

Ensino e Aprendizagem como Unidade Dialética 4

Solange Aparecida de Souza Monteiro
(Organizadora)



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APRESENTAÇÃO

O presente livro apresenta artigos fundamentada num estudo teórico sobre a identificação das condições e circunstâncias que possibilitam a integração das ações de ensino e aprendizagem no contexto escolar. Torna-se necessário, portanto, explicitar em termos gerais como e de que forma o homem, como ser genérico, por meio das relações sociais, apropria-se do conhecimento, cria novas possibilidades de transformação da sua própria constituição e da sociedade. Considerar a dimensão ontológica da constituição do ser humano, que se estabelece por meio da atividade educativa, vincula-se ao conceito de práxis. Tal conceituação, segundo Vázquez (1977, p. 3), deve ser entendida “como atividade material do homem que transforma o mundo natural e social para fazer dele um mundo humano”. Na relação entre o ensino e a aprendizagem, como instrumento e produto da atividade educativa em geral, concebe-se, a partir do referencial teórico do materialismo histórico-dialético, da psicologia histórico-cultural e da teoria da atividade, a existência de atividades humanas particulares. Uma dessas atividades, segundo Moura (1996), é a atividade de ensino que tem a função particular de organizar ações que possibilitem aos sujeitos o acesso aos conhecimentos elaborados sócio historicamente. Ao explicitar o objeto da educação, Saviani (2011) indica que é preciso levar em conta os elementos culturais que precisam ser apropriados para que os sujeitos se humanizem e, de maneira articulada, as formas de ensino mais adequadas para este fim. Os elementos culturais (traduzidos na escola pelos conteúdos das diferentes áreas de conhecimento) precisam atender à dimensão de totalidade, tanto quanto precisam ter em vista o movimento e contradição presentes na realidade concreta, sendo estas três categorias basilares ao método materialista histórico-dialético do qual a pedagogia histórico-crítica erige. O que procuramos chamar atenção é, portanto, que a didática histórico-crítica não pode estar descolada de seus fundamentos e assim, não pode ser pensada de modo lógico-formal, que compartimentaliza e segmenta a compreensão dos fenômenos em geral e, particularmente aqui em foco, o trabalho didático. Constituição de consciência deve ser considerada objeto central das ações pedagógicas na escola, pois, para que seja possível obter a unidade entre as ações de ensino e aprendizagem, tanto o professor quanto o estudante devem ser conscientes do seu lugar social e de suas funções ontológicas.

Leontiev (1983), ao se referir ao sentido do estudo para a criança que compreende a necessidade e os motivos reais do mesmo, afirma que “[...] o sentido que adquire para a criança o objeto de suas ações didáticas, o objeto de seu estudo, é determinado pelos motivos de sua atividade didática. Este sentido também caracteriza a *aprendizagem consciente* de conhecimentos pela criança” (p. 246). No entanto, o autor considera não ser suficiente a apropriação da significação do objeto de estudo; é necessário educar o estudante para que ele perceba a “reprodução” do objeto de estudo numa “relação adequada” a respeito do que é estudado; tal relação pode ser

possibilitada por situações em que o estudante se aproprie das relações presentes no processo de elaboração do próprio conhecimento. De acordo com Leontiev (1983, p. 246), “somente assim se satisfaz essa condição [aprendizagem consciente], os conhecimentos adquiridos se converterão para ele [o estudante] em conhecimentos vivos, serão ‘órgãos de sua individualidade’ genuínos e, em seu tempo, determinarão sua relação a respeito do mundo”.

A aprendizagem consciente requer que as ações dos estudantes sejam mobilizadas pela relação entre o significado e o sentido da atividade de aprendizagem, além da necessidade de considerar as relações internas e externas presentes na elaboração do objeto de estudo. Deve-se considerar os nexos internos do conceito elaborados ao longo da historicidade do mesmo, assim como se deve levar em conta as conexões que o mesmo tem com as relações humanas em geral. Afirma-se que é a partir deste processo de apropriação das elaborações humanas constituídas sócio historicamente - os conceitos - que se torna possível a transformação da constituição objetiva e subjetiva dos indivíduos, crianças e estudantes em geral.

A organização do ensino que possibilite a criação de condições adequadas para que ocorra a aprendizagem consciente por parte dos estudantes é preponderante para que a finalidade da atividade pedagógica se objetive no processo de ensino e aprendizagem. A objetivação da relação entre o motivo e o objetivo da atividade pedagógica por meio das ações e operações realizadas pelo educador e pelo estudante é identificada, segundo os diversos autores do enfoque histórico-cultural, como a atividade orientada para o ensino e a aprendizagem.

Forma a possibilitar que a unidade contraditória entre as especificidades do ensino e da aprendizagem ocorram: por um lado, o ensino desenvolvido pelo professor, responsável por elencar, selecionar e categorizar diferentes tipos de conhecimento que precisam ser convertidos em saber escolar, reconhecer sua importância para a formação humana, bem como planejar e acionar as formas mais adequadas de sua transmissão. De outro lado, a aprendizagem realizada pelo aluno que, ao se apropriar do saber elaborado, poderá ter – dentre as várias facetas de seu processo formativo – o desenvolvimento de ferramentas de pensamento (complexas funções psíquicas superiores) as quais viabilizem a captação subjetiva desta realidade objetiva na sua máxima fidedignidade.

A atuação prática material do sujeito, executada de forma consciente sobre a realidade natural ou humana, transformando-a, é identificada por Vázquez (1977) como práxis. Assim, o produto dessa atividade prática deve ser objetivado materialmente na constituição da nova realidade. A partir de tais considerações, concebe-se que a práxis é uma atividade humana consciente que se diferencia da atuação prática desvinculada de uma finalidade e apresenta um produto final que se objetiva materialmente. Trata-se de uma atividade orientada por um fim que, segundo Vázquez (1977), ocorre em dois níveis, ou seja, “essa atividade implica na intervenção da consciência, graças à qual o resultado existe duas vezes – e em tempos diferentes –: como resultado ideal

e como produto real” (Vázquez, 1977, p. 187). A extensão e o significado da categoria de práxis relacionados ao trabalho são explicitados por Jaroszewski (1980) ao identificar os elementos que constituem a estrutura do processo do trabalho humano como o contato material do homem com a natureza, as atividades orientadas e as qualificações práticas e os conhecimentos utilizados no curso da produção. O autor afirma que o resultado final desse processo “[...] é a criação dum novo ‘produto’- quer dizer, dum objeto transformado pela atividade humana indispensável para satisfazer as necessidades do homem” (Jaroszewski, 1980, p. 9).

Os educadores também se educam durante a atividade pedagógica. Esse pressuposto tem como fundamento o lugar social do educador, que lhe atribui as funções de organizar o ensino, definir conteúdos e criar situações desencadeadoras da atividade de aprendizagem a serem realizadas pelos estudantes. Nesse processo coletivo de estudo e devido às mediações que promove, o próprio educador também é educado. Concebe-se, portanto, que, além dos conhecimentos que o educador deva ter apropriado acerca dos fundamentos teórico-metodológicos que definem as ações, os quais proporcionam transformações no psiquismo dos estudantes, e além dos conhecimentos que necessariamente precisa ter para ensinar os conteúdos escolares, o educador também se forme no movimento de organização do ensino. Por meio do processo reflexivo de elaboração da organização das ações orientadas para o ensino e a aprendizagem dos conteúdos escolares, o educador transforma-se, modifique-se, em virtude da necessidade de definir ações e operações na atividade pedagógica que possibilitem a concretização da aprendizagem por parte dos estudantes.

Concordamos à proposição de Duarte (2013, p. 246-247), ao sublinhar que “[...] quando a escola ensina de fato, quando ela consegue fazer com que os alunos aprendam os conteúdos em suas formas mais ricas e desenvolvidas, ela se posiciona a favor do socialismo, mesmo que seus agentes não tenham consciência disso. ” O ponto fulcral da didática histórico crítica é, portanto, o comprometimento com o ensino de qualidade, com a aprendizagem efetiva e com o enraizamento pedagógico alicerçado, consolidado, engajado e comprometido com a formação da classe trabalhadora, tendo neste ideal alfa e ômega da pedagogia histórico crítica.

No caso do educador, o sentido pessoal de sua atividade torna-se correspondente ao significado social de sua ação no movimento de formação profissional, no que se refere à formação inicial e à formação em exercício. É no processo de formação, ao assumir a posição de estudante, que o educador se apropria dos conteúdos da sua atividade principal, a atividade orientada para o ensino e aprendizagem dos conteúdos escolares. A constituição da consciência do lugar social do educador é desenvolvida na coletividade, no processo de integração a uma classe produtiva que tem finalidades instituídas na sociedade letrada.

A aprendizagem consciente requer que as ações dos estudantes sejam mobilizadas pela relação entre o significado e o sentido da atividade de aprendizagem, além da necessidade de considerar as relações internas e externas presentes na

elaboração do objeto de estudo. Deve-se considerar os nexos internos do conceito elaborados ao longo da historicidade do mesmo, assim como se deve levar em conta as conexões que o mesmo tem com as relações humanas em geral. Afirma-se que é a partir deste processo de apropriação das elaborações humanas constituídas sócio historicamente - os conceitos - que se torna possível a transformação da constituição objetiva e subjetiva dos indivíduos, crianças e estudantes em geral. A organização do ensino que possibilite a criação de condições adequadas para que ocorra a aprendizagem consciente por parte dos estudantes é preponderante para que a finalidade da atividade pedagógica se objetive no processo de ensino e aprendizagem. A objetivação da relação entre o motivo e o objetivo da atividade pedagógica por meio das ações e operações realizadas pelo educador e pelo estudante é identificada, segundo os diversos autores do enfoque histórico-cultural, como a atividade orientada para o ensino e a aprendizagem.

Criar um novo espaço de luta pela formação integral do aluno, por meio da qual possa perceber as contradições históricas que geraram o conhecimento aprendido, bem como sua vinculação com o contexto histórico, de forma a buscar transformações na vida particular e na práxis social. Neste contexto, a compreensão teórico-metodológica da mediação dialético-pedagógica permite ao professor compreender a dimensão ontológica da aula como práxis educativa, entendendo-a como sua produção, algo que não lhe é estranho. Isto fortalece o professor no enfrentamento das condições impostas à Educação Escolar pelo capital, por meio de sua própria práxis educativa, ou seja, da aula como ato humano e consciente na luta pela emancipação humana.

Solange Aparecida de Souza Monteiro

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DESIGN THINKING AN ANTHROPOLOGICAL "PLACE" IN THE UNIVERSITY CLASSROOM

Paulo Sergio de Sena

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ABSTRACT: In a move to move beyond pedagogical concerns to teach and learn engineering and reach other higher education courses and other professionals, this study made a comparative study of the use of Design Thinking as a pedagogical tool to mobilize Business Administration courses, Design, Nursing and Pedagogy and to verify how this tool can generate Marc Augé's non-anthropological places in the classroom. The applied methodology was the Design Thinking tool itself, accompanied by direct and participative observation. The results showed that the same pedagogical concern in engineering was shared with the studied courses. Relations between students were decisive for problem solving, as recommended by Design Thinking. The tests refuted the hypothesis, which advocated the construction of anthropological non-places

within the classroom, demonstrating that the Design Thinking tool promotes the construction of anthropological places in the university's pedagogical spaces. He left as a contribution for future experiments the evaluation of the teacher's role in the Design Thinking tool.

KEYWORDS: Active Learning Methodologies; Design Thinking; Classroom

1 | INTRODUCTION

Under the provocation and restlessness of the Engineering courses regarding the models of teaching and learning the necessary contents for a good training of its professionals and a revision of the posture of the teachers, this paper advanced and took the provocation beyond the Engineering to other courses, besides to explore the methodology of Design Thinking as protagonist of the change of focus of the teaching process, focus on the student and in his learning process. However, it is important to look at Mosely's alert; Wright; Wrigley (2018) that there is little concentrated research in design that forms facilitators to teach non-designer students because there is a complexity of the problem that can affect the facilitation of informal workshops under the design thinking. Garreta-Domingo; Sloep;

Hernández-leo has made a valuable contribution to non-designer educators, who need to adopt design thinking and acquire the skills necessary to meet the challenges they encounter in their daily practice. The design is user-centered, which provides the possibility of finding the methods needed to solve complex problems.

Moran (2015) ratified the provocation and discomfort of formal education that is facing a deadlock in responding to changes in societies. Schools need to become relevant and propose learning that is competent to generate knowledge capable of building life projects that insert spaces to live with other people. For this, new tools should be developed: curriculum, methodologies, temporalities, and spaces for teaching and learning.

Introducing new strategies for teaching and learning in higher education is a demand demanded since the 1990s, referenced by Bonwell; Eison (1991) and Menges; Weimer (1996) understand that students must be in an environment of creativity and intrapersonal and interpersonal involvement (socio-emotional skills). Therefore, it is pertinent to invest in an active teaching and learning process, when students materialize their ideas in products that dialogue with the user, making the content meaningful to the student.

Gerholz; Liszt; Klingsieck (2017) reported the importance of students applying curriculum content in practices that involve concrete problems; It is these moments that institutionalize professional insights in the face of everyday causes. They also reported a lack of research into the relationship between content design and learning effectiveness. Learning patterns become didactic interventions to support the learning process that generate important qualitative outcomes for understanding students' diverse perspectives and their organizational processes.

The proposal of immersion of the student in an environment with interpersonal and interpersonal involvement is based on the concept of "anthropological place" for the University referenced in the considerations of Marc Augé (1992), places where there is socialization. That is, "anthropological places" are spaces built to be lived. On the other hand, Augé's (non-places) also (1992) are spaces of "loneliness", precarious socialization that can lead to the loss of the group and the identities of its members.

To understand this paper it is necessary to reflect on teaching and learning in the various higher education courses, more specifically Business Administration, Design, Nursing, and Pedagogy.

As for business administration education, Prentiss; Walton (2019) showed a trend in the practice of intercultural communication applied to the business and professional world, from an interdisciplinary perspective, including interpersonal communication and listening, diversity and teamwork. Activities focused on intercultural communication become an excellent opportunity that involves theory and practice immersed in the "real world", requiring innovation and experimentation to meet users' needs.

Sawyer (2018) showed a tendency to teach and learn for Design courses involving the use of laboratory modeling. The highlight was the pedagogical practices

that guide students to learn how to create. The central concept of the model was the creative process, with three articulated aspects: learning outcomes associated with the creative process; project assignments that sustained mastery of the creative process; and classroom practices that lead students to the creative process.

For Barton; Bruce; Schreiber (2018) Health explores teamwork with high reliability and performance to teach and learn, particularly Nursing. There are many educational initiatives to develop the ability to work in teams. In this context, the constructivist pedagogy chosen helps to refine the competence of nursing teamwork.

Teacher training is one of the duties of the Pedagogy Courses, Leijen; Necklace; Niemi; Toom; Kallioniemi; Lavonen (2018) showed that teachers' pedagogical beliefs and instructional practices have their genesis, in large part, in initial education that does not guide the autonomy of these future teachers. The course is more attractive and in line with recent innovative international trends when it highlights the autonomy to seek change from the re-reading of pedagogical beliefs and instructional practices. The teachers said Zeldin; Gauley; Barringer; Chapa (2018) must break traditional roles and hierarchies of power and their sources of involvement. Auerbach; Andrews (2018) added that pedagogy addresses the inherent pedagogical knowledge of the teacher, that is, knowledge about teaching and learning that goes beyond specific content and is related to knowledge of learning theories, classroom management, and student motivation.

The other element of this paper is the Design Thinking methodology, which presents itself with broad and diverse concepts. There is diverse literature, among them the issue of use for teaching and learning. Brown's (2017) conceptual proposals on Design Thinking were considered as a way of writing the history of product creation and analyzing the relationship between users and products and between users and users. Cavalcanti; Filatro (2017) add that Design Thinking contains a human-centered prototyping culture, oriented towards collaborative action and demonstration of ideas and processes. There is a space in this teaching and learning methodology to think about the construction of anthropological places in the classroom.

2 | MATERIAL AND METHODS

The research was conducted in classrooms of four undergraduate courses - Business Administration, Design, Nursing and Pedagogy, combining observational research (COOPER; SCHINDLER, 2003), confirming the importance of this method to verify reality by looking at the new everyday life and action research (MIRANDA; RESENDE, 2006), emphasizing that research itself has become an action in educational intervention.

Action research helps correct potential selective or faulty memory risks that may be lodged in the observation and its record, as alerted by Cooper; Schindler

(2001). There are weaknesses in observational research, but there are advantages to investigating data at the time of research, without the need for interviews or questionnaires.

For this research, the classrooms were prepared for group activities (Figure 1), as well as printed material with information on the theme worked and complementary to the information presented previously through a flipped classroom. Office material was also made available for the development of the Design Thinking methodology.

Students were accommodated in four groups with up to six components. Each student was identified to facilitate observation (Figure 2).



Figure 1. Classroom for group activities
Source: authors, 2019.

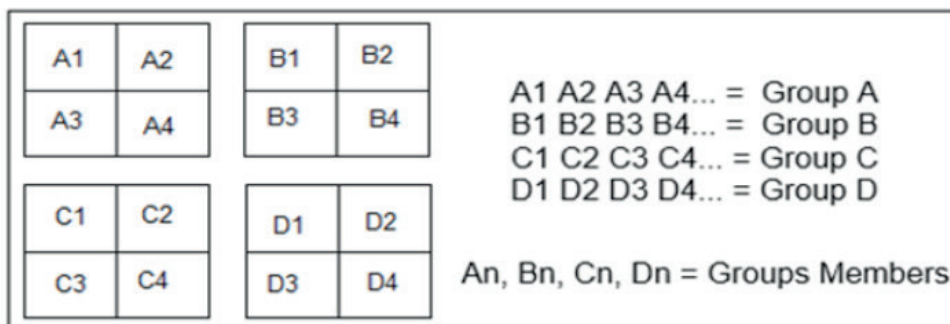


Figure 2. Organization of student groups and their identifications
Source: authors (2019)

An observation matrix was constructed to record interactions among students and their interventions to solve the activity (Figure 3)

group component	Intervention of the group component in the Activity								
	01	02	03	04	05	06	07	08	n..
An									
Bn									
Cn									
Dn									

Figure 3. Matrix of observation of the interventions of each student in his group and in each activity.
Source: authors (2019)

This methodology is anchored in the works of Bonwell and Eison (1991) that pointed out some important elements for students' learning and involvement: 1. individual participation of each student in the flipped class; 2. reading in small group study built around a study guide, and 3. academic reading, in which students listen

to a presentation of 20 to 30 minutes without notes, followed by their writing for five minutes as a tool for remembrance of the topics presented, taking advantage of the thematic immersion phase of Design Thinking.

At a moment 3, in possession of the problematization developed at time 2 of immersion, the proposal is to systematize ideas to solve the problem. The ideas should be systematized to be presented in prototype form for all working groups, configuring phase 4 of Design Thinking, prototyping the idea. The presentation of the prototype and the choice of the best idea or the best ideas complete the cycle of work in phase 5 of proposals for the application of ideas.

The results of the research were treated in a comparative manner between the various working groups as well as with the various higher courses involved. The sample consisted of 182 subjects. However, to unify the workgroups for comparative analysis, 4 groups of each higher course were considered by lot, with up to 5 students, making a total of 72 subjects studied. (Figure 4)



Figure 4. Working groups: a. Business Administration; b. Design; c. Nursing; d. Pedagogy.
Source: authors (2019)

This maker motion is in line with Pusca; Northwood (2018) who understand that the design and implementation of high impact activities develop in all participants in the process - teachers and students - to communicate in a constructive and synergistic structure with the potential to transform teaching and learning experience in a way that students gain confidence in their work and knowledge to appropriate specific skills in communication, critical thinking, design, problem-solving, analysis and synthesis, creativity, and teamwork.

3 | RESULTS AND DISCUSSION

This research involved four higher courses: Business Administration; Design;

Nursing; Pedagogy and how students behaved as actors of a teaching and learning model based on Design Thinking.

The Business Administration classroom used for this research was composed of four groups with five students, as shown in Figure 5. It was observed that in each group there was one student or more students, totaling six, with the largest number of interventions (five to eight interventions) to the problem-solving process. There were also, for each group, students who participated little in the process (one to two interventions), totaling ten throughout the classroom. Four students made interventions ranging from three to four. The groups worked the same way, with little division of tasks.

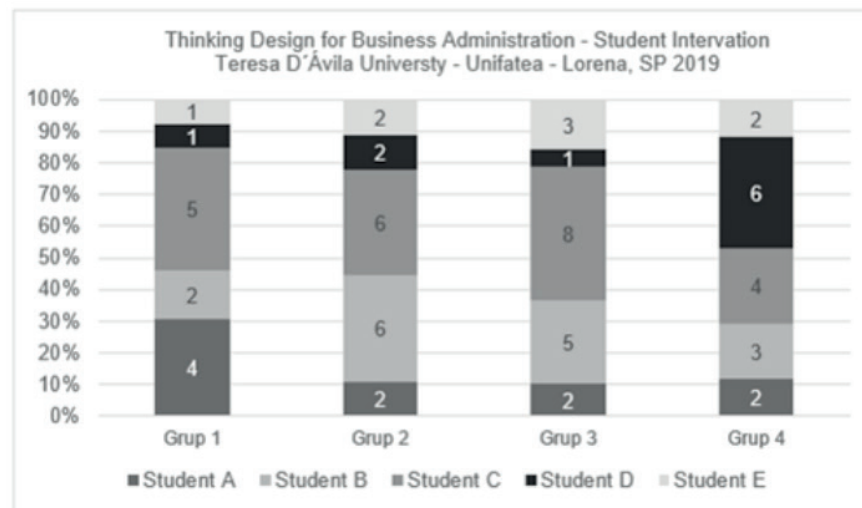


Figure 5. Intervention of Business Administration students in a Design Thinking Activity.
Source: authors (2019)

Students involved in the activities did not follow the trends presented by Prentiss; Walton (2019) on the focus on intercultural communication required by the business and professional world, a fact that may have made it difficult to incorporate diverse content, interpersonal communication and listening, and teamwork.

The Design classroom consisted of three groups with four students and one group with five students (Figure 6). There were fourteen students with the largest number of interventions (five to thirteen interventions) to solve the problem. There were also, for two groups, three students who participated in little of the process (two and three interventions). Groups with very similar performance regarding the involvement of their members were observed a very productive balance.

Design students behaved positively as Garreta-Domingo; Sloep; Hernández-leo (2018), that is, the designer is a professional who thinks about the project from the perspective of acquiring skills to meet the proposed challenges. They created intergroup methods to solve the problem.

Design Thinking activities incorporated the creative process proposed by Sawyer (2018) when considering trends in teaching and learning from Design courses. Design

Thinking pedagogical practices guided students to learn how to create. Learning outcomes were associated with the creative process. Classroom practices required intense creative exercise to solve the problem.

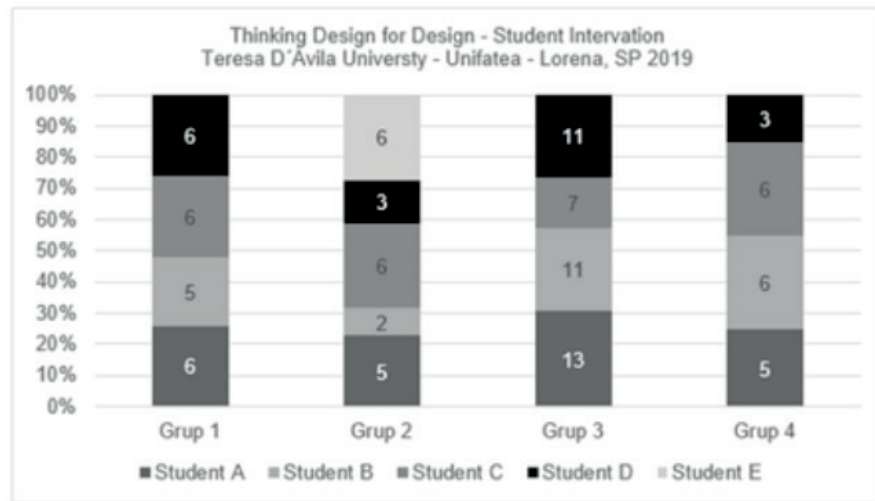


Figure 6. Intervention of Design students in a Design Thinking Activity.
Source: authors (2019)

In the Nursing experiment, in the classroom, there were four groups with five students, as shown in Figure 7. There were five students with the highest number of interventions (five to seven interventions) to solve the problem, distributed in the four groups. In all groups, some students participated in little of the process (zero to two interventions), totaling eight subjects; There were also six students with three and four interventions. Groups with very similar performance regarding student involvement were observed, with subjects who led the process, others with little participation, including one without any intervention.

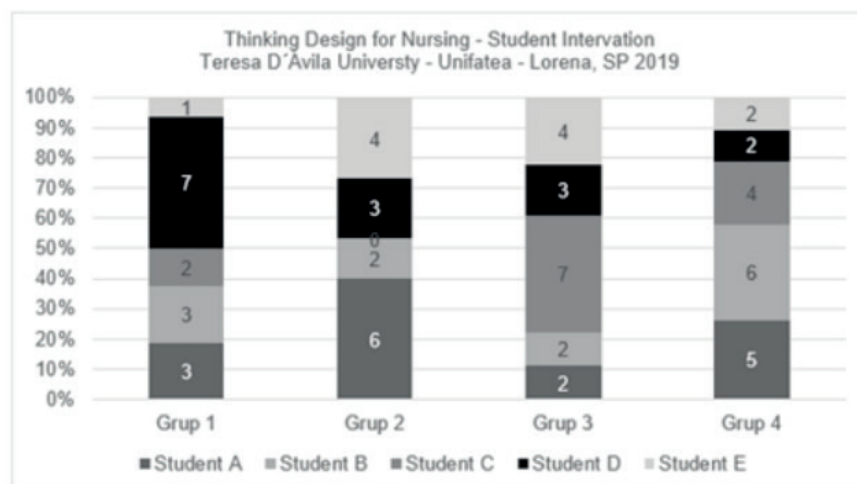


Figure 7. Intervention of Nursing students in a Design Thinking activity.
Source: authors (2019)

Taking Barton's framework; Bruce; Schreiber (2018), about the demand for courses for teamwork, from the perspective of activities developed with Design

Thinking, the results did not align with the pedagogical initiatives developed to build team competency. The teams were subsidized by concepts and methods of constructivist pedagogy, which, according to the authors, tend to teach, practice and refine the competence of nursing teamwork.

Pedagogy classroom activities were done with four groups with five students, as shown in Figure 8. All groups had one or two students with greater participation (five to eight interventions) totaling six subjects. There were also, in all groups, students with low participation of the process (one to two interventions), totaling 10 subjects; four other students presented interventions ranging from three to four. Groups with very similar performance concerning the student involvement were observed, with prominent subjects who conducted the process.

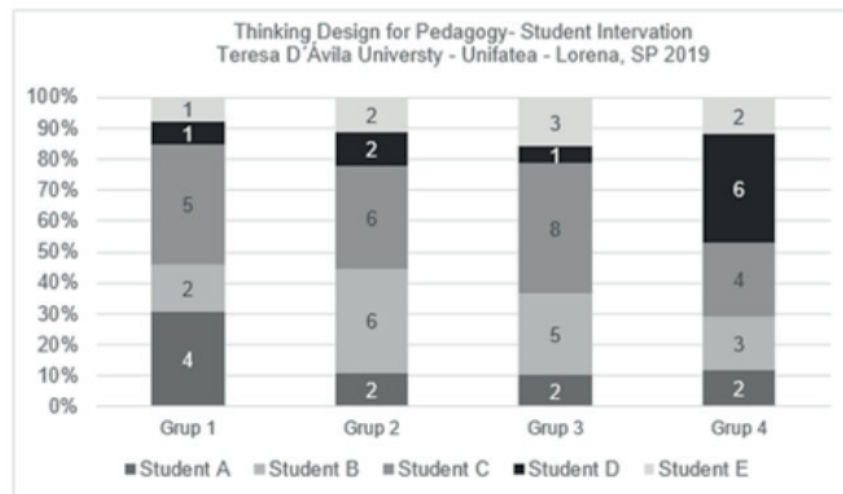


Figure 8. Intervention of Pedagogy students in a Design Thinking activity. Source: authors (2019)

Under the guidance of Leijen; Niemi; Toom; Kallioniemi; Lavonen (2018), the Pedagogy class broke the students' absence of autonomous postures. A more attractive method has been explored and aligned with the recent innovative international trends in teaching and autonomous learning, Design Thinking. There was also, alignment with Zeldin; Guley; Barringer; Chapa (2018), who warned to break the traditional roles and hierarchies of power between teacher-student to discover sources of involvement. The internal movement in the working groups followed Auerbach; Andrews, (2018), regarding student acceptance in the movement to express pedagogical knowledge about teaching and learning that should go beyond specific content, experiment with learning theories, classroom management, and the variables involved in student motivation.

Comparative study between the four Design Thinking experiments in the four courses covered in this paper, Design stood out with more uniformity of interventions, followed by the Pedagogy course. The Business Administration and Nursing courses performed similarly, showing more individual interventions in each group.

This comparative study dialogued with Gerholz; Liszt; Klingsieck (2017), firstly,

about the importance of students applying curriculum content in practices with concrete problems, valuing the insights that involve professionals in recurrent causes in everyday life. They also contributed to the increase of research on the subject, under the complaint of insufficient. Another element was the finding that there are different learning patterns between courses, despite the use of the same didactic tool of intervention. And, of course, the collected qualitative results provided a richer understanding of the changes in learning models, the different forms of the student organization, and their learning processes.

One of the pedagogical advantages of using Design Thinking was the interaction between workgroups that compete for the solution of the same problem. This interaction occurred in the collective presentation phase of the prototypes and in the definition of the best solution to be tested. Thus, it was possible to measure the relationship between the groups and establish a comparative study between the four courses studied.

Another relationship measured in this experiment was the performance of the Design Thinking tool as a teaching and learning model. There was a movement of the classroom is a problem-solving process. The results showed that Design stood out in the use of the tool, involving a larger number of student interventions in the workgroups. Pedagogy ranked second among the use of the tool, differing from Nursing and Business Administration that had less interaction with the tool.

In summary, the courses studied showed empathy for the pedagogical tool based on Design Thinking. Students were involved and engaged in an active learning strategy, making students responsible for acquiring and applying the concepts needed to solve problems. It was noted that the Design course presented the largest number of interventions and students who interacted. The Pedagogy course was characterized by a curiosity about the use of the tool and its effectiveness in the development of learning, an attitude expected from the educator. The Nursing course showed the cohesion of subjects and group work, perhaps a common feature in daily work. Students of Business Administration showed that it is necessary to invest in the management of the division of labor within groups, but that the tool is pertinent to be used in this segment of vocational training.

After detailing the effects of the use of Design Thinking in the four undergraduate courses and the contribution of this model to emancipate pedagogical practices and promote alterity for students, it is necessary to reintroduce the background of this experiment, the construction of Marc Augé's Anthropological Place in the classroom. Returning to the anthropological concept of place - places of relationships, of sociability, that is, places built to be lived; the counterpoint to "no place", where relations are replaced by "loneliness" or precarious socialization, contributing to the loss of the group and the nonrelation between identities. Thus, the research problem arose from the question: Did Design Thinking, as a pedagogical tool, favor the formation of anthropological places in the classroom?

For this experiment to dialogue with Marc Augé's anthropological location or not, it is essential to highlight that of the $n = 72$ participants, 12, 16.66% had little or no contribution to the pedagogical activity and the final result of solving the proposed problem. With this result, it is possible to think how much Design Thinking can contribute to highlighting students' identities and putting them in a proactive relationship that can write collective stories to solve local, regional, national and even global social problems.

The spaces created by Design Thinking pedagogy are associated with the transit of communication in what Augé understands as the “place” of “supermodernity”. Thus, the pedagogical tool used may constitute a pedagogical product that would contribute to dilute the contemporary crisis of social relations and the construction of individual identities, mediated by relationships, overcoming anthropological non-places. In learning and teaching environments, understood as educational environments, they should promote the well-being of students and teachers as an element of motivation for classes, through interpersonal relationships that expose identities in a historical process contained in the educational projects of educational spaces. The anthropological place in the classroom should be constructed in such a way as to involve subjects and their conceptual conceptions of learning space in any educational project. These assumptions dialogue closely with the idea of housing students in an environment that creates intrapersonal and interpersonal commitments corroborated by Bonwell; Eison (1991) and Menges; Weimer (1996).

Thinking about the potential flows of knowledge contained in Augé's non-places, Design Thinking can help to materialize the lived territoriality, based on the mobility between subjects, proposed by Versute; Santinello (2019) in a movement that leads to a philosophy of free knowledge.

4 | FINAL CONSIDERATIONS

This paper has brought a fresh look at qualifying a complex of interactions contained in scenarios created by the school to think about learning and teaching. Thus, a tool for seeing and thinking about the world, used by Designers, Design Thinking, has become an active and dynamic process for the school. That is, the Design Thinking pedagogical tool was based on a reality historically situated in the cultures of learning and teaching of professionals in Business Administration, Nursing, Pedagogy, and Design, the latter constituted as a control group.

By transforming the work methodology of a professional, in this case, the Designer, in a pedagogical tool to be used in other courses and in the training of professionals who will not be Designer, there is a risk of inserting adaptations that reduce or de-characterize the method. However, there is the benefit of updating the method and adjusting its usability. In the case of this experiment, the update was due to the way the results of activities were presented, limited to socialization between

groups, but the objective of applying the concept to solve a problem was achieved.

The interaction and movement among the students proposed by the experiment took place in a climate of active learning methodology, removing things from the place, deconstructing concepts, generating access to tacit information, allowing the use of information technologies and the creation of solutions to a problem. every day or conceptual. When the results were analyzed under the original hypothesis tested here, that Design Thinking builds non-anthropological places in the concept of Augé (1992) in the classroom, there was a movement of refutation of the hypothesis, considering that the movements and interactions between Students were built from their individual, personal and professional identities, in order to intervene in a problem and its collective construction.

Two borderline situations need to be considered: 1. Some students have not interacted with movement in the classroom: it is understood that it is an important pedagogical situation when immersing students in a context of pedagogical abandonment, but all movement must be contextualized. a pedagogy that goes beyond techniques and practices, but considers a central fact of pedagogical action at that time as unique. of the interaction of the subjects with objects and problems. Knowing how to interact with a shy identity is also part of the historical writing of an anthropological place. Importantly, there is no discourse of abandonment of the shy or less interested student, this is a challenge, but pedagogically take advantage of this student, learn from him the limits of interactions and teach the possibilities of expansion, within the school and the group, which contains shy subjects who also look at a problem that calls for a solution; 2. The role of the teacher needs to be defined as a facilitator or mediator: in giving the whole discourse of a student-centered methodology, you run the risk of abandoning the teacher. Should this teacher behave as a mediator, that is, accompany and make viable the process thought by the group or facilitator, who actively intervenes, presenting proposals to reorganize the creative paths proposed by the groups? This is an important question that should occupy another experiment. What is the teacher's role in the Design Thinking methodology?

Returning to the provocations and concerns of the Engineering courses concerning the teaching and learning models that guided this study, it is important to emphasize that it was possible to extend this concern to other courses (Business Administration, Design, Nursing, and Pedagogy) and work with the perspective. of innovative teaching and learning methods based on the skills and formative reading of new professionals. The results responded positively to the pedagogical malaise often found in the various engineering courses, which made the exploration of tools such as Design Thinking a pedagogical resource considered an "active learning method". In this method, the focus is on the student and their learning process. It also contributed incrementally to ratify Mosely's announcement; Wright; Wrigley (2018), that there is little research on using the Design Thinking tool to provide non-designer students to think systematically about the complexity of a problem.

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SOBRE A ORGANIZADORA

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