

The perception of students of unioeste executive secretariat on the applicability of *Design thinking*



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ABSTRACT

Faced with a competitive market, many organizations seek to adopt methodologies and tools that promote innovation in order to obtain constant growth and ensure their position in the market. In this scenario, design thinking (DT) presents itself as an accessible and effective methodology to

implement innovative ideas. Therefore, it is relevant for the secretarial professional, who is inserted in a competitive labor market, to improve and master innovative methodologies. Thus, this study aims to evaluate the perception of Unioeste Executive Secretariat students who attended the discipline of Innovation Management (2020), regarding the fundamentals of design thinking and its applicability. To this end, a semi-structured interview was conducted with nine questions on the subject to the graduates of the discipline. Through the results, it was found that the students understood the fundamentals of the approach and consider it relevant for their professional growth.

Keywords: *Design thinking*, Innovation, Executive Secretariat.

1 INTRODUCTION

Staying competitive is essential for entrepreneurs who want to improve their position in the field in which they operate. Therefore, it is important that they develop an innovative posture in order to ensure that the company's growth is constant and that it maintains competitiveness. From the perspective of Carvalho, Reis and Cavalcante (2011), innovation and competitiveness go together, that is, the greater the innovation, the greater the competitiveness of a company, and as a consequence, the greater its profitability. Also according to these authors, innovation is responsible for transforming ideas, in an agile and efficient way, into new products or services. Moreover, innovation is not only in the alteration of something to transform it into a new one, it is found "where there is value perceived by people" (PINHEIRO, ALT E PONTES, 2017, p. 20).

Thus, in order to promote innovation, many companies seek to adopt methodologies and tools that are increasingly assertive and accessible. According to Brown (2010), among the various ways to encourage the innovative process in organizations, design thinking presents itself as an effective and accessible methodology, capable of integrating business and society and allows individuals to use it to implement innovative ideas. In this sense, it is relevant for the Executive Secretariat professional to know this approach and to know how to apply it. Design thinking stands out as an approach that consists



of the application of its values - centered on people - in business strategies and aims to stimulate innovations that are relevant and positive for society, is characterized as a new way of approaching problems, centered on empathy, collaboration and experimentation. Since its inception, design thinking has been widespread globally as effective not only for product creation, but in application in various areas and services.

According to Carvalho, Reis and Cavalcante (2011), the organizational environment should be conducive to innovation, in addition to having a prepared, creative team capable of estimating the innovation process continuously. Thus, once the Executive Secretariat professional is inserted in a highly competitive market, the adjustments of their skills according to the needs of the organization become fundamental for their performance to stand out in this market (BERNARDINO, 2014). Therefore, the study and mastery of innovative approaches are relevant in your improvement as a professional.

Thus, this study presents the following research question: what is the perception of the students of the Executive Secretariat about the applicability of design thinking? To this end, this study aims to evaluate the perception of Executive Secretariat students who attended the discipline of Innovation Management (2020), remotely, regarding the fundamentals of design thinking and its applicability.

In terms of structure, the work is divided into five sections. The first of these corresponds to this introduction, followed by the theoretical foundation that covers the following themes: design thinking and innovation, history and concept of DT and also, the double diamond of the DT approach. The methodological procedures used in this study make up the third session. Soon after, the results and discussion are found and, finally, the final considerations are presented.

2 THEORETICAL FOUNDATION

2.1 DESIGN THINKING AND INNOVATION

The amount of similar products and services existing in the market, lead organizations in search of resources to gain advantage over their competitors. Given this scenario, innovation is presented as opportune to entrepreneurs. According to Kenski (2011), innovation allows organizations to adapt to new realities quickly and thus ensures their permanence in the market. According to Carvalho, Reis and Cavalcante (2011), the act of innovating is linked to competitiveness, that is, the more innovative an organization is, the better its position among the others.

These authors even briefly define innovation as the ability to turn an idea into a product or service and do so quickly and efficiently. It is common to associate innovation with inventions, but both have different meanings. According to Pinheiro, Alt and Pontes (2017), invention occurs when something is created from scratch, it is the act of bringing to the surface something totally new from a discovery, while innovation occurs when the meaning of something already discovered changes,



attributing value to it. In this way, innovation is not always linked to technology or a new product, it can occur in various ways and in different organizational segments.

According to Carvalho, Reis and Cavalcante (2011), innovation is an important factor for the economic growth of countries. Accordingly, Paiva et al (2018) point to it as a contributor to the modifications and developments that occur in the market, because through it old habits are destroyed and new ones are created. According to Paiva et al (2018), from the moment innovation becomes

There is a change of scenario in the market, in which offers similar to what has been innovated appear, triggering the appropriation of part of the profits, expanding the employability and income of those involved. In addition, Guiomar (2014) points out that the practice of innovation provides organizations with the opportunity to know new markets and add value to their brand and also contributes to the diffusion of globalization.

It is worth mentioning that the innovation process must be constant so that there is no stagnation both within the organization before the competition and in the development of the market. Thus, Carvalho, Reis and Cavalcante (2011) establish that innovation should be stimulated and managed at all times. To this end, these authors suggest analyzing, selecting and evaluating opportunities using the idea of a funnel to facilitate decision-making based on criteria predetermined by the organization.

With regard to the types of innovations, according to the Oslo Manual (2005), innovation is divided into four areas, which are: product, process, marketing and organization. Table 1 presents the four types of innovation and a brief definition of each segment.

Table 1 - Types of Innovation.

Product innovation	It is the introduction of new goods or services on the market, or with better features that differentiate them from previous models.
Process innovation	It is the implementation of new methods of production or distribution, or the significant improvement of techniques, equipment and / or software pre-Existing.
Marketing innovation	It refers to the implementation of a new marketing method with changes in design, packaging, product positioning, promotion or pricing.
Organizational innovation	It occurs when there is the implementation of a new organizational method in business practices, whether in the workplace or in external relations.

Source: adapted from the Oslo Manual (2005).

Considering that innovation can occur in different ways, Carvalho, Reis and Cavalcante (2011) highlight how relevant it is to achieve customer returns from the experience created by innovation in services, in order to ensure differentiation in the face of the similarities provided by competitors. In this sense, the use of the design thinking approach focused on services is appropriate and timely to stand out in the competitive market.

When dealing with service design, Stickdorn and Schneider (2010) highlight how the user is relevant to the proper functioning of a service, after all a service occurs through the interaction between



provider and user. Therefore, one of the foundations of service design is to be user-centric, to put yourself in their shoes to understand their genuine needs and to be able to meet them effectively.

In addition, these authors emphasize the importance of a holistic view in the provision of services. To achieve a quality experience, you need to visualize the context as broadly as possible and be able to detect potential impacts that can negatively affect your users' experience. Therefore, it is noticeable the advantages of using the design thinking approach in the innovation process, since it integrates aspects of business as well as society, and because it is accessible, it can be used by teams to generate new ideas, even if they are not designers (BROWN, 2010).

According to Carvalho, Reis and Cavalcante (2011), it is necessary for the company to know the innovation models so that it can use the most appropriate one.

Also according to the authors, the four main models are: linear, parallel, Tidd et alii and finally, the open innovation model. In table 2 there is a brief explanation about the models, with the exception of the open innovation model, which will be addressed separately, as this comprises the design thinking approach.

Table 2: Innovation models.

Linear Model	Until the 1990s, this was the model that had predominance in industrialized countries. Its stages are well defined, first a basic research is done, followed by an applied research. Next come the stages of experimental development and production, until the last stage arrives, it is headed to commercialization.
Parallel Model	The intention of the parallel model is to unite science with the desires of society, in which desires are seen as opportunities. In this model, so that innovation is precise and has more chance of materializing, in addition to considering society as an important part, the organization also seeks technological knowledge, which can be acquired or negotiated with universities and institutes of research.
Model Tidd <i>et alii</i>	The model can be used widely by several segments. The steps that compose it are: search, select, implement and learn. First is done the survey of opportunities (search), followed by the election of the opportunity that best fits with the company's strategies (selection). After that is done the development and launch of the idea (implementation), and finally, there is the step of reflecting on the whole process, to do changes and improvements if necessary (learn).

Source: adapted by the authors (2022).

In view of the different types of model, the design thinking approach fits within open innovation, as this has a collaborative characteristic in the innovation process.

According to Silva and Dacorso (2013), the basis of open innovation is found in external knowledge, it is through it that the company innovates and generates competitive advantage. For Stal, Nohara and Chagas (2014), the use of this model offers organizations a better cost-benefit in relation to closed innovation, as it allows the use of external sources such as suppliers, customers, universities,



among others. Such experience adds value to the company and promotes the insertion of new knowledge that can be useful to the organization.

Open innovation shows promise because it is able to "establish a bridge between internal and external resources" (LINDEGAARD, 2011, p. 4). Therefore, it should be used, because, according to Carvalho, Reis and Cavalcante (2011), for organizations to succeed in their projects it is essential to know how to manage both internal and external knowledge in the best way.

2.2 DESIGN THINKING: HISTORY AND CONCEPT

To solve a problem, there is a need to draw up plans, ideas or projects. Design thinking consists of the transformation of such solutions to make them visually perceptible, that is, it consists of the act of concretizing an idea (LÖBACH, 2001). Design has been part of humanity since the beginning of its existence. According to Tai (2018), even before the existence of a market and the intervention of machines, man began his history with design from primitive experiments by creating artifacts and utensils for their survival, doing them intuitively.

Little by little, with the expansion of reasoning and creative thinking, there was the evolution of simple processes to an intellectual level. In this way, the products were gradually perfected, as well as the materials and techniques used by the artisans, stimulating not only the functionality of the creations, but also the beauty of each of them (TAI, 2018). Today, many people still see design as merely responsible for the beautification of things, or also, associate it as the exclusive gift of intellectual people.

Much of this vision, according to Pinheiro, Alt and Pontes (2017) is influenced by companies that change the focus that should be on people and stimulate only aesthetics and immediate return to meet their demands. Such organizational behavior is a reflection of the First Industrial Revolution, a milestone that influenced the way things were created. The work that was previously of exclusive autonomy of artisans, began to be done by machines and produced on a large scale in the factories, modifying not only the forms of consumption, but also the relationship with workers and consumers.

Despite the mistaken views about design and all the transformations faced, its main objective is "to ensure that an offer is perceived by people as something of high value for their lives" (PINHEIRO; ALT; PONTES, 2017, p. 26). To this end, according to the authors, the essence of design is to put people at the center of the business and thus create value not only for them, but together with them.

In this sense, among several approaches and methodologies derived from the design, design thinking emerges, which according to Pinheiros, Alt and Pontes (2017), is about rescuing the essence of design and applying its values in business strategies, providing people with high-value solutions



and beneficial changes to their way of living. The approach came to consolidate a culture of innovation that puts the human being at the center.

The term design thinking was first used by Richard Buchanan, a renowned professor at Carnegie Mellon University, in an article published in 1992. Later the term was popularized by the design and innovation firm IDEO. In 2005, design thinking began to be studied by several students of Stanford University, which was a milestone of great relevance for the global diffusion of the theme. The following year, the Davos Economic Forum took place, in which design was chosen as the most appropriate thinking model to face the complexity of the business world, as well as health, education and housing (PINHEIRO; ALT; PONTES, 2017).

Pinheiro, Alt and Pontes (2017) point out that in 2008 the design thinking approach began to be applied in a practical way in Brazil, through the foundation of two consulting companies in the country. That same year, the Design de Serviços Brasil network emerged, which DesignThinkers raise discussion and events and also, was inaugurated, in a business school, the first design thinking course in Latin America.

The diffusion of the approach by renowned schools of design and innovation happens over the years because, according to Brown (2009), innovation has become a survival strategy and goes beyond the creation of physical products, but includes processes, services and other types of interactions, according to the author it is possible to apply the approach to a wide variety of organizations, Such an evolution continuously attracts the attention of business leaders for its effectiveness and wide accessibility.

In short, design thinking offers people tools that allow and stimulate the ability to think and generate ideas that are unconventional and that when applied, can solve a wide variety of problems and also, seeks to integrate human needs, available resources and economic viability (Brown, 2019).

2.2.1 Unraveling the double diamond of the Design thinking approach

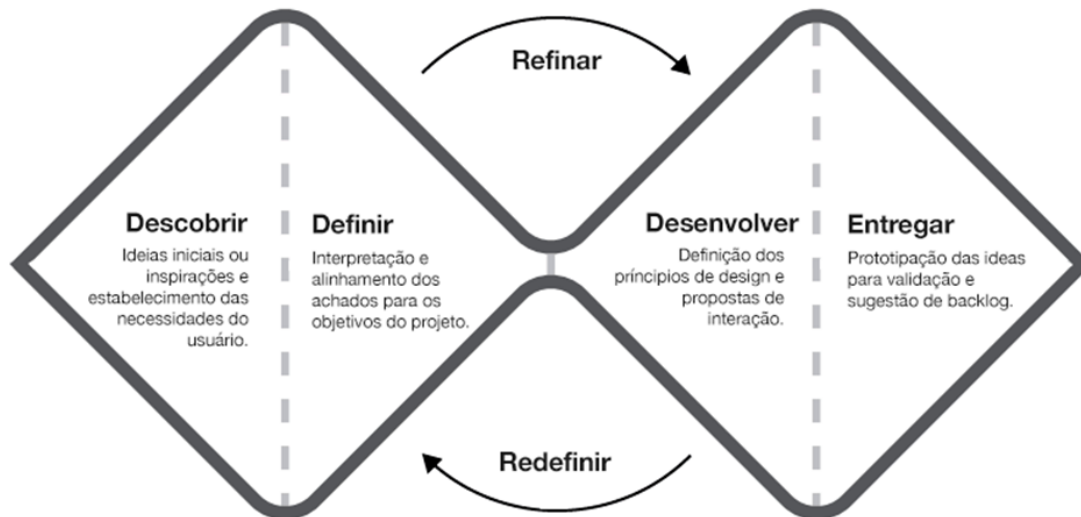
According to Brown (2019), while it is known to designers thinkers that there is no easy way or step-by-step that ensures the success of projects, there are some useful reference points to guide designers along the way. Similarly, for Pinheiro, Alt and Pontes (2017) design thinking is not a specific technique, but a mental model that helps people to conduct problems in an empathetic way, with collaboration and experimentation. Still according to the authors, such characteristics do not depend on context or culture and are essential for those who seek success in projects.

To this end, upon noticing a similarity in the way designers conducted their projects, the UK's public body, the Design Council, gave the name of double diamond to this process. This is because according to the agency, companies go through two fundamental phases, that of expanding the



understanding of the problem to be solved and then refining it, such a process resembles two diamonds, as indicated in the following image. (PINE; ALT; PONTES, 2017, p. 43).

Figure 1: Steps of the double diamond diagram.
O diagrama do duplo diamante



Source: Pinheiro, Alt and Pontes (2017).

Thus, the first step for the application of double diamond already differentiates it from other methodologies. According to Vigorena (2021), the intention of the approach is to generate several solution options instead of making the choice of a single possibility, even before finishing a project it is possible to adapt the choices and make changes along the other steps. According to the figure it is possible to notice that the first phase represents the moment to analyze the possibilities without discarding the ideas, then the conversion between the lines marks the period of making choices and deciding which way to go, according to what is most relevant.

According to Santos et al (2021), the four stages of the double diamond are: immersion, definition, ideation and prototyping. For Pinheiro, Alt and Pontes (2017), many of the consultancies that promote innovation through design use methodologies that resemble the double diamond, they may have different names for their stages, but the structure follows the same essence. Ideo, a company specialized in consulting, for example, uses the following steps: insights, ideas, prototypes and realization. Table 3 will briefly present the concept and objective of each stage according to Santos et al (2021) and Stickdorn and Schneider (2014).



Table 3: Brief presentation of the four stages of the double diamond.

Discover	The first step is to seek <i>insights</i> that provide a bird's-eye view of the situation in order to identify the problem. To do so, one must seek, either through observation, interviews, or using other tools, the real need of people. Immersion, along with an empathetic look, fosters the deep knowledge needed to solve the problem effectively.
Define	Based on the information gathered in the previous step, now is the time to organize it so that you can define what the real problem is faced. Thus, it is important the collaboration of all the people who are part of the project so that the definition of the problem is assertive.
Develop	The third step called ideation consists of generating possible solutions to the problem defined in the previous step. The existence of criteria and deadlines at this stage is important to refine the solutions into viable ideas.
Deliver	After the bottleneck of options, it is time for prototyping, that is, to make test samples before the solution is delivered to the market and users. In this way it is possible to correct errors and verify the real assertiveness of the project. Corrections can be made from prototyping generating cost savings.

Source: adapted by the authors (2022).

In conclusion, the act of putting the human being as a focus and practicing empathy to reach a solution, is what according to Pinheiro, Alt and Pontes (2017), guarantees, nowadays, the creation of products and services that seem to be tailor-made for those who use them. This is because these people are seen and heard In fact through the immersion process, reflecting the essence of design that is the focus on people, without leaving the technical and economic feasibility aside.

3 METHODOLOGICAL PROCEDURES

With regard to the methodological procedures, for the accomplishment of this research a qualitative approach was used, of exploratory nature, which according to Dalfovo, Lana and Silveira (2008), is characterized by investigating themes little explored, and because of this, with little information. Concomitantly, for Gil (2008), due to the difficulty and lack of precision of the information related to the theme, the main objective of exploratory research is to "develop, clarify and modify concepts and ideas" (GIL, 2008, p. 27), and, therefore, contribute with new hypotheses for future research.

Having as main objective to evaluate the experience in design thinking experienced by students of the Executive Secretariat of the State University of Western Paraná in the discipline of Innovation



Management, held in 2020, it was decided to apply a semi-structured interview, because, according to Duarte (2005), in this type of interview, the questions are presented in an open way, in order to obtain the maximum information from the interviewee and address the theme broadly.

It should be noted that the discipline of Innovation Management was taught remotely to students, a fact that occurred due to the pandemic of Covid-19, a disease caused by the coronavirus Sars-CoV-2, which led the whole world to take restrictive measures against the spread of the virus, among them the isolation, decreed in March 2020 in Brazil (MATTA ET AL, 2021).

Regarding data collection, we opted for an interview with open questions, sent by Google Form. The interview has nine questions and covers the following categories: the experience with design thinking before, during and after the course, the benefits and difficulties faced and also, the interest on the part of the students in deepening the studies on the subject, as well as the interest in applying it in their workplace.

The script of the questions (appendix 1) was based on a survey done by the Nielsen Norman Group (2021), an American consulting firm. In the research done by the group, it was sought to investigate how professionals in the area of design and UX design (experience drawing) define design thinking . The questions present in the interview were translated by the authors and adapted to meet the need of this study, which is to explore the perception of Executive Secretariat academics about design thinking.

The interviews were applied in June 2022, sent by WhatsApp and institutional email to the 36 students graduating in the discipline of Innovation Management. A total of 16 responses were obtained. Regarding data analysis, Atlas TI was used, a software that assists in the organization and analysis of qualitative research. According to Queiroz and Cavalcante (2011), the use of the software brings benefits to research with a large textual amount, helping the researcher to order the content and monitor the records, according to the researcher's analysis and contributes, mainly, to the reliability of the study.

4 RESULTS AND DISCUSSION

In order to explore the perception of the students of Executive Secretariat when experiencing an experience in design thinking in the discipline of Innovation Management, an interview with nine questions was applied to the graduates of the discipline. The first question sought to investigate what were the first terms associated by students when thinking about the theme of design thinking. Figure 2 shows a word cloud formed from the students' answers to this first question.



Figure 2: Word cloud.



Source: the authors (2022).

According to the answers, ten of the sixteen students associate design thinking with innovation, followed by the words: creativity, strategy, projects, and solution, each cited by three students. It is noticeable, from the word cloud, the predominance of the term innovation, which corresponds to the high-value solutions that the DT approach promotes, both to organizations and to people (PINHEIRO; ALT; PONTES, 2017).

Regarding the other words mentioned by the students, all are related to the definition of design thinking in the different categories presented in chart 4.

Table 4: Categories present in the word cloud.

Features	dynamism, creativity, organization
Applicability	problem solving, strategy, decision making, marketing, management, projects
Steps	planning, ideation, prototyping, testing, process
Findings	knowledge, change, progress, funnel of ideas, diversity, relationship, communication

Source: the authors (2022).

Then, the students were asked to define the design thinking, based on the experience lived by each one in the discipline of Innovation Management, in 2020. Through the similarity of the answers, it can be noted that the concept of DT, in general, was understood by the majority. Most of the answers define it as a facilitating approach to problem solving, other characteristics such as innovation and efficiency are also present in some definitions. In table 4, some responses were segmented according to the three pillars that support the approach: empathy, collaboration and experimentation (PINHEIRO; ALT; PONTES, 2017).



Table 5: Definition of the approach.

Empathy	Student 3: "The goal is to transform difficulties into alternative solutions to meet the need."
Collaboration	Student 1: "It is an approach that deals with solving problems in an innovative and collaborative way"
	Student 2: "The approach aims to solve problems using a collective form"
Experimentation	Student 2: "It is a mapping and merging of cultural experiences and worldview in order to identify barriers and generate alternatives for correction."
	Student 6: "It is a facilitating tool for decision making. Through the steps it helps the understanding of the problems leading to find possible solutions."

Source: the authors (2021).

According to the definitions shown in chart 4, it is noted that even though they are not directly mentioned in the answers, the three pillars (empathy, collaboration and experimentation) are present in the students' descriptions. In addition, other students cited the double diamond steps as facilitators in the application process. Student 4 specified the steps when answering "I define design thinking as a method of solving problems based on 4 steps: immersion, ideation, prototyping and implementation. It can be used to optimize and improve various processes of organizations. " Similarly, student 5 defined DT as "a set of steps, all of which will serve to find a solution to that particular problem".

In addition to organizations, according to student 7, "design thinking can be defined as an excellent and diverse approach to solving organizational and academic problems among other projects. ", similar to student 8 who defines DT as "a very good technique for various uses. I see that for the collection of ideas and innovation it is a great tool. "

The following question asked students to briefly describe their experience when using DT in the discipline of Innovation Management in 2020. Only two students reported having difficulties in the middle of the discipline, because it is a new subject and also because of the distance education format that hindered a little the fixation of content. In relation to the rest of the students, all of them stated that they had had a positive and professionally enriching experience.

Student 9 stated "it was a unique experience, of much learning even in the process of discussing and thinking about a project that would solve the problem that we had been willing to solve through the design thinking tool." Student 8 commented "it was enriching and I was able to observe and contemplate closely each stage of strategy development. It allowed us to have a new look at how to solve the problems and follow each stage of the project. " For student 12 "it was a good experience.



The matter was approached in a very direct way. I was able to understand the idea of the approach well and put it into practice. "

The students were also asked if they had any contact with the DT before the course, of the 16 respondents, 14 stated that they never had contact, 1 student answered "no, I did not know, although I had already practiced without even having an idea" and only one student answered that he had already had contact, "I had a previous at the same university, in the discipline of Organizational Communication I." It is noted, therefore, that the content was totally new for most students, this is the reflection that the theme is not yet very widespread in the country, since the DT arrived in Brazil for the first time in 2008, according to Pinheiro, Alt and Pontes (2017).

Subsequently, when asked if they have already had the opportunity to use the DT after the course, 10 students answered that they have not yet had the opportunity to use it, one stated that he had the opportunity but was unsure and three responded positively, student 1 commented "yes, maybe not directly with this nomenclature, in my work uses the DT", Student 2 replied "Yes, in my work at all times we seek to think outside the box to meet the needs of customers in some way. It's not always exactly as they expected, but sometimes it's even better. And as it is important to use this method the company has even provided a free course on DT and creativity. " Student 8 stated that he uses DT in the office where he currently works.

The next question presented to the students sought to verify their interest in using the DT, in case they needed to solve any problem in the company in which they work. Among the 16 students, 14 were favorable to use the approach, only 2 answered that they would not use it, the reason stated by one of these students is that the approach takes a lot of time and he would prefer to solve it faster. Regarding the students who responded positively, Chart 6 shows the justifications cited by them.

Table 6: Reasons for using DT according to students.

Innovative approach	Student 1: Yes, mainly because it is innovative.
Agile by facilitating problem solving	Student 6: Absolutely. I see this method as a problem facilitator in a more agile way.
Promotes professional differential	Student 8: I don't currently work, but I would use it to differentiate myself as a professional.
Effective and applicable approach	Student 7: Yes, perfectly, because it is an easy mechanism to be applied and with advantageous result. Student 10: Yes, because I believe the methodology is effective and very applicable. Student 12: Yes. I think it's a very efficient approach.



Values organizational culture	Student 1: Yes, because in the day to day several situations arise that demand the resolution of some type of problem or creation of new methods to work within the company, and having a participation and collaboration of an entire team to carry out studies and put into practice the ideas, highly values the organizational culture of the company.
Helps you think of new ideas	Student 11: Yes. Because DT helps people think of new ideas.
Improves communication	Student 4: Absolutely. In addition to being an easy-to-apply tool, there is a whole team involvement behind it, which improves not only the communication between the team but the generation of ideas.
Collaborative tool	Student 3: Yes, because it is a tool that considers the participation and collaboration of other people, considering all the factors that involve it. In the company where I work, it would be a good proposal for problem solving.
It makes it possible to know and understand the problem	Student 5: Yes, but as I said I have insecurity because I believe that I need to deepen the learning. It is a tool that provides you with an inside out. Student 9: Yes, for having the main pillars such as knowing and understanding the problem.

Source: the authors (2022).

Through the answers described in table 6, it is noted that the students found the advantages of the approach described by Brown (2019), when stating that the DT provides tools that instigate the ability of people to explore new ideas and from this, allows the resolution of a wide variety of problems. Subsequently, the students were asked about the benefits and difficulties in the application of the design thinking, Both are shown in Table 7.

Table 7: Benefits and difficulties when applying DT according to students.

Benefits	Difficulties
Value creation	Little known/unusual
Exchange of information	Lack of team engagement
Facilitates the creation of hypotheses of solutions and data collection	Process towards application is detailed and methodical
Economical	Resistance to innovation
Innovative	Time to complete steps
Collaborative	Get people to put forward their ideas
Dynamic	Get the whole team involved
DT steps make the process easier	Lack of team alignment
Assertive	Lack of understanding of the approach

Source: the authors (2022)

The benefits pointed out by the students correspond to the collaborative essence of design pointed out by the authors Pinheiro, Alt and Pontes (2017), which enables the creation of value with people and not only for them. Another feature that stimulates the exchange of information and



dynamism and therefore facilitates the process of applying the DT, are the steps of the double diamond, recognized by the UK public body, Design Council.

In relation to the difficulties mentioned, most of them reflect the fact that the approach is not yet very widespread in Brazil, since 15 of the 16 students never had contact with the subject before the discipline of Innovation Management, it is justified, therefore, the lack of knowledge of the team in relation to the approach and the resistance to innovation.

As for the interest of the students in studying more about design thinking in the future, 10 of the students stated that they have an interest, 4 students have no interest and 2 answered that perhaps, depending on the need to use it in the organization in which they work. The main reason highlighted among students who are interested in deepening their studies on the subject is to improve themselves professionally to be able to apply the approach together with their work teams. As for the 4 students who are not interested in studying more about the subject, two justifications were pointed out: the contact with the DT in the discipline of Innovation Management was already enough and these students considered that there are other methodologies easier to apply.

Finally, when asked if they would recommend the use of the approach to other people, 15 students answered yes, only 1 would not recommend it because they did not have enough knowledge about the subject. The justification of those who responded positively are the benefits experienced by the students themselves during the design thinking experience.

5 CONSIDERATIONS FINAL

Through this study, it is observed that the perception of the students of the Executive Secretariat of Unioeste about design thinking is consistent with what the authors base on the subject. When analyzing the results, even with the uniqueness of each student when answering the interview, it is noted that the definitions about TD were equated.

Students define the approach as a facilitating tool for problem solving. Its applicability, according to the students, goes beyond the organizational level, and can also be used in academic or personal projects. Another point highlighted by the students is the characteristic innovative that the approach has, because it enables the search for the real need to be met, to create value through the solutions.

The collaborative characteristic was also mentioned by many students, both as an advantage, for offering freedom to the team to expose ideas, and as an impasse, since most of the difficulties pointed out by the students when using the DT are related to the lack of alignment of the team.

About the experience experienced by students when using the approach during the discipline of Innovation Management, in 2020, it was found that it was positive for most students, only two



respondents reported having difficulties in fixing the content due to the remote format of the discipline and the fact that the theme is new to them.

It should be noted that, of all the respondents, only one student had had previous contact with design thinking before the course. Most students have not yet had the opportunity to apply the DT approach after the course, when asked if they would be interested in studying more about the topic in the future, 10 students answered yes, because they want to delve into the subject and be able to implement the approach in their workplace.

Regarding the difficulties when applying design thinking, in addition to the lack of alignment of the team, it was mentioned by the students that there is still resistance to innovation within some organizations, in addition, the theme is still little known by people. Given the above, it is verified the relevance of the study and mastery on the subject so that professionals are trained and can contribute to the dissemination of the approach within organizations.

Given this, it is understood that the study fulfilled its objective of evaluating the perception of students about the applicability of design thinking and brought contributions to the area of Executive Secretariat, especially in relation to the curriculum of the Unioeste course, since the study points out how relevant it is for students to have access to innovative content and approaches such as design thinking.

Regarding the limitations of the study, we consider the fact that the research did not reach all the 36 students who attended the discipline of Innovation Management. In view of the relevance of the theme for the professional Executive Secretariat, future investigations are recommended in a more comprehensive way, including graduates and students from other institutions, on the applicability of the approach, as a way of encouraging the introduction and deepening of the theme within universities.



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