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Conference on Enabling Teachers for Entrepreneurship Education



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Coordinators

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# 5. TEACHING ENTREPRENEURSHIP AT NON-BUSINESS SCHOOLS: A REFLEXION

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## 1. Introduction

Entrepreneurship should be widely promoted and either education or vocational training should contribute to encouraging entrepreneurship, promoting the right mental attitude, awareness of career opportunities and business skills (European Community, 2003). These are two of the goals set by the European Commission for the promotion of entrepreneurship and higher education institutions sought to address.

Given that "entrepreneurship is a basic skill likely to be acquired through learning" (Kirby, 2002: 8), the university puts up the challenge of responding to the growing demand for training in this area. In this regard, entrepreneurship should be seen as a process that can be managed and learned (Gartner, 1985; Morris et.al., 2001; European Commission, 2008). This process aims at the creation of new businesses or developing new business opportunities within existing businesses, being considered as a factor of development and competitiveness of national economies (Ussman, 1998, European Commission, 2004; Vyakarnam, 2005).

The creation of new businesses generates jobs, disseminates innovations and hence enables the emergence of new goods / services on the market, incorporates new techniques of management and marketing, creates wealth, facilitates structural adjustment and promote local, regional and national development.

In this context arises entrepreneurship education, which has become an important area of work, considering the increasing number of activities and courses offered in this area (Li, 2011). The universities, in addition to its classical tasks of teaching and research, should promote economic growth which means, among other factors, answering to the growing demand for specialized training in entrepreneurship domain.

In this communication we seek to reflect on entrepreneurship education in schools whose specialization is not management training. It is expected that training in entrepreneurship exists in management schools, but considering its impact on society it should be extended to other fields of knowledge and

therefore contribute to the creation of value and exploitation of opportunities in these other areas (Wadhvani, 2012).

## **2. Teaching Entrepreneurship**

The entrepreneurship education can be approached in two distinct ways (European Commission, 2004; Sorheim and Rasmussen, 2006): a first approach, more specifically, is directed towards the creation of companies and therefore in the curricula of these courses / course units are emphasized matters relevant to the establishment and management of new firms. The second approach is more focused on the individual and aims to develop entrepreneurial attitudes and skills in the student. While the first approach is geared towards the company, the second is directed to the entrepreneur.

Recently, some authors (Jones and English, 2004; O'Connor, 2012) have argued that both aspects should be considered in entrepreneurship education, since business and entrepreneur complement each other. You need an entrepreneur to start a business, but its success depends on the theoretical and practical knowledge of the business and not just their personal characteristics.

### **2.1. Curriculum Development**

According Kourilsky (1995) the curriculum of a course in entrepreneurship must group three main components: (1) the recognition of opportunities, which involves identifying market needs still unmet and the creation of new goods / services that aim to cover these needs, (2) resource management, which also includes a market analysis (market factors), the ability to take risks and the technical and technological knowledge that enable the combination of the factors in the most efficient manner possible, and (3) creation and management of a business, which must be present in the curricula by simulating cases (preferably real) in order to provide the student learning in a real context. Here students will put into practice the taught knowledge in management, finance and marketing.

A similar approach is followed by Roach (1999), which states the following objectives for a curriculum of entrepreneurship: (1) knowledge of the characteristics of the entrepreneur, (2) identification of market opportunities, (3) basic knowledge to enable students to develop a business plan, (4) knowledge of the various entry strategies activity and (5) preparation and discussion of the business plan.

According to European Commission, 2008, entrepreneurship education programs at the higher education level (non-business courses) should allow (1) the development of personal attributes and skills inherent to entrepreneurship such as creativity, autonomy, leadership, team spirit, (2) enhance the self-employment as a career option, (3) work on concrete projects and activities, and (4) provide the necessary knowledge to start a business activity.

### **2.2. Teaching Methodologies**

The entrepreneurship education is about learning for entrepreneurship, learning about entrepreneurship and learning through entrepreneurship (Ruskovaara and Pihkala, 2010).

Should not be understood only as cognitive knowledge about an area of knowledge but also about the ability to discover opportunities and master the processes of creation of new business initiatives (Li, 2011).

The teaching methodology should be consistent with the objectives of entrepreneurship education. Thus, it becomes necessary to combine theoretical knowledge on how to create and run a business with its practical aspects, being able to analyze the surroundings for the detection of business opportunities that

may arise and stimulate in the students the entrepreneurial behaviors mentioned above.

The teaching-learning process should also encourage and support embryonic ideas in order to implement projects well-grounded in previous studies, and finally reach the market (European Commission, 2008). To accomplish this goal, the process of teaching and learning should provide the student with an autonomy that usually is not given in the classic learning process. The student should be able to discuss their learning objectives, activities to implement the search for the necessary resources to carry them out, and to define, together with the teacher, the assessment methodology. This approach stimulates motivation, autonomy and decision-making.

Lectures should be reduced to the minimum necessary and teaching should be oriented to the resolution of practical cases, preferably real cases to be resolved in a team, in order to engage students in a business context, to provide them with a vision of the kind problems that may occur and alert them to its multidisciplinary nature. Teamwork allows to stimulate the abilities of cooperation and communication.

The teaching focused on solving cases also stimulates the ability of decision-making and risk once the student is called upon to decide in situations of ambiguity and incomplete information. Finally, this methodology of teaching allows students to put into practice both their intuitive abilities and their knowledge, ie, combines the intuitive with the rational (Kirby, 2002; European Commission, 2004).

Usually one type of activity required in all courses in entrepreneurship is to investigate a market opportunity and then to draw up the business plan for this activity that explore and evaluate this opportunity. This type of exercise allows combining theory with external environment and places students in a real context.

One question that arises in this approach lies in the fact that only a small minority of students being interested or have ever considered starting a business, then a large number of students do not consider this possibility and may face education to entrepreneurship as unnecessary and somewhat uninteresting (Li, 2011).

According to the same author, the methods used in teaching entrepreneurship are divided into two groups: traditional or passive (including traditional lectures) and innovative or active that relate to methods aimed at the implementation of activities.

Ruskovaara and Pihkala 2010 classify teaching methods in didactic, skills acquisition and discovery. The didactic methods are based on lectures and autonomous readings; methods of acquiring skills favor case studies, presentations and group discussions, simulations and development of projects ie, these methods focus on performing activities that effectively improve the effectiveness of student behavior.

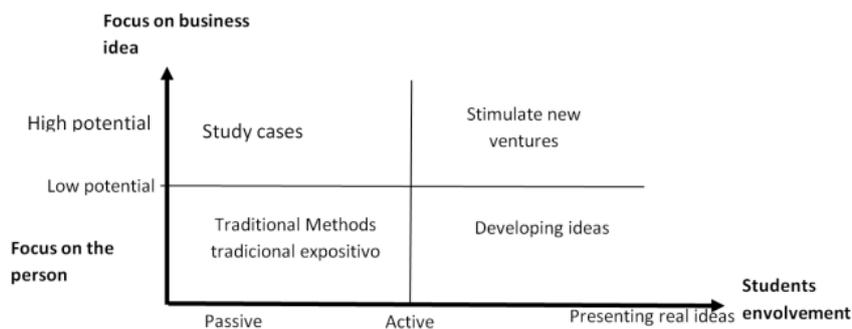


Figure 1 – Strategies for entrepreneurship education<sup>9</sup>

<sup>9</sup> Source: Adapted from Rasmussen e Sorheim, (2006:187)

The discovery methods are based on the experimental teaching and aimed at "learning by doing", on an individual basis or on a network.

The use of various methods of teaching and learning aforementioned, depends both on the involvement of students, and the emphasis given to the individual or business idea on the course. Depending on these two factors, Sorheim & Rasmussen (2006) consider that entrepreneurship education can use the following strategies:

A course or program too focused on the individual and with a low level of involvement of students, one can hardly escape the classic method of teaching and learning. However, at present, the mainstream teaching of entrepreneurship emphasizes the creation of new businesses and requires greater involvement by students. Thus, the method of case studies is used in a first approach, moving later to develop concrete ideas with business potential.

### 3. Teaching Entrepreneurship: A Case Study

Making reference to an higher education polytechnic institution with 6 schools (one of management) we note the following situations in non-business schools:

School	Number of degrees (undergraduate)	Number of entrepreneurship units	Contact Hours	Semestre
Agriculture	5	4	45	6
Education	5	3	45-75	5/6
Technology	6	4	60-75	4/5/6
Arts	4	Seminars		
Health	5	Seminars		
Management	5	4	68-75	1/2/5

Figure 2 – Entrepreneurship teaching at a polytechnic institute: contact hours and teaching semester

The introduction of entrepreneurship training in various courses arises in the context of curriculum revision raised by adapting the Bologna treaty in academic year 2005/2006 and was supported by a European community funded project (project BiNNOVA) developed in partnership with several regional entities and comprised several activities promoting entrepreneurship.

One of the outputs of this project was the introduction of specific courses in entrepreneurship, which was sought to achieve in view of the said curriculum revision. These amendments came into operation in school year 2006/2007, not meaning that to date there were no courses in management or were entrepreneurship was referred.

This bet has proved strategic in the early days of the movement pro-entrepreneurship that has been seen in recent years in our country.

We present next a critical analysis of the dimensions that are involved in entrepreneurship education: the curriculum, the methods used, teachers, students and school / organization.

#### 3.1. Analysis of Curriculum

The choice of the syllabus to teach seeks to integrate the theories mentioned above with respect to the components of an entrepreneurship course.

On the one hand, to explain the area, its importance for the individual and society (learn about entrepreneurship). Next to develop the tools and capabilities that enable the detection of opportunities (learning for entrepreneurship). Finally, the program also includes an approach to key management functional areas of an organization (marketing, finance and human resource management). This last aims to make the transition between design and business reality, realizing how students can put into practice their ideas.

In developing the curriculum students are expected to learn through undertaking, considering the study and activities as a journey where they have to make choices and decisions. This route is achieved by the choice of methodologies to apply discussed below.

A critical analysis of the contents reveals that these are very ambitious for the time available. It's intended to speak of many things considered essential in the entrepreneurial context for which, taking into account the type of school (non-business) students lack the sensitivity and adequate prior knowledge. The entrepreneurship course aims exactly to address this situation.

### **3.2. Analysis of Teaching Methodology**

The methodologies used in entrepreneurship education, in particular the experience of the authors in the context of an Agriculture are in line with the referred in the literature as being common options. The methods used are based mainly on lectures and business plan development.

The lectures are geared toward the presentation and discussion of basic concepts and tools that allow the minimum background for students to understand and develop their work autonomously.

As mentioned, the development of a business plan encourages students to apply in practice the route of identifying an opportunity, developing a solution and structuring and planning more adjusted to their implementation. In this activity should be noted that it is common to hear criticism from students that they don't have the foundations for such an exercise. This finding reflects the fact that a business plan makes use of management language that can not be covered in depth in the academic time available. To remedy this situation we use a generic business plan template with questions for students to answer about their proposal, as well as directed readings on the topics needed and also individualized tutorial support.

Another situation which can be seen in the use of the business plan as a teaching methodology is the difficulty for students to develop projects in their area of knowledge / training. This seems paradoxical but results, we think, from the lack of experience and empirical knowledge that enable them to develop an initiative that responds to problems in their area of study. Should also be noted the lack of skills for develop of autonomous work and the difficulties of students at systematize different types of information and knowledge that are needed to implement the business plan.

Sometimes case studies are proposed for discussion and analysis, but also in the use of this method some difficulties arise. On the one hand (and again) the lack of management knowledge to enable them to in-depth analysis of the situation and on the other hand the difficulty in obtaining appropriate cases to the knowledge level of the students, and the national context and reality. Many of the cases available are developed in international contexts, based on big enterprises and large investments and developed in different social realities. These events give rise to situations of non-identification and then reducing the interest as a teaching tool.

It has been also used a experiential method in which students were asked to think and implement a business idea that could develop in a limited number of hours. Although this exercise was interesting from the point of view of entrepreneurship education, had some logistical and often of legality (the students developed activities requiring licensing) challenges that dictated its abandonment.

### **3.3. Analysis of the Training of Teachers**

The teacher as a transmitter of information and knowledge and facilitator of the learning process plays an important role in education and especially in entrepreneurship education.

According to European Commission, (2011:3), "teachers play a key role since entrepreneurship education has to do with the skills to act entrepreneurial and thus, the encouragement of entrepreneurial attitudes and behaviors are more important than expertise on the management of a business. "

In the context of entrepreneurship education two dimensions seem crucial: the training of teachers and uniformity in teaching approaches.

In the first dimension we must consider the academic training, the research developed in the area, additional or professional training and also the experience. What is the ideal profile?

The second dimension - uniformity of approaches, concerns pedagogical and scientific autonomy enshrined in the professionals statutes who leave the teacher freedom to define the way it deems most appropriate to achieve the training objectives. This can lead to, in the same institution there are different formations in entrepreneurship, as a result of individual visions of teachers.

### **3.4. Analysis of Student Profile**

The profile of the students is also crucial in the equation of entrepreneurship education. Not forgetting the areas of education taught in non-business schools, it is expected that the basic knowledge and sensitivity to the business issues are not the deepest. This may explain the frequent comments: "we do not know enough for this ..." regarding the development of the idea and business plan. The mental image of students is that as they are not studying management they are not trained to think about business.

On the other side, and across all areas of training, students have personal stories, with different life experiences, sociocultural relationships and distinct family realities (especially with positive or negative experiences in business) that influence the proneness towards these subjects.

The challenge of entrepreneurship education is to get students to think about alternatives and solutions to problems in the markets and this requires the knowledge of the "world", which is greater as the familiarity they have with it and in it and the thirst for obtaining knowledge.

### **3.5. Organizational Analysis**

The last dimension of reflection focuses on entrepreneurship education in an organizational context. In this case, at the school level and the options that were made in this area.

In addition to the existence of courses in entrepreneurship an important issue in organizational terms is the definition of the proper time for contact with this reality, that is, sooner or later in the curriculum.

Despite their various possible situations, it seems that a later contact could bring more advantages, since the greater maturity of the students, and the deeper contact they have with the area of study, which facilitates, for example their ability to identify opportunities.

Another issue, at organizational level relates to the promotion of interdisciplinarity, since an individual hardly undertakes alone (have to have contact and interact with other areas of knowledge), or a project will work with knowledge of a single area. The traditional organization of schools and courses promotes formative inbreeding, in the sense that the units are from that course and be attended by students of that course, thus preventing contact with different areas and visions.

It is also noted that entrepreneurship education does not occur in a predefined time, more or less long, but should rather be seen as a process that requires several steps. At the organizational level, the existence of parallel complementary activities on these subjects, like seminars and ideas competitions

ate beneficial to strengthen and enable students to deepen their contact with these themes.

Finally, we note the importance of existence in the school of support mechanisms for students who want to implement their projects and the relational skills and resources that allow the integration into wider support networks, thus making possible the transfer of education in action, essential for entrepreneurial success.

## Conclusions

Aware that there are multiple realities, in this article we aim to reflect on the key dimensions and problems about entrepreneurship education in non-business schools.

Still we have a long way to go and many opportunities to explore in this area in order to enhance the process and the outcomes of entrepreneurship education.

Based in our experience we raise some suggestions that seem relevant and worthy of further development:

- Focus and reinforce the importance of entrepreneurship for the personal development of the student (skills and attitudes) and the importance of entrepreneurial behavior as a key factor of success in a highly competitive labor market;
- Reduce the emphasis on creating new businesses but focus on identifying and exploiting opportunities (new or already existing) namely in the social and environmental sectors; it widens the spectrum of applicability and consequently the possible benefits to society;
- Create mechanisms for continuity of the projects developed during the courses; promoting joint projects, gathering resources to implement prototypes of products and services and providing tools for incubation can promote the success of the outcomes of entrepreneurship education in technical schools;

There are no magic solutions for the success of the teaching-learning process but gathering the five dimensions mentioned above (curriculum, teaching methods, teacher's training, students and faculty organization) can make the difference.

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