

## Entrepreneurial teaching design: does it work? A case study

Faria, Sandra Dias<sup>1</sup>, Tiago, Maria<sup>2</sup>, Fonseca, Josélia<sup>3</sup>

1) Universidade dos Açores, Faculdade de Economia e Gestão and Advance / CSG, ISEG, Universidade de Lisboa, Portugal

[sandra.mc.faria@uac.pt](mailto:sandra.mc.faria@uac.pt)

2) Universidade dos Açores, Faculdade de Economia e Gestão and CEEAplA - Centro de Estudos de Economia Aplicada do Atlântico, Portugal

[maria.tp.tiago@uac.pt](mailto:maria.tp.tiago@uac.pt)

3) Universidade dos Açores, Faculdade de Ciências Sociais e Humanas, Portugal

[joselia.mr.fonseca@uac.pt](mailto:joselia.mr.fonseca@uac.pt)

### Abstract

Across-the-board, promoting entrepreneurship education is one of the main arguments for stimulating the economic growth on regional, national and international levels (Black, 2003; Hisrich, 2003; Nieuwenhuizen & Groenewald, 2008). Entrepreneurship education is said to foster job creation; therefore, entrepreneurship has been recognized as the answer to the unemployment problematic (Zamberi Ahmad, 2013). Entrepreneurial education is also recognized as the process of providing individuals with the ability to recognize profitable opportunities and the insight, self-esteem, knowledge, and skills to act on them (Jones & English, 2004). This article is focused on the design of a teaching program called Entrepreneurship Triple Helix, designed within the scope of the curricular unit of Entrepreneurship offered at the University of the Azores.

**Keywords:** entrepreneurship education, entrepreneurial teaching programs, entrepreneurial propensity, intrapreneurship.

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### 1. Introduction

Entrepreneurship can influence an economy in diverse manners. It can be viewed in both formal and informal economic activities with the purposes of creating wealth. Over the years, entrepreneurship started to be considered as a catalyst in the promotion of economic and social development. Its benefits can be manifest on economic growth, innovation, employment, and equity (Carree & Thurik, 2010). This links with the idea, widely accepted within the European Union, that Europe needs to enhance the pool of local entrepreneurial talent if it wants to reboot the economic system in a consistent manner (Garavan & O'Cinneide, 1994).

For several decades, entrepreneurship was understood as the creation of new companies and new business areas. Currently, it assumes a wider role, including the creation of new ventures and taking place within existing firms, through the innovative and proactive behavior of the employees (Peterman & Kennedy, 2003). Researchers acknowledge that entrepreneurship relies on human personality traits and is a heterogeneous and multi-faceted phenomenon (Acs, Desai, & Hessels, 2008; Klapper, Amit, & Guillén, 2010; Faria, 2012; Valerio, Parton, & Robb, 2014; Kozlinska, 2016). To reinforce this, the European Commission has identified the competence to act entrepreneurially as one out of the eight key competences that all citizens in the member countries should possess (European Commission, 2017).

Adding to personality traits, individuals' entrepreneurial motivation, knowledge, and skills are accounted as key factors that enhance or inhibit the emergence of new start-ups and innovative attitude. In this sense, entrepreneurship education (EE) arises as promotion instrument of these attributes. Leaving a fundamental question to answer: is entrepreneurship really teachable?

In 2005, Kuratko stated that "It is becoming clear that entrepreneurship, or certain facets of it, can be taught". Thus, this work attempts to evaluate if the design of a teaching program called Entrepreneurship Triple Helix, designed within the scope of the curricular unit of Entrepreneurship offered at the University of the Azores is producing the expected results: improving students' propensity to entrepreneurship.

The aim of this paper is to assess students' orientations about entrepreneurship, analyze the factors that influence the entrepreneurship culture for students and generate and evaluate the Entrepreneurial Triple Helix curriculum model developed at the University of the Azores. The named program introduced an entrepreneurship curriculum based on the integration of theory and experiential learning.

## 2. Background

Entrepreneurship education is perceived as a contributor in the process of exercising entrepreneurial skills (Mehta & Gupta, 2014), contributing to the development of the intrapreneurship which is so important to revive stagnant organizations and ensure their survival and success in the market. It is essential to grab the dynamic nature of entrepreneurial management, through competencies like persistence, taking risks, learning from failures, efficiency orientation, among other.

Once is accomplished the importance of entrepreneurship education, it ranks highly on policy agendas in Europe, as well as all over the world. Consequently, the number of entrepreneurial teaching programs increased to a significant level, but it stills hard to understand the impact of these programs on the student's propensity for entrepreneurship. There are two main sets: (1) whether entrepreneurship education raises intentions to be entrepreneurial generally or (2) whether it helps students determine how well suited they are for entrepreneurship (Weber et al., 2009).

Kuratko (2016) recalled the thoughts of Drucker (1985) regarding entrepreneurship "Can entrepreneurship be taught and learn? This question is obsolete. Entrepreneurship can be experienced" and relaunches the debate about the role of entrepreneurship education programs. Over the last two decades, entrepreneurship education programs have mushroomed, all over the world, with a promise and potential to promote entrepreneurial attitudes and skills among the young population.

When analyzing the entrepreneurship education history, it can be noticed that it has been developed along two dimensions: education entrepreneurship and entrepreneurship training programs. Valerio et al. (2014) considered that entrepreneurship education is mainly direct to students in secondary education and higher education.

Taken as a whole, the absolute number of entrepreneurship courses and the degree of integration of the entrepreneurship courses is unprecedented and reflect the interest of policymakers and students (Carree & Thurik, 2010). However, a review of the literature highlights a number of problems associated with entrepreneurship education and training programs, as to know: shortage of time and resources dedicated to the programs, teachers' fear of commercialism and lack of knowledge, impeding educational structures, assessment difficulties and deficiency of definitions clarity, among others (Kozlinska, 2016).

This ongoing dilemma of the “teachability” and the problems associated with the entrepreneurship education also reflected the lack of rigorously evaluation systems and small knowledge about these programs' impacts and key success factors.

Underlying the present work is the notion that entrepreneurship education and training is crucial to the promotion of mindsets and skills that enable individuals to both recognize and capitalize on entrepreneurial opportunities.

Matlay (2006) in his article entitled “Entrepreneurship education: more questions than answers?”, touch the impelling thought of this work: as researchers are we finding “answers to questions relevant to entrepreneurship education or are we just pursuing research for the sake of it?”.

The present article attempts to answer to a set of relevant questions regarding entrepreneurship education and contribute to the answering of the what, why and how entrepreneurship can be integrated into education programs with success. Across Europe, the development and implementation of entrepreneurship education are funded through national and/or European sources. And in most cases, the distance between policy makers and education agents is such that the measuring of the outcomes is traditionally made by the number of students involved in the project, neglecting the particularities of the EE programs.

### 3. Case Study

This article is focused on the design of a teaching program called Entrepreneurship Triple Helix designed within the scope of the curricular unit of Entrepreneurship offered at the University of the Azores. The designation of Entrepreneurship Triple Helix, comes from the representation created under the umbrella of innovation and diffused as the model of the triple helix. This model, proposed by Etzkowitz and Leydesdorff in 1995, includes the interaction between Government, University, and Industry. The thesis is based on the creation of a better relationship between the three actors, simulated by a model of three helices in interaction, just like the double helix of DNA interacts to create, maintain and allow the evolution of life. Although two other dimensions have already been added, one related to communication and culture and the other to environment and nature, although the tripartite model remains the nuclear one.

It is in this perspective that the application of this model to the entrepreneurial activity seeks to show the benefits ensued from the trilateral networks. This dynamic results in the ability to create new businesses, which can be sustained and evolved, contributing to the creation of wealth and development of the regions where they are located. As the innovation, technological development and knowledge are drivers of competitiveness among companies, sectors, and countries; the role of universities in the operation of the triple helix model is strengthened. In this framework, it was created the Entrepreneurship Triple Helix program that in the year 2016/2017 counted on its third edition, grabbing a little more than a hundred students, from six different undergraduate courses, namely: Management, Economics, Tourism, Communication and Public Relations, Social Service and Computing – Networks and Multimedia.

The program is framed in the entrepreneurship course and accommodates in its structure four distinct moments: (1) Entrepreneurship Triple Helix Forum; (2) Initial pitch; (3) Study visit to NONAGON - São Miguel Science and Technology Park and (4) Ideas Contest.

The model contemplates a set of teaching/learning practices of entrepreneurship enclosed in the concept of active pedagogical strategies, trying to contribute to the enrichment of students' mindset in an articulated process of theory and practice (Neck, Greene & Brush, 2014; Daniel, Colpas & Quaresma, 2016). The literature reveals the discussion about the most appropriate pedagogical strategies for entrepreneurship teaching, with a growing consensus on the adoption of strategies oriented to processes and experimentation (Gibb, 1987; Mwasalwiba, 2010). The entrepreneurship teaching should be action-oriented (Higgins & Elliott, 2011) since today's business reality requires new approaches to develop agile minds and capable employees for the latest challenges faced by organizations (Jennings & Wagnier, 2010). Once more, the purpose is to rise up the business creation, but also to develop an entrepreneurial profile among students. This last purpose will turn possible to the new and old business to find prepared human resources to develop their ideas and projects.

Despite the value of these teaching methodologies, their implementation continues to be limited to the availability of resources, since, due to their nature, they involve increased costs compared to traditional methodologies (Daniel, Colpas, & Quaresma, 2016; Mwasalwiba, 2010). The case study under analysis contributes to the mitigation of this problem, given the creation of partnerships which origin is based on the orientation defined by the triple helix model: government, university, and industry. Those partnerships provide a costs distribution that allows the implementation of this teaching methodologies by the universities.

In the case of the Entrepreneurship Triple Helix program, the main partner is The Azores Business Development Society, EPER that is a public corporation (*SDEA – Sociedade para o Desenvolvimento Empresarial dos Açores*). SDEA presents itself as a contributor to a friendly environment for private business initiatives, a key variable in the structural progression of the regional economy, through the promotion of innovation, technological development and training, and qualifying human resources. They aim to be a strategic partner for businesses and they take it upon their selves to promote a business culture that encourages them to go forward in the value chain in an ever more competitive economic environment. It is their ambition to play an active role in the development of the Azores and in the resulting improvement of the quality of life of all Azoreans. Within this scope they recognize the Entrepreneurial Education importance becoming a partner in the ETH program.

Their role is translated into their participation in the forum ETH, providing the student's transportation to NONAGON (São Miguel Science and Technology Park), taking part of the Ideas Contest by playing a judging role and providing the prizes for the three first best ideas. The prizes are informatics equipment and books related to entrepreneurship for the third and second places, and an entrepreneurial mission for the first place, which is a trip to Lisbon visiting the main points in the entrepreneurial Lisbon ecosystem.

Supporting this program's design was the acceptance that the propensity for entrepreneurship is not innate but rather it can be developed. When students step in an entrepreneurship classroom, they bring already a variety of orientations toward entrepreneurship, which are a result of living experience with their families and communities. However, it is possible to enrich or change those orientations through structured training and guided experience as part of the formal curriculum (Burchell, 2000).

The program is tested using data from the entrepreneurship course. Using survey responses from students, we look for data that provides us information about student's intentions. One of the purposes is to find out if entrepreneurial intention rises or declines in those who are exposed to this program. At this point we only focus on establishing the metrics and validated it, considering that the course has significant positive effects on students' self-assessed entrepreneurial skills. In this line, we aim to extract the different profiles of students that unrolled the course propose. Another purpose is to assess how students receive informative signals and learn about their entrepreneurial aptitude through the Entrepreneurship Triple Helix program. Therefore, it's our

intention to provide a better understanding of entrepreneurial learning in the context of higher education. A final purpose relies on gathering information that allows us to formulate implications for educators and public policy.

We sought to understand entrepreneurial thinking among students under the teaching program called Entrepreneurship Triple Helix at the University of the Azores. The authors surveyed a sample of students (n=74) during the spring semester of 2016/2017. Participation was voluntary, and we explained the importance of the study as part of the assessment of the “teachability” of entrepreneurship under this design. Questions included are driven from the work of ASTEE – Assessment Tools and Indicators for Entrepreneurship Education (Moberg et al., 2014). The ASTEE project had as its main objective develop a measurement tool to assess the entrepreneurial knowledge, attitudes, and skills acquired by students during their education. Taking its framework, the results for our sample is now presented.

The table above shows the frequencies for each characterization variable:

	Frequency	%
<b>GENDER</b>		
Female	47	63,50
Male	27	36,50
Total	74	100,00
<b>AGE</b>		
<22	41	55,50
23-30	22	30,00
>31	8	11,20
<b>COURSE</b>		
Economy	3	4,10
Management	9	12,20
Computing - Networks and Multimedia	11	14,90
Public Relations and Communication	8	10,80
Social service	16	21,60
Tourism	20	27,00
Other	7	9,50
<b>PARENTS WITH AN UNIVERSITY DEGREE</b>		
Yes	7	9,50
No	67	90,50
<b>IS ANYONE CLOSE TO YOU SELF-EMPLOYED?</b>		
Father / stepfather	10	13,50
Mother / stepmother, Friends	4	5,40
Other relatives	25	33,80
Friends	10	13,50
Other relatives, Friends	5	6,80
Father / stepfather, Other relatives	2	2,70
Mother / stepmother, Father / stepfather, Other relatives	1	1,40
Mother / stepmother, Other relatives, Friends	1	1,40
Mother / stepmother, Father / stepfather, Friends	2	2,70
Missing	14	18,90

Table 1 – Descriptive statistics (personal characteristics)

The sample obtained is formed by 47 female students and 27 male students which correspond to a total of 74 individuals. Concerning the sample age distribution, 41 students were 21 years old or younger, 22 range from 23 to 30 years old, and 8 were over 31 years old.

The group contains students from six different undergraduate programs. With a higher frequency, there is Tourism with 20 students and Social Service with 16 students, for both undergraduate programs the entrepreneurship course is mandatory, for the other, it is an optional course. The remaining students are from Computing – Networks and Multimedia, 11 students; Management, 9 students; Public Relations and Communication, 8 students; Economy, 3 students and Others, which contain Erasmus students, with 7 individuals.

Regarding their family antecedents, only 7 of them (9.5%) has parents with a university degree. When asked about if anyone close to them is self-employed, 33,8% answered “other relatives”, 13,5% for “father/stepfather” and 13,5% for “friends”. For composed answers which include more than one option, there is a significant value for “Mother/stepmother and friends” with 5,4% of the answers. Other combinations are not so frequent.

	Frequency	%
<b>VOLUNTEER?</b>		
Yes	29	39,20
No	45	60,80
<b>WORK EXPERIENCE?</b>		
Yes	41	54,10
No	33	44,60
<b>YEARS OF WORK EXPERIENCE</b>		
Less than 2	30	40,5
3 to 5	6	8,1
6 to 8	4	5,4
More than 8	1	1,4
<b>YEARS OF HIGHER EDUCATION</b>		
1 to 2	8	10,8
3 to 4	61	82,4
5 to 6	3	4,1
More than 6	1	1,4
Missing	1	1,4
<b>ENTREPRENEURIAL EDUCATION BEFORE</b>		
Yes	7	9,5
No	66	89,2
Missing	1	1,4

Table 2 – Descriptive statistics (professional and entrepreneurial path)

Evaluating the entrepreneurial predictors for this sample, it's possible to tell that 39,2% have already performed as a volunteer and more than the half of them, more precisely 54,1% has work experience. From those who have professional experience: 40,5% has less than 2 years; 8,1% between 3 and 5 years; 5,4% between 6 to 8 years and 1,4% more than 8 years.

Considering the number of years of higher education, the majority (82.4%) appointed 3 to 4 years, which is comprehensible since the course it's part of the third year for the most part of the undergraduate programs.

When answering to their participation in entrepreneurial education programs before this course 89,2% (66 individuals) replied negatively.

After characterizing the sample, a confirmatory analysis was performed in order to reduce the number of variables measured in the questionnaire. Therefore, it was possible to reduce the variables to eleven constructs.



Variable	KMO	Bartlett's Test Sig.	VAR.Exp
<b>ENTREPRENEURIAL MINDSET</b>	0,718	0,000	74,698
I keep trying until I find the solution to a problem	0,882		
I see possibilities where others see problems	0,866		
I am often the first one to suggest a solution to a problem	0,845		
<b>CORE SELF-EVALUATION</b>	0,803	0,000	60,509
Overall, I am satisfied with myself	0,834		
I complete tasks successfully	0,812		
When I try, I generally succeed	0,808		
I am confident I will succeed in life	0,721		
I feel I can determine what happens in my life	0,706		
<b>ENTREPRENEURIAL ATTITUDES</b>	0,734	0,000	78,661
In general, starting a business is... Worthless / Worthwhile	0,896		
In general, starting a business is... Disappointing / Rewarding	0,895		
In general, starting a business is... Negative / Positive	0,870		
<b>ENTREPRENEURIAL KNOWLEDGE</b>	0,684	0,000	72,068
I understand that there are different reasons to start a business	0,892		
I understand that some business ideas work and others don't	0,837		
I understand the role entrepreneurs play in our society	0,816		
<b>CREATIVITY</b>	0,835	0,000	81,804
I am able to... Come up with new and different solutions	0,936		
I am able to... Identify opportunities for new ways to conduct activities	0,902		
I am able to... Come up with new ideas	0,895		
I am able to... Think outside the box	0,884		
<b>FINANCIAL LITERACY</b>	0,689	0,000	84,421
I am able to... Estimate a budget for a new project	0,957		
I am able to... Control costs for projects	0,915		
I am able to... Read and interpret financial statements	0,883		
<b>MANAGING AMBIGUITY</b>	0,807	0,000	75,175
I am able to... Deal with sudden changes and surprises	0,892		
I am able to... Continue work despite problems	0,886		
I am able to... Work under stress and pressure	0,856		
I am able to... Manage uncertainty in projects and processes	0,832		
<b>MARSHALLING OF RESOURCES</b>	0,798	0,000	81,190
I am able to... Network	0,929		
I am able to... Put together the right group/team in order to solve a problem	0,910		
I am able to... Establish new contacts	0,886		
I am able to... Form partnerships in order to achieve goals	0,879		
<b>PLANNING</b>	0,837	0,000	81,746
I am able to... Structure tasks in a project	0,945		
I am able to... Set project goals	0,944		
I am able to... Create a project plan	0,932		
I am able to... Actively participate in team work	0,786		
<b>INNOVATIVE EMPLOYEE</b>	0,725	0,000	75,859
I would like to have a job that allows me to... Work on my own ideas	0,883		
I would like to have a job that allows me to... Define my own tasks	0,872		
I would like to have a job that allows me to... Solve problems in new ways	0,858		
<b>ENTREPRENEURIAL INTENTIONS</b>	0,729	0,000	83,200
I often think about starting a business	0,938		
I have business ideas I am going to implement	0,908		
My goal is to become my own boss	0,890		

Table 3 – Confirmatory factor analysis (variables from ASTEE Measurement Tool)

The results of the confirmatory factor analyses, presented in Table 3, shows adequate levels of homogeneity according to the Kaiser-Meyer-Olkin (KMO) test which validates the factorial analyses, as well as a significant level for the Bartlett test (Pestana e Gageiro, 2000; Maroco, 2007).

Based on the factors taken from the confirmatory analysis, a new confirmatory analysis was carried out to reduce the factors to the dimensions according to the ASTEE tool, for which we obtained adequate values.

Variable	KMO	Bartlett's Test Sig.	VAR.Exp
<b>ESE (SKILLS)</b>	0,857	0,000	62,541
Planning	0,907		
Creativity	0,883		
Marshalling of resources	0,832		
Managing ambiguity	0,817		
Financial literacy	0,699		
Entrepreneurial Knowledge	0,550		
<b>MINDSET</b>	0,594	0,000	62,766
Entrepreneurial Mindset	0,874		
Core Self-Evaluation	0,852		
Entrepreneurial attitudes	0,627		
<b>CAREER AMBITIONS</b>	0,500	0,000	74,225
Entrepreneurial intentions	0,862		
Innovative employee	0,862		

Table 4 – Confirmatory factor analysis (Entrepreneurial Dimensions)

The KMO values are lower than desirable, reflecting the reduced sample size. However, it's acceptable to use these results since they drive from the ASTEE tool. Therefore, the new dimensions were used to conduct a cluster analysis, aiming to identify different student's profiles according to their entrepreneurial mindset, skills, and attitude towards a career.

The ANOVA results sustained the use of this factors as segmentation variables.



	Low E	High E	Chi-square	Sig.
<b>Gender</b>			3,325	0,068
Female	55,3%	44,7%		
Male	33,3%	66,7%		
<b>TOTAL</b>	<b>47,3%</b>	<b>52,7%</b>		
<b>Age</b>			1,544	0,462
<22	46,3%	53,7%		
23 to 30	50,0%	50,0%		
>31	25,0%	75,0%		
<b>TOTAL</b>	<b>45,1%</b>	<b>54,9%</b>		
<b>Course</b>			4,843	0,564
Economy	66,7%	33,3%		
Management	22,2%	77,8%		
Computing - Networks and Multimedia	45,5%	54,5%		
Public Relations and Communication	37,5%	62,5%		
Social service	62,5%	37,5%		
Tourism	45,0%	55,0%		
Other	57,1%	42,90%		
<b>TOTAL</b>	<b>47,3%</b>	<b>52,70%</b>		
<b>PARENTS WITH AN UNIVERSITY DEGREE</b>			1,088	0,297
Yes	28,60%	71,40%		
No	49,30%	50,70%		
<b>TOTAL</b>	<b>47,30%</b>	<b>52,70%</b>		
<b>IS ANYONE CLOSE TO YOU SELF-EMPLOYED?</b>			12,283	0,139
Father / stepfather	60,0%	40,0%		
Mother / stepmother, Friends	25,0%	75,0%		
Other relatives	64,0%	36,0%		
Friends	20,0%	80,0%		
Other relatives, Friends	20,0%	80,0%		
Father / stepfather, Other relatives	0,0%	100,0%		
Mother / stepmother, Father / stepfather, Other relatives	0,0%	100,0%		
Mother / stepmother, Other relatives, Friends	0,0%	100,0%		
Mother / stepmother, Father / stepfather, Friends	50,0%	50,0%		
<b>TOTAL</b>	<b>45,0%</b>	<b>55,0%</b>		

Table 5 – Cluster analysis (personal characteristics)

From the cluster analysis (see Table 5) we obtained two clusters – **Low Entrepreneurial profile (Low E)** and **High Entrepreneurial profile (High E)**. Analyzing our sample, it's possible to conclude that 52,7% of students are part of the **High E** cluster. Considering the gender, it's patent a different behavior between female and male students. The majority of girls are in the **Low E** group (55,3%) and the boys are more entrepreneurial, with 66,7% of them in the **High E** group.

The other variables presented in table 5 have no significance, so we cannot assure that there are differences between the groups. This results may be related to the reduced sample size, though they are not significant, they indicate a tendency.

	Low E	High E	Chi-square	Sig.
<b>VOLUNTEER?</b>			5,060	0,024
Yes	31,0%	69,0%		
No	57,8%	42,2%		
<b>TOTAL</b>	<b>47,3%</b>	<b>52,7%</b>		
<b>WORK EXPERIENCE?</b>			2,929	0,087
Yes	37,5%	62,5%		
No	57,6%	42,4%		
<b>TOTAL</b>	<b>46,6%</b>	<b>53,4%</b>		
<b>YEARS OF WORK EXPERIENCE</b>			6,889	0,142
Less than 2	36,7%	63,3%		
3 to 5	83,3%	16,7%		
6 to 8	25,0%	75,0%		
More than 8	0,0%	100,0%		
<b>TOTAL</b>	<b>47,2%</b>	<b>52,8%</b>		
<b>YEARS OF HIGHER EDUCATION</b>			5,832	0,120
1 to 2	25,0%	75,0%		
3 to 4	47,5%	52,5%		
5 to 6	100,0%	0,0%		
More than 6	0,0%	100,0%		
<b>TOTAL</b>	<b>46,6%</b>	<b>53,4%</b>		
<b>ENTREPRENEURIAL EDUCATION BEFORE</b>			1,009	0,315
Yes	28,6%	71,4%		
No	48,5%	51,5%		
<b>TOTAL</b>	<b>46,6%</b>	<b>53,4%</b>		

Table 6 – Cluster analysis (professional and entrepreneurial path)

Regarding the professional and entrepreneurial path, the cluster analysis confirmed differences between groups when considering the volunteer and work experience variables. For the first one, 69% of the students who have been a volunteer is part of the **High E** cluster and 57,8% of those who haven't are part of the **Low E** cluster. When looking to the work experience, 62,5% of those who have already worked are **High E** and 57,6% of those who haven't are **Low E**. Once more, the other variables are not significant.

#### 4. Final Considerations

In order to study the impact of entrepreneurship education on students' entrepreneurial mindset, it's mandatory to lead with the question of its evaluation, and therefore with the pedagogical engineering issue, both at the design level and at program implementation level.

This assessment is important to validate the programs implementation, but also to ensure a sustainable engagement in entrepreneurship education. Make sure that the objectives are achievable depending on monitoring their execution, providing information about what does work and what doesn't.

The present work strained for gathering information about the students' profile in order to assess the ETH program design, providing information to adapt and improve it. Therefore, the analysis performed, turned possible to distinguish two groups \_ students with **Low Entrepreneurial Profile** and students with **High Entrepreneurial Profile**. Regarding this two groups, it's clear that male students show a higher propensity for entrepreneurship. The cluster analysis provided outcomes that confirm the importance of antecedents on the entrepreneurial predisposition, namely the volunteer and work experience. In our study, the majority of students who had experience as a volunteer or as a worker demonstrate a higher propensity to become an entrepreneur.

Notwithstanding the results obtained, it's our intention to continue the data gathering, so we can have a bigger sample that allows us to undergo some of the problems found in the study, as well as measure the impact of the Triple Helix program in students entrepreneurial. Therefore, it is also our purpose to gather information in two different moments, one in the beginning and another in the ending of the spring semester to be able to assess the true impact of the course.

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