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Design Thinking Methodology Focused on School Entrepreneurship: A Psychological Perspective.

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Abstract

Design Thinking has gained recognition; It is a tool that organizations can implement to cope with complexity and foster innovation in school entrepreneurship. The article aims to describe the Design Thinking methodology based on school entrepreneurship to help students and teachers implement processes to demonstrate their skills, performance, analysis criteria,and their interest in business and entrepreneurship to promote school learning and teaching.Themethodology of the study was phenomenological that seeks to give an objective answer, based on lived experience. Design Thinking was found to benefit students in the process of innovating each student's area of creativity individually and demonstrating the capabilities they show in the decision to undertake an idea or a business. Bempowering teachers because by following the processes of the methodology they feel that they can facilitate the teaching of students, allowing them to demonstrate performance in different activities that can achieve an analytical, logical and imaginative vision. In conclusion, state and public or private institutions focused on education can help implement the Design Thinking methodology to different entities to evaluate their processes and see the effectiveness based on academic entrepreneurship.

Keywords: School entrepreneurship, Design Thinking, Methodology, learning, teaching.

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1. Introduction

Education under the competency-based approach focuses on learning, where students build their knowledge through a constructivist model to emphasize knowledge, procedures and attitudes [1] to challenge the demands of this knowledge society and understand the situations presented to them in this competitive world assertively, develop problem-solving skills, seek viable solutions and develop successfully [2]. In addition, the new global context after COVID 19 has allowed the education system to modify structured models that focused on the classroom, the development of learning autonomy, empathy and the use of technological resources [3, 4].

Therefore, it is necessary to apply teaching-learning methodologies that allow the development of students' skills, mainly teamwork, collaboration, creativity, among others, oriented to the common good [3,5]. From school, especially at the secondary level, teachers are required to accompany students to identify the needs of the context in which they find themselves and to recognize the problems of their reality to solve them through consensual proposals, being necessary for the teacher to propose strategies within their teaching practice [6, 4].

Design Thinking is a methodology that proposes challenges based on identified needs or problems, investigates, seeks information, analyzes and projects creative solutions through design [8], this method articulates the knowledge and understanding of a situation, a circumstance, a context in which it will devise ways to propose answers projecting to the next reality, allowing learning from a socio-constructivist model having as motivation a range of ideas and proposals, creative thinking and many metacognitive skills [9]. Therefore, Castillo, Alvares and Cabana, [10] refers that the Design Thinking methodology is composed of five phases, Empathize: know basic characteristics about situations or problems in general and practice empathy when analyzing the reason for study, Define: seek and design the solution to the problem identified in the previous phase, Ideate: Applying various techniques, generates many possible ideas, Prototype: creates real

prototypes of some of the ideas, attending and solving the situation or problem, Evaluate or Test: collect the judgment of some users about the prototype and if necessary, improve it [10, 7, 4].

Design Thinking and Problem-Based Learning (PBL), as methodological strategies, allow the development of competencies in students who adopt skillful behaviors to address problematic situations in their environment through the generation of ideas worked on as a team [11]; In addition, it allows students to achieve autonomy and adaptation at work, demonstrating empathy and empowerment [12]. Design Thinking seeks a balance between identifying real problems and the environment; and the search for solutions with viable proposals that require flexibility, agility, joy and entrepreneurial spirit assuming risks in the results [13]. Finally, the research aims to analyze the importance of the Design Thinking methodology in the construction of project-based learning, with collaborative work and developing the entrepreneurial spirit to solve problems with creative proposals [14,7, 4].

2. Methodology

For the development of the research work, searches were carried out in the databases of *Scopus*, *Google Scholar*, *MEDLINE* and *Scielo*. The Design Thinking method was reviewed, which uses the following steps: empathize, define, ideate, create and test. The study was phenomenological looking for an objective answer, based on the lived experience [15] of five people, three teachers and two students in the 4th year of high school, the approach is qualitative because it will allow teachers and students to reflect on their experience [4] in the application of the Design Thinking methodology, what is required is that through the interview the purpose of applying Design Thinking for the benefit of school entrepreneurship is explored [16].

3. Results and discussion

From the chosen articles, each of them was analyzed, and the most important results were rescued.

Table 1. The Design Thinking methodology structured in five main stages

Stages of Design Thinking	List of key issues through the following steps:
empathize	Observation
	Interesting
	Observe and listen
Define	Contextualize
	Synthesize
Create	Create
	Prototype
	Separate
Prototype	Build
	Variables
	Building on acquired knowledge
Test	Observe and refine
	Create experience

Source: Almaghaslah, Dalia and AbdulrhmanAlsayari, (17)

Synthesized results

A total of twenty studies were preferably chosen for review. All the articles reviewed investigated the Design Thinking methodology focused on school entrepreneurship. We found five different studies of entrepreneurship skills and social effort; five of twenty manuscripts study the style of exchanging creative ideas for performance, representing 20% of the total manuscripts. Seven out of twenty (35.00%) explored the relationship between school entrepreneurship. Three studies (15.00%) of the manuscripts found reviewed the association of the tools used in the Design Thinking methodology.

According to Zevallos,[18] he used Design Thinking methodology to promote entrepreneurship among students in private regular basic education. The results showed that most educators are not interested in the different social aid plans, the different plans and projects that students carry out are not sustainable due to the lack of help from teachers and the institution itself, which needs different social entrepreneurship programs and techniques [18]. Similarly, students before the assessment demonstrated that they can take on different adversities, are willing to take risks, are self-taught, creative, group performing, and exchange ideas to make decisions that can help the project [18]. Finally, the Design Thinking Methodology comforts the different skills of entrepreneurship and social effort. On the other hand, [1 9] use Design Thinking as a resource and the Methodology focused on education with the aim of helping students manage learning in different areas with ease based on optimal processes and resources [19]. The different techniques of the Methodology will be able to change the different learning and teaching environments that students and teachers have through dialogue and visual language allowing to fulfill the objective of helping students with few resources and demonstrate through evaluations the capacities and skills they have in different learning processes [19, 4].

Therefore, Rodriguez and Loor, [20] mention that creative ideas are developed through the learning of students through different errands where they can develop their knowledge of communication and reasoning allowing them to obtain different entrepreneurship projects before different ideas of students' creativity plans [20]. Therefore, the results are obtained since different teachers maintain different information contents that allow students to exchange creative ideas for the performance of being able to carry out a school or business entrepreneurship project [20]. Finally, the Design Thinking Methodology given by its strategies for the design of school entrepreneurship should improve the educational method to increase learning before different activities to prepare the student for life and as a creative person with dreams that can be achieved based on effort and preparation [20].

According to Rodriguez and Loor, [20] focused on being able to help improve student performance with learning enhancement strategies, knowing that students already had notions about different techniques of creative design of entrepreneurial entrepreneurship ideas [20]. In addition, the methodology used by teachers to improve teaching is by different methods that generate interest in different areas of creativity [20]. On the other hand, the different entrepreneurship plans generated by students serve them for different adversities in life and prepare them for the life cycle process facing reality [20]. Next, it can be determined that the different methods used by teachers are appropriate (design thinking) but also the different creative methods that teachers have to help students improve their innate abilities by stimulating students' imagination, effort, responsibility and creativity in a personal and group way to make decisions that can help them face reality [20].

According to Ibor et al., [21] A detail that, from the educational environment, we want to improve the different teaching and learning techniques focused on students to expand the different skills and abilities they have before group management, creative interest, and the analysis of experiencing different areas of assignment, before these virtues we want to fulfill an objective and is to be able to have a characteristic and collaborative learning [21]. The Design Thinking methodology was implemented, allowing different options for teaching and innovative development [21]. It has been seen that he has been able to enhance the different educational skills and generate self-interest in students allowing them to manage autonomy in the decisions of their business ventures based on creativity, responsibility, innovation, teamwork and to face all adversities on the road of life [21].

According to Canto and Monserrate, [2 2] he described the Design Thinking Methodology for the teaching and learning structure that is the focus of the research project. An educational form (Maestro Design) was employed as a didactic form for teachers to develop performance, skills, experiences and ingenuity to increase knowledge and improve their outlook on life [2 2]. This could help teachers benefit from the methodology, as it has a vision towards educational quality and effectiveness, as it seeks to enable students to achieve their goals and focuses on personal and group entrepreneurship [2 2]. This means that students must be prepared for the different adversities that the world brings, the methodology helps them to mature and to be able to organize themselves continuously [2 2]. This research focuses on the management and implementation of the methodological processes of Design Thinking and its supporting factors in education and school entrepreneurship. Velasques, [23] applied the Design Thinking methodology in order to improve the skills of students and their interest in school entrepreneurship, since the management of the methodology could encourage student performance and the development of teaching-learning [23]. Design Thinking benefits students in the process of innovating the area of creativity of each student individually and demonstrating the

capabilities they show before the decision to be able to undertake an idea or a business [23]. This benefits teachers too much because by following the processes of the methodology they feel that they can facilitate the teaching to students, allowing them to demonstrate performance in different activities that they can achieve an analytical, logical and imaginative vision. On the other hand, Rodriguez, [2 4] stated that his processes help students and teachers to develop the fields of criteria of the student's thinking as a creative entrepreneur, improve their professional profile to solve problems adverse to their entrepreneurial business [2 4]. The methodology provides different processes that handle new methods of organization and implementation of tools and ideas of a design to improve so that students promote creativity, teamwork and be empathetic with both the client and their colleagues [24]. On the other hand, Design Thinking transforms the work environment into entrepreneurship with the participation of teachers and students interested in progressing as a team with creativity and interest in developing their competitive skills [24].

According to Lama, [7] he described how he implemented the Design Thinking methodology being fundamental to increase empathy, satisfaction and well-being in the course of the student in training of his future. It is known that proposing a methodology in the area of education is something complex to carry out since it passes different evaluations to know the success rate of its processes, the Design Thinking methodology has been implemented in different public and private institutions obtaining optimal results focused on entrepreneurship and quality of life of the student with the aim of improving the type of teaching that traditional teachers perform verified in different parts. of the world the effectiveness of the methodology and its compliance processes and improve for school entrepreneurship [7]. It is known that these processes for the development of the methodology have promoted interest in different school projects and focus on different ideas that promote entrepreneurship and to obtain clear results that can benefit the student, teachers and the institution itself [7].

5. Conclusions

Through the implementation of the Design Thinking methodology, optimal results and successes focused on the teacher and the student who generates different skills for entrepreneurship were found. To be able to support students so that they can carry out their small businesses with money from the same institution in order to develop their capacities and encourage activities where they can put into practice their creativity, responsibility, ingenuity and face decisions that may be useful for the near future. It is recommended to implement different tools to facilitate the teaching and learning of teachers and students, which is fundamental to carry out the processes of the methodology, since students still have difficulties understanding different parts of the information shared by the teacher.

Meanwhile , state and public or private institutions focused on education can help implement the Design Thinking methodology to different entities to evaluate their processes and see the effectiveness based on academic entrepreneurship. Since it has become a priority, the performance of students in different activities allows them to obtain more opportunities in life, apart from being able to demonstrate the phases of skills, attitudes, aptitudes that they can show in the process of managing creativity. In the same way, teachers are required to engage with students in small business ventures or ideas or to evaluate the capabilities and skills they can achieve in different activities by fulfilling roles and commitments to the institution and its students. Finally, we can detail that the methodology is necessary to help all students to train for the future and be able to demonstrate their skills.

References

[1] F. Albarrán and C. Díaz. Problem-based learning methodologies, projects and case studies in undergraduate critical thinking. 25(3). **(2021)**
[2] C. Ramirez. Problem-based learning: didactic strategy that strengthens creative thinking. 6(11), 61-71. **(2014)**
[3] M. Mena. Design thinking: an educational approach in the second language classroom in the post-COVID era. Journal of Technology, Science and Education, 18, 45-75. **(2021)**
[4] Concept. Design thinking: a first approach to the concept (1 of 5). **(2020)**
[5] M. Mendoza, N. Martí and P. García. Design Thinking as an active methodology for cooperative learning in Design Architecture. Cinaic, 539-544. **(2019)**

[6] M. Magro and S. Carrascal. Design Thinking as a resource and methodology for visual literacy and learning in preschools in multigrade schools in Mexico. Vivat Academy, 146, 71. **(2019)**
[7] M. de la Lama. Implementation of Design Thinking in education students and its effect on self-esteem, happiness and satisfaction with life (PhD thesis, University of Zaragoza). **(2020)**
[8] Ruiz et al. **(2015).** Implementation of learning and evaluation activities for the development of generic competences: a case study of the application of Design Thinking techniques, and evaluation through rubrics, of Creativity, Innovation and E. 1074-1088 competences.
[9] C. Latorre, T. Vázquez, M. Rodríguez and O. Liesa. Design Thinking: Creativity and critical thinking at university. Electronic Journal of Educational Research, 22, 1-13. **(2020)**
[10] V. Castillo, M. Álvarez and V. Cabana. Design thinking: How to guide students, entrepreneurs and entrepreneurs in your application. Industrial Engineering, 35(3), 301-311. **(2014)**
[11] R. Cruz, C. Serrano and B. Rodríguez. Productive improvement model: an application of digital fabrication incorporated into project-based learning (PBL) in higher education. University Education, 14(2), 65-74. **(2021**).
[12] Xie et al. **(2020).** A case study of participatory design in environmental design education. Proceedings of the 16th Participatory Design Conference 2020 - Participation(s) otherwise - Volume 2, 87-94.
[13] J. Cuevas. The Design Thinking process in learning the competence "sense of initiative and entrepreneurship". XVII International Congress of Researchers in Social and Cooperative Economy. **(2018**).
[14] E. Rodríguez, P. Ortiz and D. Guerrero. Design Thinking in the training processes of SENA. 8, 32-41. **(2019)**
[15] D. Fuster. Qualitative research: hermeneutic phenomenological method. Purposes and Representations, 7(1), 201-229. **(2019**)
[16] C. Guerrero, T. Oliva and V. Ojeda. Ojeda. Characteristics of phenomenological interviewing in nursing research. 38(2), 1-5. **(2017)**
[17] Almaghaslah, Dalia and AbdulrhmanAlsayari. "Using the Design Thinking Method in Academic Advising: A Case Study in a Pharmacy Faculty in Saudi Arabia." *Health* . vol. 10. No. 1. MDPI, 2022.
[18] R. Zevallos. Design Thinking methodology to promote social entrepreneurship in high school students of a private institution in Lima. **(2022).**
[19] M. Gutierrez and S. Domínguez. 'Design Thinking' as a resource and methodology for visual literacy and learning in preschool in Mexican multigrade schools. [Design Thinking as a resource and methodology for visual literacy in preschool in Mexican multigrade schools]. Vivat Academy. Journal of Communication, 146, 71-95. **(2019).**
[20] L. Rodriguez and M. Loor. Digital tools in learning and their relationship with students' creative skills. **(2021).**
[21] L. Ibor, M. Orús and S. Bandrés. Design Thinking as an active methodology A didactic proposal for children. **(2020)**
[22] C. Cantos and Monserrate. Design thinking in the teaching-learning process (Bachelor's thesis, University of Guayaquil. Faculty of Philosophy, Letters and Education Sciences). **(2018)**
[23] N. Velásquez and D. Shamilex. Incidence of the Design Thinking methodology in the process of teaching and learning of work, energy and power, in the students of the Second of Unified General Baccalaureate, of the Municipal Educational Unit Calderón, of the District of Quito, during the school year 2018-2019 (Bachelor's thesis, Quito: UCE). **(2019)**
[24] E. Rodríguez, M. Ruiz and O. Agudelo. Innovation and entrepreneurship: a competency development experience from grade 9. In V International Congress of Technology Management and Innovation. **(2016)**