

# Assessment study of learning based on design projects, in students of the Business Strategy course.

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**Summary.** Entrepreneurship is a common economic activity throughout Chile, which encourages professionals from various areas to create and innovate in the design of business ideas at a national and regional level. In this regard, this study exposes the assessment of the students of the Business Strategy subject of the renewed Design program of the University of La Serena, regarding their learning process based on the development of a project within the framework of the project methodology. The methodology is mixed of exploratory scope and concurrent design.

**Keywords:** Learning, Design, Project Methodology, Business, Project.

## 1 Introduction

The study was carried out with eighth level students, participants in the subject "Business Strategies" of the Design program at the University of La Serena. This subject, of a theoretical-practical nature, corresponds to the general training area of the renewed curriculum of the program, which is oriented towards the achievement of competencies.

Considering that this is the first implementation of the subject in the context of the renewed Design program, the need arises to monitor, beyond the qualification and from the perception of the professionals in training, the learning process, in order to identify spaces for optimization of this curricular activity in its next implementation.

Regarding the above, the focus is on student learning, according to Gargallo et al. (2010) in the learning process in the university classroom, where the student interacts with the teacher, the perception of the former regarding the task, attitude and behavior of the teacher within his role, is a relevant gateway to inquire about the pedagogical practices.

In this regard, the following question is posed: How do students assess their learning process in the Business Strategies subject of the Design program at the University of La Serena, Chile?

To answer this question, this study proposes as a general objective; recognize the assessment of the learning process in the subject Business Strategies of the Design career University of La Serena, Chile, from the students' perception.

## **2 Theoretical Framework**

### **2.1 Learning in higher education**

Samuelowicz and Bain (2001; Ibid., 2022) identified two teaching approaches in higher education: one focused on their own teaching and the transmission of information, and another focused on student learning through facilitation (Biggs, 2006). ; Gargallo et. al, 2010, among others).

In this regard, and as stated by the evidence emerged from research (Samuelowicz and Bain, 2001; Ibid, 2022; Gargallo et al., 2010), the approach that currently promotes learning in higher education students the most is the one focused in learning and student activity, which translates into experiences and deep learning (Biggs, 2006). From here, the concept raised by Gargallo et al. (2010) of "good teacher", which, from the perception of the students, facilitates the processes by promoting learning to learn, connects theory with practice, encourages participation, permanently and formatively evaluates, values the work, their students know in advance the evaluative criteria, among others.

### **2.2 Design as project science**

Design, according to Maldonado (1961), is a project activity that consists of determining the formal properties of the objects that are produced.

In this same sense, González (1994) states

Design is [...] a strategy and a tactic of the mind that is mobilized from the moment the decision to create a useful object begins until its final realization is achieved, going through all the steps or instances required to achieve a form that meets its purpose, a way that works. (p.32)

This is how design is understood as a process that establishes the correspondence between a state of necessity, which can be material or immaterial, and an object of necessity.

### **2.3 Project methodology**

Lupton (2012) defines the design process in a graphic and educational way, based on a project methodology that, used by designers, is important to define the design process in terms of creation and application.

Defines the design process, from the creative part setting a design problem, brainstorming, mind maps, idea generation, interviews, brand positioning matrices, visual data dump, action verbs, ecodesign, form and mockup preparation. This structure establishes a design process, an effect that can be observed in different tasks, especially in the case studies presented in the research.

The Design Thinking methodology defines phases for the creation and formalization of project ideas, helping companies to innovate, better differentiate their brands and quickly introduce products and services to the market (Brown and Wyatt, 2010).

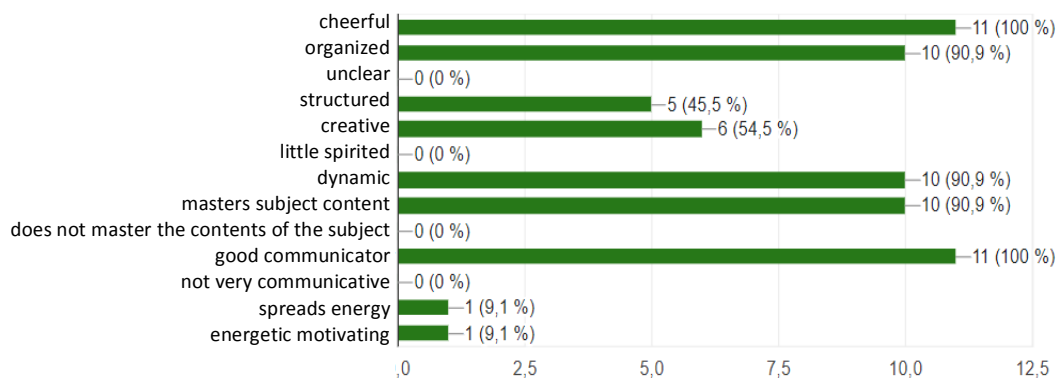
### 3 Method

The general objective of the study is to recognize the assessment, from the perception of the students, of the learning process in the subject Business Strategies of the Design career University of La Serena, Chile.; For this, it was sought to characterize the perception regarding the learning of the students who took the subject, where variables such as the perception of the teacher, the development of skills for the development of the subject products, among others, were considered.

In this regard, the methodology arises from the exploration of the perception of learning of the students of the Design career, specifically in the subject of Business Strategies. The focus of this study is mixed of exploratory scope and concurrent design. The universe is made up of 11 fourth-year students who took the course. The instruments designed and applied online correspond to a survey with standardized answers, as well as an interview made up of dichotomous and development questions that were answered by 100% of the mentioned universe.

### 4 Results

#### 1 Characterization of the professor from students' perception.



**Graphic n° 1** Select some of the characteristics of your professor. Source: self made.

In the previous graph, aspects of the teacher's attitude and work modality can be seen, for example, communication, organization and joy stand out, as well as the management of the contents and the dynamism of the class.

2 Characterization, from students' perception of their own learning process.



**Graph n°2** The Design project Were you able to develop a business idea (design)?  
Source: self made.

As it can be seen in graph 2, all the students state that they have designed and elaborated a Design Project, as declared in the learning results of the subject.

A semi-structured question with a short answer was also asked, where the students expressed what seemed most important or meaningful to them about their learning in the subject. Their answers were hand in hand with the methodology used, the concept of the "good teacher" in their project-based learning.

## 5 Discussion

According to the learning outcome "develop a design project", it could be argued that students have the skills to develop a business idea and project it for future implementation. A fundamental and deciding factor in carrying out the project is motivation, which is evidenced in the teacher's dynamism and joy in developing the class. These attitudes made the progress of the project meet the deadlines and objectives established by the professor, which ends in the delivery of the completed Project by each student.

Based on the above and based on the continuous improvement of teaching in programs that use project methodology, such as Design, the time and progress is essential to be able to work on feedback as a team. The role of the professor as a guide for the team to prosecute corrections, prototype improvements and model testing, are products that are often developed in the Design program.

## **6 Conclusions**

With this research, it was possible to observe students' perception regarding the Business Strategy subject, in addition to the meaningful learning they experience in the development and implementation of a Design Project.

The learning outcome "develop a design project" is achieved by 100% of the students, where each one was able to apply contents of the three units taught in the subject.

Finally, the group of students identifies an enriching experience and a space to "learn" together with their peers and profesor.

## **7 Limitations and Future Research**

Some limitations that could be observed in the research process was students' insecurity present in an important group of them. This means that the progress of the project presents some weaknesses and some limitations in the methodology. These elements were worked on in the development of the unit.

Thanks to this research, other lines were born, such as the study in Project title, related to the application of competitive funds. The role of the teacher as support and guide for the formulation of sustainable projects.

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