1%) and field research (14.3%). The instruments used had field diary (44.0%), interviews or questionnaires (27.1%), validated evaluation protocol (10.1%) and evaluation protocol created by the researcher (1.6%). When analyzing the papers by semester, the researches of documentary or literature review were predominant in seven of the nine semesters studied.

Regarding the submission of the TP research to the Ethics and Research Committee (CEP), it was not a reality for most of the works defended (89.6%).

Regarding the population studied, 45.5% of the papers did not determine the age group studied, but the children were the most frequently cited population (19.5%). The gender of the population investigated was not determined in most of the studies (96.1%).

Most of the studies used national and international bibliographical references (53.2%), including in this category the works that used at least one reference in a foreign language.

As for the connection of TPs with projects of extension, research, internship, and subject, most of the works were linked or inspired by these activities (55.2%), with a curricular internship as the most cited (37.6%), followed by extension projects (33.0%) and research (24.7%). In the ‘Other’, the work developed from monitoring activities, topics of student interest and extracurricular activities not

| Table 1. Thematic area most covered in each semester. |
|---------------------------------------------|
| Semester | Most prevalent area |
|---------|---------------------|
| 2013.1  | Hospital Contexts (36.3%) |
| 2013.2  | Family Health (46.1%) |
| 2014.1  | Family Health (41.3%) |
| 2014.2  | Hospital Contexts (33.3%) |
| 2015.1  | Hospital Contexts (50.0%) |
| 2015.2  | Mental Health (33.3%) |
| 2016.1  | Family Health (36.3%) |
| 2016.2  | Hospital Contexts (42.8%) |
| 2017.1  | Family Health (40.0%) |

Figure 1. Number of defended term papers by semester (n = 154).
listed in the characterization of the research were included. Some works were elaborated from more than one motivation.

Among the TPs motivated by the students’ experience in extension projects, the most frequent were: “Work Education Program for Health - PET-Health” (10.5%); “Playing OP Project” (7.0%); and “Occupational Therapy in Care for the Elderly person in Situation of Social Vulnerability” (4.7%). The other works were related to some of the other projects that had the frequency of once or twice each.

3.2 Family Health Evaluation  
Process of the Term Paper of the Occupational Therapy Course

The papers were guided by 25 effective professors of the occupational therapy course during the period studied, in which 24 answered to the instrument. The number of guidance per professor varied from 1 to 14 students; however, the time of each professor as an effective member of the course was also different.

The inclusion of a co-advisor was optional and could be requested by the student or suggested by the advisor professor. Most of the studies were not co-orientated (59.1%). Among the works with co-orientation, 57.1% of them were carried out by a professor of the occupational therapy Course, 14.3% by occupational therapists of the network, 12.7% by professionals from other areas and 6.3% by a university technician.

In most of the classrooms, the paper advisor was effective or substitute professor of the occupational therapy course (90.3%). The other evaluators were occupational therapists of the network (3.9%), technical occupational therapist of the university (2.6%), professional of another graduation in the university (3.9%), a professor of the occupational therapy Course, 14.3% by occupational therapists of the network, 12.7% by professionals from other areas and 6.3% by a university technician.

In most of the classrooms, the paper advisor was effective or substitute professor of the occupational therapy course (90.3%). The other evaluators were occupational therapists of the network (3.9%), technical occupational therapist of the university (2.6%), professional of another graduation in the network (1.9%) and a professor of another university course (0.6%). None of the papers was held as an occupational therapist from another Higher Education Institution (HEI).

The works could be evaluated by two or three people, depending on the presence of the co-advisor. The final grade of the TP was composed by the average of the final grade given by the members of the evaluation group, through assessment sheets that include the evaluation of the written paper, the oral presentation, and the guidance process, in case the evaluation was held by the supervisor and the co-advisor. The average of the final grades, considering all the semesters, was 9.6, with minimum values of 6.2 and a maximum of 10.

Regarding the observations performed by the evaluators in the open space for comments in the defense minutes, most of the evaluators did not specify the gaps presented in the works, recording only the need for changes (80.4%). The signaled modifications were related to the textual elements of the TP (10.5%) and to the need for review in the formatting and the Portuguese language (3.5%).

3.3 Characteristics of guiding professor

The professor oriented research in areas such as: Rehabilitation and Sensory-motor dysfunctions (54.2%); Practices in Health (45.8%); Occupational Social Therapy (29.2%); Public Health (29.2%); Resources and Assistive Technology (29.2%); Mental Health (16.7%); History and Professional Training (16.7%) and Education (12.5%).

Regarding the guidance process, the interest of working in partnership with colleagues as co-advisors of the TPs (95.8%) prevailed, with 50.0% with no observations and 45.8% with observations to carry out this work together. Among the qualifications pointed out by the professors, the knowledge of the co-advisor of the study area and the absence of conceptual conflicts (81.8%); the theme of work (36.4%); the interest of the student in having a co-advisor (27.3%); the type of research (9.1%); the possibility of convergence of schedules for orientation (9.1%); and prior knowledge of the co-advisor (9.1%) were highlighted.

Most of the professors did not guide their work outside their work area (56.5%). Those who guided it, did it because it was an area they had already worked in another university (30.0%); due to the fact that the work was closed to their area of action (20.0%); for being an area of their knowledge, although they were no longer active in it (20.0%) and because they taught in a subject of the occupational therapy that was not in their area (10.0%).

The most relevant difficulties for the professors faced by the students were related to the writing process (39.1%); lack of clarity of the study object (30.4%); ignorance of the norms to elaborate a scientific work (30.4%); to personal problems (30.4%); to non-commitment to the guidance process (30.4%); to personal problems (30.4%); ignorance of the scientific methodology (21.7%) and lack of knowledge about the bibliographical survey (13%).

The most significant obstacles found by the professors in the guidance process were related to the student’s personal issues that interfered with the guidance process, such as difficulty in managing time, overload with academic activities (subject, internships, projects), lack of knowledge for the elaboration of scientific work, lack of autonomy, lack of knowledge of a foreign language, family and health problems.
(72.7%); the professors’ questions, such as lack of time and space for guidance and not having a research project that would allow the guidance (18.2%); difficulties for the student in the guidance process, such as the adaptation of the student’s interests to the subject of the professor research and compliance with deadlines (13.6%); to administrative or managerial problems, such as a hurry in the execution of the project to grade and delay the submission process to the Research Ethics Committee (9.1%) and to others issues highlighted by the professors, such as the absence of rules for student distribution among the guiding professors (9.1%).

The opinion of the advisors on the choice of literature or documentary review was related to the fact that submission of research projects to the CEP was a laborious process, and approval of the research could take several months.

Concerning the participation of the professor as part of the evaluation group in works that he did not guide, most of them reported that the themes of the works were related to their topic of research all the time (52.2%), or most of the time (43.5%).

Regarding the works in which they were part of the evaluation group, the professors identified that the main problems were related to the object of study and methodology chosen (36.4%); to problems with the writing of the text with spelling errors, agreement, development of the theme and conclusion (27.3%); ethical issues related to non-submission of works to the Research Ethics Board and text plagiarism (9.1%); and the difficulty of oral presentation (4.5%).

In the opinion of the teachers, the accomplishment of the TP in the graduation of occupational therapy was to the possibility of the student to synthesize experiences conducting research, as well as being closer to the postgraduate (73.9%), and also considering the importance for diffusing different experiences in the area of occupational therapy, contributing to the growth of the profession (26.1%).

### 3.4 Diffusion of occupational therapy knowledge from the TPs defended in the graduation course of occupational therapy

The evaluation of the TPs by the evaluation group showed that they could be published; however, most of them had no indication (58.2%). This result was the result of the consensual decisions between the advisor, the co-advisor and the evaluator.

The works defended were published on the website Notícias da TO, maintained by the department of occupational therapy, from the authorization of the student who defended it, and it is not mandatory to publish it. On the site, only 26% of the finished works were released.

According to the professors, most of the papers had not been published (79.2%). The others were in the process of evaluation (13.9%), had already been published (5.6%) or had been sent for review, but were rejected (1.4%).

The journals that published the papers were: *Revista Brasileira Interinstitucional de Terapia Ocupacional –Revisbrato, Cadernos de Terapia Ocupacional, Federal University of São Carlos - UFSCar* (now called *Cadernos Brasileiros de Terapia Ocupacional*) and in a chapter of the book called *Terapia ocupacional e vulnerabilidade social em idosos: vivências de um projeto de extensão*. The papers in the process of publication were forwarded to Revisbrato, Cadernos de Terapia Ocupacional, UFSCar, *Revista Brasileira de Geriatria e Gerontologia, Revista Saúde e Sociedade, Ciência e Saúde Coletiva* and *Revista Brasileira de Educação Especial*. The denied works had been sent to the *Revista de Terapia Ocupacional da Universidade de São Paulo (USP)*.

Those papers not published (71.7%) and in scientific events (73.6%) prevailed among the papers recommended for publication, as shown in Table 2.

### Table 2. Distribution of the frequency of the variables “published work” and “work presented in the scientific event”, according to “Recommended for publication”. (N = 125).

| Variables                                      | Recommended for publication |  |
|------------------------------------------------|-----------------------------|---|
|                                                | Yes                         | No   | p*  |
| Published papers                              |                             |      |     |
| Yes                                            | 3 (5.7%)                    | 3 (4.2%) | 0.061 |
| No                                             | 38 (71.7%)                  | 63 (87.5%) |     |
| Papers in process of publication               | 12 (22.6%)                  | 5 (6.8%) |     |
| Papers Rejected                               | 0 (0.0%)                    | 1 (1.4%) |     |
| Papers presented at a scientific event         |                             |      |     |
| Yes                                            | 14 (26.4%)                  | 11 (15.3%) | 0.095 |
| No                                             | 39 (73.6%)                  | 61 (84.7%) |     |

* p > 0.05.
4 Discussion

Access to the graduation courses of the studied university takes place through the Unified Selection System (SISU) of the Ministry of Education (MEC), which organizes the distribution of vacancies to Public Higher Education Institutions for the candidates participating in the National High School Examination - Enem (BRASIL, 2012), with 30 students per semester entering in the graduation course in occupational therapy.

After nine semesters of operation, the graduation course in occupational therapy had 238 students with active enrollment, 28 with a break in the university, and 149 graduates, according to information provided by the course coordinator. From the number of TPs defended, only five students remained in the university after the TP defense, showing that this academic breaks happened, in most cases, in the last semester of the graduation (SISTEMA..., 2017).

Considering the number of enrollments in each semester, the number of defenses should be 30 TPs per period. However, the average number of papers per semester was 17.1, which shows that, in addition to evasion and breaks, students that increase the time in the course, leave the TP for the last semesters.

The most productive areas were Hospital and Family Health Contexts, followed by Mental Health, Social Contexts, and Gerontology.

A study about the articles published in the Cadernos Brasileiros de Terapia Ocupacional and the Revista de Terapia Ocupacional da USP showed that the areas of occupational therapy with more articles published between 1990 and 2014 in the Revista de Terapia Ocupacional da USP were Mental Health, Fundamentals, Training, Occupational Social Therapy, Rehabilitation, Gerontology, Child Development, Hospital Context, Collective Health, Education, Physical Dysfunction, Worker Health and Work. In Cadernos Brasileiros de Terapia Ocupacional, the most frequent were the Fundamentals, Mental Health, Training, Hospital Context, Rehabilitation, Social Occupational Therapy, Child Development, Physical Dysfunction, Collective Health, Worker Health, Education and Gerontology (LOPES et al., 2016).

Although the classification strategy was different from the one performed in this study, the three most prevalent areas in the Revista de Terapia Ocupacional da USP and Cadernos Brasileiros de Terapia Ocupacional presented themes different from those found in this study, indicating that the production of a university is related to the composition of its group of professors, its areas of activity and the opportunities for students to participate in research, teaching and extension projects.

When the first TPs began to be developed in the first half of 2012, one year before the first defenses, most areas had more than two professors with guidance on a given topic, creating a favorable environment for the development of diversified works. However, this phenomenon was not repeated in the type of study carried out, which had the preponderance of type literature review in seven of the nine semesters surveyed.

The data showed that the areas related to the Health area were predominant in the subjects of the TPs, and also concentrated the largest number of professors. Although over the years the action area of professors has been modified and expanded, the Health area remained prevalent. The area of “Rehabilitation and Sensory-motor dysfunctions” was the one that presented the greatest number of works, and Education had the smallest number of works.

The curriculum guidelines for occupational therapy indicate that a balanced knowledge of different areas, levels of action and therapeutic resources should be ensured to guaranty a general education, and the occupational therapist is a professional in the areas of Health, Social Assistance, Education and Culture, among others (BRASIL, 2002).

In a research with the objective to present a panorama of the graduation courses in occupational therapy of the federal institutions of higher education of Brazil, Pan and Lopes (2016) question what the courses have considered as general education, since, for the most part of them, the subareas proposed for training are linked to the health sector.

Thus, as stated by these authors, in the graduation course in occupational therapy of this university, the course in the Medicine School, and, for this reason, most of the research of term papers of the course are focused on the Health area.
Therefore, when speaking of generalist graduation, the action areas of the occupational therapist should be included (Health, Education, Social Assistance, Culture), and not only generalist actions within the Health area (PAN; LOPES, 2016).

With qualitative research, mostly literature or documentary review, it was not necessary to submit the papers to the Research Ethics Committee (CEPs). However, from 2016, there was an increase from 1 to 10 research involving human beings and forwarded to the CEP. Since the students had 6 to 12 months to complete the work, the submission of a study to the CEP could be a great obstacle to finishing the graduation. However, the increase in the number of professors allowed the change in this panorama, which started to have research in progress and, consequently, prior approval of the Committee.

A study by Medeiros et al. (2015) pointed out that the low participation of the advisor professors in research and extension activities can hinder the guidance process. Also, Camilo and Ribas (2007) pointed out the importance of professors publishing, since the practice of scientific production enriches and helps in the application of the knowledge acquired in the TP guidelines.

The professor can be a good advisor if he practices research, and this practice is more present when he reaches the doctoral level (BIANCHETTI; MACHADO, 2002). At the university studied, many professors are still pursuing their doctorate and, therefore, they are also in the process of training as a researcher.

TPs were motivated by students’ experience in internships, extension projects, research, and subjects.

The University Extension is an academic activity, an educational, cultural and scientific process that articulates teaching and research in an inseparable way with practices of exchange with society in actions that benefit the community and the university. Extension actions take place through the production, propagation, and democratization of academic knowledge (PALETTA; SILVA; SANTOS, 2014). The university extension policy was agreed upon between the Public Institutions of Higher Education, and the university studied adhered to the National Extension Plan, which was constituted in 2012 as the National Policy of University Extension (BRASIL, 2000).

Extension activities in the occupational therapy graduation course are complementary activities (hours of extracurricular activities, which may be cultural or scientific) in the student’s curriculum, and its practical character is often the first contact of the student with professional experience since the extension activities are offered to students since the first period of the course, while the curricular activities only begin from the sixth period of the course.

Participation in extension projects creates the opportunity to disseminate knowledge produced in workshops and other actions involving the community and enables presentations at scientific events. The preparation of the text to be presented an/or published approximates the students of the scientific writing that they need to be involved and to exercise for the accomplishment of the TP (CARVALHO; MESQUITA; FARIAS, 2017), being an alternative for the studied university while its professors are finishing the doctoral level.

The choice of the advisor is held by the student, who must look for him after finishing the TP subject and if he has already the pre-project approved. The decision to include a co-advisor in the guidance process and the evaluation group at the moment of the defense occurs in agreement with the advisor (MARINHO; ALMEIDA; PELOSI, 2011).

The data showed that there was a very large variation (between 1 and 14 advisors) in the group of guiding professors. They pointed out in the instrument that they answered that it would be necessary to think of criteria that could distribute in a more equitable way those guided by the group of advisors.

The presence of external professionals as co-advisors or evaluation group members was infrequent. Professors showed in their answers that they preferred to co-advice the work with people who were known, worked with the same theoretical reference, and had available time for joint guidance.

In the non-university members for the composition of the evaluation group, it is important to consider that inviting an external professional who resides in another city has costs, and graduation courses do not have funds for this purpose, which is a
The experience of developing TP can be complex for professors and students. A study carried out by Guedes and Guedes (2012), with the objective of knowing the students' perception of the TPs, showed that they considered the elaboration of TP as a lot of work, and it took a lot of effort.

Professors in their role of advisors and evaluation group members found many problems related to the prerequisites for the elaboration of a scientific work, which included the writing process; the lack of clarity of the study object; ignorance of the norms for the elaboration of a scientific work; non-commitment to the guidance process; the ignorance of the scientific methodology and the bibliographical survey.

Medeiros et al. (2015), in a study that investigated 21 TPs advisors from the Administration course of a private higher education institution, pointed to “methodology”, “writing” and “conclusion” as the most critical aspects of students’ work.

This study also investigated the professors’ questions and the difficulty of relationship with the student in the guidance process was pointed out, which was also observed in other studies (MEDEIROS et al., 2015).

The graduation course in occupational therapy has three subjects directly addressing the issues related to research development: “Scientific Methodology”, which integrates the curriculum of the third period of the course, with a total workload of 30 hours; “Biostatistics for occupational therapy”, of the same period, and with 60 hours; and “TP for occupational therapy”, in the sixth period, with 30 hours, in which students must prepare their pre-research project. These issues total 120 hours of subjects aimed at instrumentalization for the elaboration of a scientific paper.

Almeida (2016) argues that the student’s perception of the Methodology subject and the importance of preparing a pre-project interfere in the process of constructing the term paper. At the moment, the student perceives the methodology as a means, and not as an end, he is able to identify different tools that can help him to reach his objectives, to discover a way to organize and to dynamize his research and, consequently, to produce knowledge through it.

The author adds that the student’s achievement in the subjects that instrumentalize the production of a scientific paper is also related to his posture, his academic maturity to understand the methods and techniques as tools and means for the construction not only of a work but of a thinking, critical and researching person (ALMEIDA, 2016).

In this sense, the results of this research pointed out that the studied course needs to think of new strategies beyond the obligatory subjects to remedy these difficulties identified by the professors. A greater offer of scientific initiation research, extension courses regarding methodology and scientific writing, and partnerships with other university departments to offer optional subjects are possibilities to be considered.

Another difficulty pointed out by the professors was the fact that the student did not master a foreign language and its consequent limitation for the elaboration of a literature review, since most of the scientific publications found in the databases are written in another language, mainly in English.

The university has programs such as the Open to Community Language Course, which offers at popular prices, learning a foreign language. However, few students are able to participate because the vacancies are reduced and the selection is made by lot. Also, the courses take place at night on campus with little security, and the resources for the payment are scarce, although the value is below the market.

Authors such as Guedes and Guedes (2012) indicated that participation in graduate research projects may contribute to the development of the ability to read articles in a foreign language, among other benefits.

With the possibility of carrying out a literature review, including international publications, students will be able to qualify their studies in the area of occupational therapy. The training of the future occupational therapist should encompass the ability to communicate, understanding that communication involves verbal, nonverbal expression, reading and writing skills, and mastery of at least one foreign language (BRASIL, 2002).

Therefore, for the student in the graduation of occupational therapy, the National Curricular Guidelines show the importance of learning
a foreign language, both for the possibility of research and for the responsibility to attend to all.

Thus, learning a foreign language in the occupational therapy course needs to be discussed by the course’s board, which involves professors, technicians, and students, so strategies can be found that favor the students’ access to the language courses offered by the university.

Regarding the importance of performing TP, the professors were unanimous. Most of them, because it allows the student to synthesize experiences conducting research at the end of the graduation, and approaching the graduate, and, for others, as a possibility of diffusion of different experiences in the area of occupational therapy, contributing to the growth of the profession.

Among the expected skills in occupational therapy training are the methods and techniques of scientific research and the elaboration of academic and scientific works (BRASIL, 2002). Therefore, the initiation to the scientific research in the graduation puts in practice what determines the National Curricular Guidelines of the profession.

For this, it is necessary that the student experiences each stage of the process of knowledge construction in the elaboration of a research work, so he can understand, value and criticize scientific articles, besides creating the habit of reading articles that will help him to stay informed as a professional (GUEDES; GUEDES, 2012).

The graduate student who has his academic life involved in the research develops differentiated oral and written expression skills, which have repercussions on the formation of a professional capable of performing critical analyzes, with more intellectual maturity and discernment to face difficulties (FAVA-DE-MORAES; FAVA, 2000).

Malfitano et al. (2013) pointed out that the growth of an area is related to the production of research developed in it. Thus, conducting research from the graduation level is a way of contributing to the development and strengthening of the occupational therapy profession.

A study of Stanford University medical students, who were encouraged to develop research during graduation, showed that most of them had conducted research (95%), published at least one scientific article (75%) and made presentations at conferences (52%). Most indicated that they were motivated to continue research (75%) and that they wanted to pursue their academic career (60%), showing that the curriculum stimulated an investigative approach to medical problems (JACOBS; CROSS, 1995).

Considering the fundamental role of research in occupational therapy, it is important to seek strategies so they can be published. The dissemination of the material corroborates the dissemination of knowledge, which is an ethical role of the university and researchers, enabling their research to be achieved by the population (BRASIL, 2000).

The defenses of the TPs of this graduation course are held in a scientific extension event, called “Scientific Journey of Evaluation of the Term Works of the Course - Occupational Therapy” (MARINHO; ALMEIDA; PELOSI, 2011). This event is organized by a committee composed of professors and students from different periods of the course. Its first edition took place in 2014 and since then, it has been held every six months on the university.

Like any university extension event, the Journey is open to the public outside the university, and its dissemination is made on the website of the OT and social networks such as Facebook, e-mail and partnerships, such as those held with the Regional Council of Physical Therapy and Occupational Therapy of the 2nd Region (Crefito-2) and the Association of Occupational Therapists of the State of Rio de Janeiro (Atoerj).

The library of the Health Sciences Center, in which it is full, does not receive in its collection of Graduation Course Completions, and the TO News website is, therefore, the only way for the public to have access to written works. According to the experience of Padua and Palm (2000), the organization and the possibility of the works being available for consultation of the students of the course and other educational institutions have made that they have been used as a reference for other researches in the area. In this sense, it is important to encourage students to authorize the publication of their work on the site.

Another way of disseminating the knowledge produced at the university is through scientific publications in magazines or presentations at events.
Most TPs were also not indicated for publication (58.2%). When relating this data to the professors’ speech indicating the students’ difficulties in the elaboration of scientific papers, it can be inferred that perhaps the TPs are not yet at the level of quality demanded by the indexed journals. Lack of literature in a foreign language, for example, may undermine literature reviews and the theoretical basis of the studies, and the obstacles related to the lack of knowledge of the methodologies and scientific language mentioned in the interviews.

Other aspects to be considered are the reduced number of occupational therapy journals in Brazil and the endogenous authors of the Institution of Higher Education that hosts and produces the journal (LOPES et al., 2016).

Even among the TPs that the evaluation group indicated for publication, the percentage of published works is still very small. This scenario can be explained by the fact that the students abandon their work after the defense, even after they agreed to continue or prepare the manuscript for publication with their advisors, as the professors explained in the interviews. The TP is considered a final act of the graduation by the students, ending the bond with the university.

This is not only a problem for the students. A study on publications carried out between 1990 and 2014 in the Cadernos de Terapia Ocupacional da UFSCar and Revista de Terapia Ocupacional da USP showed that the mean of publication in that time studied was 2.4% per author, 80% of the authors published only one study, 5.3% published them in the Revista de Terapia Ocupacional da USP, and 3.2% in the Revista de Terapia Ocupacional da USP, publishing five or more papers in 24 years, showing that Brazilian production is incipient (LOPES et al., 2016).

The emergence of another specific journal of occupational therapy, the Revista Institucional de Terapia Ocupacional—Revisbrato, was important for the increase in the flow of exclusive publications in the area, as is the case with most TPs. This journal is among the two journals with the most publication of papers presented in the Conference of TPs. It is also a possibility of communicating the occupational therapy course with other segments of the university, since it is listed among the institution’s journals, and can be a channel for future partnerships within the institution.

5 Final Considerations

This study allowed an overview of the research carried out by students of occupational therapy at a federal university in the Southeast Region of the country.

The 154 papers analyzed were mostly literature or documentary research, with a qualitative approach, which used the field notebook as a data collection instrument. The area most frequently studied was the Hospital Contexts, in papers related to the topics experienced by the students in projects of extension, research, subjects or internship.

The guidelines were carried out only by the advisor professors within their research areas, and the difficulty in the student’s writing process was the most frequent problem found. Each professor guided between 1 and 14 students.

The evaluation groups had actual or temporary professors of the course, who gave grades between 6.2 and 10, with an average of 9.6, and who highlighted the methodology as the main failure of the papers.

The diffusion of knowledge of occupational therapy from the TPs defended in the graduation course in occupational therapy was still incipient.

The initiation of the research activity is a responsibility of the university and, consequently, of the professors as occupational therapists who are dedicated to the graduation of new professionals, being a crucial exercise for the future professional to exercise his job for his clients, thinking their context and specificities, but also basing their interventions on the scientific findings.

The data showed that students needed more opportunities to exercise the scientific writing process before the moment of writing the Term Paper, and professors needed to support their students in the search for more diversified research objects, instruments, and methodologies.

Finally, the objective of characterizing the TPs presented in the Scientific Journey from 2013.1 to 2017.1 was reached. The researchers prepared a questionnaire to update the results and the continuity of this study, to be completed by the students and advisors that it will be part of the set of documents related to the defense of the papers. It is expected that this action will continue the research on the production of knowledge in the graduation course in occupational therapy.
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Author’s Contributions

All of the authors worked together on the project and performance of the research, and on the writing of the article. All authors also approved the final version of the text.

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Notes

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