

DEVELOPING CREATIVE ACCOUNTANTS: HOW DOES DESIGN THINKING PROMOTE APPRECIATION OF THE ACCOUNTING PROFESSIONAL?

WENDY BEATRIZ WITT HADDAD CARRARO¹

Universidade Federal do Rio Grande do Sul

● <https://orcid.org/0000-0002-2152-1767>

wendy.carraro@ufrgs.br

FERNANDA DA SILVA MOMO

Universidade Federal do Rio Grande do Sul

● <https://orcid.org/0000-0002-6512-5280>

fernanda.momo@ufrgs.br

LETÍCIA BERSCH BRUXEL

Universidade Federal do Rio Grande do Sul

● <https://orcid.org/0000-0002-4383-668X>

leticiabb@msbnet.com.br

ALAN BANDEIRA PINHEIRO

Universidade Federal do Paraná and NEOMA Business School

● <https://orcid.org/0000-0001-6326-575X>

alanbpinheiro@hotmail.com

ABSTRACT

By addressing innovation, creativity, and problem-solving in corporate contexts, Design Thinking has attracted the interest of both scholars and professionals. Despite this, this methodology has still been little disseminated among accounting professionals. Therefore, this study aimed to identify how the Design Thinking methodology can be used to promote the appreciation of the accounting professional. The study involved 521 students who attended the Accounting Planning discipline, offered in the seventh stage of the Accounting Sciences course at a federal university in southern Brazil. Using the survey as a technical procedure, the content analysis of the records of perceptions and ideas generated in Design Thinking workshops was conducted using Nvivo and Microsoft Excel. The students' perceptions regarding the application of the methodology showed that its use is conducive to creating innovative ideas and making them leave their comfort zone. Students reported being aware that they use creativity very little. Still, they are concerned about their development, as they understand that it adds professional and personal value and benefits the profession as a whole. The practical implication is the illustration of how this methodology can contribute to establishing a new professional image, and federal and state accounting councils can use it.

Keywords: *Design Thinking*. Creativity. Accounting Professional. Accounting.

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¹ **Correspondence address:** Av. João Pessoa, 52 | Centro Histórico | 90040-000 | Porto Alegre/RS | Brazil.

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1 INTRODUCTION

Historically, Accounting, as an applied social science, has marks of evolution and growth concomitant to the worldwide development of societies (De Jesus et al., 2020). However, according to Azevedo (2010) and Fatima and Singh (2023), scholars and professionals worldwide have become concerned with reducing the number and quality of Accounting students in recent decades. This may be related to the lack of the projection of an image, not only of trust and respectability, but of the proposal of new challenges, perspectives, and rewards capable of attracting talented and competent students and professionals.

Complementarily, in 2013, after launching the campaign '2013: Year of Accounting in Brazil', which had as its main objective the disclosure of the role of the accounting professional, the Federal Accounting Council (CFC, 2021) stated that there are still relevant distortions to the image of the accountant, caused mainly by the mistaken expositions of the profession in works of fiction, such as soap operas and humorous programs. Carnegie and Napier (2010) assert that society's perception of the legitimacy of the accounting profession is not only based on accountants but also the media, indicating that understanding the external image of the accounting professional is important for valuing Accounting Science.

To this end, methodologies such as Design Thinking can become significant opportunities for developing innovative ideas that can leverage the appreciation of the accounting professional through the potential of this methodology to generate value for the professional activity (Moreira and Bernardes, 2014). This methodology is a practice that has existed for more than 30 years. It has been expanding to the business sector, focusing on developing innovative and impeccable solutions capable of creating new consumer experiences, meanings, and values (Bonini and Endo, 2012). Therefore, Design Thinking can help deconstruct existing stereotypes since it is, according to Brown (2015), essentially characterized by the ability to meet users' needs by combining empathy, creativity, and rationality. According to Lewis et al. (2020), creativity and collaboration are fundamental to Design Thinking since professionals need to rethink corporate problems in another way, sharing experiences and knowledge with people from other backgrounds.

When postulating that the public perception of Accounting is still undefined, stereotyped, and, at the same time, mistaken, several authors claim that it should be a great source of concern for both professionals in the field and scholars (Albrecht and Sack, 2000; Azevedo, 2010; Pitela, 2008). With this in mind, it is noteworthy that much has been studied about the perception of society concerning professional performance in other areas, such as Medicine and Law, while little attention has been given to Accounting, thus encouraging the production of a greater volume of research on popular perception regarding the accounting profession and its appreciation (Carnegie and Napier, 2010).

Given this context, we seek to answer the following question: How can the Design Thinking methodology be used to promote the appreciation of the accounting professional? To answer it, the objective is to identify how the Design Thinking methodology can be used to promote the appreciation of the accounting professional. To this end, ten workshops were held with students applying this methodology in the seventh stage of the Accounting Sciences Course at a federal university in southern Brazil. The ideas generated by the participants and their perceptions after the workshops represent the database to achieve the objective proposed by this research.

The construction of alternatives capable of promoting the appreciation of the accountant is relevant since, in the presence of an image full of stereotypes, potential professionals can be influenced not to opt for training in accounting. This type of image impacts the satisfaction of accountants in general, who interpret it as a feeling of discredit transmitted by society, thus leading them to search for other professions (Azevedo, 2010; Morais, 2007). Given the need to ensure the evolution of Accounting Science and, consequently, the appreciation of its professionals, it is

essential that efforts are made to understand the perception that society has of both, as well as a concern with the creation of means capable of changing the present scenario (Duff et al., 2020; Carnegie and Napier, 2010).

Although there are several studies on the appreciation of the accounting professional, innovative methodologies are emerging in the literature (Micheli et al., 2019). Although little used, Machado (2012) states that creativity is one of the main modern strategies that make it possible to add value to the professional and the accounting profession, considering the environment in which both are inserted, that is, competitive, ever-changing, and globalized. Therefore, incorporating Design Thinking into organizations through accounting professionals can drive innovation, competitiveness, and critical thinking, in addition to being a response to emerging challenges, such as financial crises and the COVID-19 pandemic (Wrigley et al., 2020).

In summary, an accounting professional must be concerned with innovation and generating value for society (Wong et al., 2018; Luo et al., 2018). Encouraging and promoting the creation of solutions that guarantee the appreciation of the accountant through Design Thinking becomes relevant by enabling the student to use creative means that provide ‘thinking outside the box.’ The study is justified since it seeks to leverage the development of innovative ideas to solve this proposition. Innovative perceptions can highly drive the proposition of this methodology, as observed in analogous applications, in which the appreciation of franchise networks with the use of Design Thinking was sought (Ferro, 2014).

2 THEORETICAL FRAMEWORK

2.1 Appreciation of the Accounting Professional in Brazil

The lack of appreciation of accounting professionals worldwide has been a much-commented topic in recent years, considering the concern and attempts to clarify the reasons by dozens of authors (Albrecht and Sack, 2010; Miranda et al., 2013; Splitter and Borba, 2013). In Brazil, the study conducted by Mamede et al. (2015) noticed some changes in the accounting area: i) the number of higher education institutions offering Accounting Sciences courses increased, ii) the adoption of international standards by part of Brazilian Accounting, and iii) low student performance rates in national exams. Faced with this scenario, accounting professors, researchers, and accounting professionals face a series of challenges, the main one being the globalized scenario. For Evangelista (2005), this is an indispensable characteristic for those who seek new opportunities in career and professional life, and their value is determined by the professional's ability to meet and adapt to ever-changing demands, which are increasingly sophisticated.

According to Splitter and Borba (2013), the accountant has both constructive and restrictive aspects. As a mathematician, for example, an exact and precise routine, characteristics such as creativity, spontaneity, innovation, and intuition are absent, making them less attractive and less appreciated than other professionals. Several authors reinforce this point when they affirm that, before society, the accountant is still seen as a professional whose only function is preparing Income Tax filling, bureaucratic, and with a table filled with a multitude of papers (Hiroshi, 1998; Splitter and Borba, 2014). Miranda et al. (2013) sought to analyze the perception of high school students regarding the accounting profession and the training of professional accountants by applying a questionnaire published on a website. The results pointed to the lack of devaluation of the profession in relation to more traditional ones, differing from most other studies. However, they found that students still lack knowledge about relevant aspects of the accounting profession, as well as some myths and stereotypes about the profession and the professional accountant still remain.

Other authors consider the insertion of Accounting in schools to appreciate it due to the early contact of students with it, guaranteeing it greater visibility (Oliveira, 2006). In developed countries where Accounting is more appreciated, according to D’Aquino (2008), families are

responsible for children's financial education, and the function of schools is only to reinforce, with accounting terms, the learning acquired at home. Also, according to the author, in Brazil, financial education is not widespread either in the family environment or in schools, being a very distant subject, moving young people away from the accounting sphere. Despite this context in Brazil, the study by Wagner and Walstad (2018) showed that school accounting positively affects people's long-term behavior. Thus, children become more financially conscious adults, less indebted, and more discerning to make investment decisions.

Hiroshi (1998) also advocates for the devaluation of Accounting Science before society, arguing that the public has not followed its great evolution, causing a distance between the image of Accounting held by society and its true reality. However, the author states that the cause for this distance is the communication problems between Accounting and its users, suggesting as a solution the application of a Marketing Plan focused on promoting the most attractive areas of Accounting, such as auditing and consulting, as a way to change the perceived image of the accounting profession.

In the same vein, Oliveira (2006) seeks to identify the real image of the accountant in Brazil, with the accountants' opinions about what they think of the profession and their image with society. The results indicated that the accountant does not have a positive image before society, noting that most professionals do not experience pride and accomplishment with their professional choice. Moreover, the study states that the accounting profession did not have mechanisms that allowed a premature appreciation, as occurred with other professions – such as law and engineering- which initially granted higher-level status in Brazil. This occurred with other professions, such as law and engineering, which have had social prestige and very participatory councils regulating the work market since the beginning.

Cardoso et al. (2006) state that the appreciation of the accounting professional is conditioned to developing several skills considered relevant to the new idealized profile. Among these, the capacity for innovation, the use of foreign languages, and computer knowledge stand out. In this line, several authors have positioned themselves on the issue of the inclusion of mandatory technological disciplines in the curricula of undergraduate courses in Accounting as a way of thinking in a more critical, analytical, and creative way (Cardoso et al., 2006; Miranda et al., 2013).

More recently, other studies have pointed out challenges faced by accounting professionals. Demirkan et al. (2020) state that Accounting professionals should be aware of the use of Big Data for the decision-making process and the potential use of blockchain technology in business. Also according to these authors, blockchain will impact the audit process in different ways, so it will require a business investment to maintain cybersecurity. Merlugo et al. (2021) also showed the power of digital transformation in the Accounting professional's work. Other emerging issues in Accounting involve preparing official reports following the guidelines of the Sustainable Development Goals, as well as corporate involvement with ESG (Environmental, Social, and Governance) performance (Pinheiro et al., 2023).

2.2 The Design Thinking Methodology

Considering the increasingly competitive labor market, new management concepts have been widely disseminated worldwide for decades. In this circumstance, design researchers found opportunities to disclose that this technique can be a managerial instrument capable of differentiating the organization for customers since it values implementing different ways of thinking, creating, and relating to them. Linked to this, at the beginning of this millennium, business schools worldwide began to present and teach one of the current practices with the most significant potential to generate ideas - the Design Thinking methodology (Beckman and Barry, 2007).

This methodology is essentially based on two different techniques: Brainstorming and prototyping (Brown, 2008). The first refers to a structured technique, initially characterized by the observation and generation of individual ideas that will later be shared with a larger group and organized according to the preference attributed by its participants (Brown, 2015). The second occurs moments after Brainstorming and consists of developing the idea to explore the solution space, transforming it into something totally viable, according to reality (Brown, 2015). Table 1 illustrates the stages of the methodology development.

Table 1
Stages of the Design Thinking Methodology

Design Thinking Stages	Inspiration	Ideation	Implementation
	Contextualization of the challenge	Setting scenarios	Experimentation Prototype
Stages	Challenge Presentation	<i>Brainstorming</i>	
	Observation	Formatting Ideas	
	Interpretation		

Source: Adapted from Brown (2015).

As observed in Table 1, inspiration is the initial stage, in which researchers become aware of the problem, start looking for the solution, and interpret their observations. In ideation, idea-boosting techniques such as Brainstorming are used, allowing the researcher to generate insights from previous inspiration. The implementation involves the prototyping and experimentation of the idea, designing its path of effectiveness in the market (Brown, 2008).

Design Thinking is an active methodology that can be used by multidisciplinary teams formed by professionals from different areas, not limited to designers only. In situations involving professionals from different segments, the methodology can leverage the quality of results (Vetterli et al., 2016). This process, used to produce effective results in any organization, requires time and people to know the reasons for applying the methodology (Vetterli et al., 2016). Otherwise, real innovation will not be achieved (Vetterli et al., 2016), considering the applications of the methodology conducted at Deutsche Bank. The institution shows that using customer-centricity and physical prototyping characteristics of Design Thinking leads to better alignment between business and information technology operations. The new methodology was also established as part of the bank's practices by hiring a vice president of Design Thinking.

In a study conducted at a public university in Minas Gerais, Guerra and Teixeira (2016) found that active methodologies, such as case studies, audiovisual teaching, and team-based learning, contribute to students' performance in the Accounting Sciences course. Çeviker-Çınar et al. (2017) study examined business schools in Canada, Japan, and the United States and proposed guidelines for institutions to adopt Design Thinking in their pedagogical structures. Glen et al. (2015) developed a study to understand the teaching of the Design Thinking methodology in business schools in the United States. The authors developed a Design Thinking model composed of six stages: discovery of the problem, observation of the problem, visualization and creation of meaning, idealization, prototyping and testing, and, finally, designing a business model.

3 METHODS

As for its objectives, the research is classified as exploratory. The information was collected from the records of the students' perceptions of participating in the Design Thinking workshops and analyzed as the main variables of the study. As for the approach to the problem, it

is a qualitative study, characterized by Marconi and Lakatos (2003) as the one that proposes to analyze, in a deeper way, the phenomenon studied. The information obtained for this research was not quantified but analyzed extensively.

As for the technical procedures used, they are classified as surveys since this type of research seeks to obtain data or information about the characteristics or opinions of a certain group of people through some research instrument, usually questionnaires (Marconi and Lakatos, 2003). This study uses information collected from questionnaires applied to students participating in Design Thinking workshops. Questions were asked about their perceptions and ideas regarding the use of the methodology as a way to appreciate the accounting professional.

The research was conducted with students enrolled in the compulsory discipline of Accounting Planning, which is part of the curriculum of the Accounting Sciences Course at a federal university in southern Brazil. This discipline occurs in the seventh stage of the course, focusing on management accounting and entrepreneurship methodologies. Over ten semesters (2015/2 to 2020/1), data were collected during Design Thinking workshops involving a total of 521 students. Each workshop lasted, on average, 3 hours and 30 minutes. The discipline is allocated in the penultimate stage of the course; during this period, students tend to have a more significant knowledge background. Moreover, in most cases, they already have some professional experience (Vetterli et al., 2016), thus enhancing the insights generated to appreciate the accounting profession based on applying the Design Thinking methodology.

Data analysis used the content analysis technique, suitable for research in which it is possible to document the data through writing (Freitas and Janissek, 2000). The collected data were tabulated in Microsoft Excel and analyzed qualitatively using the Nvivo version 12 tool.

The functions of consulting word frequency (word cloud) and their occurrence in the text (word tree) were used to identify similarities between the students' perceptions. The ideas generated were categorized to verify the Opportunity Space and its focus, also regarding similarity. Finally, ideas considered 'blue sky' were selected, given the Design Thinking, for analysis and proposition of appreciation of the accounting profession.

4 RESULTS AND DISCUSSION

4.1 Description of Design Thinking workshops

Workshops were held during ten semesters, which aimed, through the conceptual and practical teaching of the Design Thinking methodology, to instigate students to formulate innovative solutions for valuing the accounting profession. All workshops began with a discussion of important concepts for understanding the methodology, considering the purpose of its ideation. Among these concepts, the following stand out: being an entrepreneur and the process of co-creation (Vetterli et al., 2016); innovation (Bonini and Endo, 2012; Ling, 2010); formation of the line of thought (Ling, 2010); and the potentialization of ideas (Beckman and Barry, 2007). The workshops were conducted according to the stages proposed by Brown (2008), already illustrated in Table 1.

In the Contextualization stage of the Challenge, the objectives of the campaign '2013: The Year of Accounting in Brazil', conducted in 2013 by the CFC, were presented, asking students about its scope. After contextualization, the challenge was proposed: 'How to promote the appreciation of the accounting professional?' and then the observation stage, in which two techniques were used: inquiries to acquaintances by WhatsApp groups and observation of a set of images related to the Accounting theme - initially individually and then shared in groups, generating a single list. From the observations, the students were challenged to define what they represented and interpret them. Subsequently, each group shared their interpretations, defining a phrase of inspiration and finalizing the initial stage of Design Thinking.

In the ideation stage, it was proposed to the students that, based on the inspiration defined in the previous stage, they determined the Space of Opportunity in which they would act to overcome the proposed challenge. With Brainstorming, students were instigated to idealize, individually, the greatest number of ideas aimed at promoting the appreciation of the accounting professional. With the sharing of ideas in the group, the three ideas with the greatest innovation potential were listed by each of the students, with the most voted being the final solution. With the solution chosen, the group should verify if it was characterized as a blue sky, outside the house, or down-to-earth. If it was not blue sky, students should format it to make it innovative. With the formatting of the finished idea, the stage of implementation of the ideas was started from prototyping through storytelling, illustrating it, and allowing the visualization of points of improvement or failures. Finally, the students presented the idea generated.

4.2 Analysis of perceptions obtained through Design Thinking methodology

After the Design Thinking application workshops, with the challenge of improving the appreciation of the accounting professional, the participants were asked about their perceptions of the methodology and the proposed challenge. Some positive and negative aspects were highlighted, which were highlighted in the students' perceptions. For this, all the records made by the students were imputed in the Nvivo tool, aiming to form a 100-word word cloud with the highest occurrence in the perceptions, as shown in Figure 1.

Figure 1
Word cloud with higher occurrence in the perception of students



Source: Research data.

Among the words highlighted in Figure 1, there was the occurrence, on a larger scale, of the word 'idea,' which appeared 354 times. Table 2 illustrates some of these records.

Table 2
Perception of students contemplating the word 'idea'

Student Number	Perception
15	<i>"I think the activity was very interesting because it forced us to leave our comfort zone to do something innovative, to create new ideas. Also, the problem was totally pertinent to our course, which made us use our perspectives and experiences to make the solution innovative."</i>
21	<i>"In the activity on Design Thinking I understood the importance of rethinking together certain ideas that initially seem definitive."</i>
96	<i>"The central idea of Design Thinking is to focus on people, whether they are customers, users, or administrators. From an individual analysis, ideas are created to solve cases, innovating and bringing solutions [...]."</i>
104	<i>"[] Design Thinking proved to be a very effective tool in solving problems, as it induces us to think stages, allowing a deeper view of the solution [...] seeking to be innovative with "Blue Sky" ideas."</i>
146	<i>"In my perception, the Design Thinking class was really a differential in my training. [...] My mind was bubbling with ideas, [...] the activity allowed us to think beyond our conveniences and accommodations."</i>
221	<i>"I found the Design Thinking activity very interesting, it made us leave our comfort zone, both when working with people we don't have as much contact with, and to [...] be able to prepare an idea to solve a problem."</i>

Source: Research data.

The perceptions in Table 2 indicate that the word 'idea' was used, in most cases, when students referred to the objective of using the Design Thinking methodology: creating innovative ideas. Beckman and Barry (2007) support the students' position by postulating that Design Thinking is one of the current practices with the greatest potential to generate ideas. They reinforce what Brown (2008) states concerning the potential generator of ideas of the methodology, provided by the use, in the ideation stage, of techniques that drive ideas.

Also, it was found that both student 15 and students 146 and 221 confirmed what Bonini and Endo (2012) exposed when they mentioned that the methodology made them leave their comfort zone, thinking beyond their conveniences and accommodations. The position of student 96 stands out, which states that Design Thinking would have people as its main focus, which is in line with Brown's proposition (2015).

Another word highlighted in the students' perception was 'accountant,' which is closely linked to the objective of this study. Table 3 illustrates some records that allow an articulation with the literature.

Table 3
Perception of students contemplating the word ‘accountant’

Student Number	Perception
21	<i>"The exchange of ideas in the group was very constructive [...] because unusual ideas were given and, in fact, could be used not only to transform the accountant into a professional with a better image [...], but so that we could play a more useful role [...], making us more articulate to propose ideas."</i>
23	<i>"I realized that we have a preconception that we accountants are not creative, that we like objective and methodical things, but the class showed me that [...] we can find solutions in creative and not at all methodical ways [...]."</i>
209	<i>"I found the activity very constructive and of great importance, the Design Thinking theme is very innovative and full of resources that can be used in various ways by accountants, but most do not even know it exists."</i>
227	<i>"The activity made me realize how important it is to know how to listen and share thoughts/ideas, [...] and also take advantage of the moment to stimulate the creativity of us future accountants."</i>
339	<i>"I, in particular, had never heard of this tool. There is undoubtedly a very positive bias in studying this subject, [...] it becomes of paramount importance that we, future accountants, can get used to it and learn to think even more creatively in the academic environment."</i>
342	<i>"The Design Thinking activity done in class was very productive, [...]. It was nice to think of a solution to such a frequent problem in our profession as accountants."</i>

Source: Research data.

The perceptions in Table 3 highlight the lack of knowledge about the Design Thinking methodology before the workshops. Moreover, the importance of developing creativity as accountants in the academic environment stands out, showing satisfaction with the results obtained. The position identified corroborates Cardoso et al. (2006), by demonstrating the importance of developing, with Design Thinking, relevant skills for appreciating the professional, such as the ability to innovate. In addition, it confirms that students are aware that they use creativity little but are concerned with its development to add professional value to themselves and the profession as a whole, in line with Machado (2012).

The perceptions identified with the words ‘idea’ and ‘accountant’ were positive regarding using the methodology and generating ideas. We highlight the records of students 146 and 339, who mentioned the importance of using Design Thinking in the Accounting curriculum for training future accountants. This agrees with Dias et al. (2010), who justify the original Accounting curriculum as very theoretical and inconsistent with reality, defending its alteration.

In contrast, there were some perceptions with a negative bias regarding the use of the Design Thinking methodology, especially concerning students feeling a little lost initially and the duration of the workshops, as shown in Table 4.

Table 4
Perceptions of students with a negative bias

Student Number	Perception
104	<i>"As with all activities, exercise leads to improvement. So, I think that in the next few opportunities I will be able to optimize my participation because I confess that I was a little lost in the stages, since at first I was already trying to have ideas to solve the problem [...]."</i>
130	<i>"I found the dynamics very interesting because I discovered that there are techniques capable of inducing us to creative thinking. In particular, I don't consider myself very creative [...]. I noticed that I was a little confused, as I wanted to find solutions immediately, [...]."</i>

Source: Research data.

The two students demonstrated that they felt a little lost in the initial moments of the session because they were not used to spending time preparing and polishing ideas and trying to solve problems immediately. Regarding the time spent using the methodology, Vetterli et al. (2016) state that a lot of time is required for the Design Thinking process to achieve real innovation with effective results. In this context, student 284 explained that one of the limiting factors in the workshops applying the methodology was the time spent, making the solutions not so consistent, as shown in Table 5.

Table 5
Perception about the time spent in the activity

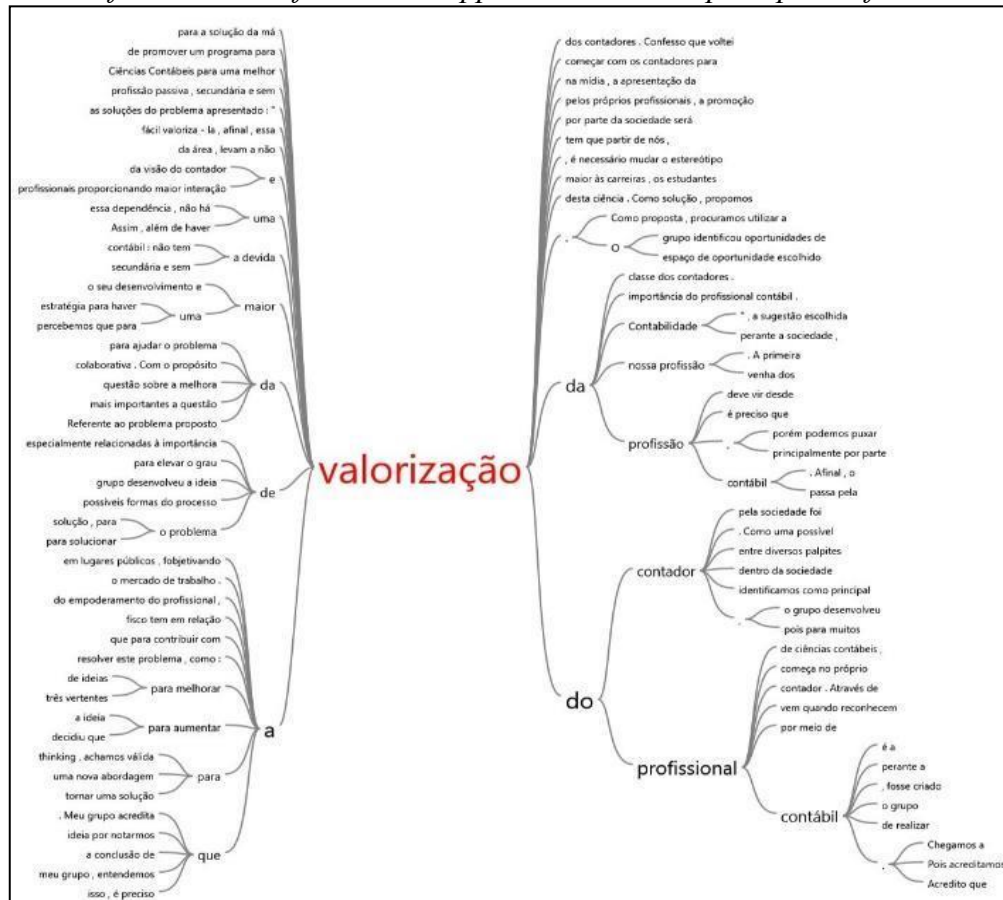
Student Number	Perception
284	<i>"Design Thinking is a methodology that can contribute a lot to addressing problems [...], but a limiting factor was the large amount of time that would have to be spent to reach the most consistent solutions."</i>

Source: Research data.

As a complement to the analysis of perceptions, considering the objective of the study, a word tree with the term 'appreciation' was prepared, intending to verify the context in which it was considered in the students' records, as illustrated in Figure 2.

Figure 2 shows the great relationship with the devaluation of the accounting professional, based on the use of expressions such as 'improving appreciation,' 'increasing appreciation,' and 'the appreciation issue,' among others. Student 228 proposes that Accounting is still labeled as a passive, secondary, and unappreciated profession, recalling what Oliveira (2006) postulates, which states that the accountant in Brazil does not have a positive image before society. This reinforces the studies that admit the visualization of the accountant as a bureaucratic professional with a desk full of papers (Hiroshi, 1998; Miranda et al., 2013; Splitter and Borba, 2014).

Figure 2
Tree of occurrence of the word 'appreciation' in the perception of students



Source: Research data.

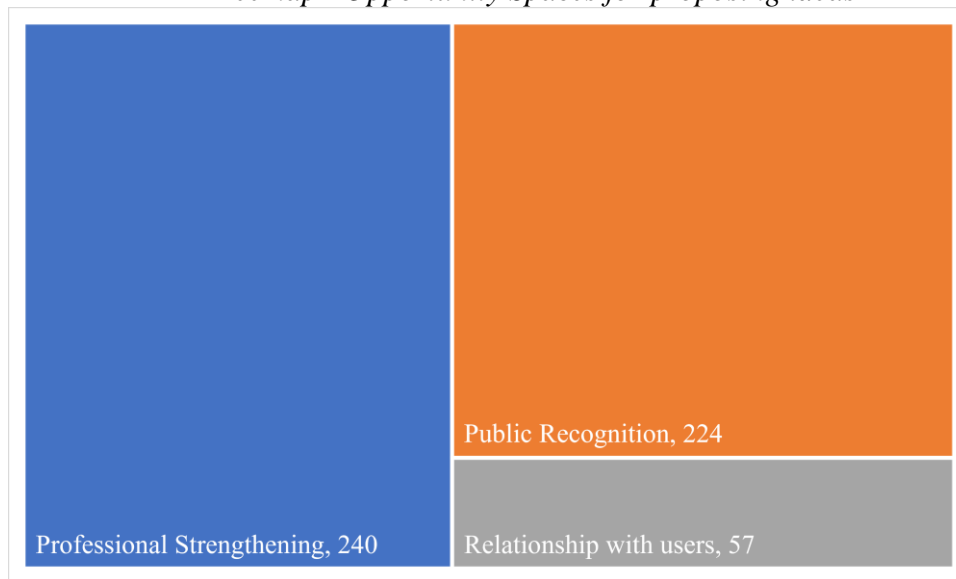
Furthermore, the perceptions identified in the tree highlight the ideas of promoting the self-appreciation of the professional through the expressions: ‘accountant empowerment,’ ‘starting with the Accounting professional,’ or ‘starting from ourselves.’ These results indicate agreement with Oliveira (2006), who states that accountants do not feel proud and comfortable with their professional choices, requiring some positive stimuli.

Still, concerning the perceptions highlighted in Figure 2, the indication of professional appreciation through the media stands out, constituting an alternative aimed at the public and not directly at the professional, supporting the results of studies that claim that society's perception of the legitimacy of the accounting profession is not based only on accountants, but on the media that, currently, does not carry out a projection as it should be (Carnegie and Napier, 2010).

4.3 Proposition of ideas for appreciating the accounting profession

Three Opportunity Spaces were categorized to analyze the ideas generated as a solution to the problem of appreciating the accounting professional: Professional Strengthening, Public Recognition, and Relationship with users. The Opportunity Space considers the area where students believe that developing actions to appreciate the accounting professional is most effective. Figure 3 illustrates this classification.

Figure 3
Treemap - Opportunity Spaces for proposing ideas



Source: Research data.

Figure 3 shows that 46% of students indicate that the Opportunity Space in which alternatives should be established for appreciation of the accountant is 'Professional Strengthening.' In this category, ideas were indicated that sought to promote the appreciation of the professional with initiatives that resulted in the development of themselves, such as changes in curriculum and teaching didactics, greater involvement of the class representative council, and investment in courses, among others.

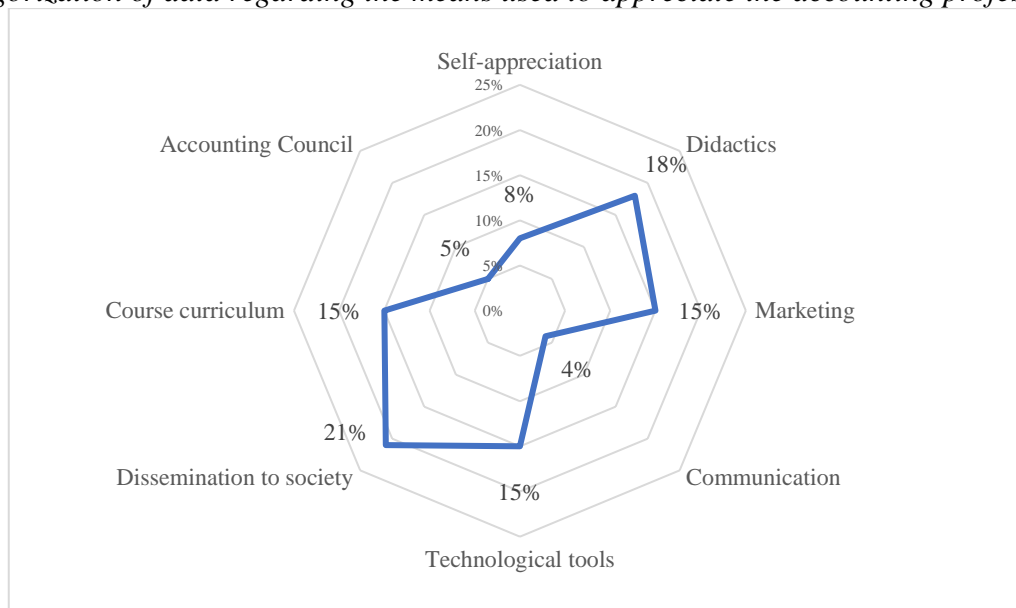
These initiatives correspond to the ideas also defended by the literature, highlighting that the Accounting Sciences curriculum still discourages many students since it has little relevance for practice and is extremely theoretical (Burnett, 2003; Dias et al., 2010; Evangelista, 2005). In the categorization, it was observed that the main reason for the devaluation of the accounting professional would come from the professionals themselves, seeking to take measures in this context, while in the literature, the problem would be more focused on the vision that society has and not on the professional (Miranda et al., 2013; Splitter and Borba, 2014).

In the 'Public Recognition' classification (43%), ideas that sought to make the accounting professional more appreciated by updating society in general, such as marketing alternatives, use of social networks, and presentation of the profession in schools, were listed. This view can be complemented by D'Aquino (2008) and Miranda et al. (2013), who defend the insertion of Accounting in schools as a form of professional appreciation since the early contact of students with the profession would be able to arouse greater interest and, in the same way, break the stereotyped vision they have.

In the 'Relationship with users' category, initiatives to appreciate the accountant were indicated through improved relationships with the user of accounting information since society still sees the accountant as inaccessible and uncommunicative. Hiroshi (1998) also argues that initiatives in the relationship with users should be encouraged since the devaluation of the accounting professional is caused by a communication problem between Accounting and its users, distorting its image before the whole society.

The ideas generated by the students were classified into eight categories: self-appreciation, didactics, accounting council, course curriculum, dissemination to society, technological tools, communication, and marketing. Each idea could be classified into more than one category. The percentage distribution of the number of ideas by category is illustrated in Figure 4.

Figure 4
Categorization of data regarding the means used to appreciate the accounting professional



Source: Research data.

Figure 4 shows that 21% of the ideas generated contemplate ‘dissemination to society’ to make the accounting professional more appreciated. Notably, the ideas related to this category also involved the categories of ‘Marketing’ and ‘Technological Tools,’ as highlighted in the student records outlined in Table 6.

Table 6
Perceptions related to the ‘Marketing’ and ‘Technology Tools’ categories

Student Number	Perception
228	"[...] after exposing all the options, the ideas selected were: to change the vision of an accountant through movies and series since these media reach a large part of the population and are influencers; and to make accounting fun also for children through logical accounting games on the illustrative sheet of paper that comes on the trays of fast-food chains."
291	"In the group I participated in, [...] we came to the conclusion that for society to appreciate the accountant more, it is necessary to insert this into the daily lives of the population through series, as is already the case with other more appreciated professions, such as lawyers and doctors."

Source: Research data.

The ideas in Table 6 are integrated when proposing the use of marketing to appreciate the accounting profession through series and movies. They are based on the statements of CFC (2013), which ensures that the relevant distortions to the accountant's image are fundamentally caused by the mistaken exposures of the professional in the media, indicating that changes in these exposures could contribute to their appreciation.

The appreciation of lawyers, to the detriment of accountants, may be, according to the literature, related to the historical prestige of this profession because it is mandatory to take the

exam to obtain certification from the Council, being much older than that of accountants (Miranda et al., 2017), an argument reinforced by the student record shown in Table 7.

Table 7

Perception related to the appreciation of professional councils

Student Number	Perception
272	<i>"My group defined the idea of blue sky as strengthening the council so that it advocates our profession more, as well as stronger councils, such as OAB. Through a stronger council, the profession will also be more appreciated"</i>

Source: Research data.

Furthermore, 15% of the students consider, as a means for appreciating the accounting professional, the change in the curriculum of the Course and of the didactics of Teaching, as shown in Figure 4. The students supported the thought by stating that disciplines of different content should be included in the curriculum, which did not exclusively involve accounting but contributed to the training of the professional accountant and, consequently, to its appreciation.

Table 8

Perceptions related to the curricular structure of the Accounting Sciences course

Student Number	Perception
16	<i>"My suggestion is that, verifying that most undergraduates of the course have difficulties in relationships and in expressing themselves in public, disciplines that integrate the students, develop oratory and in a higher thought (outside the box), disciplines of the Theater Course were included in our curriculum."</i>
208	<i>"The idea chosen suggested changing the curriculum of Accounting courses in order to also provide disciplines that develop the communication skills of accountants and that favor the development of the ability to sell their own services, [...]."</i>

Source: Research data.

These records reiterate the proposal for changes in the Accounting Sciences curricula of Dias et al. (2010). Finally, the set of idea propositions shows that the Design Thinking methodology can contribute to the appreciation of the accounting professional by fostering the development of innovative ideas. If implemented, they can further stand out the profession, resuming its prestige. Also, by stimulating the creative thinking and innovation capacity of accounting students, future professionals are prepared more in line with what is expected by the market, as Cardoso et al. (2006) proposed.

The research findings confirm the previous study by Guerra and Teixeira (2016) by showing that an active methodology, such as Design Thinking, provides students with the experience of solving complex problems creatively and innovatively. This skill developed in the classroom will be demanded in the corporate context. Accounting students, used to a more structured learning environment where they receive the content passively, face a challenging and multidisciplinary environment.

Like the study by Glen et al. (2015), the results of this study can confirm that Design Thinking is a methodology in which learning is conducted more actively by participants and is

based on problem-solving. It can be seen, therefore, that Design Thinking is challenging for students and instructors and/or professors since they need to develop teaching plans that emphasize behavioral skills and focus on the exclusive content of the discipline.

5 FINAL CONSIDERATIONS

This study aimed to identify how the Design Thinking methodology can be used to promote the appreciation of the accounting professional. Design Thinking workshops were held over ten semesters to achieve this, covering 521 Accounting students at a federal university in southern Brazil. The workshops intended to stimulate them to generate innovative ideas that would help in the professional appreciation before society. Although there are several studies on the appreciation of the accounting professional, the use of innovative methodologies, specifically Design Thinking, for this purpose is unknown in the literature.

The objective of this research was achieved since the students' perceptions on applying Design Thinking to the appreciation of the accounting profession showed that its use is conducive to creating innovative ideas and making them leave their comfort zone. Students know they use little creativity, but they have registered concern for their development since it adds professional and personal value, in the same way that it gives more appreciation to the profession. They also mentioned the importance of using this methodology in the Accounting curriculum for training future accountants. The ideas generated for professional appreciation were classified into three Opportunity Spaces: Professional Strengthening, Public Recognition, and Relationship with Users.

For the 'Professional Strengthening,' ideas that sought to promote the appreciation of the professional with initiatives that resulted in personal development, such as changes in curriculum and teaching didactics, greater involvement of the representative class council, and investment in courses, were indicated. For 'Public Recognition,' suggestions related to updating society, in general, were listed, such as marketing alternatives, use of social networks, and presentation of the profession in schools. Regarding the 'Relationship with Users', initiatives were suggested to improve relationships with the users of accounting information since society still sees the accountant as inaccessible and uncommunicative. Finally, the ideas generated by the students were classified into eight categories: self-appreciation, didactics, accounting council, course curriculum, dissemination to society, technological tools, communication, and marketing.

The set of propositions showed that the Design Thinking methodology can contribute to the appreciation of the accounting professional by fostering the development of innovative ideas. If implemented, they can further stand out the profession, resuming its prestige. Also, by stimulating the creative thinking and innovation capacity of accounting students, future professionals are prepared more in line with what the market expects.

Despite the United Nations (UN) 2030 Agenda, considering creativity, entrepreneurship, and innovation activities relevant to sustainable development, it is still a challenge for business schools to combine theoretical knowledge with the adoption of dynamic, creative practices that encourage critical thinking by students. To that end, professors should incorporate problem-solving through the Design Thinking methodology into their lesson plans, enabling multidisciplinary work experience.

Managers of higher education institutions can adopt training on how Design Thinking can be used in the classroom. Although the study was conducted in the discipline of Accounting Planning, several other disciplines can use this methodology, especially in entrepreneurship courses. As organizational needs change and technology advances, traditional education systems can no longer provide adequate skills and requirements. Thus, professors should encourage the use of creativity and innovation by future Accounting professionals when bringing new methodologies to the classroom.

For future studies, it is suggested to develop, in order to complement the results obtained in this study, research on the use of the Design Thinking methodology as a way of appreciating the accounting professional with professors and professionals working in the area, comparing the results with each other and with the current study. It is recommended that Design Thinking workshops be held with the same focus for multidisciplinary teams to verify if the ideas have, in fact, a higher quality content than those conducted with teams from the same field of knowledge.

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Roles	1st author	2nd author	3rd author	4th author
Conceptualization	◆			
Data curation	◆			
Formal analysis	◆	◆	◆	◆
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Investigation	◆	◆		
Methodology	◆	◆	◆	
Project administration	◆			
Resources	◆			
Software			◆	
Supervision	◆			
Validation		◆	◆	◆
Visualization			◆	◆
Writing – original draft	◆	◆		
Writing – review & editing	◆		◆	◆

CONFLICT OF INTEREST

The authors assert that there is no conflict of interest related to this submitted work.