RCMOS
Revista Científica Multidisciplinar o Saber

ISSN 2675-9128
DOI 10.51473

Volume 4 - Número 4
Abril de 2021

SKILLS AND SKILLS IN COURSE OF ADMINISTRATION THROUGH METHODOLOGY IN LEARNING BASED ON PROJECTS MEDIATED BY TECHNOLOGY

SKILLS AND SKILLS IN THE ADMINISTRATION COURSE THROUGH PROJECT-BASED LEARNING METHODOLOGY

FERREIRA, Hugo Silva [2]
MARTINS, Geisse [3]
SANTOS, Danillo Miguel de Sales [4]

[1] Original dissertation presented at Must University Master of Science in Emergent Technologies in education. Florida – USA. [2] Master's degree – Business Administration. MUST University, MUST, United States. Email: prof.hugosferreira@gmail.com [3] Email: profmartinsgeisse@gmail.com [4] Email: danillo.miguel@live.com

It is

SUMMARY

This work aims to verify the effectiveness of applying the active Project-Based Learning methodology, mediated by technology, in developing skills and abilities defined by the National Curricular Guidelines for the Administration course. In this sense, a descriptive research, based on a bibliographical review and case study, was carried out at the Faculty of Administration Guaratinguetá, in the Integrator Project discipline of that institution, with a qualitative and quantitative approach to the data collected. It is considered that this active teaching and learning methodology has specific characteristics and activities, which were observed in the teacher's planning, in terms of integrating theory and practice, stimulating student protagonism and autonomy in the teaching and learning process, promoting engagement with tasks, project development contextualized with extra-school life, being challenging, procedural and participatory learning, contributing to the development of skills and abilities prescribed by the guidelines. Furthermore, when mediated by technology, it also contributes to the facilitation of individual and group learning which, in the same way, contributes to the development of skills and abilities, as shown in the research sample. Therefore, it is considered effective for this purpose. In this case, as a point for future research, the importance of the contribution that active methodologies can bring to the construction of the Pedagogical Course Project based on competencies is highlighted. **Key words:**Project-Based Learning. Skills and abilities. Active methodologies.

ABSTRACT

This work aims to verify the effectiveness of the application of the active Project Based Learning methodology, mediated by technology, in the

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

development of competences and skills defined by the National Curricular Guidelines of the Administration course. In this sense, a case study was carried out at the Faculty of Administration Guaratinguetá, as well as an action research, in the discipline Integrator Project of this institution. The research is descriptive and applied, with a quantitative qualitative approach to the results. It is considered that this active teaching and learning methodology has specific characteristics and activities, which were observed in the teacher's planning, as to integrate theory and practice, to stimulate the student's role and autonomy in the teaching and learning process, to promote engagement with tasks , development of a project contextualized with extra-school life, being a challenging, procedural and participatory learning, contributing to the development of competences and skills prescribed by the guidelines. In addition, when mediated by technology, it also contributes to the facilitation of individual and group learning, which, likewise, contributes to the development of competences and skills, as pointed out by the research sample. Thus, it is considered effective for both. In this case, as an indication for future research, the importance of pointing out the contribution that active methodologies can bring to the construction of the competency-based Pedagogical Course Project is emphasized. **Keywords:** Project Based Learning, Skills and abilities, Active teaching-learning methodologies.

1. INTRODUCTION

Academic training in Administration requires competencies and skills from the administrator who understand different dimensions in the social, interpersonal, personal and professional spheres (ODA; MARQUES, 2008) so that he or she has a systemic view of different situations in business organizations, such as resolution of problems, innovation and improvements (CHIAVENATO, 2007; 2014).

In this sense, Administration courses must be guided by the National Curricular Guidelines (DCNs) for this course in order to guide the Pedagogical Course Project (PPC) of Higher Education Institutions (HEIs), that is, the Resolution of the National Council of Education (CNE), Chamber of Higher Education (CES), nº 4, of July 13, 2005 (4/2005), which establishes the DCNs of the Undergraduate Course in Administration.

A project that, according to Nunes and Barbosa (2009), more than highlighting such skills must, in fact, implement it, so that the changes necessary for this implementation are perceived in the vision of everyone involved in the process: students, teachers , course and IES coordinators), resulting in training that meets market demands (CHING; SILVA; TRENTIN, 2014). Among the processes in which educational practice unfolds, teaching and learning methodologies in higher education

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

Administration also needs to monitor these prerogatives, in addition to relying on technologies to mediate, intervene and promote learning (ALMEIDA, 2018).

Active teaching and learning methodologies are configured as a means to enable student-centered learning, with the teacher being the mediator (MORAN, 2000). In the meantime, Project-Based Learning (PBL) can be considered capable of meeting the training prerogatives of an Administration graduate, as it involves students in tasks and challenges to execute a project (MORAN, 2018), developing skills and skills, including cognitive and socio-emotional aspects. When supported by technologies, active methodologies rely on ease of integration, cooperation, exchange of ideas and experiences (ALMEIDA, 2018).

Therefore, the present study aims to verify the effectiveness of applying the ABP methodology, mediated by technologies, in the development of skills and abilities defined by the DCNs of the undergraduate course in Administration, in the discipline Interdisciplinary Integrative Project Business Practices, of the Faculty of Administration Guaratinguetá (FACEG).

Thus, the development of the work revolves around exposing the requirements for administrator training, based on the DCNs, in terms of competencies and skills, in the foundation of teaching and learning theories based on competencies and skills, which guide the applicability of the methodologies active activities, mediated by teaching technologies, to support its execution. The research methodology chosen was descriptive, based on a bibliographical review and case study, with a qualitative approach, on the planning of the teacher who used PBL as a methodology capable of developing the skills and abilities prescribed by the DCNs; and quantitative, on the perception of those surveyed about the development of the skills and abilities prescribed by the document. In the second case, data were collected from a questionnaire developed with closed and open questions for the research sample.

In this way, it was possible to conclude that the methodology is effective in this sense, as its specific activities and characteristics, observed in the pedagogical planning, engender the development of skills and abilities prescribed by the DCNs and which were perceived by the research sample.

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

2 REQUIREMENTS FOR ADMINISTRATOR TRAINING BASED ON THE DCNS

The National Education Guidelines and Bases Law (LDB) establishes guidelines for higher education in the same way it establishes throughout basic education, bringing different levels of education together. In its Article 43, for example, it is clear that, for this approximation to occur, with regard to the full and interdimensional development of the subject and his qualification for work, there is the establishment of guidelines regarding the purpose of this teaching stage, among which highlights "[...] training graduates in different areas of knowledge, capable of entering professional sectors and participating in the development of Brazilian society, and collaborating in their ongoing training" (Brasil, 1996) .

The profession of Administrator, in Brazil, was created by Law No. 4,769, of September 9, 1965 (4769/65), providing for the exercise of the profession of Administrator. In its Article 3, this law provides that this professional refers to a Bachelor in Administration, graduated in Brazil or abroad, and a Technician, at the High School level (Brazil, 1965), being regulated by Decree 61,934, of February 24 1966. In this sense, your training must meet the following professional activities, in accordance with Article 2 of Resolution 4769/65:

> a) opinions, reports, plans, projects, arbitrations, reports, general advice, intermediate management, senior management;
> b) research, studies, analysis, interpretation, planning, implementation, coordination and control of work in the fields of Administration, such as administration and selection of personnel, organization and methods, budgets, material management, financial management, marketing management, production management , industrial relations, as well as other fields in which these unfold or to which they are connected. (BRAZIL, 1965).

Having said this, it is important to highlight, therefore, that HEIs that offer undergraduate courses in Administration must be guided by requirements established by educational policies that make use of specific guidelines for each course in order to graduate citizens who meet both technical and technical requirements. practices, covering the different areas of human formation. Among the established requirements, we can highlight the Resolution of the National Education Council (CNE), Chamber of Higher Education (CES), no. 4, of July 13, 2005, which, in its Article 2, provides guidance on the organization of the undergraduate course in Administration in which,

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

> The organization of the course referred to in this Resolution is expressed through its pedagogical project, covering the profile of the trainee, the skills and abilities, the curricular components, the supervised curricular internship, the complementary activities, the evaluation system, the initiation project scientific or activity project, such as Course Work, an optional component of the institution, in addition to the academic regime offered and other aspects that make said pedagogical project consistent (BRASIL, 2005).

In this composition, the 2005 DCNs, in accordance with what the LDB requests, elect to ensure that the Pedagogical Course Projects – PPC – contemplate the skills and abilities that have the purpose of training administrators capable of performing their functions in the job market, considering that professional training has its genesis in HEIs.

The PPC is an extremely important document for HEIs, as it must cover, in accordance with required guidelines, all the processes that make up educational practice (planning, methodology, evaluation, pedagogical resources) to structure a higher education course that meets such requirements. . In other words, a logic based on the prescription of skills and abilities with the aim of forming a full citizen (ZABALA; ARNAU, 2014) that should extend to the PPC of HEIs. In this way, the research by Nunes and Barbosa (2009) is highlighted, which, with the aim of seeking to characterize the notion of competencies in the formulation/restructuring of Administration courses (2009), emphasize that, among the HEIs involved in their research, the majority highlights the competences in the institution's PPC, but its normative meaning should give way to a real and effective conception, including teacher training in aspects of content, teaching methodologies and evaluation processes linked to this proposal degree in Administration.

Ching, Silva and Trentin (2014), report the experience in contributing to the structuring of a PPC for the Administration course based on competencies required by the DCNs for this course, as well as other professional bodies, such as the National Survey of the Federal Administration Council and Regional Administration Council (CFA/CRA). They agree that such structuring should result in changes, not only in the theory of teaching and learning through competencies prescribed as a paradigm, but also in the vision of those involved in the process (students, teachers, course coordinators and the HEI) in order to train them according to market demands. In other words, it is not enough to have a PPC aligned with the guidelines, based on the teaching and learning of skills, if it is not operationalized based on the application contextualized in practice. In this sense, Resolution 4/2005 prescribes, in its Article 4, the

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

competencies and skills to be developed in the Administration course to be observed by HEIs regarding the organization of the curriculum:

> I - Recognize and define problems, consider solutions, think strategically, introduce modifications in the production process, act preventively, transfer and generalize knowledge and exercise, in different degrees of complexity, the decision-making process;
> II - Develop expression and communication compatible with professional practice, including in negotiation processes and interpersonal or intergroup communications;
> III - reflect and act critically on the sphere of production, understanding its position and function in the productive structure under its control and management;
> IV - Develop logical, critical and analytical reasoning to operate with values and mathematical formulations present in the formal and causal relationships between productive, administrative and control phenomena, as well as expressing oneself in a critical and creative way in the face of different organizational and social contexts;
> V - Have initiative, creativity, determination, political and administrative will, willingness to learn, openness to change and awareness of the quality and ethical implications of their professional practice;
> VI - Develop the ability to transfer knowledge from everyday life and experience to the work environment and your professional field, in different organizational models, revealing yourself as an adaptable professional;
> VII - develop capacity to develop, implement and consolidate projects in organizations; It is
> VIII - develop the capacity to carry out management and administration consultancy, administrative, managerial, organizational, strategic and operational opinions and expertise (BRASIL, 2005).

Thus, without classifying them, these are the competencies, skills and attitudes that must be observed in the organization of the disciplines and the entire apparatus that involves the pedagogical practice of the Administration course, both in its technical, human and conceptual scope. In fact, this observation also applies to the complementary activities of this course, which must guide and evaluate skills and abilities outside the school environment, as established in Article 8 of CNE/CES 4/2005.

2.1 ADMINISTRATOR SKILLS AND ABILITIES

We currently live in the world *VUCA*–volatile, uncertain, complex and ambiguous. This term was initially used by the United States Army and adopted by Harvard University to describe a world with rapid changes, which requires a modern professional, equipped with the skills and abilities necessary to face the challenges imposed on organizations (ISMAIL; MALONE; GEEST, 2015).In the meantime, technological advances

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

have evolved, mainly with regard to Digital Information and Communication Technologies (TDIC), demanding skills and abilities from the administrator that guide professional performance that follows such rapid changes in this world *VUCA*.

The DCNs prescribe this perspective when, in their Article 5, they guide the integration of the contents of the curricular organization between basic training, professional training, quantitative studies and their technologies and complementary contents. In this case, Administration courses must also be guided by the use of innovative technologies interrelated to national and international realities (BRASIL, 2005).

Corroborating this need to adapt to such rapid changes, one can point out, for example, the skills and abilities prescribed by the document, in its Article 4, Items V and VI, regarding this professional future being open to changes, revealing it adaptable to the use and applicability of technology in your professional context, whether to generate or disseminate knowledge. For the administrator, these skills and abilities, developed during the course, become evident throughout their work and establish the development of a professional who meets the needs of the market.

But what is Administration, in terms of professional activity, to demand skills and abilities in a higher education course? Oda and Marques (2008, p. 7) define administration as a social science that uses a set of "[...] theories and techniques for the management of human, natural, financial and informational resources", aiming at socioeconomic development .

Chiavenato (2007, p. 29), in turn, involving both participation in the development of society and the company itself as a way of demarcating its objectives, managing human, natural, financial and informational resources, defines administration as "[...] the carrying out of an undertaking under someone's orders or simply as the provision of a service to someone else". In the same sense, and considering human, natural, financial and informational resources, Masiero (2012) advises that the concept of administration emerges, when there is coherent integration of a set of knowledge from human areas existing in organizations, with the aim that it have efficiency and effectiveness to survive the market and contribute to achieving objectives, by proposing techniques, strategies and actions. Thus, it is clear that competencies and skills unfold in the management of resources in an organization that must permeate

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

market trends that determine the direction and destiny of companies in a competitive manner and in line with consumers' vision. This concept is guided by the Total Comfort Theory (TCT) based on the convenience and ease that the consumer seeks; in quality of life; in the environment; in connectivity and mobility; in globalization and social responsibility (ODA; MARQUES, 2008). Therefore, a student trained in Administration must have skills and abilities to manage and implement these resources in aspects of planning, organization, control and command, whether to achieve the objectives of the public, private or non-profit organization (LISBOA, 2016).

To understand the skills to be developed in an Administration course, prescribed by the DCNs, it is necessary to conceptualize what skills and abilities are. Competence, according to Roegiers (2000, p. 66) as cited in Scallon, (2015, p. 143) "[...] is the possibility, for an individual, to mobilize in an internalized way an integrated set of resources in view of resolve a family of problem situations". Therefore, it is the individual's ability to draw on previous experiences acquired both at school and in real life. In other words, developed skills that allow the mobilization of resources and their application in different contexts and situations.

For Zarifian, (2001, p. 72) it is "a practical understanding of situations that relies on acquired knowledge and transforms it as the diversity of situations increases". In this sense, the concept incorporates attributes linked to knowledge (knowing), skills (knowing how to do), behaviors and experiences (knowing how to be), since the development of a competence requires experience in a given context (knowing how to live together), reinforcing the importance of educational action, highlighted by Delors et al. (1999), regarding school training for the 21st century.

Skill, in turn, according to Chiavenato (2007, p. 69), "[...] is the ability to apply acquired knowledge whether in solving problems, improving the situation or in innovation to do something completely new and different ", that is, knowing how to use knowledge based on a broad and systemic view of the different situations present in organizations.

If skills are contained in different situations of use permeated by skills, it therefore involves knowledge of organizational structures of which Silva (2008, as cited in LISBOA, 2016) highlights three categories: technique, which corresponds to the relationship

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

between performance and training; the human, which equates relationships with people; and conceptual, which refers to understanding organizations.

Inserting and developing competencies and skills in the administrator's academic training requires the development of a curricular organization that makes it possible, therefore, to articulate the context of the student's training with the world of work, focusing on academic management as a process that integrates formal education, professional experience and social experience.

In this case, the student must be an active and determining subject in the process, as the logic of skills indicates that their development involves the ability to mobilize resources, the integration between knowledge that enables their application and action in a concrete situation.

Mintzberg and Gosling (2003, p. 30) emphasize that "there is a boundary between the education process and business practice". Thus, this border, as a fine line between what develops as competencies and skills during graduation and their application in the business organization, is crossed as this professional develops them during their educational process. Therefore, the introduction of the logic of competencies and skills in the training of administrators implies rethinking curricula, reviewing pedagogical practices, the evaluation system and especially teaching action. It is not possible to think about the training of graduate students in administration in a sealed and decontextualized way from the world of work.

The study of skills and abilities, in turn, encompasses two models: organizational and individual. According to Fernandes (2013, p. 19), "organizational competence is a set of articulated resources that generate value for the organization and that can be transferred to other areas, products or services of the organization and impact organizational performance in a factor- key to success." Organizational competencies are closely linked to the organization's strategic management and are part of the elements that make up the competitive success of each sector. For Fernandes, (2013) they illuminate the resources to be monitored and fed by organizations. On the other hand, individual competence is "a set of knowledge, skills, attitudes and values that an individual mobilizes and applies, repeatedly, within a professional context, adding value to the organization and to himself" (FERNANDES, 2013, p .48). Whether at the organizational or individual level, competencies and skills encompass a set of

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

elements that permeate the entire subject (company/employee) in order to improve them as an organization/person.

In other words, a future administrator is expected to have, for example, the skills necessary for managing people, the skills to deal with, treat and value them, putting this knowledge into practice in different contexts. For example, roughly speaking, one of its competencies for people management would be to encourage employees to have a quality of life at work, mitigating possible health problems while carrying out their duties. This implies having a systemic view of your role within the organization that makes it possible to propose solutions in different contexts and situations. Adding to this construct of skills and abilities, as interdependent elements, Araújo (2010) highlights attitudes as part of this set. For him, in these three dimensions, ratifying what was previously considered,

> [...] knowledge corresponds to a series of information assimilated and structured by the individual, which allows them to understand the world, it is the dimension of knowledge; the skill is associated with know-how, that is, the ability to apply the acquired knowledge (productive use); attitude is the dimension of wanting-to-know-to-do, which concerns the social and affective aspects related to work (ARAÚJO, 2010, p. 46).

So much so that, when highlighting some of these components, Oda and Marques (2008, p. 105) does not differentiate them and exemplifies them as competencies, skills and attitudes of this professional future: “permanent learning, decision making, entrepreneurship, situational adaptability, teamwork, leadership and delegation, negotiation and change, strategic and multidimensional vision and ethical performance with social responsibility”. Therefore, the contents covered in the Administration course need to include learning so that these elements are highlighted.

Although Oda and Marques (2008) do not divide competencies, skills and attitudes, Zabala and Arnau (2014) classify them into the social, interpersonal, personal and professional dimensions. It can be said, in this way, that there are competencies that are general and competencies that are specific. When addressing the competencies and skills of an administrator, it is highlighted that, in the professional dimension, as stated by Zabala and Arnau:

> [...] the individual must be competent to carry out a professional task appropriate to their capabilities, based on the specific knowledge and skills of the profession [...], however, without forgetting the general skills that permeate the entirety

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

> of the human being and, in this case, it must be pointed out that, within the scope of the contents of this training, [...] the skills must include conceptual, procedural and attitudinal contents in order to not only value technical knowledge. (ZABALA; ARNAU, 2014, p. 98).

Thus, in parallel to what is prescribed by the DCNs as competencies for the training of an administrator, in addition to general competencies, there are specific competencies for the profession in terms of what the market demands of this professional. In this case, fifteen competencies are highlighted, which Martins-Silva, Silva and Silva Júnior (2016, p. 124) brought together as a form of literature review by the authors Kilimnik, Sant'anna and Luz (2004) and Sant'anna, Moraes and Kilimnik (2005), for the construction of their data collection instrument in order to identify and analyze the vision of administrators registered with the Regional Administration Council of Espírito Santo (CRA/ES) regarding the process of training skills that are required by the job market.

> (1) mastery of new technical knowledge associated with the exercise of the position or function held; (2) ability to quickly learn new concepts and technologies; (3) creativity; (4) innovation capacity; (5) communication skills; (6) interpersonal relationship skills; (7) ability to work in teams; (8) emotional self-control; (9) broad and global worldview; (10) ability to deal with new and unusual situations; (11) ability to deal with uncertainty and ambiguity; (12) action and decision initiative; (13) ability to commit to the organization's objectives; (14) ability to generate effective results; and (15) entrepreneurial capacity. (MARTINS-SILVA, SILVA; SILVA JÚNIOR, 2016, p. 124).

The life experience of the future administrator analyzed in the research by Martins-Silva, Silva and Silva Júnior (2016) presents data in relation to this variable, pointing, with greater emphasis, to the development of skills required by the contemporary market in terms of the ability to work teamwork, interpersonal relationship skills and the ability to commit to the organization's objectives.

Life experience, in this case, can be addressed by the educational institution in Administration courses in activities that enable the student, who perhaps does not have these skills developed, to try and practice them throughout the course. , through teaching methodologies that provide and promote them. In this way, these experiences will be part of your prior knowledge to be revisited throughout your training and, later, in your professional career. Therefore, it is understood that the professional profile indicated in the guidelines, combined with professional skills and fields

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

interconnected training courses proposed by the DCNs, therefore, provide support for the preparation of the pedagogical project, considering the peculiarities and context of the course, in addition to pedagogical guidelines for the teaching and learning process and development of the student's skills.

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

3 TEACHING AND LEARNING

3.1 LEARNING THEORIES

Education for the 21st century demands changes in different contexts, among which we can highlight those related to subject formation, which must currently be pursued from an academic, personal and social perspective, that is, in an integral and interdimensional manner. , extending throughout the subject's life (DELORS*et. al,*1999; SILVA, 2019). A proposal that goes in opposition to that practiced in previous times, that is, from a fragmented perspective.

Therefore, education in the 21st century, through this demand for changes in school training, requires the breakdown of the different elements that involve the practice of teaching and learning. Among these changes, with regard to the student and learning, it is recommended that it takes place in an autonomous, supportive and competent way, that is, that it encompasses the dimensions that make up the human being. As for the teacher and teaching, it is expected that they will promote conditions for this interdimensional training to take place.

Certainly, this change in thinking was influenced by different learning theories, affecting students' cognitive processes, interaction between peers and the roles played in teaching and learning. Aspects that, in turn, modify the dynamics of this process as teaching methodologies and the entire pedagogical apparatus that configures them, such as pedagogical and technological resources, pedagogical assessment that highlight active mental processes rather than memorization of knowledge.

In the educational field, for a long time, education was conceived as a social practice in which knowledge was transmitted from teacher to student through the exposure of content and knowledge that students appropriated in the same way and at the same time. In this context, educational guidelines focused on establishing the content required for each teaching stage and the teacher was the center of the teaching and learning process, since he was responsible for it, the so-called Traditional School Model (OLIVEIRA, 2019). In this sense, learning theories, according to Zanella (2003), were based on shaping behaviors (conditioning stimulus of the environment in which the student

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

subject lives), a theoretical current known as Behaviorism, by the thinkers Pavlov and Skinner. Thus, the teacher was responsible for stimulating (conditioning) learning (response), providing all the conditions for doing so, which did not necessarily mean that, according to the author, it would trigger definitive learning.

Following this line of thought about learning in a traditional way as a stimulus and response mark, but from a social perspective (Constructivism), Zanella (2003) explains the theory of social learning in which it only results from reinforcement (learning) through imitation of behaviors. Therefore, the social environment in which the subject is inserted, in this case, the school, has to provide stimuli so that the learner imitates them. It is necessary to state that, although the social environment has been an environment in which different forms of learning take place, only the environment is taken into account to trigger learning, and not the subject inserted in this environment. In this sense, some concepts contained in the ideology of the Escola Nova movement, in contrast to the traditional school of 1932, still retain relevance and currentity with the quality criteria of an individual's training for action in society. This conception of education placed "[...] at the center of the process the interests of the individual – and not necessarily of the classes – so that school knowledge was strictly linked to the ideal social environment, but in a humane, supportive way" (OLIVEIRA, 2019 , p. 43). In this way, it took into account that teaching and learning should be anchored in the assertion that one learns by doing and from an integral perspective. Therefore, the student goes from receiving information to producing knowledge, conceived as the protagonist of their learning, an autonomous being with previous experiences and knowledge available to learn, with the teacher as a mediator for this purpose. In this case, as recognized by Oliveira (2019), active methodologies are a way of meeting these desires, due to their characteristics of active knowledge production processes.

Zanella (2003), in this context, presents Piaget's theory of cognitive learning (Cognitivism) which introduces elements into pedagogical practice in which it must be observed that challenges need to be stimulated and proposed by the teacher so that the student is able to think for themselves and, consequently, learning for oneself, through the need to modify the knowledge the way he receives it and, thus, apply it throughout his life. Therefore, from this theory it can be inferred that learning must be made available

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

continuously, as the modification in the cognitive structure becomes adapted to the learning context.

Unlike social learning theory, in which the means is reinforcement for learning, Vygotsky's sociointeractionist learning theory, according to La Rosa (2003), adds interaction as a way of demarcating learning. Thus, in this theory, the process and not the product of learning is important to observe, as well as its social origin and its mediating elements. From this learning theory, it is clear that the role of learning no longer ends with the teacher, however, he is the mediator of learning related to interaction with the social environment.

Finally, the Theory of Meaningful Learning (AUSUBEL, 2000), that is, an initial way of expanding existing cognitive mental structures in which the student starts from their own experiences. Therefore, as a holder of prior knowledge about situations, their own ways of solving problems and proposing solutions, the student adds new learning to existing cognitive structures as a way of demarcating their participation in the learning process and not just receiving and retaining information. . The student, in this case, is an active being in the learning process.

Therefore, it is clear that the evolution from the fragmented aspect to a broader aspect of training, arising from the learning theories that guide this evolution, are necessary to support a pedagogical practice committed to the full development of the subject in academic aspects, theoretical and practical, personal and social, as skills-based learning requires. In this scenario of evolution of learning theories, it must also be highlighted that the insertion of technologies in education was a way, both of keeping up with the changes required in this context, and of promoting the vision of learning, previously centered on the teacher and, currently, student-centered for skills-based training.

As Almeida (2018, p. 10) points out, the different teaching and learning methodologies that use TDIC "[...] used to interact, create, establish relationships and learn" contribute to the student, in addition to breaking down boundaries between virtual space and physical space, whether mediated in learning in a meaningful way, add new knowledge and facilitate the process by modifying learning spaces and times.

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

3.2 SKILL-BASED LEARNING

The debate on skills-based learning in Brazil was marked by the influence of speeches from the World Bank and the Organization for Economic Co-operation and Development, which emerged from the idea that learning should not only lead to the acquisition of knowledge, but also of skills and abilities that are made available to society and the social practice of work, as a way of demarcating the need for training in a broader aspect of this practice (Oliveira, 2019). Which, for Zabala and Arnau (2014) can contribute substantially to the improvement of education, going against its reductionism as a practice of memorizing content and without application in real life.

The development of skills and abilities is closely linked to the teaching-learning process. Thus, any initiative in the academic world, aiming at their development, involves discussion around this educational process. In this sense, Zabala and Arnau (2014) emphasize that, as an educational process, competency-based learning must encompass the social, interpersonal, personal and professional development spheres, contributing to the student's comprehensive training. Learning through skills, therefore, is not equivalent to an educational process based solely on the acquisition of knowledge, but these and all other aspects of learning that it can give rise to.

If learning based on competences involves aspects not only, but also consistent with the school and intrinsic to the student, as a person who interacts with other people in social and professional contexts, then teaching and learning based on competence must involve real experiences. Analogically, one can associate this issue of real experiences with the characteristic that teaching and learning through skills also focuses on applying content to develop skills based on real situations and problems, as stated by Zabala and Arnau (2014). For example, in the Administration course, the development of a business plan, as content of some discipline integrated into the context of a real company that can trigger a competence developed by the graduate from his training.

However, Zabala and Arnau (2014) emphasize that the contents do not exhaust the possibilities for teaching and learning through skills, and that they are not antagonistic to

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

knowledge, but being competent means using knowledge in a way related to skills and attitudes, that is, essentially being functional. In the case of the example above, the content could be made more flexible in order to respond to a social problem to leverage skills that range from working in a team, having initiative and proactivity, to decision-making to solve complex problems in resolving this problem. Social. In other words, a view centered, rather, on the content, becomes a view centered on the student, as he will use his mental processes as a competence to solve a real problem, as he does in real life contexts in which he uses his common knowledge to use in solving a particular problem.

Therefore, learning through skills does not simply imply ceasing to focus on the content and focusing learning on the student. However, focus on active mental processes that the student can produce, rather than passive ones in which the student receives ready-made information.

TDIC, in this case, helps in the development of skills, because, according to Almeida (2018, p. 10), from their connections, "[...] new ways of expressing thoughts, feelings, beliefs and desires emerge through a diversity of technologies and media languages [...]" capable of achieving the development of skills in the cognitive and socio-emotional dimensions, such as creativity, initiative, adaptability in different contexts, as required by the DCNs for the Administration course.

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

4 ACTIVE TEACHING AND LEARNING METHODOLOGIES

Considering the student as the central figure in the learning process, Moran (2015, p. 18) defines active methodologies as "[...] starting points to advance to more advanced processes of reflection, cognitive integration, generalization, will re-elaborate new practices", equivalent to their role played in the educational process.

As assumed by LDB, nº 9,394, of December 20, 1996, education occurs and results from different spaces that permeate the student's life (school, family, work, social practices) in which he is the subject and the center of the perspective of learning.

In this way, it is up to the teacher, as mediator of the learning process, to re-elaborate new practices, highlighting innovations in the scope of the curriculum, methodologies, teaching and learning resources (SILVA, 2019). As Moran (2015, p. 19) recognizes, "[...] in active learning methodologies, learning takes place based on real problems and situations; the same ones that students will experience later in their professional lives, in advance, during the course". Therefore, active methodologies can support this in order to integrate theory and practice (MORAN, 2014; OLIVEIRA, 2018), with the student being the center of the process of their development based on competencies, skills and attitudes arising from real situations that permeate your life.

As Behrens (2000, p. 103, emphasis added) highlights, the innovation of active methodologies is not in the fact that the time and space of teaching and learning is virtual or remote, based on technology, but in "[...] way in which the teacher will appropriate these resources to create methodological projects that go beyond the *reproduction* of knowledge and lead to *production* of knowledge", which implies the development of new practices.

The relationship between reproduction and production of knowledge that defines active methodologies as tools in the teaching and learning process must be evident in face-to-face, distance, or remote educational practices, demarcating, in addition to other aspects of its conception, the re-elaboration of new practices. In this sense, hybrid learning models at individual, group or tutorial levels, as described by Moran (2015), can

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

accelerate learning that is always guided or supervised, considering the student's protagonism.

The fact is that a pedagogical practice that uses active methodologies as innovation engenders characteristics that refer to the maintenance, or not, of the predominant curricular model of the subjects, however, having greater student involvement in their learning process, being classified, by Moran (2015), as smooth changes, when the curricular model is maintained; and profound, when they break with the organization by disciplines. Therefore, this characteristic of innovation in pedagogical practice, as a characteristic of PBL, engenders more flexible access to knowledge, placing the student as the protagonist of their learning and the teacher as its mediator and facilitator (MORAN, 2000).

These are examples of active methodologies in the path of progressive/smooth changes, indicated by Moran (2015, p. 15) "[...] project-based teaching in a more interdisciplinary way, hybrid or *blended* and the flipped classroom." These methodologies are part of the reflections that ensure educational training that goes beyond the vision of sequencing, that is, of moving between levels of education. However, training that guarantees learning that helps the student know how to learn, how to do it and how to interact with those involved in the learning process.

Regarding the active project-based methodology, Moran (2015) cites the following strategies that consider collaborative teaching and learning, among other examples, the method *Project Based Learning* (PBL), that is, Project-Based Learning (PBL) and *Team-Based Learning* (TBL) that provide opportunities for individual and collective learning, shifting the focus of learning from the teacher to the student.

In this work, ABP will be the active methodology strategy that will support the discussions that highlight the development of skills and abilities in the Administration higher education course in order to meet what the DCNs recommend.

4.1 PROJECT-BASED AND TECHNOLOGY-MEDIATED LEARNING

Project-based learning is individual and collaborative, defined by Moran (2018, p. 42) as "a learning methodology in which students engage with tasks and challenges to solve a problem or develop a project that is linked to

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

your life outside the classroom." In this methodology, in this way, there is greater engagement of students due to the fact that its approach can make learning challenging in a context inherent to students' lives.

In this sense, APB considers the premises of education for and in the 21st century in order to highlight the monitoring of social, economic and technological transformations that have occurred to contribute to the formation of citizens in an integral/interdimensional way with a proactive practice of social and professional action , demarcating their competencies, skills and attitudes developed in their academic training based on the relationship between theory and practice.

So much so that Behrens (2000, p. 104) defends a vision of education based on an emerging paradigm, that is, a "[...] proposition of alliance between the progressive approach, teaching and research and the vision holistic". A vision that converges with the educational perspectives of and for the 21st century, in which active teaching and learning methodologies, individual learning and learning with, for and from others are alternatives for the development of skills and abilities. The author suggests, in this sense, that the teacher addresses PBL, since students can highlight the skills and competencies to be developed with this approach at an individual or collective level.

In other words, the project can be collaborative, but its proposition can raise individual skills and abilities in the same way, reverberating in different aspects of the student's formation as a subject, whether in the area of knowledge, relationships with others, ethics, professionalism , among other elements of full human training that permeates social practice and qualification for work, as also established by the LDB, on the principles and purposes of national education.

Moran (2015; 2018) states that interdisciplinarity is one of the characteristics of PBL in which the project can be developed. In this context, due to the fact that the decisions and actions established come from students, this characteristic demarcates the development and integration of skills and abilities in different aspects and areas of knowledge.

Thus, one can learn aspects of Administration Theory, for example, through this teaching and learning methodology, based on teamwork which, in turn, enables the development of the ability to work together, to propose solutions, innovations and improvements through a systemic view of the company, according to Chiavenato

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

(2014) highlights, going against what Lopes (2006) points out as the fragility of training, that is, the fragmenting aspect, which does not consider learning procedures and attitudes.

In this case, it must be noted that the active methodologies addressed in the teaching and learning process must be analyzed taking into account individual learning styles and those arising from interaction with others. Moran (2014; 2015) emphasizes that the project to be developed must be guided by a balance between personal and collaborative teaching and learning time. In the case of the use of technology, it can be seen that it can play an important role in balancing learning spaces, as it enables learning outside the classroom, alone or in collaboration. As advised by Almeida (2018), the platforms available on the internet have an informative, instructive and training potential that helps the application of APB, providing "the exchange of ideas, conceptions, experiences and cultures, the development of collaborative productions, participation in projects of cooperation, learning, the organization of local or global social movements, the creation and publication of information" (ALMEIDA, 2018, p. 11). Therefore, the use of technological resources to support active learning methodologies requires adequate planning adapted to each pedagogical context.

In this sense, the following table describes some technological resources that can support PBL, adapted to the context of individual and collaborative development of skills and abilities of an Administration course.

Table 1. Technological resources that support the application of PBL

Technological resources	Characteristics	Applicability
Google Classroom	Platform with an ecosystem aimed at primary and higher education with real-time feedback.	Videoconferences. *Upload* of material. Creation of activities, tests and forms.
Google Drive	ecosystem app *Google* which allows viewing remote files in a virtual environment.	Development of work/projects individual/ collaborative.
Google form	ecosystem app *Google* which allows you to create research questionnaires with immediate tabulation of results.	General research.
Canvas business	Strategic business plan management platform.	Management screen templates in business.
Excel	*Software* in *design* of different spreadsheets.	Spreadsheets organizational for personal purposes and business.

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

Source: the author (2020).

Thus, the importance of planning the ABP methodology stands out, according to its characteristics so that, with its application, the objectives outlined based on its approach are achieved.

4.2 PROJECT-BASED LEARNING APPLICATION STRUCTURE

Among the models that projects can be developed from PBL, Moran (2018) exemplifies the project exercise, which occurs with application in a single discipline. The project component, when there is independent development/not articulated with other disciplines in a way that presents itself as an academic activity, is also another project model. In addition to these, the project approach, which unfolds as an activity between two or more disciplines, demonstrating its interdisciplinary character. And, finally, the project curriculum, when the subjects give way and the contents are available to the project.

Of course, project models are chosen based on the objectives that are intended to be achieved through their approach. Still according to Moran (2018), when this choice is based on the objectives of its development, it can take the form of a constructive project, having the function of creating something new throughout the process or in the result, but it can also be investigative, when uses scientific techniques to research a situation; and also explanatory, when it aims to answer questions such as “what for” and “how”.

There are activities to be developed so that the project approach can be configured as such. Moran (2018), in this sense, describes that project development needs to engender activities for motivation and contextualization, so that students become emotionally involved, feel challenged and commit to carrying it out. Furthermore, activities*brainstorming*they stimulate students' creativity, leading them to consolidate their own ideas for executing the project through collaborative processes.

Furthermore, organizational activities must be included in the project, that is, in the establishment of tasks, the resources to be used and the responsibilities of each person,

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

in the group, that is, in the planning itself. Other activities that must be included in the PBL approach are those of recording and reflection, in which the evaluation process permeates its condition of self-evaluation and evaluation by colleagues, resulting from reflections on the choices of resources and processes for carrying out the same and the possible demand to modify them.

Production activities must also be part of the teacher's planning when the methodological approach is PBL, as they effectively create a relationship between theory and practice, as students apply their learning to generate the project and its stages. And, finally, the activities of presenting and/or publishing the product, which can result from the celebration and also the final evaluation (MORAN, 2018). An important part of planning the application of the ABP methodology must be aimed at defining the technologies that will be used both for preparing the project and for the communication process between students, teachers and mentors, when applicable. There are some possibilities offered by educational technology companies that provide this interaction, such as the platform *google classroom,* the business model platform *Canvas* and Excel.

From the perspective of the characteristics of this teaching approach, it is emphasized that it must seek the development of a product. A product that does not necessarily need to be a concrete object, but can also be an idea, a campaign or a theory, according to Moran (2018). Regarding the relationship of the product or process as an active methodology, Moran (2015) highlights another characteristic of PBL based on the balance that must be observed regarding the product (project) being associated with the student's life so that he or she develops skills and abilities of participatory and procedural way. Skills, such as thinking critically and creatively, as well as realizing that there are other ways of carrying out the same task (Moran, 2018), giving rise to autonomous and competent thinking.

In other words, the student who learns through PBL has greater conditions to associate theory with practice and to develop individually and socially, since he experiences the theory in real situations and, to this end, participates in the learning process. proposing to solve problems and face challenges individually or in groups when sharing tasks with members of the team involved in the project.

Taking this perspective of developing skills and abilities in a participatory and procedural manner as another characteristic of PBL, we can see that teaching is not unilateral, but mediated and learning is not a product, but a process, such as

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

occurs in everyday life. This is why it becomes more motivating to teach and learn, as long as these assertions are not seen as ready-made models, but rather that these aspects serve as a basis to highlight their real need, in accordance with the reality and objectives to be achieved from the project-based methodology.

A methodology that, as a way of innovating in undergraduate teaching in a Management course, will be approached both to differentiate archaic pedagogical practices and to develop other skills and abilities that are only of a technical nature, within the scope of knowledge, but of a broad nature in this context, how demands the reformulation of teaching this future professional. Especially because society has transformed and, in this way, teaching needs to follow its purposes according to social needs.

4.3 ADVANTAGES AND LIMITATIONS OF PROJECT-BASED LEARNING

The advantages of this teaching methodology, according to Moran (2015), can be seen in the scope of the flexibility of learning times and spaces, which can be resized, especially if the perspective of this methodology involves the hybrid issue of this teaching (virtual and in-person) . In addition to presenting certain curricular content in a relevant way and promoting an unconventional approach to teaching and learning that makes it boring and disconnected from reality, it also promotes the observation of different individual and collective learning styles in the pedagogical environments used.

Flexibility, both in access to knowledge and in the time and space of learning, one of its advantages, stands out in the way each student achieves knowledge, that is, resulting from discoveries, investigative questions and the proposition of problem solving (MORAN, 2018).

However, in order to demarcate the difficulties of implementing active methodologies, the number of students in a classroom must be considered as a limiting factor, however technological resources are tools that expand the possibilities of handling and managing projects. In this sense, the teacher's planning is essential to prevent problems in its implementation regarding the level of knowledge, adequacy of the curriculum and interest of the students, which may vary in terms of topics, requiring, in this case, that the teacher makes some of the flexibility curricular component (MORAN, 2018).

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

One of the aspects that can eliminate this disadvantage is the fact that, if the class is large, or the classes are remote or virtual, groups can meet in video conferences to distribute tasks, discuss project proposals in order to demarcate their engagement with the activities proposed by themselves.

Thus, to describe and verify the effectiveness of using the active methodology through the strategy of elaboration and development of PBL as a way of integrating the curriculum and the development of competencies, skills and attitudes of an Administration course, a case study was carried out at the Faculty of Guaratinguetá – FACEG.

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

5 RESEARCH METHODOLOGY

Methodology is the study of methods used to carry out research. Scientific research, in this case, is the "[...] formal and systematic product of development of the scientific method" (GIL, 2011, p. 26), unfolding, in turn, regarding the objectives of the research and the data collection procedures and their analysis approach.

This research, in terms of objective, is descriptive, as it aims to describe, among other aspects, "[...] the establishment of relationships between variables" (GIL, 2011, p. 28). In this case, the description of the relationship between the variables concerning the approach of a teaching and active learning methodology with the development of skills and abilities of a subject in the FACEG Administration course.

As for the scientific procedures for carrying it out, it is classified as bibliographic, because, from reading books and scientific articles, the theoretical framework was constructed (GIL, 2011). And case study, due to the fact that its procedures are characterized as empirical and contextualized investigative studies of a phenomenon, in which the researcher is also the subject and object of research (YIN, 2010), and can occur in "[...] a well-defined entity such as a program, an institution, an educational system, a person, or a social unit (GIL, 2011, p. 17).

As for the data analysis approach, it is qualitative and quantitative. Data analysis took place in two stages: firstly, in the discipline called the Interdisciplinary Business Practices Integrative Project, from FACEG, with a qualitative approach to teacher planning, which approached PBL as capable of developing skills and abilities prescribed by the DCNs.

Secondly, a quantitative approach to the data collected from the questionnaire prepared (Appendix A) with closed and open questions and applied to the target audience of 30 undergraduates enrolled in the 4th, 5th and 6th periods of the Administration course at the HEI researched, in second semester of 2019, about their perception of the skills and abilities developed from PBL as a teaching methodology.

The application of this instrument was carried out after sending the tool*google forms.* A tool that allows you to create forms to be answered by a group of people

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

previously allocated and which highlights the results in real time of the interviewees' responses through tabulation. Based on this instrument, a number of 27 student respondents were obtained, equivalent to 90% of the surveyed universe.

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

6 CASE STUDY

For the empirical and contextualized investigative study of the phenomenon of learning skills and abilities prescribed by the DCNs, the Administration course at the Faculty of Administration Guaratinguetá (FACEG) was chosen, which belongs to the Supporting Group "União das Instituições Educacionais de São Paulo" (UNIESP) SA, located in São Paulo, more specifically on the Integrator Project discipline.

This discipline's methodological proposal is the integration of content aiming at the applicability of theoretical knowledge in real situations. This methodological proposal intends to materialize, in academic practice, the construction and development of skills that the DCNs of undergraduate courses recommend, as well as those that the job market requires from its future professionals.

At FACEG, this discipline is entitled "Integrating Interdisciplinary Business Practices Project" and takes place every six months, one meeting per week lasting 4 hours (from 7pm to 10pm), with the aim of integrating the disciplines of Strategic Planning, Human Diversity, Business Administration Production, Cost Accounting and People Management, which occur simultaneously in the semester in which it is carried out.

This curricular component, at the HEI researched, does not comply with any institutional development policy. The professor has the freedom to conduct the planning and execution of this discipline, as long as he develops a project that establishes an integration with the other disciplines of the Administration course while at the same time developing competencies and skills prescribed for the course in which it is being developed, in this case, the Administration course.

The choice to develop a social project, which would be developed and applied to offer a party for children, as a celebration of their day, at the Escolinha "Gota de Leite", a school in the municipal education network of São Paulo that serves extremely vulnerable children. needs, for the Integrative Project (PI) discipline at the IES, this was for two reasons: firstly, due to the fact that the students of this discipline, in the second semester of 2019, chose it as a product and, secondly, due to the fact that the teacher of the subject in question realized

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

that this product would establish the connection between the development of skills and abilities prescribed in the pedagogical project of the FACEG Administration course.

6.1 RESULTS

Regarding the qualitative analysis of data on the teacher's planning of the discipline Integrator Interdisciplinary Business Practices Project, from FACEG, the aspects of meeting the activities and characteristics of the methodology addressed in order to promote the development of skills and abilities prescribed by the DCNs stand out.

For guidance on the development of the discipline's project, the class planning script (Appendix B) was followed in terms of defining the theme and issues of the IP and the technological resources to be used. At this stage, the choice of technologies, such as *date show*and the notebook, helped students to visualize the concepts, previously accessed in the remote classroom of the*Google Classroom*,in order to put them into practice in person.

The objective of the classes in the Interdisciplinary Integrative Project Business Practices discipline was to propose, through the active ABP methodology, the elaboration and application of a project in order to integrate the theory of the disciplines Strategic Planning, Human Diversity, Production Administration, Cost Accounting , People Management and its practice for the development of competencies, skills and attitudes prescribed by the DCNs. Within the scope of integration between theory and practice, in accordance with what Moran (2014) and Silva (2018) advocate, this aspect was met, as the PBL approach was planned in pedagogical and technological aspects, as well as following the constructive model, according to Moran's classification (2018).

With regard to this constructive model, based on the use of PBL, in the classes of the Interdisciplinary Integrative Project Business Practices discipline, it is noteworthy that the integration between the theory of the Strategic Planning discipline with the practice of the project resulted from the written construction of the same , in which assessing risks and calculating costs also involved integration between theory and practice for Accounting and Costs, when they should calculate expenses based on revenue. Furthermore, when students organized themselves into groups and divided the tasks between the components, determined by the leader chosen for the

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

group. The integration between theory and practice resulted from the disciplines of Production Administration, People Management and Human Diversities, since, with the guidance of their leader, they themselves should, given their differences, work in groups so that their productions demonstrate the execution from the project. To this end, students were instructed to seek information from other teachers of the disciplines involved in order to demonstrate specific knowledge of these areas to be included in the business plan on human resources management, logistics, materials used, strategic planning, calculating finances and production costs, as well as business risks.

For the construction of knowledge and flexibility of spaces and times for learning, the observance of planning based on PBL stands out as an active teaching methodology that promotes balance between personal and collaborative teaching time, between the advantage of going against the unilaterality and flexible access to knowledge, as well as the limitation of the methodology regarding the number of students in a classroom, as advised by Moran (2018).

As technological support for this methodology, TDIC were used (*google classroom*)in order to promote interactions, establish relationships consistent with the project to be developed, as Almeida (2018) points out.

During a remote/virtual learning moment, students accessed the material in advance via the app*google classroom,*a remote classroom created by the teacher to share reference material and construct knowledge, not its reproduction, as warned by Behrens (2000). In this aspect, the planning highlights the recognition of the informative, instructive and training potential of remote teaching platforms, which Almeida (2018) highlights as TDIC that favor student-centered learning. Thus, theoretical content related to leadership and social problems were made available in advance to accelerate individual, social and group learning, as stated by Moran (2015), aiming to promote students' prior knowledge of face-to-face classes on these themes for the future construction of the project. .

This pedagogical planning action aimed to develop the ability to transfer knowledge from everyday life and experience to the work environment and its professional field, in different organizational models, revealing itself

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

adaptable professional, as they would make use of technology to exchange information and promote individual and group developments.

In turn, in person, the students were instructed to divide themselves into five groups of six members, choose the group leader and then discuss the theme and problem of project development, activities that were planned for the stage 1 – definition of the theme and problem of the project to be developed – in the planning script for classes (Appendix B), which would unfold the business plan for a company. This business plan, in this way, took the form of a product, a social project.

This part of the planning aimed to promote the development of skills and abilities prescribed by the DCNs in terms of recognizing and defining problems, devising solutions, thinking strategically, introducing modifications in the production process, acting preventively, transferring and generalizing knowledge and exercising, at different degrees of complexity, the decision-making process, as well as developing expression and communication compatible with professional practice, including in negotiation processes and interpersonal or intergroup communications.

In this sense, the planning provided, as an activity to approach the ABP methodology, the application of *brainstorming,* as stated by Moran (2018), responsible for developing the competence of creativity, because based on the students' ideas about the product to be developed, their choices would be validated by their arguments.

Furthermore, the activity of *brainstorming* engenders motivation, promotes contextualization and emotional involvement of students, making them feel challenged and committed to the project (MORAN, 2018). The visible aspects in planning allow the development of skills and abilities in the personal, emotional and social sphere based on a real, contextualized situation.

Thus, this planning action aimed to promote the development of skills and abilities prescribed by the DCNs with regard to having initiative, creativity, determination, political and administrative will, willingness to learn, openness to change and awareness of the quality and ethical implications of the their professional practice.

Regarding stage 2 of the lesson planning script (Appendix B), that is, the preparation of work planning, the interdisciplinarity that Moran

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

(2018) classified as a characteristic of PBL, as it promotes integration between more than one discipline.

At this stage, students sought information from teachers and the contents of the disciplines involved in preparing the project. Therefore, it demarcates the development and integration of skills and abilities in different aspects and areas, as well as denoting a project-approach that aims at interdisciplinarity. This pedagogical action, using PBL as a methodology that promotes the development of skills and abilities prescribed by the DCNS, is associated with the development of logical, critical and analytical reasoning to operate with values and mathematical formulations present in the formal and causal relationships between productive and administrative phenomena and control, as well as expressing themselves in a critical and creative way in the face of different organizational and social contexts, as students would make use of knowledge from integrated disciplines to carry out the project to be developed in the Integrative Project discipline.

Furthermore, with regard to the item of this stage regarding defining the role assignments of each group component, this activity characterizes the development of skills that Moran (2018) describes as the students themselves were organized with the distribution of tasks and execution of the same, in the ABP methodology. And, with regard to the development of skills and abilities prescribed by the DCNs, it aimed to promote the development of reflecting and acting critically on the sphere of production, understanding its position and function in the productive structure under its control and management.

Stage 3, of the lesson planning script, provided for the implementation of the project. For this stage, it was also established that the writing of the project should begin, as seen in figure 1.

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

Figure 1. Preparation of the business plan

Source:Author himself (2019).

As support to facilitate this activity, the teacher, as a mediator and facilitator of learning, once again used technology through a strategic business management platform, called*Canvas*(Appendix C).

The use of this platform aimed to facilitate learning how to write a project in terms of its primary aspects in the area of Administration, which meets the development of competence and skills prescribed by the DCNS in terms of developing the ability to prepare, implement and consolidate projects in organizations and the ability to carry out management and administration consultancy, administrative, managerial, organizational, strategic and operational opinions and expertise.

In stage 4, planning, which deals with the implementation of the project, so that all planned actions could be carried out, the students visited the entity chosen to carry out the social project and collected data on the target audience, the number of children and gender, in order to account for costs within the budget established for the purchase of food, drinks, decorations and toys to be delivered to each child. With the information collected to prepare the business plan, as well as the responsibilities of each component of the work group, following the base schedule, the implementation of the project

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

It was scheduled for October 12, 2019. The day was planned to decorate the place with decorations, deliver toys and promote recreation, in addition to organizing the distribution of food and drinks (Figure 2).

Figure 2. Project implementation day

Source: Author himself (2019).

The base schedule (Appendix D) was also used. In the same way, in stage 5 – evaluation of the project and student performance – it was possible to perceive and evaluate the development of skills and abilities in a procedural and participatory way, according to Moran (2018) highlights.

The preparation of the Base Schedule (Appendix D) also involved the use of technology to support recording and reflection activities. They were made available in the *Google Classroom,*the spreadsheets*Excel*for recording the actions of each member of the group and control mechanisms regarding whether or not their duties are carried out, the relocation of actions, among other issues subject to reflection and reorganization. In this way, the development of cognitive and socio-emotional skills related to the processes of assessment and identification of needs for changing routes was provided, as highlighted by Moran (2018). Although the use of technology provides support to accelerate learning and develop skills and abilities, it is noteworthy that, in this case, its use was in favor

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

of ABP and favored the perception that there are different ways of doing the same task (writing the project). This, according to Moran (2018), is equivalent to the development of creativity and critical, autonomous and competent thinking and aims to promote the development of competence and skills prescribed by the DCNs in terms of having initiative and creativity, already addressed in the first stage of planning. In summary, the pedagogical planning for classes in the Interdisciplinary Integrative Project Business Practices discipline highlighted PBL characteristics and activities to promote the development of skills and abilities prescribed by the DCNs. In this way, it is noteworthy that, even without the IES having a policy for the development of the discipline Interdisciplinary Integrative Project Business Practices, the professor, by approaching PBL as a teaching methodology, contributed to guiding the Pedagogical Course Project - PPC of this IES considering the development of skills and abilities prescribed by the DCNS. This pedagogical practice promoted innovation in teaching methodology without changing the curriculum. In this way, the teacher emphasizes a change in the methodological proposal, as a reflective aspect, by maintaining the curricular structure including characteristics of the ABP methodology, whose primary assertion places the student at the center of learning (MORAN, 2015).

Having highlighted the activities and points that characterize the ABP methodology in the planning of classes in the discipline Interdisciplinary Integrative Project Business Practices as a methodology responsible for developing skills and abilities prescribed by the DCNs of the Administration course, the presentation of the results begins, based on the collection of data by the research instrument.

6.2 INTERVIEWEES' PERCEPTION REGARDING THE DEVELOPMENT OF SKILLS AND ABILITIES PRESCRIBED BY THE DCNS, BASED ON THE ABP METHODOLOGY

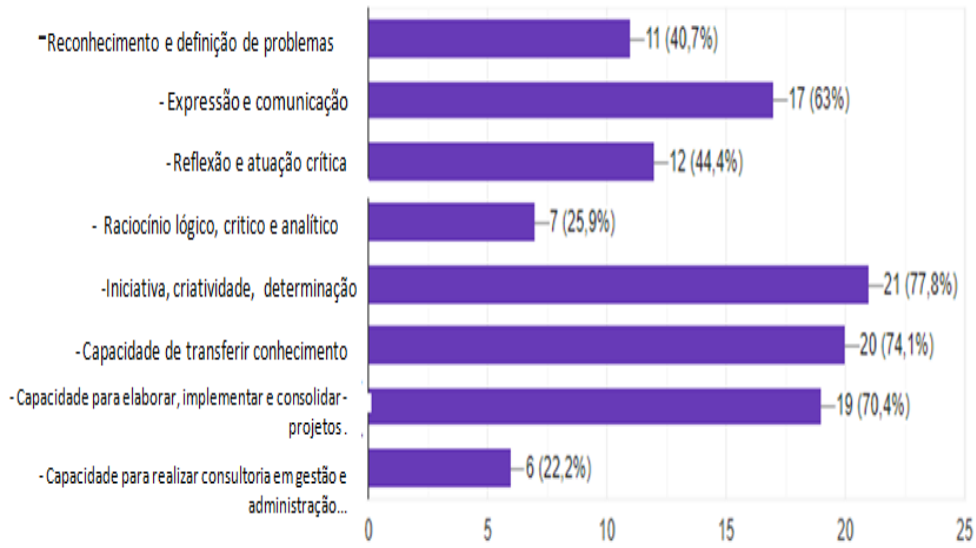
Regarding the application of the questionnaire to determine whether, in the students' perception, the skills and abilities prescribed by the DCNs were developed from the PBL, the analysis was quantitative, that is, characterized by numerical representation (GIL, 2011) with measurement of the data collected by the questionnaire applied to the research sample and presented through a graph. This instrument was applied to the class made up of 30

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

undergraduates enrolled in the 4th, 5th and 6th periods of the aforementioned course, in the second semester of 2019.

The universe researched corresponds to 30 students of the Interdisciplinary Integrative Project Business Practices discipline in 2019. Of this universe, 27 responded to the questionnaire, representing a sample of 90%. The characterization of the research sample consists of students aged between 20 and 38 years old, with a predominance of females. The DCNs list eight competencies and skills that should guide the PPC of an undergraduate course. Based on the research questionnaire applied, these were the skills and abilities addressed so that students could point out their perception as development from PBL. The following graph presents the numerical representation of the data collected.

Graph 1 – Skills and abilities developed from PBL



Source: Author himself (2020).

As can be seen in the graph, all the skills and abilities prescribed by the DCNs for the Administration course were perceived as developed based on the ABP methodology by the research sample. Firstly, the fifth competence and ability prescribed by the DCNS appears – having initiative, creativity, determination, political and administrative will, willingness to learn, openness to change and awareness of quality and

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

ethical implications of your professional practice. For this variable, 77.8%, that is, 21 students perceived it as developed, based on the PBL.

Secondly, the sixth competence and skill prescribed by the DCNS appears, that is, developing the ability to transfer knowledge from everyday life and experience to the work environment and its professional field, in different organizational models, revealing oneself as a professional adaptable. 74.1% of students perceived it as developed, based on PBL as a methodology, corresponding to 20 respondents.

Following this, the third competence and skill perceived by the students as developed from the PBL was the seventh prescribed by the DCNS, that is, developing the ability to develop, implement and consolidate projects in organizations, with 70.4%, equivalent to 19 interviewees .

Fourthly, with the observance of 17 students, equivalent to 63% of the sample, the competence and ability perceived as developed, from the ABP, was the second prescribed by the DCNS – developing expression and communication compatible with professional practice, including in negotiation processes and interpersonal or intergroup communications.

Fifthly, the third competence and ability prescribed by the DCNs – being able to reflect and act critically on the sphere of production, understanding its position and function in the productive structure under its control and management – was perceived as developed by the minority of the research sample, the from ABP, that is, 12 students, corresponding to 44.4% of the sample. Therefore, one cannot fail to highlight the characteristic of this methodology that converges with this competence and skill, that is, achieving more advanced processes of reflection, as highlighted by Moran (2015) and which places it as a suitable resource for its development. With a total of 11 respondents, equivalent to 40.7% of the sample, it is noteworthy that the first competence and skill prescribed by the DCNs was perceived as developed, based on the ABP, by the students. This converges to the prescribed competence and ability regarding the recognition and definition of problems, devising solutions, strategic thinking, introducing modifications in the production process, preventive action, transfer and generalization of knowledge and exercise, in different degrees of complexity, of the production process. decision making. Next, logical, critical and analytical reasoning to operate with values and mathematical formulations present in formal and

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

between productive, administrative and control phenomena, as well as expressing themselves in a critical and creative way in the face of different organizational and social contexts, that is, the fourth competence and skill prescribed by the DCNS, was the one perceived as developed, from the PBL , by 7 respondents, equivalent to 25.9% of this sample.

And, finally, with observance of development, based on the ABP, by 6 students, corresponding to 22.2% of the research sample, the eighth competence and skill prescribed by the DCNs was the one identified as perceived in terms of developing the capacity to carry out management and administration consultancy, administrative, managerial, organizational, strategic and operational opinions and expertise. Regarding the open question, which asked interviewees to highlight other skills and abilities developed in the discipline Interdisciplinary Integrative Project Business Practices, based on the ABP, the emergence of behavioral skills that converge, in some way, with those already prescribed is highlighted. in the DCNs as seen in the following word cloud:

Figure 3. Other skills and abilities developed from PBL

Source: Author himself (2020).

Thus, the PBL approach as a methodology has the potential to promote changes in the pedagogical paradigms that permeate HEI teachers with regard to the re-elaboration of their practice in the teaching and learning process, as stated by Ching, Silva and Trentin (2014) and Moran (2015).

According to the results presented, in addition to this innovation in pedagogical practice, PBL has specific characteristics and activities that, if observed in planning,

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

provide opportunities and contribute to the development of skills and abilities prescribed for Business Administration graduates.

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

CONCLUSION

The academic training of an administrator is guided by curricular guidelines that, in turn, guide the PPC of HEIs in order to graduate professionals, in theoretical and practical aspects, with at least eight competencies and skills that encompass the different dimensions that make up the integrality of the human being.

To this end, the behaviorist learning theory, based on the reproduction of knowledge, evolves into a constructivist learning theory based on the production of knowledge, with the student as the protagonist of their learning, and the teacher, a mediator/facilitator. Technologies, whether or not they are information or communication technologies, support, favor and contribute to active learning that has given rise to different teaching methodologies and promote reflections on the way in which learning is procedural and participatory.

Thus, among these active learning methodologies, PBL is conceived as capable of providing opportunities for the development of skills and abilities prescribed by the DCNs for the Administration course, once its specific characteristics regarding its aspect of integrating theory and practice are observed.

In the case of its approach, with the aim of verifying its effectiveness in developing skills and abilities prescribed by the DCNS for the Administration course, it is considered that this methodology places the student as the protagonist of learning and, through technological support, facilitates individual and group learning. , promotes engagement with tasks and enables the contextualization of content with extra-school life in an interdisciplinary, procedural and participatory way.

ABP was effective due to its interdisciplinary characteristic that integrates theory and practice; for the activity of *brainstorming*, which provides opportunities for creativity and argumentation; through the motivation and contextualization activity, which promotes emotional involvement, the overcoming of a challenge and engagement with the tasks to carry out the project arising from their own ideas; for the support given to the methodology by TDCI, for the fact that they promote spaces and times for individual and collaborative learning; as well as

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

through the organizational activity in which students decide on their own tasks to be performed and fulfilled.

Furthermore, it shows its effectiveness in terms of recording and reflection activities, supporting the platform's technology.*Canvas,*that this activity allows you to organize and reorganize deliberate tasks, completed and unfulfilled, in order to reorganize them and, thus, develop creativity and critical thinking. So much so that, through the ABP, in the integrative project discipline, all eight competencies and skills prescribed by the DCNs were considered developed by the research sample. Thus, based on the PBL approach as a teaching and learning methodology, even without an institutional policy to do so, it is considered that its choice, permeated by appropriate technologies and pedagogical planning, makes it possible to develop the skills and abilities prescribed by the DCNS to the Administration course, as perceived by the research sample. As a point for future research, the importance of pointing out the contribution that active methodologies can bring to the construction of PPC, based on competencies and skills from undergraduate courses, is highlighted.

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

REFERENCES

ALMEIDA, MEB Presentation.*In:*BACICH; L.; & MORAN, J. 2018.**Active methodologies for innovative education:**a practical theoretical approach. Porto Alegre: I think so. P. 10-15.

ARAÚJO, VP**Administrator skills and training.**105f. Thesis (Master's degree) – Positivo University, Organizations, Master's and Doctorate Program in Administration, Curitiba. 2010. Available at: http://livros01.livrosgratis.com.br/cp150482.pdf. Accessed on: 15 April. 2020.

AUSUBEL, DPA The nature of meaning and meaningful learning.*In.:* AUSUBEL, DPA **Acquisition and retention of knowledge:**A cognitive perspective. Trans. Lígia Teopisto. Lisboa, Paralelo Editora, LDA, 2000, p. 71-104.

BEHRENS, MA Collaborative learning projects in an emerging paradigm.*In:* MORAN, JM; MASETTO, MT; BEHRENS, MA (org.).**New technologies and pedagogical mediation.**13. ed. Campinas, SP: Papirus, 2000, p. 67-132.

BRAZIL.**Law No. 4,769, of September 9, 1965.**Provides for the exercise of the profession of Administrator and provides other provisions. 1965. Available at: http://documentos.cfa.org.br/arquivos/lei_4769_1965_645.pdf. Accessed on: 20 June. 2020.

BRAZIL.**Law No. 9,394, of December 20, 1996.**Establishes the guidelines and bases of national education, 1996. Brasília. Available in: http://www.planalto.gov.br/ccivil_03/leis/l9394.htm. Accessed on: 10 May. 2020.

BRAZIL.**Resolution nº 4, of July 13, 2005.**Establishes the National Curricular Guidelines for the Undergraduate Course in Administration, bachelor's degree, and provides other measures. 2005. Available at: http://portal.mec.gov.br/cne/arquivos/pdf/rces004_05.pdf. Accessed on: 30 April. 2020.

CHIAVENATO, I.**Administration:**theory, process and practice, Rio de Janeiro, Elsevier, 2007.

CHING, H.; SILVA, EC; TRENTIN, PH Competency-based training: experience in structuring the Pedagogical Project of an Administration Course.**RAEP**–Administration: Teaching and Research [online], 2014. Available at: https://www.redalyc.org/pdf/5335/533556757002.pdf. Accessed: 19 June. 2020.

DELORS, J.*et. al,***Education, a treasure to discover.**Report to UNESCO of the International Commission on Education for the 21st Century [e-book]. São Paulo: Cortez Editora. 1999. Available at: http://files.beaescd.webnode.pt/200000311- 1533a17273/ r_unesco_educ_tesouro_descobrir.pdf. Accessed on: May 1st. 2020.

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

FERNANDES, BHR**Strategic people management with a focus on skills.**Rio de Janeiro, Elsevier. 2013.

GIL, A.C.**Higher Education Methodology,**São Paulo, Atlas, 2011.

ISMAIL, S.; MALONE, MS; GEEST, Y.V.**. Exponential organizations:**why they are 10 times better, faster and cheaper than yours (and what to do about it). São Paulo, HSM Editora. 2015.

.

LA ROSA, J.**Psychology and education:**the meaning of learning, Porto Alegre, EDIPUCRS, 2003.

LISBON, TC**Administrator training in Brazil:**skills and abilities. 2016. São Paulo. Available at: https://www.aforges.org/wp-content/uploads/2016/11/38-Teresinha-Covas-Lisboa_A-formacao-do-administrador-no-Brasil.pdf. Accessed on: 30 April. 2020.

LOPES, PC Administrator training in undergraduate education: a reflection.**Seminar:** Social and Human Sciences [online], 2006. Available at: http://www.uel.br/revistas/uel/index.php/seminasoc/article/view/3749. Accessed on: May 21st. 2020.

MARTINS-SILVA, PO; SILVA, CS; & SILVA JÚNIOR, A. The competencies of administrators: their training process and the demands of the job market. **Contextus - Contemporary Economics and Management Magazine**[online], 14. Available at: http://repositorio.ufc.br/handle/riufc/22480. Accessed on: May 15th. 2020.

MASIERO, GA**Business Administration:**theory and functions with exercises and cases, São Paulo, Saraiva, 20212.

MORAN, J. Teaching and Learning with audiovisual and telematic technologies.*In:* MORAN, JM; MASETTO, MT; BEHRENS, MA (org.).**New technologies and pedagogical mediation.**13. ed. Campinas, SP: Papirus. (Papirus Education Collection), 2000, p. 11-66.

MORAN, J. Autonomy and collaboration in a digital world.**Educatrix Magazine**[online], 2014. Available at: http://www2.eca.usp.br/moran/wp-content/uploads/2013/12/autonomia.pdf. Accessed on: 19 April. 2020.

MORAN, J. Changing education with active methodologies.*In:*Souza, CA; & Morales, OET **Media Convergences, Education and Citizenship:**young approaches. 2015. Available at: http://www2.eca.usp.br/moran/wp-content/uploads/2013/12/mudando_moran.pdf. Accessed on: 11 May. 2020.

MORAN, J. Active methodologies for deeper learning.*In:*BACICH; L.; & MORAN, J. **Active methodologies for innovative education:**a practical theoretical approach. 2018. Porto Alegre: I think. P. 26-53.

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

MINTZBERG, H.; GOSLING, J. Educating managers across borders.**IT WAS** [Online], 2003. Available at: http://www.fgv.br/rae/artigos/revista-rae-vol-43-num-2-ano-2003-nid-45513/. Accessed on: May 20th. 2020.

NUNES, SC; BARBOSA, ACQ Competency-based training? A study in undergraduate management courses. RAM.**Mackenzie Administration Magazine** [online], 2009. Available at: https://www.scielo.br/scielo.php?pid=S1678-69712009000500003&script=sci_arttext. Accessed on: 19 June. 2020.

ODA, IS.; & MARQUES, C. Administration: definition and contextualization.*In.:*ODA, IS.; & MARQUES, C.**Management of organizational functions.**Curitiba: IESDE Brasil SA p. 7-18, 2008.

OLIVEIRA, YES. T.**Active learning projects and methodologies,**São Paulo, Editora Senac, 2019.

SCALLON, G.**Assessment of learning in a competency-based approach,**Curitiba, pucpress, 2015.

SILVA, C.M.**Analysis of the effectiveness of project-based learning in developing skills, abilities and attitudes in higher accounting education.**88f. Dissertation (Masters in Accounting Sciences) – Federal University of Rio Grande do Norte, Center for Applied Social Sciences, Postgraduate Program in Accounting Sciences. Natal, RN. 2018. Available at: https://repositorio.ufrn.br/jspui/handle/123456789/25718. Accessed on: 10 April. 2020.

SILVA, J.G.**Teaching Philosophy:**a dialogue with interdimensional education in the formation of a supportive, autonomous and competent young person. 128f. Dissertation (Master's) – Federal University of Pernambuco, CFCH. Professional Master's Program in Philosophy, Recife. 2019. Available at: https://attena.ufpe.br/bitstream/123456789/35350/4/DISSERTA%c3%87%c3%83O%20Jos%c3%a9%20Gilberto%20da%20Silva.pdf. Accessed on: 30 April. 2020.

YIN, R.K.**Case study:**planning and methods, Porto Alegre, Bookmann, 2010.

ZABALA, A.; ARNAU, L.**How to learn and teach through skills.**[e-book] Porto Alegre: I think. 2014. Available at: http://www.creaes.org.br/img/III_FEAT/3_GT_Aprendizagem-ativa/Como-Aprender-e-Ensinar-Competencias.pdf. Accessed on: 19 June. 2020.

ZANELLA, L. Learning: an introduction.*In.:*La Rosa, J. (org.).**Psychology and education:**the meaning of learning. 7. ed. Porto Alegre: EDIPUCRS, 2003. p. 23-36.

ZARIFIAN, P.**Competency objective:**by a new logic, São Paulo, Atlas, 2001.

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

APPENDICES

Appendix A - data collection instrument – questionnaire

This questionnaire refers to the data collection instrument of academic research by Danillo Miguel de Sales Santos, entitled "Project-based learning as an emerging technology in higher education for the development of competencies and skills in Administration, from the Master's in Emerging Technologies course in Education, from Must University. This research aims to verify the effectiveness of applying the Project-Based Learning methodology in developing skills and abilities defined by the National Curricular Guidelines (DCNs) of the Undergraduate Administration course. The data collected will be used for academic dissemination purposes and your personal data will be kept confidential.

Name: _____

Age:_____Gender: _____

The DCNs of the undergraduate Administration course deliberate on skills and abilities that must be developed by the graduate throughout their training, so that their performance in the area demonstrates a systemic and multidimensional performance in the administration of organizations in general.

We understand as competencies "[...] the possibility, for an individual, of internally mobilizing an integrated set of resources in order to resolve a family of problem situations" (SCALLON, 2015, p. 143); and skills such as the ability to use these resources in a way interrelated to competencies (ZABALA; ARNAU, 2014), that is, being functional.

Considering the project-based learning methodology, applied in the Interdisciplinary Integrative Project Business Practices discipline, mark an X in the items that describe the skills and abilities contained in the DCNs, which you realize you have developed during your training, from the development of the project.

( ) Recognition and definition of problems, devising solutions, strategic thinking, introduction of modifications in the production process, preventive action, transfer and generalization of knowledge and exercise, in different degrees of complexity, of the decision-making process. ( ) Expression and communication compatible with professional practice, including in negotiation processes and interpersonal or intergroup communications.

( ) Reflection and critical action on the sphere of production, understanding its position and function in the productive structure under its control and management.

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

( ) Logical, critical and analytical reasoning to operate with values and mathematical formulations present in the formal and causal relationships between productive, administrative and control phenomena, as well as expressing oneself in a critical and creative way in the face of different organizational and social contexts. ( ) Initiative, creativity, determination, political and administrative will, willingness to learn, openness to change and awareness of the quality and ethical implications of their professional practice. ( ) Ability to transfer knowledge from everyday life and experience to the work environment and their professional field, in different organizational models, proving to be an adaptable professional.

( ) Ability to develop, implement and consolidate projects in organizations.

( ) Ability to carry out management and administration consultancy, administrative opinions and expertise, managerial, organizational, strategic and operational.

II – What other competence(s) and skill(s) can you mention that you developed during the course of the social project and why you consider it so.

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

Appendix B – Class planning script for the Interdisciplinary Integrative Business Practices Project – 2nd semester/2019

Teacher: Danillo Miguel de Sales Santos
Class: Interdisciplinary Integrative Project Business Practices – 2nd semester 2019 (4th, 5th and 6th period of Administration).
Disciplines involved: Strategic Planning, Human Diversity, Production Management, Cost Accounting, People Management.
Objective: to propose, through the active ABP methodology, the elaboration and application of a project in order to integrate the theory of the disciplines involved in the semester and their practice regarding the development of skills, abilities and attitudes prescribed by the DCNs.

CLASS/CONTENT	ACTIVITIES TO BE DEVELOPED WITHIN AND OUTSIDE THE CLASSROOM	HUMAN RESOURCES AND MATERIALS USED
Stage 1 – Defining the theme and issues of the IP.	● Division of groups. ● Choosing the group leader. ● Choosing the project's generating theme.	● Brush. ● Blackboard. ● Chamex paper. ● Pens. ● Notebook. ● Data show.
Step 2 – Preparation of work planning and role assignments for each member. Stage 3 – Project implementation.	● Internet searches. ● Seek information from teachers from other disciplines involved in the project. ● Start of the project business plan. ● Collect information about the chosen entity regarding the target audience.	● Computer lab. ● Printing the development in model in business from the platform *Canvas.* ● Chamex paper. ● Blackboard. ● Pens. ● Computers. ● Data show.
Step 4 – Application of the project.	● Carry out the actions foreseen in the business plan regarding providing decoration, decorations, delivery of toys, entertainment and food and drinks based on the schedule and data collected about the target audience.	● Business plan prepared. ● Chamex paper. ● Pens. ● Students. ● Teacher.
Stage 5 – Assessment of the project and student performance.	Discussion, in the classroom, about the implementation of the project in terms of whether what was previously planned and structured was carried out or not (guided by the base schedule (Appendix D).	● Printing the base schedule. ● Brush. ● Blackboard. ● Teacher. ● Students.

RCMOS
Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

Appendix C – Platform Business Development Model Platform *Canvas*

PROJECT:

GOALS	PRODUCTS	STAKEHOLDERS	ASSUMPTIONS	TEAM
Indicate the questions to be answered	Relate the resulting products from work - Including the tool developed	Name of everyone involved and the respective involvement	Highlight the conditions adopted for preparing the work	Relate the members of group and its function in team
SUBJECTS	**HYPOTHESES**	**REQUIREMENTS**	**GROUPS OF DELIVERY**	**LINE OF TIME**
Include the subjects involved	Possible solutions for resolving the problems	Highlight the conditions to be met	Relate items to be delivered	Highlight by class in function of the schedule base
PROBLEM		**RESTRICTIONS**	**COSTS**	
Highlight the problems to be resolved		Highlight what was not done at work	Demonstrate the estimated values for carrying out the work	

RCMOS Revista Científica Multidisciplinar o Saber
ISSN 2675-9128
DOI 10.51473
Volume 4 - Número 4
Abril de 2021

Appendix D – Base schedule

Cronograma																				Data elaboração
Nome da disciplina / atividade:																				Data revisão
Membros do grupo																				STATUS
MÊS	Agosto				Setembro				Outubro					Novembro				Dezembro		
Semana	S32	S33	S34	S35	S36	S37	S38	S39	S40	S41	S42	S43	S44	S45	S46	S47	S48	S49	S50	
Plan																				
Exec																				
Plan																				
Exec																				
Plan																				
Exec																				
Plan																				
Exec																				
Plan																				
Exec																				
Plan																				
Exec																				
Plan																				
Exec																				
Plan																				
Exec																				
Plan																				
Exec																				
Plan																				
Exec																				
Plan																				
Exec																				
Plan																				
Exec																				
Plan																				
Exec																				
Plan																				
Exec																				