

Competencies Development and Active Methodologies: the Perception of Business Management Students

Desenvolvimento de Competências e Metodologias Ativas: a Percepção dos Estudantes de Graduação em Administração

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ABSTRACT

Competencies are currently deemed core elements to qualify professionals and guarantors of employability in a scene of high unemployment rates among youths. The objective of the article is to examine if and how students perceive the usage of active methodologies in Business Management Education contributes to the development of their professional competencies. A case study was carried out at an Higher Education Institute (HEI) in the state of São Paulo which adopts active teaching-learning strategies in the graduation course of business administration based on the Problem-Based Learning (PBL) and Case-Based Learning (CBL) methods. The findings show that it is in the practices made in the PBL / CBL work cycle that students realize they are acquiring specific skills grouped in three dimensions of competencies: basic competencies (BC), social competencies (SC), and competencies for solving problems (CSP). Developing competencies within the educational environment requires that learning their components (conceptual, procedural and attitudinal ones) should take place through disciplinary, interdisciplinary and/or metadisciplinary procedures (sources of knowledge) supported with methodologies able to enable learners to acquire transferable, cooperative and active, but autonomous, learning. It was verified that in active methodologies based on the problem-based model two components of the tutorial process influence the development of competencies: the problem and the teacher. The problem, due to the quality of its structure; the teacher, due to the varied roles he/she must perform when guiding students in the phases of the learning cycle. The study findings contribute to the area of teaching Business Administration once it helps both managers, in the decision-making process to implement active methodologies in the curriculum of Business Administration courses, and teachers, to (re)organize their educational practices and become aware of the new roles they are supposed to perform in the teaching-learning process. **Keywords:** Manager skills. Competencies Development. Active methodologies. PBL. CBL.

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RESUMO

As competências passaram a ser vistas como elementos centrais na formação de profissionais e também como garantidoras de empregabilidade em um cenário de altas taxas de desemprego entre jovens. O objetivo do artigo é examinar se e como os estudantes percebem que o uso de metodologias ativas no ensino de graduação em Administração, contribui para o desenvolvimento de suas competências profissionais. Um estudo de caso foi realizado em Instituição de Ensino Superior (IES) do estado de São Paulo que adota, no curso de bacharelado em Administração estratégias ativas de ensino-aprendizagem, fundamentadas nos métodos *Problem-based learning* (PBL) e *Case-based learning* (CBL). Os resultados mostram que são nas práticas realizadas no ciclo de trabalho PBL/CBL que os estudantes percebem estar adquirindo capacidades específicas agrupadas em três dimensões de competências: básicas (CB); sociais (CS), e para a solução de problemas (CSP). O desenvolvimento de competências no ambiente educacional requer que a aprendizagem de seus componentes (conceituais, procedimentais e atitudinais) ocorra por meio de procedimentos (fontes de aprendizagem) disciplinares, interdisciplinares e/ou metadisciplinares, e com o apoio de metodologias que possibilitem a aprendizagem ativa, transferível, cooperativa, porém, autônoma dos aprendizes. Analisamos que nas metodologias ativas, fundamentadas no modelo *problem-based*, dois componentes do processo tutorial influenciam no desenvolvimento das competências: o problema e o professor. O problema pela qualidade da estruturação com que é constituído. O professor pelos vários papéis de orientação dos estudantes que assume nos estágios do ciclo de aprendizagem. Os resultados obtidos contribuem para o campo do Ensino em Administração, no sentido de auxiliar tanto gestores na tomada de decisão sobre a implementação de metodologias ativas no currículo dos cursos de Administração quanto professores na (re)organização de suas práticas educativas e na conscientização sobre novos papéis que devem assumir no processo de ensino-aprendizagem. **Palavras-Chave:** Competências do administrador. Desenvolvimento de competências. Metodologias ativas. PBL. CBL.

Introduction

It could be said that the notion of competency has been present in Business Administration since its beginning as a science (SANDBERG, 2000). However, only at the beginning of the 1970s that notion has started to stand out conceptually. Acknowledged as a multiform concept, the notion of competency has started to be frequently applied in discussions about which knowledge, skills and attitudes work-

ers should have (SANT'ANNA et al., 2016). Competencies started to be seen as core elements in professional qualification and also as guarantors of employability (LIMA; ZAMBRONI-DE-SOUZA; MATSOUKA and MIHAIL, 2016; ARAÚJO, 2015; URIAS; AZEREDO, 2017).

However, a gap can be observed in the development of competencies once the lack of professional qualified individuals is one of the explanations for the significant current unemployment rate in Brazil, mainly the high unemployment rate among younger individuals (between 18 and 24 years of age). In this extract of the population the unemployment rate reached 41.8% in 2019 (PNAD, 2019). Due to that, the pressure of the work market and of the society on the institutions of higher education (HEIs) has increased in order to have their graduates acquire the competencies required to entering the work market (FINI, 2018; HEAVISIDE; MANLEY; HUDSON, 2018; MATSOUKA; MIHAIL, 2016).

To develop the complex range of competencies demanded from a Business Administration professional, the implementation of active-learning methodologies is deemed adequate once they problematize situations in the real world (GODOY et al., 2009; ZAMPIER; TAKAHASHI, 2011; FREITAS; MONTEZANO; ODELIUS, 2019). Additionally, in Business Administration, competencies are considered guarantors of quality management, a characteristic of the debate about administrators' competencies is their focus on more subjective and less instrumental competencies, once the objective is to qualify creative, versatile, self-critical and adaptative professionals (SANDBERG, 2000; BITENCOURT, 2004; CHING; SILVA; TRENTIN, 2014; FLEURY; FLEURY, 2004; NUNES, 2010; ROCHA-PINTO; BEZERRA, 2014; SOUZA; CARRIERI; PINHEIRO, 2009; BOAVENTURA et al., 2018; SANT'ANNA et al., 2016; SIQUEIRA; NUNES, 2011; VALADÃO; ALMEIDA; MEDEIROS, 2014). The existence of state regulations, such as the LDB (Law 9394/96) and the National Curricular Guidelines (DCN – acronym in Portuguese), poses an additional challenge to the HEIs, which have to reformulate their contents and teaching and learning strategies (refer to CHING; SILVA; TRENTIN, 2014).

In spite of the relevance and contemporaneity of the theme, the literature lacks empirical researches able to support the thesis that adopting active teaching-learning methodologies in higher education actually enables the development of individual competencies required to qualifying professional administrators (GODOY; ANTONELLO, 2009). Particularly, the number of researches dealing with this theme

approaching the perception of students is insufficient, once they are deemed the protagonists of the active methodologies (for exception, refer to LOMBARDI et. al. 2011). The argument advocated here is that there is a relevant gap considering students' central role in the learning process in these methodologies. So, the objective of this paper is to examine "if" and "how" students perceive that the usage of active methodologies in Business Management Education contributes to the development of competencies for professional qualification.

To reach the objective proposed, in 2018 was conducted a case study in an Higher education institute (HEI) in the state of São Paulo. This is a relevant case once the HEI incorporated it in 2008 active methodologies in Pedagogical Project (PP). Data were collected from three sources: documents, unstructured interviews through focus groups, and direct observation.

The paper brings two relevant contributions to the field. One of them is the presentation of evidence corroborating the assumption that adopting active methods in the teaching-learning process favors the development of competencies (SILVA et al., 2018; UNGARETTI et al., 2015). The other is a contribution with practical implication once the findings help the analysis and decision-making process about if and which alternative methodologies should be adopted to develop the competencies and skills disposed in the PP.

Those contributions will be presented as follows: firstly are presented the background of the concept of competencies, the appearance of active-learning methodologies, their relation with the development of competencies, their application and relevance within the context of qualification in Business Administration. Next, two problem-based active approaches will be presented, the PBL and CBL. In section three are presented the research methodological procedures and, next, the research findings and implications are discussed.

Conceptual Background

COMPETENCIES

When reviewing the concepts of competency in the literature, the more immediate challenges faced are to deal with a significant number of definition and

their different approaches, which are marked with two main currents of origin. One of them is the Anglo-American current which, considering as reference the work market, is centered in aspects linked to the performance parameters demanded by organizations. Scholars representing this current are David C. McClelland and Richard E. Boyatzis. The other current is the French one, with a constructivist conception, which emphasizes the link between work and education and highlights the development of professional competencies as resulting from systematic processes of training and learning. The main representatives of this current are Guy Le Boterf, Philippe Zarifian and Philippe Perrenoud. In Brazil, aligned with the French model, the papers of Fleury & Fleury (2001) are the most quoted.

The notion of competency started in the professional area, but soon enough it came up also in the education area. There, the conceptual additions were made in the papers of French Perrenoud (1999; 2000) and those of Spanish Zabala & Arnau (2010). Table 1 summarizes the concepts of competencies according to the two of the main training areas: professional and educational. To Zarifian (2003), the meaning of competency is different among the qualification areas. Those arising from the educational process are acknowledged as background competences, “[...]once what is acquired is much more a background of attitudes and resources that can be mobilized, than competencies corresponding to precise situations (p. 175).”

Table 1. Definitions of competencies in the professional and educational areas.

Campos de formação	Conceituações de competências	Autoria
Professional field	They are personal characteristics able to promote individuals' superior performance when doing a task or in a certain working situation.	McCLELLAND (1973)
	It is a sum of knowledge, skills and attitudes that enable superior performance.	BOYATZIS (1982)
	It is to know how to act responsibly and in a recognized way, which implies mobilizing, integrating, transferring knowledge, resources, skills, able to add economic value to the organization and social value to individuals.	FLEURY; FLEURY (2001, p. 21)
	It is when individuals take action and responsibility for problems and events they face in professional situations.	ZARIFIAN (2003, p. 139)
	It is the capacity of doing the work in a given profession.	NORDHAUG; GRONHAUG (1994)
	Attributes necessary to reach successful professional achievement.	MUCHINSKY (2004, p. 62)
Educational field	It is composed of the experiences lived at work, where work and workers cannot be considered separate entities.	SANDBERG (2000, p. 11)
	Capacity of acting effectively in a certain type of situation, based on several complementary cognitive resources, knowledge, among others, but without limited to those.	PERRENOUD (1999, p. 7)
	It is what occurs as a result of the capacity of articulating and mobilizing individuals' knowledge, skills and attitudes when facing a situation, context and culture where it occurs, or they see themselves in.	ANTONELLO; (2007, p. 154)
	It is the capacity or skill to do tasks or to perform efficiently when facing different situations within a certain context. It is necessary to mobilize attitudes, skills and knowledge at the same time and in an inter-related way.	ZABALA; ARNAU (2010, p.37)
	It is the capacity of mobilizing, in a coordinate and inter-dependent way, a broad range of resources available in an individual and within a context when facing a problematic situation in social and working contexts.	MARINHO-ARAÚJO; ALMEIDA (2016, p.3)

Source: Elaborated by authors.

In the competencies arising from the production system, training actions are marked with salary relation and oriented toward ensuring training based on functional aspects (responsibilities, controls and sanctions) that characterize the production systems (GODOY; ANTONELLO, 2009).

To Antonello (2007), the notion of competency is related to an individual's capacity of thinking and acting within a particular environment, assuming a capacity of learning and adapting to different situations based on interaction with other people. The definitions of the authors mentioned above (Table 1) converge in three common components: competences result from mobilization of knowledge, skills and attitudes in an articulated way for individuals to act efficiently before a certain situation. Those components correspond respectively to the multiple knowledge stated by Zabala & Arnau (2010), which are: to know (contents of conceptual learning); to know how to do (contents of procedural learning) and to know how to be (contents of attitudinal learning), which can be obtained in many ways: via transfer, learning, processes allowing individuals to create a base of knowledge and skills able to contribute to solving problems in real situations (SANT'ANNA et al., 2016).

COMPETENCIES TO TEACH BUSINESS ADMINISTRATION

The origin and nature of the concept of competencies as the main guideline to organize the curricula of the graduation courses in Business Administration have brought closer theory and practice and reflection and action, which seems beneficial for the qualification processes, where establishing a clear connection between theoretical knowledge and managerial practice is no trivial task (GODOY; ANTONELLO, 2009).

Several and increasing are the theoretical-empirical studies that have properly examined the development of competencies in the graduation courses of Business Administration in Brazil, and among them it is worth highlighting those of Antonello & Dutra (2005); Godoy & Antonello (2009); Godoy; Antonello; Bido & Silva (2009); Nunes, Patrus-Pena & Dantas (2011); Nunes (2010); Lombardi et al. (2011); Souza & Zambalde (2015).

According to Godoy & Antonello (2009), the concept of competencies has been the driving force behind curricular decisions both in middle school education and in higher education. To the Ministry of Education, professional competency is “[...] the capacity of mobilizing, articulating and put into action the values, knowledge

and skills necessary for the efficient and efficacious performance demanded by the nature of the work” (CNE/CEB, 1999, p.2). Some classifications of competencies have been proposed for those used by administrators in their professional activities, which can be taken as reference in the composition of curricula of graduation courses of Business Administration and which are in line with the competencies and skills established in the National Curricular Guidelines (DCN – acronym in Portuguese) for BA in business administration.

Fleury & Fleury (2001) propose three blocks of competencies: business (related to understanding the business); technical-professional (characteristics of a certain occupation, activity or operation); and social ones (required for interacting with people). Similarly, Zarifian (2003) differentiate them accordingly to four axes of competencies: profession or technique (specific knowledge of the work to be done); organizational (to know how to organize work flows); innovation (associated to leading projects and actions or to launch new services); and relational ones (oriented to clients and the public by considering three domains: autonomy, liability and communication).

To Zabala & Arnau (2010), the competencies learned in the ambit of the school should contemplate four specific dimensions: social, [...] to participate actively in the construction of a fairer, democratic and solidary society; interpersonal, [...] to relate, communicate and live positively with the others by cooperating, understanding, being tolerant and solidary. This last dimension is respectively analogous to the block of social competencies of Fleury & Fleury (2001) and the axle of relational competencies of Zarifian (2003). Personal competency [...] to take responsibility and to be a critical thinker, to have autonomy, to be cooperative, creative and free. These competencies correspond to what Zarifian (2003) called background skills and the social competencies of Fleury & Fleury (2001). Professional competency [...] to do a professional task adequate to the individuals' capacities based on specific knowledge and skills of the profession in order to meet professional and personal expectations, which corresponds to the technical-professional capacities of Fleury & Fleury (2001) and Zarifian (2003).

According to CNE/CES Resolution no. 4/2005 of July 13th, 2005, the PPs should express a professional qualification able to show at least competencies and skills in eight categories (from I to VIII) shown in Table 2.

Table 2. DCN competencies/skills, dimensions of competencies and components.

Competências/Habilidades da DCN	Dimensões das Competências	Componentes das competências
II-Developing expression and communication [...] III-Reflecting and acting critically[...] IV-Developing logical, critical and analytical thinking [...]	Basic competencies¹ Relational Skill² Management³	Communication; negotiation, logical and analytical thinking; having a critical and reflective stance; being participative; continuous self-directed learning; motivation to learn; acting autonomously.a
I-Recognizing and defining problems, equating solutions [...]	Competencies of solving problems¹ Knowledge²	Solving problems; thinking strategically (systemic vision); decision making; improving processes; transferring and applying knowledge; business and market vision; leadership; generating original ideas (innovation); and being creative.
VI-Developing capacity to transfer knowledge of life and daily-life experiences to the working environment [...]	Social Competencies (SC)¹ Human³ Orientation²	Acting with responsibility; easily adapted; leadership; teamwork; making judgement; respecting others; having self-criticism; interpersonal skills; being understanding, solidary and tolerant; constructing shared knowledge; cooperation.
V- Having initiative, creativity, determination and political willingness [...] VII-Developing capacity to elaborate, implement and consolidate projects [...] VIII-Developing capacity to render consultation in...	Technical-Professional Competency (TPC)¹ Capacity of Technical³ Management²	Thinking strategically; enhancing processes; transferring and applying knowledge, making decisions; foreseeing.

Source: Elaborated by authors based on Godoy et al (2009)¹; Lombardi et al (2011)² and Souza & Zambalde (2015)³

Several Brazilian studies have investigated the development of competencies in graduation courses of Business Administration in the light of the DCN guidelines, and some of them compose the basic references for categorizing the competencies studied in this paper (ANTONELLO; DUTRA, 2005; GODOY et al., 2009; LOMBARDI et al., 2011; SOUZA; ZAMBALDE, 2015). The competencies dealt with in those studies are grouped in four dimensions, such as: basic competencies (BCs); social competencies (SCs); competencies for solving problems (CSPs) and technical-professional competencies (TPCs).

The BCs are expressed as the capacity of communication, thinking, analysis and reflection. The SCs involve the capacity of adopting appropriate behavior in working situations and of establishing relations, they express the capacity of searching for continuous improvement, acting responsibly, adaptation, making judgment, respecting others and self-criticizing. The CSPs imply being able to identify problems and propose solutions by applying the technical knowledge acquired and by using adequate tools and methodologies targeting on reaching proper results in different situations. The TPCs correspond to being able to perform a number of work-related tasks to produce specific results effectively, it involves to know how to think strategically, to make improvements in processes, to transfer and apply knowledge, to make decisions.

Transversal competencies (PERRENOUD, 1999) group specific capacities composing a diversified and combined set of personal resources (e.g.: knowledge, skills, attitudes, values, feelings, etc.) and resources in the environment (e.g.: pedagogical resources available at the educational environment: books, journals, technology, etc.) which are intentionally mobilized by the subjects being qualified (e.g.: teaching graduation in business administration) aiming at solving certain problematic situations (MARINHO-ARAÚJO; ALMEIDA, 2016).

According to Zabala & Arnau (2010), the (general and transversal) competencies mobilize simultaneously, and in an inter-related way, conceptual (of knowledge), procedural (of knowing how to do) and attitudinal components (of knowing how to be). When they are treated as school contents, some of those components are inserted in the curriculum as clearly disciplinary learning contents (of a specific academic discipline), or interdisciplinary learning contents (of two or more academic disciplines), or metadisciplinary contents (non-disciplinary contents, and they are

handled in a discontinuous way in the educational environment). It is in the disciplinary and non-disciplinary competences that time and conditions come up for reflection, analysis, exercise, assimilation, systematization, evolution, coordination and evaluation of the competencies' components. For those purposes it is necessary to rethink or review innovative teaching-learning strategies more in line with the educational objectives (ZABALA; ARNAU, 2010).

ACTIVE METHODOLOGIES

They can be defined as interactive educational processes of individual or collective knowledge, analyses, researches, exams and decisions in classroom, whose objective is to find solutions for problems proposed (MINEIRO et al., 2018). It demands that students should be involved in activities of reading, writing, discussing and evaluating contents about choices of solution for a certain situation (GODOI; FERREIRA, 2016).

Based on the constructivist education, active methodologies compensate the limitations of the traditional education (teaching process centered in transmitting the teacher's knowledge to students, who just receive and memorize what is transmitted in the format of lectures), once they prioritize significant learning focused on having students learn how to think and learn how to learn from the professor, in addition to making students liable for their learning process and helping them be cognitively and effectively persistent (AGRA et al., 2019).

The relation of influence between active methodologies and acquisition of competencies is explained with four assumptions. The first one is that students are actively building knowledge in collaborative groups. The second is related to teacher and students' roles that are transformed. As to the teachers, they are more expected to have a strong commitment to "making students learn" than to "teach", and they become learning facilitators/tutors/moderators/mediators, assisting the collaborative work in small groups and the communication among their members, organizing situations where students set connections between knowledge and concrete questions based on action. Students, on the other hand, should take the lead in the competencies of professional qualification by being confronted, regularly and intensively, with numerous complex problems of the real world and being able to mobilize several types of cognitive resources (HMELO-SILVER, 2004; PER-

RENOUD, 1999; SILVA et al., 2018). The third one stresses the importance of formulating challenging problem-situations or cases, either real or believable, which are presented before any theories and concepts supporting the whole learning process are introduced (SILVA et al., 2018). The fourth one stresses that the path to solve the problem proposed is unknown and it does not lead to one single concrete solution, thus evidencing that the most important is not the result in the end, but the very learning process that is being acquired (GUEDES; ANDRADE; NICOLINI, 2015; KANTAR; MASSOUH, 2015).

This paper analyses the development of competencies and skills when teaching undergraduates in business administration courses based on two methods founded on the problem-base model, respectively the PBL - Problem Based Learning method, and the CBL - Case-Based Learning method, here simply called PBL and CBL. What should come before choosing one or the other method is the learning objective, not the faculty's preference (SALVADOR; IKEDA, 2019), i.e., an attempt to respond if and how the teaching-learning method collaborates with a pluri-dimensional professional qualification involving the development of knowledge, skills and attitudes. According to Ungaretti et al. (2015), the main difference between the two methods is that the CBL offers cases that can be solved, while the PBL offers problems that have yet to be solved. The CBL offers an environment where risks are assumed, while the PBL offers a risky environment with a safety net. The origins and particularities of each one of the methods are summarized next.

PROBLEM-BASED LEARNING (PBL)

Howard Barrows is pointed out as one of the main articulators of the team of professors which in 1969 thought and coordinated the implementation in the medical school of the McMaster University in Canada of the active strategy of the *Problem-Based Learning* (PBL), for the purposes of promoting the development of students' capacities to contextualize the theoretical knowledge acquired in the classroom, once he believed that physicians needed, in addition to theoretical knowledge, to learn how to use it in practice competently and humanely. In the 1970s schools in Europe and in the USA started to apply the PBL, such as Maastricht in the Netherlands, Roskilde and Aalborg in Denmark, and Harvard in the USA. The PBL approach focuses on student-centered learning based on experi-

ences and activities in small collaborative and interdisciplinary groups focused on practical examples (RIBEIRO, 2008).

Among the predominating factors affecting this teaching-learning strategy is the quality of the problems and the roles performed by the teacher (SALAM et al., 2018). Usually, the problems are a set of descriptions of events used to trigger discussions and probe solutions. Once the learning source and starting point in the PBL has an open end (it has more than one solution and demands some integration of discipline and/or curriculum contents), which should be presented *before* the theories and concepts necessary to understand the problem and to have students look for solving it in self-directed groups and under the teacher's guidance (SALAM et al., 2018; SILVA et al., 2018). The quality of a PBL problem can be evaluated as to its structure, i.e., more structured or less structured (SOCKALINGAM; ROTGANS; SCHMIDT, 2012), which depends on the course/discipline's objectives and on the number (higher or lower) of relevant information to be rendered for students to understand and define the problem and decide which solutions should be adopted (RIBEIRO, 2008). The teacher's main functions in the PBL approach are that of a conductor of the learning process and of assistance to the development of skills at the various stages of the learning cycle in order to ensure that the learning objectives set in the pedagogical proposal are reached (HMELO-SILVER, 2004; SAHU; SA, 2015; TSAI; TANG, 2017).

CASE-BASED LEARNING (CBL)

The approach of the Case-Based Learning (CBL) is a variation of the PBL approach. It is understood as a modern version of the case method or the method of the case being taught, which has existed for over 100 year. The case method, mainly developed by Christopher Langdell in the Harvard Law School in the 1880s, was adapted at the beginning of the XX century for the Harvard Business School at request of the school director, Edwin Francis Gay, who used to say he was not satisfied with the lecture method used up to then. The cases to be taught approach business problems of the real life which confront managers at a certain moment and are offered later to students with open-solution problems targeting on identifying patterns to make diagnosis, to compare it to the learning acquired in the classroom, to compare different alternatives and, eventually, to suggest courses of action in the

light of the organization objectives and guided by the learning objectives (SALVADOR; IKEDA, 2019; VALDEVINO et al., 2017).

According to Kantar & Massouh (2015), students should receive a case, should try to master it in detail, to develop a supporting analysis and reach solutions. In the classroom students are involved in a dynamic discussion, they interact and cooperate with their colleges, while the educator facilitates the learning.

In order to understand and capture business administration students' perception of "if" and "how" active teaching-learning methodologies help developing competencies. The methodological procedures detailed next were adopted for the field study.

Methodological Procedures

To reach the objective proposed, a case study was conducted from January to May 2018 in a private university (HEI) in the interior of the state of São Paulo, which had been offering a Business Administration course for over fifty years and currently has approximately 1,600 students enrolled from 1st to 8th terms of the course. The active teaching-learning methodology was introduced in the course curriculum in 2008. The change was made because of new market/legal configurations, mainly the legal ones, once it was necessary to meet the DCN introduced in 2005 in graduation courses in Business Administration. It is a study with a qualitative and inductive nature, which is justified by the limitations identified in the existing literature, which evidence its incipient characteristic (SIGGELKOW, 2007). Those limitations show the need of placing in the foreground the real/empirical context where the phenomenon studied occurs in order to expand emergent theories (EISENHARDT; GRAEBNER, 2007). The choice of this case is mainly justified because it is a longtime experience in the implementation of active methodologies in Business Administration courses, which grants it a rare characteristic in the Brazilian context.

DATA COLLECTION

Data were collected from three source: documents, unstructured interviews in sessions of focus groups with undergraduates in the Business Administration course of the HEI studied, in addition to direct observation.

DOCUMENTAL RESEARCH (DR)

In the research strategy based on case study, documents are used as source of information to give more consistence to the evidence arising from other data sources. In this paper, documental survey was also an accessible and reliable source of information which could empirically support the themes under examination. As to the data collected from two sources, private and public, written and contemporary, the following institutional documents were surveyed: a) 2008 Pedagogical Project of the Business Administration course (PP-2008) and the PBL Guide; and b) CNE/CES Resolution 4 of July 13th, 2005. In those documents were surveyed and compared the competencies and skills set for professional qualification in Business Administration and the remaining structuring elements of interest to formulate a pedagogical proposal for the graduation course in Business Administration. In order to classify the learning sources of the competencies' components the objectives of the disciplines of the school curriculum were surveyed.

The contents of the DCN and of the PP-2008 were compared by heeding particularly three structural elements: competencies and skills of the qualification desired for the Business Administration students, the description of the graduates' profile and the teaching-learning methodologies. Based on the PBL Practical Guide prepared by the HEI, new teachers are introduced to the active pedagogical practices developed along the course.

FOCUS GROUP (FG)

Focus groups can be understood as a dynamic process where participants are engaged (in talking together about what they feel and think) in a collective construction of a narrative about the theme of interest. Using them enables the researcher/moderator to set an open debate with participants in order to capture and understand the process of construction of perceptions, attitudes and social representation of the groups, thus creating a web of interdependent meanings and from them to extract meanings and construct concepts on the representations expressed. That is why it is here stressed that an FG is a relevant data collection technique for qualitative researches conducted in the area of knowledge of social sciences applied, as it is the case of Business Administration.

Applying the technique showed to be viable and pertinent to obtain an interpretative understanding about the competencies that are being learned in the university because it allowed exploring the perception of students in the Business Administration course who had already taken at least three disciplines where the PBL or CBL methods were used. The dynamics was done in three 6-member groups, where 50% were female and 50% male, enrolled in the terms in the beginning, middle and end of the course.

To ensure full development of the FG, the group was not randomly composed. Criteria previously set were taken into consideration (NYUMBA et al., 2018), such as: participants' working environment, professional activity, and similarity among the students as to their schooling levels at that time. Every session had a moderator to guide and facilitate discussions among participants, whose essential functions were to stimulate students' feeling, attitudes and perceptions, and to keep the group's interaction and synergy. The participants were personally invited at least one week in advance to the date of the session, when they were informed about the study's objectives and importance, in addition to their right to leave the study at any time and for any reason. Considering these possibilities, a personal interview was planned in order to protect the quality of the study (BAILLIE, 2019).

Three FGs were composed with six members each, where necessarily three participants were female and three, male. To ensure homogeneity of the content of the theme in discussion, the study participants had to be eligible according to three criteria: (1) to be a Business Administration student who had already taken three different disciplines where the PBL and/or the CBL methods had been adopted; (2) to be a student enrolled in the 1st or 5th or 8th terms of the course (considering the interest of obtaining students' information, respectively at the beginning, middle and the end of the course); (3) the students should be available to participate in at least 3-hour discussion sessions in the FG.

In order to characterize the sample studied, the study students' personal and academic data were collected: age, gender, marital status, whether they had a paying job, and if they went to school during the day or in the evening. The sample with eighteen students who went to school in the morning or in the evening was chosen because it was convenient, i.e., because of students' availability and interest at the beginning of the course (1st and 2nd terms), at the middle (5th and 6th terms) and at

the end (7th and 8th terms) of the course attending both periods, day classes and evening classes. Out of eighteen participants, 50% were female who were 22.2 years old on average, and 50% were male who were 21.3 years old on average. Half the sample, 50%, did not have a job, and the other half had a job. All participants said they were learning by means of active methodologies for the first time.

The three discussion sessions lasted approximately five hours each, with short breaks planned, and they were organized in three stages. The first stage was to present participants the general and specific objectives of the research. The general objective was to describe which competencies (as to knowledge, skills and attitudes) the group acknowledged/perceived they were learning with the PBL/CBL methods. The specific objectives were: a) listing which competencies, each participant on his/her own, they recognize as being developed in each one of the activities of the PBL/CBL cycle; b) discussing in the group the competencies listed by each participant; c) listing which competencies the group collectively identifies that are being developed with the PBL/CBL methods.

In the second stage participants were invited to reflect and report, by means of evidence, which were the aspects they considered important for professional qualification along the PBL/CBL cycle: (1) how do the activities of the PBL work cycle help acquiring knowledge? How would they be applicable in the profession of an administrator? Give examples of contents. (2) What do you feel you are already able/apt to do (in the profession or out of it) with what you are learning here? (3) explain how and in which do the PBL and/or CBL methods contribute to the way you act? Provide some evidence. The questions served to guide the discussions and were repeated in each one of the five activities included in the PP, which here are interlinked with what is called the PBL and CBL work cycle, and which can be better understood with the descriptions in Table 3. In the third and last stage the moderator showed the answers and mentions previously written down in a proper form and read them to participants so that they checked whether they mirror the group's precise answers. Should they failed to do so, adjustments were immediately made. This procedure, according to Morgan (1997), enables the researcher (moderator) to assess the pertinence of his/her explanations and theoretical conception with the very group, thus leading him/her to reorient or verify the interpretations of the data collected during the discussions.

The discussion in the three FG sessions were recorded and transcribed in a proper electronic format in order to ensure the connectivity among the answers while the discussion progressed facilitated by the moderator who, during the discussions, searched for clarifying the answers or ambiguous aspects of the discussions, and asked participants to provide clear evidence/examples. The discussions were not focused on identifying the universe of contents properly assimilated by students, but the capacities, such as teamworking; solving problems; communicating; respecting others' opinions; self-development, among others, which the research participants deemed to be learning by means of continuous and systematic efforts when doing the practices adopted in the PBL/CBL methods.

DIRECT OBSERVATION

During the field investigation researchers were dedicated to studying the context where the active methodology was applied, to recognize in full the learning process in the problem-based model, and to analyze the behavior of the actors involved (students and faculty) in the pedagogical practices in classroom, and they chose to add to the field study the direct observation technique, which enabled them to obtain certain aspects of the reality investigated that had not been understood in the capture with other means, such as, for instance, the FGs. Additionally, once it was a qualitative-approach research, the context also becomes an additional element of interest because in the natural environment concrete situations occur which enable researchers to understand better the object under study (NYUMBA et al., 2018).

The facts observed and registered during the three sessions in classroom enabled researchers to understand more clearly how each stage of the PBL/CBL work cycle is characterized and unfolds. It was also possible to clarify some stances and complement some research participants' statements which had been vague or incomprehensible in the focus group's discussions.

DATA ANALYSIS TECHNIQUE

The process of content analysis (BARDIN, 2011) was done in three stages. The first stage was to create categories, a set of competencies obtained in advance in the literature review, by attributing them the respective codes and descriptors in order to help adjusting the data collected. Competencies in the four dimensions

were listed and codified, and labeled as follows: **(BC)** basic competency or learning or orientation competency (ANTONELLO; DUTRA, 2005; GODOY et al., 2009; LOMBARDI et al., 2011); **(SC)** social competency or interpersonal or human competency (ANTONELLO; DUTRA, 2005; GODOY et al., 2009; GODOY; ANTONELLO, 2009; SOUZA; ZAMBALDE, 2015; ZABALA; ARNAU, 2010); **(CSP)** competency for solving problem (GODOY et al., 2009; GODOY; ANTONELLO, 2009); **(TPC)** technical-professional competency or management competency (ANTONELLO; DUTRA, 2005; GODOY et al., 2009; GODOY; ANTONELLO, 2009; SOUZA; ZAMBALDE, 2015; ZABALA; ARNAU, 2010). The second stage was to create a code field in the table of tabulated data (electronic file) to associate labels of the competencies with the capacities identified. In the third stage the answers were read in order to codify words/expressions and excerpts from texts or any evidence corresponding to the dimensions of competencies constituted beforehand or to their descriptors. Next, here are presented and discussed the findings related to the dimensions identified and analyzed within the context of the field research.

Findings & Discussion

The findings obtained by triangulating the data showed that: a) the PP of the HEI is in line with the DCN guidelines (CNE/CES Resolution 4/2005) once it expresses the course's structuring elements, among them the profile desired of graduates aligned with the set of competencies and skills of the professional qualification of a business administrator, which should be developed along eight weeks of the course by means of active teaching-learning methodologies, which lead to the integration between theory and practice as recommended in the literature (LACERDA; SANTOS, 2018; MASETTO, 2018; PERRENOUD, 1999; ZABALA; ARNAU, 2010); b) in the students' opinion, active teaching-learning methods have contributed to develop competencies in three dimensions: (BCs) basic competencies, (CSPs) competencies for solving problems, (TPCs) technical-professional competencies; c) based on the assumptions of the active methodology (HMELO-SILVER, 2004; RIBEIRO, 2008; UNGARETTI et al., 2015) and the survey of curricular disciplines' objectives of the course of Business Administration of the HEI studied and what Zabala & Arnau

(2010) propose, disciplinary, interdisciplinary and/or metadisciplinary procedure(s) were attributed which potentially support, as students' learning sources, each one of the components expressing the competencies (capacities) according to the learning contents that characterize them (conceptual, procedural and attitudinal contents). In order to narrow the relation between the development of competencies and the teaching-learning process based on the problem-based model (PBL/CBL), based on the students' reports, it was searched to evidence two pedagogical resources of the PBL process that perform important functions in developing competencies, if they are well performed in the PBL/CBL work cycle, to-wit: the problem and the teacher. Next, the findings extracted from the data obtained in the documental research, from the interviews in the focus groups, and from the direct observation in the light of the literature.

DOCUMENTAL RESEARCH

The PP of the HEI underwent significant reformulation in 2008, which enabled the introduction of active methodologies in the educational process and to update the qualification objectives and graduates' profile, and the formalization of competencies and skills recommended in the DCNs established in Resolution 04/2005 (CNE/CES, 2005). For those purposes it relied on the diversity of the data and information from internal forums (Group of Pedagogical Support and Pedagogical Meeting of Professors) and external ones (reunions with HR managers of local companies in the region surrounding the HEI). Therefore, the pedagogical proposal remains in line with the curricular guidelines recommended by the Ministry of Education (MEC – acronym in Portuguese). The PP of the PBL Practical Guide (supporting materials for teachers) enabled an overview of the pedagogical practices in classroom, where often are observable activities, documents, supporting tools and procedures to operate the PBL/CBL methods. It was also verified that the graduates' profile declared in the project focuses on qualifying administrator with a profile of “citizens and professionals [...] apt to undertake autonomously their competencies and skills in the areas of business administration [...]”. In the list of disciplines were surveyed the curricular disciplines' objectives as a criterion to classify the learning sources of the competencies' components, such as disciplinary, interdisciplinary and metadisciplinary procedures (ZABALA; ARNAU, 2010).

Table 3 summarizes the five sequential activities composing the PBL/CBL work cycle, which is triggered by a new situation or problem-case and one could say that doing those activities assumes a series of general purposes guiding the learning, according to Hmelo-Silver (2004). Preparing Partial Report (activity I) is intended to present the scenario of the problem, to survey and analyze the facts narrated and to generate hypotheses of solution. In Research (activity II), the purpose is to formulate learning objectives, to identify gaps of knowledge related to the problem, to formulate questions to guide self-directed study, to apply new knowledge to the situation and to reassess the hypotheses of solution. In Presentation (activity III) the purpose is to share the new knowledge acquired. In Debate (activity IV), to reflect and discuss critically the abstract knowledge acquired and applied to the situation. In Final Report (activity V) are recorded the theoretical contents explored and their application to the solution of the problem at hand, referring to the bibliographic sources surveyed and mentioned. The activities are done in classroom in small collaborative teams. The situations and/or problem cases deal with real events occurred in organizations extracted from national or international magazines, newspapers and journals, or even from reports of company managers.

Table 3 Activities of the PBL/CBL work cycle.

PBL/CBL activities cycle	Description
I Partial report (PR)	Elaborating a guiding plan for the theoretical research as follows: formulating the problem being studied; its possible generating causes; evidence of text and study topics.
II Research (R)	Studying (individually/teamwork) concepts, theories and tools related to Business Administration to apply to the solutions of the situation or problem-case.
III Presentation (P)	Oral presentation of the team's conclusions to share tacit knowledge acquired.
IV Debate (D)	Intergroup confrontation, arguments and positions on possible solutions proposed for the problem situation or case.
V Final report (FR)	Document summarizing the theoretical contents surveyed and their application to possible solutions.

Source: Elaborated by authors.

FOCUS GROUPS

Discussions in the FGs started with general questions about operating the PBL/CBL work cycle, stimulating opinions on whether the activities done were contributing to the development of competencies and skills for the profession of an administrator.

The PBL method is adopted in the whole course. That is what introduces students to active learning in the course. There, the narratives of real or fake companies' problem situations are more structured (more information to ease the identification and formulation of the problem by students), or less structured (less information to increase the challenge and stimulate discussion among students), depending on the school term, i.e., if students are at the beginning of the course, the problem situations are more structured, and the problem-cases used at the end of the course are less structured. The CBL method was used only in some course disciplines and, more extensively, for students attending the last terms (7th and 8th terms). The difference between the CBL method and the PBL method is that in the cases the narratives are more extensive and complex than the problem-situations in the PBL method. There, solutions may (or may not) be guided by questions formulated at the end of the case. The results obtained with data triangulation allow us to say that, in the opinion of the research students, capacities expressing competency in three dimensions are being developed: basic competency (BCs); competencies for solving problems (CSPs); and social competencies (SCs), summarized in Table 4.

Table 4 Competencies and capacities acquired with the PBL and CBL.

(BCs) Basic Competencies	Capacity for...	(1) Communicating in writing	(4) Continuous and autonomous learning	(5) Communicating orally	(1) Communicating in writing	
		(2) Thinking logically and analytically		(6) Being participative	(2) Thinking logically and analytically	
		(3) Acting critically and reflectively	(2) Thinking logically and reflectively	(3) Acting critically and reflectively		
(7) Motivating oneself to learn						
(CSPs) Competencies for solving problems		(8) Transferring and applying knowledge		(9) Making judgement	(8) Transferring and applying knowledge	
		(10) Making decisions	((11) Looking for creative and innovative solutions			
		(12) Leading	(13) Solving problems			
		(14) Teamworking				
(SCs) Social Competencies		(15) Respecting others				
		(16) Cooperating				
		(15) Respecting others	(17) Being autonomous	(18) Being self-critical		
		((19) Sharing knowledge				
		(20) Acting responsibly				

Source: Elaborated by authors.

The capacities are expressions of the competencies, where individuals show to be apt to mobilize, in an articulated way, knowledge, skills and attitudes to face a situation, context or culture that occurs or where they find themselves in (ANTONELLO; DUTRA, 2005). Those dimensions can be classified as transversal competencies (MARINHO-ARAÚJO; ALMEIDA, 2016; PERRENOUD, 1999), key competencies (SOUZA; ZAMBALDE, 2015), or generic competencies (CHAN et al., 2017).

By doing the activities of the PBL/CBL cycle students find space and time to learn the conceptual, procedural and attitudinal contents of the competencies, thus assimilating the corresponding theories and taking the actions that configure them. In the BCs, CSPs and SCs, students are, systematically and recursively, exercising, analyzing, applying, and reflecting, within the university environment (classroom, library, managerial supporting laboratory), under the teacher's facilitation and guidance. The evidence of students' opinion about the actions are discussed next.

The basic competencies (BCs) are recognized by the capacities of: communication (1) written and (5) oral; (2) logical and analytical thinking; (3) acting critically and reflectively; (4) continuous and autonomous learning; (6) being participative; (7) being motivated to learn. Written communication is stimulated and exercised in the elaboration of the PR and FR. In a kind of inventory, after reading, discussing and analyzing the problem-situation, students record in the PR the problem to be investigated about the scenario of the problem, its generating causes, facts supporting it and the hypotheses of solution or learning objectives. The FR describes the summary of the conceptual contents and their application to the solutions of the problems as procedural contents. In the activity of research conducted in the library, students admit the opportunity of exercising continuous and autonomous learning skills and of thinking logically and analytically, extracting concepts of the theories, and applying them to an authentic situation to be solved. The continuous and autonomous learning attitude depends more on students' very willingness to learn by studying alone or in a group, and if "[...] the teacher and the team leader do not charge and assess students' individual participation, the method is good for lazy students and it is unfair to those who work hard" (opinion of students in FG2). Conceptual and procedural contents of logic and analytical thinking were remembered as procedures in the disciplines Decision Making and Strategy. Oral communication is exercised and used in Presentations and Debates. With (or without) the help of multimedia devices, presentations are delivered by a spokesperson (role assigned to a team member in charge of the oral presentation), and their purposes are the socialization of experiences and solutions, as mentions a participant of the FG.

[...] if there is something that I end up by doing very well is to prepare and deliver impeccable oral presentations. I prepare excellent slides, layout, text and I prepare my delivery in advance. The best results come from my work, I've found out and developed all that

here. I had never done it before, people praised me and I was recognized because I know how to express myself well, naturally, I feel secure. The teachers' well-reasoned opinions were essential also. (student FSP – 8th term)

Debates also serve as a new communication channel for students (MUMTAZ; LATIF, 2017), and they recognize they have to learn how to make questions, to listen to others' point of view, to think before answering, and vice-versa. Students learn how to act critically and reflexively (attitude) and, in that dynamics, they understand they need to respect others' opinion. Discussing and sharing diversified solutions strengthen self-motivation to learn (intrinsic motivation to learn). According to Mumtaz & Latif (2017), learning by debating is an opportunity not only to identify that there is a problem to be solved, but also to demonstrate a deeper analysis of the problem under consideration, including by evaluating, criticizing and thinking the problem in order to find a potential solution. Discussion is the PBL's core focus and it motivates students to learn once searching for a solution is relevant for students to develop competencies and skills, by making them more reflective and critical of themselves and with their working performance (GUEDES; ANDRADE; NICOLINI, 2015). Teamwork is what makes students see the importance of participative "know how to be" because when putting together the teams, soon enough one realizes that there is a natural exclusion (selection) of those who do not collaborate and, at the same time, the inclusion of those who collaborate, as evidences the statement: "Those who won't participate end up by being rejected by their very peers and they do not join a good group, and I think this is a situation that no one likes to face" (students of the 5th and 7th terms). The student's opinion on the debate and presentation is reported below.

When I started the course, at the beginning of this year, I could not understand why we had so much work to do here in the university, that would irritate me a lot because I thought that I would be closer to new people from many other courses, but I actually made many friends in the classroom because we do everything in teams. Now I'm finishing the 1st year of the course and I think that the theoretical contents are being forgotten, but, on the other hand (I have learned) to deliver presentations, to debate, to respect others' opinions, to have to collaborate, to lose stage-freight, but I know there are people who are ashamed of exposing themselves in public, but it seems to me that doing that makes you learn faster. If I feel that way now, at the beginning, just imagine (what I will fee) when I graduate. Indeed, I have complained there is no time enough, but I think I find it more useful for my future, I mean, to learn like that (student SCP – 2nd term)

Competencies for solving problems (CSP) are expressed by the capacity of: (8) transferring and applying knowledge; (9) making judgements; (10) making decisions; (11) looking for creative and innovative solutions; (12) leading; and (13) solving problems. Once students are not exposed to any theoretical discipline before doing the PBL/CBL cycle, when preparing the PR they rely on previous knowledge and on daily experiences, considering their perplexity before the problem-situation, to understand, analyze, think and discuss collectively the scenario of the problem, to select facts of a narrative able to help formulating hypotheses of solution. It is in this systematic exercise that they learn to make judgments (skill) on the various solutions of the other groups, but they understand they have to respect others' opinion (attitude). Students also accept that it is difficult to make a decision soon, in the very first terms of the course, mainly because they feel insecure about the knowledge they are acquiring or their lack of professional and personal experience on the matter, in this phase "[...] we depend a lot on the teacher's help and interference to know whether by ourselves we actually understand the matter at hand". In such situation, they think that knowing how to be cooperative (attitude) is rather important to decrease the insecurity they often feel related to the solution they propose.

At the end of each work cycle the teams present, in the FR, a summary of the concept/theories researched and used in potential solutions for a company. In these procedures students recognize they are using the knowledge. Those facts agree with Marinho-Araújo & Almeida (2016), who say that developing competencies, particularly the transversal ones, demands that a diversified set of individual and sociocultural resources is intentionally mobilized by the subjects in a situation of professional development or exercise aiming at solving a certain problem-situation.

According to Perrenoud (1999), acquiring competencies for solving problems (CSP) is intrinsically related to schooling. Students assimilate potential capacities of perception, planning, organization and decision making, which can be obtained in the classroom by means of problem-situations whose solutions necessarily impose cognitive challenges to students (GODOY; ANTONELLO, 2009; PERRENOUD, 1999).

The **social competencies (SCs)** are expressed in the capacities of: (14) team-working, (15) respecting others, (16) cooperating, (17) being autonomous, (18) being self-critical, (19) sharing knowledge, and (20) acting responsibly. They are associated to the skills and values in order to have proper behaviors and stances in work sit-

uations. About the SCs, it is here admitted what Godoy & Antonello (2009) observe, i.e., that developing those competencies is not a direct and exclusive consequence just of pedagogical practices and of a collective way of working in classwork, but also of the social reality students bring from outside the classroom.

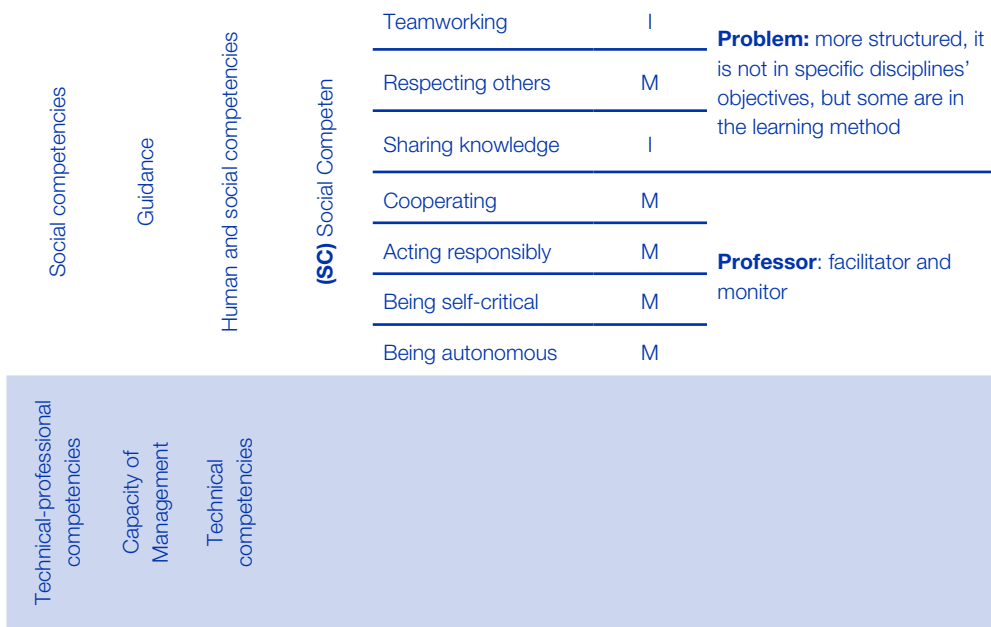
Students report that in the discussion and elaboration of the PR they share their prior knowledge of the scenario of the problem narrated, they survey relevant facts about the situation, they create hypotheses about possible causes of the problem and they identify the gaps in knowledge (new knowledge to be acquired) which will be object of the Research (R) activity. In the research students recognize the need of studying by themselves (attitude of autonomy, self-directed study), or else they will not be able to cooperate with the team in order to do the work. Autonomy, cooperation and self-criticism were the three attitudes deemed more challenging by the students. “[...] in a team the challenge is to make everybody study by themselves and perform the part they accepted to do...those who don’t do it end up by being unfair and opportunistic because they don’t know or don’t want to collaborate with the group” (student ML, 2nd term). At the end of each PBL cycle the student who performed the role of team leader do a self-evaluation and evaluates the peers about the performance in the work cycle. Students say that there are rather few students who are self-critical and, due to that, they think it is important to have the teacher follow the development of the activities, because the teacher forces team members to participate, checks whether concepts and theories are being properly used, and guides better the solutions of the problem before students elaborate the FR. They admit that lack of cooperation and self-criticism is what weakens sharing knowledge among the teams, and they consider that those two attitudes are important because they affect how well they can learn collaboratively.

The Debate (D) demands interpersonal interactions, which is assumed to be respect for others’ opinion for the team to work well, or else the yielding is low, in students’ opinion. Being able to respect others for them is directly associated to certain individual obligations being understood and met, which are: (i) when the work is divided, students have to study their part (self-directed study); ii) they have to know how to related with the other students so that (iii) they can cooperate to do the work. Therefore, there is no lack of actions and experiences able to create opportunities for the development of social competencies (ZABALA; ARNAU, 2010).

Table 5 juxtaposes the competencies resulting from this study to those from previous studies (GODOY et al., 2009; LOMBARDI et al., 2011; SOUZA; ZAMBALDE, 2015).

Table 5 Results from Competencies, Components and Resources.

Godoy et al (2009)	Lombardi et al (2011)	Souza; Zambalde (2015)	Competences identified in the study	Competences' Components (Capacities for...)	Resources mobilized in the PBL/CBL work cycle				
					Learning source of components	Problem quality/ Professor's role			
Basic competencies	Relational skill	Managerial competencies	(BC) Basic Competencies	To communicate (oral/written)	I	Problem: less structured, procedural components are in the discipline's objectives and in the learning method			
				Having critical and reflective stance	M				
				Thinking logical and analytically	D/I				
							Motivating oneself for learning	M	Professor: facilitator and guide
						Being participative	I		
						Continuous/ autonomous learning	I		
Competencies for solving problems	Knowledge	Competencies of reflection and decision	(CSP) Competencies for solving problems	Solving problems	D/I	Problem: less structured, procedural components are in specific disciplines' objectives and in the learning method			
				Transferring/applying knowledge	I				
				Making decisions	D/I				
							Searching for creative and innovative solutions	I	Professor: facilitator, monitor, guide and moderator
						Leading	D/I		
						Making judgement	M		



Key: D= Disciplinary; I= Interdisciplinary; M= Metadisciplinary
Source: Elaborated by authors.

In order to evidence the complementarity of the findings in this study and those in the previous ones, the competencies here identified are characterized as to: the *learning sources of the components* (conceptual, procedural and attitudinal ones) of the competences which can arise from disciplinary, interdisciplinary and metadisciplinary procedures; the *quality of the problem*, which is the level of structuration the problem should have to perform its function when competences are being learned, which may be more or less structured, taking into account the evidence (or lack thereof) of the components of the competences in the objective of the disciplines of the course at hand (PP consulted), or those arising from the activities (procedural) carried out in the PBL/CBL work cycle; and the *teacher's roles* as to the interchangeable functions of assistance (facilitator, monitor, guide, and moderator) to be performed while conducting the PBL/CBL learning cycle. Next, these three elements are analyzed respectively for the BC, CSP and SC.

Developing components expressing **basic competencies** (BC) demands learning conceptual concepts (organizational communication process) through

disciplinary procedures (one of the objectives of the disciplines Strategic Management of People and Administrative Process); procedural contents (thinking logically and analytically, communicating orally and in writing) through interdisciplinary procedures (pedagogical practices of the discipline where the PBL/CBL methods are adopted); and attitudinal contents (having a critical and reflective stance and being motivated to learn), through metadisciplinary procedures, i.e., contents that do not depend on a direct disciplinary support to be learned because, according to Zabala & Arnau (2010), they depend on students' reflection and personal commitment to their behavior in ways able to configure the actions intended. Therefore, the method activities are what supports the development/maintenance of these components.

The solution of a problem using the PBL approach helps students to reflect on what they have learned, how much they have collaborated with the group, how efficiently they have directed the learning, and if they have been able to identify gaps in their thinking about the situation. However, it is also necessary to consider that some students really motivate themselves to learn with the PBL method, while others resist to change their way of learning or even dislike working in groups (HMELO-SILVER, 2004). In this last case, the pedagogical practices may stand for discouraging any learning and, so, students tend to be unmotivated to learn.

Problems should be less structured, focused on few learning items, thus being more motivational for students to look for genuine solutions and at the level of their experiences (HMELO-SILVER, 2004). Whereas conceptual and procedural concepts of the BC are included in the disciplines' objectives and that continuous and autonomous learning is in the essence of the method, the content of a problem-situation should stimulate critical thinking, thus triggering questions, reflection, in addition to enabling multiple solutions (SOCKALINGAM; ROTGANS; SCHMIDT, 2012).

The teacher has the role of a learning facilitator who makes available strategies adapted to different stages of the PBL process, such as, for instance, formulating questions at the end of the learning cycle to promote reflection after students' action and personal position about the contents learned (HMELO-SILVER, 2004). As a guide, the teacher should give feedback about oral (Presentations) and written communication (Final Report), pointing out that the "mistakes" made

are learning opportunities (UNGARETTI et al., 2015). The assistance rendered by the teacher in the PBL/CBL environment is of the essence, as stressed the participants of Focus Group 2:

Teachers have to give feedback on our performance in the activities and solutions of the problem because the PBL method is quite open, and we need to know whether we are using/applying what we have learned well and, what's worse, whether we have followed the study plan in the Partial Report (students NN and MG – 6th term).

In the CSP, three procedural components (solving problem, making decisions and leading) are learning contents of competencies set in the course discipline (Administrative process; Decision making; and Strategic Administration), while the other two procedural contents (transferring/using knowledge and searching for creative and innovative solutions) are exercised with interdisciplinary procedures, among disciplines that adopt the PBL/CBL methods as learning strategies.

As to the quality of the problems in the PBL, students consider the problems a key learning tools, and often enough they are deemed “more interesting than the very theoretical contents”. “If we realize that it is a fake text, very old and easy, we feel a little disheartened, we have prejudice and we don't take it very seriously. The problem situations or cases should neither be extremely complex nor excessively simple, which fails to agree with students' efforts and motivations and can lead them to a behavior of social laziness (UNGARETTI et al., 2015), which is the behavior of those students who do not contribute with their team and, nevertheless, are given the same scores (JASSAWALLA; SASHITTAL; MALSHE, 2009). As creative and innovative solutions can result from combined knowledge coming from various sources (e.g., books, journals, students' personal and professional experiences, among others), this allows students to see how knowledge is a useful resource for solving problems (HMELO-SILVER, 2004).

As to the teacher's roles in the development of the CSPs, the first among them is that of a facilitator, who prepares problems in administrative situations that challenge students' curiosity and promote epistemic motivation, i.e., their willingness to acquire knowledge (ESCRIVÃO FILHO; RIBEIRO, 2008), and who grants access to the use of pedagogical resources in the educational environment (HMELO-SILVER, 2004). They also must monitor the teams' headway in order to ensure

that all students participate in the work, and to facilitate teamwork. (SILVA et al., 2018). In the role of a guide, the teacher should give continuous feedback, where information is rendered to students about reaching the learning objectives related to the task or their performance (SAHU; SA, 2015), thus guiding them through the difficulties faced in applying the knowledge acquired to solutions, maintaining them motivated to learn (MASETTO, 2018). It is important, in students' opinion, that the teacher exercises some "control" of the discussions inside and among the groups, or else the consensus and understanding of the debate are dispersed, thus resulting in demotivation to join the activities. So, the literature acknowledges that the teacher should perform as moderator in personal interactions, discussions and formulation of hypotheses by using questioning strategies about the choices of solutions of the problem (HMELO-SILVER, 2004).

About the components of the SCs, most of them are attitudinal and their learning sources are both disciplinary, declared in the specific disciplines' objective (respecting others and acting responsibly in Ethics and Social Liability in Companies), and interdisciplinary, which are in the essence of the active methods (teamwork, being autonomous and cooperative) and, so, they are in the pedagogical procedures or practices of the various disciplines that adopt the PBL/CBL methods. For attitudinal components to be learned it is necessary, first of all, individual reflection and personal commitment to the correct behaviors that configure the action, i.e., subjects' conscious and deliberate attitude of being self-critical, autonomous, cooperative and respecting others (ZABALA; ARNAU, 2010). As to the procedural components (teamwork and sharing knowledge), they demand systematic exercise in the corresponding actions that configure them (learning how to work in teams, sharing knowledge), which become concrete as time goes by and should be exercised as much as possible in the disciplines (interdisciplinary) (ZABALA; ARNAU, 2010) where active methods are adopted.

An immediate impression of the students about the method's benefits was teamwork and, as a result, the possibility of sharing knowledge and respecting others' opinion. A student in an FG session evidences that:

[...] What we must learn right at the beginning is to work in group, whether you like it or not. I'm really learning what it is, and it is rather different from high school with its traditional classes. [...]. I think that in the debates and presentations we learn a lot by exchan-

ging what we've understood and learned about concepts and different solutions of the problems. I've understood that collaborating, respecting and listening others' opinions is the base of the work with the PBL, and this understanding I'll carry for the rest of my life. (student JPT- 1st term)

The situations or problem-cases also serve to narrow the focus of the study and to stimulate students to learn and engage in the PBL learning cycle (HMELO-SILVER, 2004; SILVA et al., 2018). When the procedural and attitudinal components fail to have theoretical support (or it is weak), for them to be learned in a specific discipline the teaching activities have to be based on practice and on life experiences, where values and attitudes are systematically and persistently applicable (ZABALA; ARNAU, 2010). The problem should be more structured, provide enough information to ease the identification of the learning objectives for those components which, according to the authors, come from the very experiences lived, reflection and personal commitment of the subject.

The roles of a learning monitor and facilitator performed by the teacher has a broad effect on how well the group activities occur because students say that not all of them know how to handle the collaborative work of the PBL. Therefore, the teacher can help them be effective collaborators (HMELO-SILVER, 2004) by helping them to overcome successive difficulties that may come up during the teaching-learning process and to re(compose) progressively desirable attitudes for social competencies (MASETTO, 2018; ZABALA; ARNAU, 2010). And it happens through the evaluation of the individual and collective participation in the activities involving discussion (Debate), in terms of substantiation, pertinence, arguments and personal positioning of students about a solution, and in the activities involving personal interactions to discuss the problem-situation and to elaborate reports.

For the purposes of learning the SCs, the problem also has the function of promoting collaborative learning, which refers to the extension with which the problem triggers teamwork and elaborations, such as brainstorming and group discussions. Therefore, the group's performance is affected by the quality of the problem (SOCKALINGAM; ROTGANS; SCHMIDT, 2012). The teacher's role is to monitor students' individual participation and that of the teams in discussions in order to contribute with different parts of the explanations about the problem-situation and possible alternatives of solution, which is a key factor for learning and motivation. As

a facilitator, the teacher should promote constructive discussions among the groups (HMELO-SILVER, 2004).

Based on this study findings and the research gaps pointed out in previous studies (GODOY et al., 2009; LOMBARDI et al., 2011; SOUZA; ZAMBALDE, 2015), this paper brings to the field of teaching business administration and higher education two contributions, one methodological and the other, empirical. As to methodology, two research claims pointed out in the literature have been met. The first one is related to the need of complementing quantitative findings obtained in previous studies by means of a survey (LOMBARDI et al., 2011) with qualitative findings obtained in this study, though a case study, which tries to understand the subjective states of those who experience (Business Administration students) the learning situation in their natural environment, where people are directly asked what they do and think about the development of competencies, which helps increasing the “value” of the evidence obtained and triangulated by reports of focus groups and two other data sources: documental research and direct observation. The second, is related to the gap existing in new academic practices favoring the formation of less developed competencies in the graduation course (SOUZA; ZAMBALDE, 2015). The empirical contribution is from an educational point of view because the findings discussed and summarized can help managers and teachers. To managers, as to the decision of incorporating teaching-learning strategies to develop competencies in the curricula of graduation in Business Administration. To teachers, as to evidence of more inclusive pedagogical practices for students as the protagonists of their learning, the exercise of new roles and the use of more stimulating didactic resources (e.g., using problems/cases to teach, collaborative learning) in the learning process.

Final Considerations

The findings of this study have shown that, in students’ perception, the PBL and CBL active learning methods, when used systematically and continuously (long periods), are vehicles able to enable more complex learning and to favor the development of individual competencies for students’ professional qualification. These

same findings corroborate the thesis that these methodologies favor and facilitate having theory and practice come closer, and students recognize their autonomous and central role. It was also verified that the process must have a clearly defined deadline for students to do the tasks in the work cycle, with the teacher's quick feedback, which requires his/her full and constant attention. On the other hand, the report of the experiences lived in the case shows that, quite differently from the traditional teaching method, the active methods give more space and opportunity for interaction between student and teacher, which is a positive partnership for the development of competencies in the educational environment.

This study has also shown that more investigations on the combination of active methodologies with other teaching approaches are necessary. It was observed that there is a natural combination between exhaustion and discouragement arising from the same pedagogical practices for a long period of time (eight months at least in the case studied). Finally, the PBL does not necessarily please the whole faculty, which perform a fundamental role in these methodologies. Additionally, considering the complexity of the measurements inherent to competencies and skills, future researches have to be done to articulate in the discussion the voice of other two actors: the teacher and the manager, who employs graduates from the HEIs and are concerned about this theme.

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