

Developing Entrepreneurial Literacy at University: A Hands-on Approach

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ABSTRACT Entrepreneurship has become a cornerstone of economic development and as such has been perceived as a solution to unemployment and economic crisis. In this paper we present a case study of the entrepreneurial literacy approach followed at the University of Oviedo. We present 6 andragogy programs implemented with the aim to develop an entrepreneurial mind-set amongst students in the course of developing their business projects. The paper presents the scope of literacy in the entrepreneurial field by differentiating between the various potential strategies for teaching and learning entrepreneurial skill, competencies and capabilities. Following the establishment of the basic theoretical background the paper focuses on using the 6 different programs that have been implemented at the University of Oviedo as an illustration of how students can be supported to develop entrepreneurial literacy using a range of teaching resources including cinema, case studies, conferences and real-life projects. The paper identifies the literacy element of writing business plan as an important ingredient in the transfer of the necessary skills required to make a success of setting up small and medium business.

Key words: Illiteracy, Entrepreneurship, Education and teaching entrepreneurship

Introduction

Today, entrepreneurship has become a very fashionable and trendy topic due to small firms being key drivers of economic growth. In some countries, with low entrepreneurial intention propensity, entrepreneurship has been considered the solution to high unemployment rates among young people and among middle-aged workers who have been laid-off, due, in both cases, to the economic crisis. As a result, the local, regional, national and supranational administrations alone or in partnerships with private companies and foundations are encouraging the creation and development of new entrepre-

neurial entities. More favorable regulation, subsidies, training and developing a positive mind-set towards entrepreneurship are their main mechanisms to encourage the creation of new firms. To some extent, an entrepreneurship bubble has been initiated, which pushes people to become entrepreneurs despite they may not be literate to create a new entity nor to run a small business. As such, we could introduce the term entrepreneurial illiteracy as the lack of knowledge and skills related to the deployment or management of a new venture. Illiteracy is not related to any sort of formal education achieved, but rather to the lack of capabilities or skills and attitudes to perform satisfactorily a task. Very smart technical people may lack business capabilities and skills while effective managerial people may lack capability and skills to detect and exploit an entrepreneurial opportunity. Entrepreneurial literacy is just about providing the attitudes, skills and knowledge to make a person capable to detect an opportunity and to make it grow in a sustainable way. Sustainability is difficult to achieve due to failure rate of new ventures. The studies on firm survival rates suggest a range of about 19 percent to 22 percent of firms exit the market in their first year of existence and about 50 percent of the firms do not survive their fifth year (Cook *et al.* 2012). Many factors affect the survival rate: macroeconomic factors such as general economic growth or availability of capital but also specific variables such as the number of people employed by the new firm, its sector of operations, the pressure to become self-employed or the motive that led the founder to become an entrepreneur. We propose that the entrepreneurial (i) lliteracy of the founders does affect the survival rate. In this paper, we present the approach followed at the University of Oviedo to reduce entrepreneurial illiteracy. The paper is structured as follows. After this introduction, in section two and analysis of entrepreneurship and the way education may affect it is presented. A distinction between educating and teaching entrepreneurship is made. Then, in section three, different andragogy approaches towards training for entrepreneurship are presented. The focus is university students who are not following a specific course of entrepreneurship, but rather have shown their interest in the field. The paper concludes summarizing the findings of the case studies.

Entrepreneurship: teaching and education it

A good starting point on any study centered on entrepreneurial literacy is to clarify the term entrepreneurship, its scope and its domains. As it is pointed out by Solomon (2007) “there is a dearth of definitions, characteristics, competencies and behaviors that many believe describe the entrepreneur. Is it any wonder then, that the teaching of entrepreneurship education is fragmented with no general agreement established on whom or what are entrepreneurs or entrepreneurship?” Therefore, before discussing training for entrepreneurship, it is important to find out what is meant by entrepre-

neurship and what are the main topics covered by this discipline. However, this is not an easy task because due to the fact that “there are fundamentally different conceptions and interpretations of the concept of entrepreneur and the entrepreneurial role, consensus on a definition of the field in terms of the entrepreneur is perhaps an impossibility” (Venkataraman, 1997: 120). In this paper we follow three approaches towards entrepreneurship that will guide the programs to overcome entrepreneurial illiteracy and, hopefully, will guarantee a larger survival rate of new firms formed. A first perspective of entrepreneurship is to consider it “the scholarly examination of how, by whom and with what effects *opportunities to create future goods and services are discovered, evaluated and exploited*” (Shane and Venkataraman, 2000, p. 218). This perspective does not necessarily refer to the setting of a new venture but sets the focus on opportunity recognition.

Two important aspects in the early life of a new venture – despite the legal form it takes- are how to identify and validate the opportunity (which is based on entrepreneurial creativity and innovation) and how to plan, gather resources, and manage the right team of people for successfully launching and sustaining the new business or activity (entrepreneurial management). Therefore, entrepreneurs are characterized by being in permanent search of opportunities to organize and to use appropriate resources, turning them into value from an economic and social perspective. Entrepreneurs are capable of foreseeing opportunities to reap the benefits of the market. As a result, entrepreneurs should possess a set of capabilities that differentiate them from other individuals, amongst which stand: autonomy, not being risk adverse, being creative, possess long-sighted market or technical vision, be leaders and be capable to manage social networks, people and other resources (Fayolle, 2006).

A second perspective of entrepreneurship arises from the Management academic area; where entrepreneurship is a relatively new discipline -formally gaining its own distinct divisional status within the United States Academy of Management in 1987- (Hindle, 2007). The Academy of Management Entrepreneurship Division’s domain statement defines the domain of entrepreneurship as the *creation and management of new businesses, small businesses and family businesses*, and the *characteristics and special problems of entrepreneurs*. Its major topics include new venture ideas and strategies; ecological influences on venture creation and demise; the acquisition and management of venture capital and venture teams; self-employment; the owner-manager; management succession, corporate venturing and the relationship between entrepreneurship and economic development (Shane, 2010).

According to Shane’s revision of its 2000 seminal work in 2010, entrepreneurship deals either with firm formation (which is the most popular perception and more easily measured in terms of new participants in the market or their survival rate) or the identification, evaluation and exploitation of opportunities (which is a process not only performed in new firms, but also in existing entities through intra-entrepreneurship or social entrepreneurship and that may remain hidden in other concepts, such as innovation and creativity) .

The third perspective, which is also supported by the European Commission in 2012, points out that entrepreneurial education, embraces more than specific the process of firm creation or the detection of business opportunities. It is also the set of activities that foster in the learners, or young people, entrepreneurial mind-sets, attitudes and skills to enable them to be more creative and self-confident in whatever they undertake (European Commission, 2012). Therefore, entrepreneurial education aims to develop more creative and innovative individuals, who seize opportunities in their environment and who assume the risks to change things, achieving thus their personal fulfillment, social inclusion, active citizenship and employability in a knowledge-based society.

This third perspective of entrepreneurship is clearly related to the entrepreneurial spirit of the Society and to a proactive attitude of its individuals towards changes, to the autonomous solution of problems, and to provide added value. Ideally, this spirit should be combined with managerial capabilities leading thus to an appraisal of entrepreneurial vocations (European Commission, 2003) and firm formation, which promote economic development. Precisely, the overlap between the characteristics of proactive individuals and entrepreneurs make it possible to analogically apply and implement some principles of business entrepreneurship to education, regardless the learners might be willing to create a new venture or to expand an existing one. As such, the 2009 Eurobarometer shows that 45% of respondents in EU 27 would be willing to set up a business, while 49% would rather be employees.

The purpose of any literacy program is to reduce the lack of knowledge, skills, attitudes and capabilities to perform or undertake an activity. As it was pointed before, we might consider that entrepreneurial illiteracy may reflect: the lack of capability to seize opportunities, to implement them into a new venture that has to be managed or the lack of a proactive attitude towards changes and autonomous solutions. Hence, when implementing an entrepreneurial program we may differentiate between developing entrepreneurial attitudes, skills and capabilities in any of the three previous domains.

Amongst the most relevant entrepreneurial attitudes are a sense of initiative, risk propensity, self-efficacy, need for achievement and structural behavior. Entrepreneurial skills are those required to detect an idea and to combine *resources to a more effective or efficient use* (Davidsson, 2003) from an economic or social perspective. They are: creativity, analytic thinking, motivation, networking and adaptability (European Commission, 2012). Finally, entrepreneurial (managerial) capabilities are the knowledge, business skills and the practical know-how and abilities to create, assess, manage and sustain new ventures.

Despite the focus on psychological and motivational theories of entrepreneurs, there is still a main question that remains unresolved and that affects any training program in entrepreneurship: are entrepreneurs born or can an entrepreneur be developed? According to Hindle (2007), the vocational aspects of entrepreneurship can be taught and are the same, or very similar, to the vocational aspects of management; though entrepreneurship also has its own distinctive features. Such specific skills include opportunity evaluation and entrepreneurial business planning. Therefore, it is possible to accept that the skills of entrepreneurship can be taught even if the aptitude and motivation to be a great entrepreneur cannot. This aptitude is related to psychological and motivational characteristics.

A second aspect related to training in entrepreneurship is that it should be performed from an adult education perspective (though there are training programs for children aimed to create awareness). This is so, because the aim of the program is to help the new founder to increase the survival rate of the firm once in the market. In the field of entrepreneurship, an andragogy approach that exploits the accumulated experience of adults should be more appealing to any would be entrepreneur. It is possible to differentiate between teaching and educating entrepreneurship (Pérez-Bustamante, 2010). The teaching aspect refers to educational contexts in which knowledge transfer of entrepreneurial themes and dimensions, business skills and the practical know-how and abilities to create, manage, assess and sustain new ventures are set (Kuratko, 2005; Solomon, 2007). Its objective and teaching method is to make the learner be able to, at least, perceive opportunities, design the product, craft a business plan, find resources and support, market and finance the innovations. This is done in a highly contextualized environment defined by a specific entrepreneurial project. The learning approach followed should provide the entrepreneur with knowledge to better manage the new project and to overcome the difficulties faced during the preparation and startup phases. Therefore, the entrepreneur's learning process consists in finding the appropriate answers to the diversity of problems encountered, to learn how to face problems, to find appropriate solutions –not optimal ones–, and to develop the specific routines and skills linked to the role of the company manager, who will have to adjust the organization in the face of the numerous incidents, events and problems that will occur in the first few years of the new venture's life (Fayolle, 2006). Educational programs and systems should be geared toward creativity, multidisciplinary and process-oriented approaches, and theory-based practical applications. Since "off-the-shelf" solutions are not available to solve such chaotic and fuzzy problems, different skills and knowledge must be discovered. They include pattern recognition, mapping, front-end experimentation, experiential projection and pre-structuring of chaos (Plaschka and Weisch, 1998). In some cases, writing down a business plan is the final outcome. However, more recent trends under the name of lean entrepreneurship focus on putting the entrepreneur into the action as soon as possible.

On the contrary, entrepreneurial education has as an objective the development of individuals' entrepreneurial spirit, to make them more entrepreneurial, first in their minds and then through their actions. It must create awareness and positive perceptions of entrepreneurship but it must also transmit knowledge about the risks and the sacrifices that assume entrepreneurs (Pérez-Bustamante, 2010). Entrepreneurial education enables to understand better the roles and actions of entrepreneurs, their values, attitudes and motivations (Fayolle, 2006). Its focus must be the entrepreneur, the practitioner and its importance in the economic development of the country, presenting entrepreneurship as an engine of economic growth in a market economy. Non-entrepreneurs are helped to assess, value and appreciate the skills, intelligence and political, cultural and economic infrastructures that enable the creation of new enterprises. Its objective is to make it well-understood why entrepreneurship matters, how it works and how it can be sustained (Kauffman Report, 2009). The final objective of entrepreneurial education involves changing well embedded mind-sets and perceptions of the economic and social roles of entrepreneurs. This learning process occurs when

the learner selects relevant material, organizes it into a coherent representation and integrates it with his or her previous knowledge about technical or commercial aspects. Ideally, the learner will put that knowledge into action, altering his or her behavior. It is non-specific to a given entrepreneurial project and should present aggregate data of the entrepreneurial field in order to make learners realize the full picture.

From an educational perspective, entrepreneurial concepts may be tacit and difficult to explain and understand by learners, regardless of their managerial academic background. However, as a positive aspect, if they are going to set up their own business, they may be really enthusiastic about entrepreneurship, new management methods and the economic prospects of their idea. This enthusiasm allows the lecturer to motivate learners with a practical perspective based on self-application of entrepreneurship. A different situation arises with those learners who do not specifically aim to set up a business and who may consider businessmen's interests being against those of workers'. Therefore, a first aspect is to provide these learners with a thorough understanding of the role of businessmen in society.

As a conclusion, when addressing adult education in entrepreneurship three approaches should be considered:

Entrepreneurship is an essential capitalist mechanism for people to enter the economic mainstream and their access to the pursuit of economic success (Kuratko, 2005); therefore, the social and economic perspectives of entrepreneurs should focus on the impacts and results of entrepreneurship (seek for profit, altruism, self-realization motivation, self-employment, increasing personal or shareholder wealth or achieving social welfare).

Second, do entrepreneurs possess distinctive psychological and sociological personal traits that make them be different to any individual? And if so it is, should people be pushed or precluded from being entrepreneurs?

Third, the managerial entrepreneurial process, that should address aspects such as sources of opportunities, the process of discovery, the evaluation and exploitation of ideas and the factors that foster innovation, allow for a better management of start-ups and access to venture capital.

Finally, there is no doubt that entrepreneurship is performed by persons, but organizations must also be entrepreneurial if they are to survive in times of increased globalization and tremendous market and technological change. Corporate entrepreneurship in both for profit and not for profit organizations involves the study of entrepreneurial processes and principles as applied in established organizations.

Andragogy in entrepreneurship: a hands-on approach

In 1985, Vesper (1985) described that the initial entrepreneurship courses, labeled variously "Entrepreneurship" or "New Venture Creation," had "standard" contents such as "(1) venture design projects, (2) case studies, (3) readings and (4) lectures by guest speakers and the instructor". It was a hands-on experiential method of presenting the topic and his research was more pedagogical than content based.

Actual university entrepreneurship programs should begin by recognizing the importance of constant relationship with the real arena of business: the outside world. A

second aspect relates to the need to implement an andragogy methodology to accomplish entrepreneurial education. Theory, case studies, guest speakers, business plans, consulting activities or internships in entrepreneurial ventures are the main ways used to teach and let adult learners experience entrepreneurship. In fact, these methodologies have been traditionally implemented in the in the management field. However, in entrepreneurship, it is essential to share with students the expertise, experiences and perspectives of businessmen or entrepreneurs, which can thus be used as examples.

In this section, we share the different approaches, in addition to business plan development, that have been put into practice to teach and lecture entrepreneurship at the University of Oviedo with both the aim of teaching and educating in entrepreneurship. Since 2008, the author has been in charge of the entrepreneurial practices performed at the University of Oviedo for its students and graduates. This has led to the design and implementation of training programs for adults and to the provision of training and educative programs about entrepreneurship. Different activities have been performed with the aim of fostering entrepreneurial mind-sets and helping would-be entrepreneurs to analyze, focus and improve their business ideas. The following paragraphs summarize some of these practices. The activities shown do not provide a set of best practices, but are a sample of different activities that can be performed to educate and teach adults in the entrepreneurial literacy taking onto consideration that having an idea does not necessarily mean being literate in how to implement it. Specific activities related to spin offs are out of the scope of this paper. This section is mainly descriptive; though a summary of the approaches and their focus on attitudes, skills and capabilities is presented at the end of the paper in table 2.

The business idea contest: elevator pitch

Already in its sixth edition, the university entrepreneurial idea contest is a mix of elevator pitch contest and a course on basis small business management. It is targeted to students and graduates who have a business idea related to their studies. Since the University of Oviedo is a generalist university, there are students from science, humanities, social sciences, engineering and medical studies. Therefore, the range of participants is really wide and their level of knowledge of the entrepreneur and firm formation process is diverse and very limited. As a positive aspect, participating in the program connects students with other colleagues from other fields of expertise and broadens the perspective of the academic studies. In the contest are valued: how the idea is presented -and thus reinforces the importance of the communication approach in elevator pitches-; and how well developed the idea is and its sustainability—hence, it reinforces more traditional andragogy courses based on building the business plan for the idea-.

Participants are working on their real ideas. As such, and as it occurs in any entrepreneurial setting there are divergent expectations amongst would-be entrepreneurs (who may be over-optimistic about their ideas) and the potential investors and would be exploiters (who may be realistic). It is thus reinforced the need of quick communication skills and basic business management tools to fully argument the advantages of the idea proposed. The average number of teams participating in the contest is 12 and the contest is performed during the academic course: February till early May as an addi-

tional course in the curriculum. As part of the contest, participants may attend a voluntary 20 hour long basic entrepreneurship and management course, which deals with the following topics: creativity, business model, idea validation and analysis and critical thinking; business canvas; business strengths, weaknesses opportunities and threats analysis (SWOT analysis); financial management and marketing and communication skills. This course is voluntary and free; though it may be undervalued due to the fact that participants are passionate about of their ideas and over optimistic about their business potential. Nevertheless, maintaining the voluntary aspect of the assistance to the course is considered essential, since entrepreneurs must choose where to get their own resources and are adults with the need of a free way of getting these resources.

Each team of would-be entrepreneurs is assigned business mentors who are entrepreneurs from the Local Young Entrepreneurial Association. Their role is to meet and guide the would-be entrepreneurs to solve specific problems arising in their business ideas and to give them pieces of advice arising from their expertise as well as introduce them into the importance of networking. As part of the contest, participants must develop an outline (8 pages maximum) of their business plan to give it to the jury. The participants are recorded in the University TV studio for two minutes to promote their idea or personal aspects. In the final gala, the video is shown and then the two minute time controlled elevator pitch takes place with the participants answering the questions posed by the jury. The participants may earn three different prizes of 3.000; 2.000 and 1.000 euros, which do not necessarily have to be invested in a new business setting.

Participants explain that the contest is a great opportunity for them to analyze the feasibility of their ideas (either individually or collectively); to think about the importance of some overlooked aspects related to setting up and managing a business which they had not previously thought about; to improve their communication skills and to get into contact with local entrepreneurs.

The Estincoacher project. Students becoming consultants and coachers for ITC aided internationalization process at local micro-firms.

This project was financed in a competitive bid in 2011 by the Spanish Industry and Trade Ministry, which is also competent in the deployment of the entrepreneurial policy. The purpose of the project was to provide the students with a first-hand experience of entrepreneurship by being consultants for microbusiness in the region. 48 participants initiated the program. The project was structured in two different aspects. Participants had to follow a pedagogical practically oriented management course dealing with topics such as entrepreneurship, international trade management and ITC website analysis. Then, in order to become the micro consultants, the participants had to present a practical essay related to the topics covered in the course. As part of this second task they should contact local businesses in order to promote among them the excellences of national and international trade through the web. 11 students got a contract to work for a month performing the consulting activity. Working by pairs they had to contact the entrepreneurs who had initially expressed their interest to participate in the program, visit them, analyze their business strategic value and provide a detailed analysis of the possibilities to internationalize it, while giving them support in ITC and inter-

national trade. The students had a close contact with the local community, developed communication skills and understood the reality and problems faced by the small and micro-firms in the region. The students had to produce a basic summary that was given to the companies.

Participants were happy with the project because they considered that it allowed them to have a first-hand opportunity to meet local managers and to talk to them about their businesses, their motivations and their interests. They were really concerned at the fact that, despite lacking academic business backgrounds, local businessmen had a clear and real perspective of their businesses. Students were really conscious of the value of time in business and had to work in different sectors, while having to self-organize themselves. Unfortunately, the project did not have a second edition due to the lack of financing and to difficult bureaucratic conditions for the work to be performed in companies.

Entrepreneur speaking series and company visits.

These activities aim to raise awareness of the important socio-economic role of entrepreneurs. It is designed for students enrolled in the different courses of Business Administration at the different schools and are also offered for students in the Entrepreneurship courses. The perspective is to provide students with the chance to talk to young entrepreneurs who, in addition of presenting their companies, explain the advantages and disadvantages of setting a business based on their academic degree. Usually, the entrepreneurs have studied the same degree as the students they will be meeting. The main advantage is that the talk provides a different way to contact with entrepreneurs and that it breaks down with stereotypes about entrepreneurs. After the talks a questionnaire is passed to the students. It is worth noting that the lowest mark is the valuation of the entrepreneurs themselves, which is either linked to a culture mistrust of entrepreneurs in such a unionized region as Asturias, is; or it may also be linked to the fact that there is some distance between the speaker and the attendants to the talks. A slightly different version of this first contact with entrepreneurs is the mandatory interview for students in the Entrepreneurship courses. The focus is to contact a local entrepreneur and write down an essay on the insights about the entrepreneur him/herself and the business they are running. Usually, entrepreneurs explain the students their difficulties. A different project is the company visit guided by different school teachers. The results of the different programs are presented below. Students seem to prefer more the company visits than the entrepreneur speaking series. Meeting with entrepreneurs seems to be more relevant if the students have to pass them an interview.

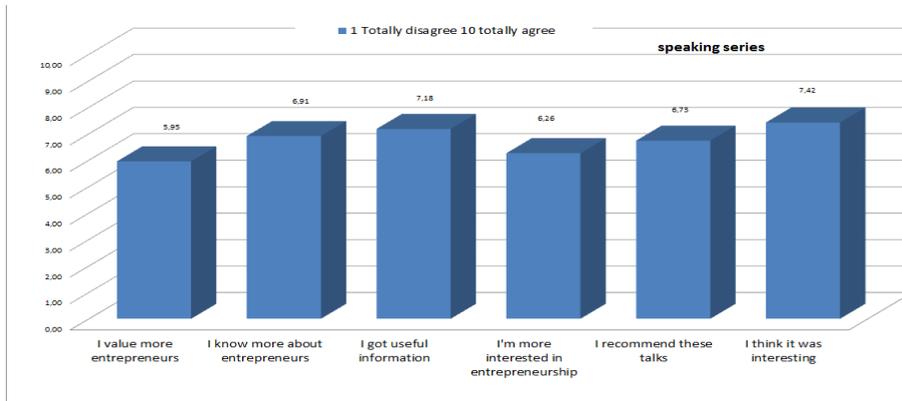


Figure 1. Entrepreneur speaking series

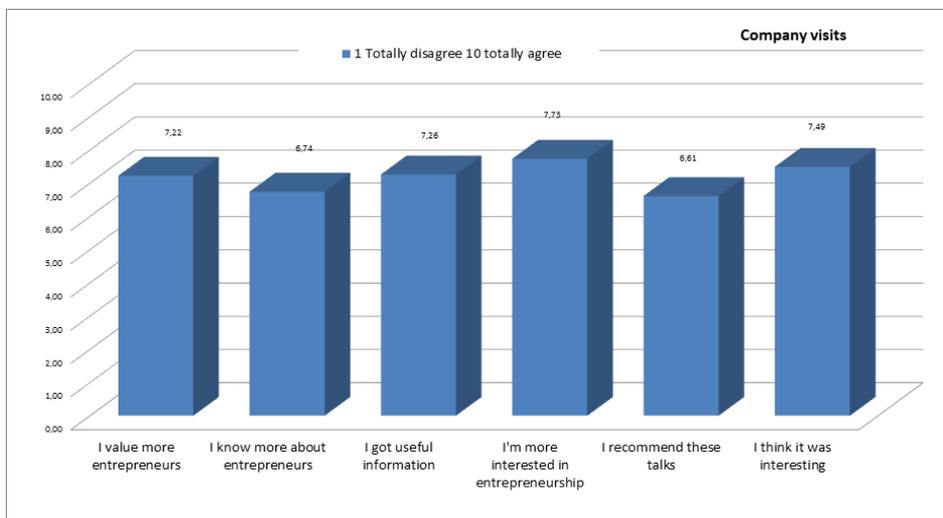


Figure 2. Company visits

The cinema forum on entrepreneurship

For young people, the transmission of tacit knowledge can be enhanced through audio-visual technologies. These affect positively the development of new learning styles because visual images enhance comprehension. The fact that films are familiar attention-capturing visual media that engage learners in a plot and encourage retention of the knowledge acquired (Scherer and Baker, 1999) was used to provide entrepreneurial education at the University of Oviedo. During the summers of 2010 and 2011 four seminar courses were offered at the University of Oviedo, with a total assistance of 73 students from diverse Schools. The seminars were structured in four hour sessions initiated by a lecture, followed by the visioning of a film and a debate. Each day, a different theme was taken into consideration. The focus of the seminar was to create awareness on business entrepreneurs, though its perspective was also educational and not teaching

entrepreneurship through a business plan.

Films were chosen as the andragogy mechanism because they facilitate observational learning by means of exploiting visual imagery (Bumpus, 2005). However, this is not enough to achieve an effective acquisition of knowledge; so prior to visioning the film a small talk was given for students on the topic analyzed in the film. The conference is essential because it differentiates between the surface and the depth structure of the narratives. The surface structure refers to descriptions and illustrations of what, where and when things occur. As films exaggerate, sensationalize and glamorize characters and events, they may be conceived as superficial, not depth and not substance for theory building, but they are enjoyable. However, the power of film narratives for training relies in the fact that they constitute, construct, reflect and recreate versions of social and organizational worlds. The teachers focused on the fact that the validity of films is not based on their capability to build theory through statistic generalization, but on their capability to develop naturalistic generalization (personal identification and familiarity of the viewer with the characters and plot; informing thus organizational and management practice) or analytic generalization (how the thesis advanced can inform theory) (Buchanan and Huczynski, 2004; Champoux, 1999).

An evaluation was passed to the students on both the pedagogical method and the knowledge and perception of entrepreneurship.

Regarding the methodology, watching a film is considered to be more interesting than reading a book and, therefore, it is preferred by the learners. This perspective is increased after viewing the film. Therefore, the motivating effect of films is confirmed. Learners were also convinced that a film could help them to understand better theoretical concepts, since they recognize that viewing films is a good practice to explain some theoretical concepts. Students did not consider very important to have a basic handout of the film prior to viewing it. After viewing it, they valued it very positively increasing its importance.

METHODOLOGY	BEFO- RE	AF- TER	EFFECT
I rather see a film than read a book chapter to have concepts explained	7,6	8,95	+ 1,35
A film can help me understand well academic concepts	7,6	9,26	+ 1,66
It is necessary to have a previous résumé of the film and of the questions for debate	7,15	8,79	+ 1,64

Table 1: Assessment of the methodology

Figures 3 and 4 show the answers given to the questions before the seminar (in blue) and after the seminar (in red). Figure 3 shows the positive incidence of the seminar on the perception of entrepreneurs, helping to destroy well embedded perspectives of entrepreneurs and facilitating a better knowledge of their personal and social characteristics and motivations. The tendencies in the answers are positive, except for the reasons to start up a new venture that have been considered only of an economic nature. Entrepreneurs are perceived to be people who sacrifice their life in pursuit of a vocation, who have special personality traits and need a strong support from their

family and social networks. Entrepreneurs are therefore special, anyone can be an entrepreneur despite their age and students do not perceive entrepreneur women to have more difficulties than entrepreneur men to pursue their goals –perception that is enhanced after the seminar.

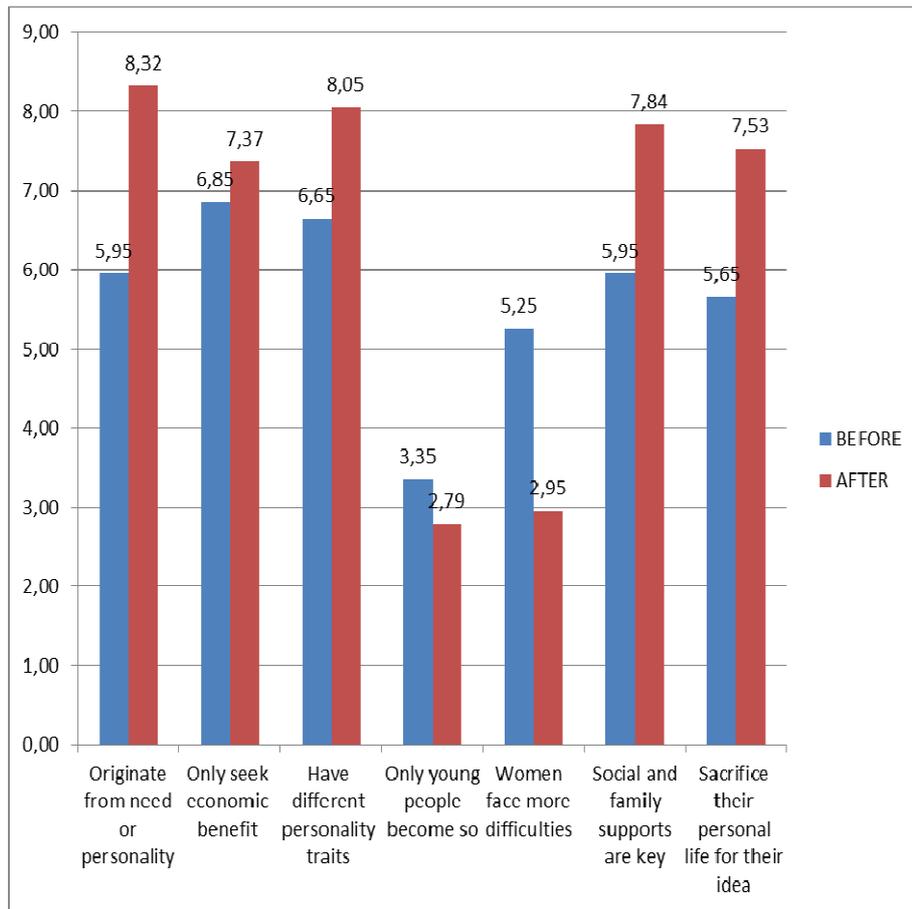


Figure 3: Perceptions of the entrepreneurs

Figure 4 shows (on the next page) the results for the entrepreneurial process from idea to new venture development. It is important to highlight the relevance of novelty given to the new venture and the importance granted to design and craft a good business plan, which has been considered as a managerial tool rather than an instrument to get financial resources. However, it is awkward that the students consider the importance of chance in the development of new ideas, in detriment of research and expertise. This leads to build an excuse not to become an entrepreneur for not being creative or lucky. Data also supports that after the seminar, students value more the strategic dimension of the business management and market access than financial resources. This implies that students acknowledge the importance of making a responsible idea viability analysis. The positive effects of the seminar are that there is a better understanding of the economic and social role of entrepreneurs and that it is essential to carefully plan the

process in order to increase the likelihood of being successful. Nevertheless, it is important to highlight that after the seminars, the entrepreneurial mind-set was changed and students now felt there may be entrepreneurs within large companies as well, building therefore on the concept of intra-entrepreneurship and putting distance between entrepreneurship and venture creation.

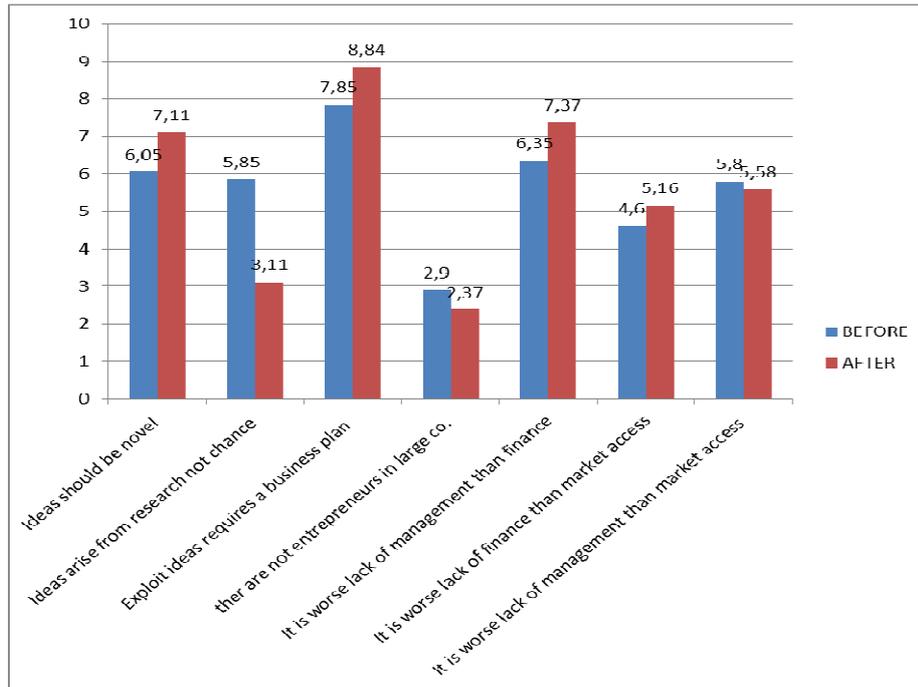


Figure 4: Perceptions of the entrepreneurial process

The social entrepreneurship project

As part of the Entrepreneurship course, and being graded, final year students in the accounting and finance degree at the Business School had to develop a social entrepreneurial project. The students working in groups had to choose a Non-governmental organization (NGO) and define a strategy to get money for this project. The project gave birth to the First Social Project day at the School of Business. The students chose 4 different social NGOs for sick children, prevention and rehabilitation of women prostitutes, support for accident injuries and collection of bottle caps for sick children. They decided to sell products, perform two lotteries with products given by local shops and the main region's soccer teams and to collect caps in the Business school. This hands-on project was performed at the same time as the development of a business plan for new ventures in a nearby local community, following a more traditional approach to lecturing through business plans. In the specific case of the social project, no written reports had to be delivered, but the students had to set their objectives and had to fulfil them. In order to give the maximum resonance to the projects, they performed a show to

make the formal presentation of their NGO and had a magician performing an act.

Despite the amount of work it meant for the students, and the short time they had to produce the projects and get the necessary resources (less than two months); the students valued this as the most positive activity they had done in the course because they had total freedom to define their project and they felt really passionate about it (contrary to the development of the business plan, which was considered by them as an academic duty). With the social project, they got the passion needed to get resources, solve by themselves the problems encountered and value positively the social aspect of their actions. Additionally, the fact that there were four groups competing created as short of market competition to achieve the desired goals. However, the fact that the groups had to produce a single social project day implied that they also had to collaborate to get additional resources and support for the presentation of the projects.

The Creativity Seminars

In these seminars, that are offered as an intensive week-long 30 hour transversal courses for any student at the University of Oviedo, different artists are invited to give a theoretical and practical speech on the role of creativity as a competitive advantage in their businesses.

The purpose of the course is to make the students understand that not all innovations arise from a technical field and that they could make their living just leaving their creativity flow. The young artists explain the students how they run their businesses and which are the main difficulties that they have found. At the same time, creativity is developed and enhanced among the students, making them understand that creativity is necessary to give a solution to any personal or business problem.

The invited artists range from technology and scientific researchers in the automotive and chemistry fields to cloth designers, painters, cooks, singers and musicians, photographers, owners of an advertising company, decorators, writers and so on. The students have to build in groups and under the surveillance of one of the speakers an artistic project from scrap. This, seems the most difficult task for them to do, because they feel they are not suited to be creative, nor they allow themselves to be so. As a result, they have to make group decisions and find the necessary resources to produce a hand craft painting. The students have to produce an essay on how their creativity has been enhanced by the course. They are also asked to report which are the most influential aspects they have got from each speaker in the seminar.

Usually, the students discover that they are more creative than they thought, that team-working facilitates and enhances the development of tasks and that intangible assets can also be the source of a sustainable competitive advantage. As it was stated by one Chemistry student: *I never thought that to become a chemist you had to be creative. I thought creativity was the domain of humanities and social sciences.*

Activity	Attitudes	Skills	Competencies	Objective	Evaluation
Elevator pitch and business model	Initiative, self effectiveness	Creativity, analitic thinking, networking	Small business skills	Teaching Develop an idea and know better a small business	It is an opportunity to analyze the feasibility of the idea; think managerially; communication skills; learn from entrepreneurs
Students as coaches for ITC and internationalization at local micro-firms	Self efficacy, structural behavior, achievement	Analytic thinking, networking, adaptability	Small business diagnosis & reporting	Teaching & Educating Develop an idea and know better a small business	Direct contact with local managers; consciousness of the value of time in business; self-organization
Entrepreneur speaking series, interviews and company visits	In the interviews initiative and risk assumption	Networking	Practical know how	Educating Awareness of entrepreneurs	Accessing to new information and new perspectives
Cinema forum on Entrepreneurship			Practical know how; reporting	Educating Awareness of entrepreneurs	Access to new information and new perspectives
Social entrepreneurship	Initiative, risk propensity; structural behavior	Creativity; analytic thinking; networking	Team working	Educating & Teaching Develop an idea; awareness of entrepreneurs	total freedom to define their project and they felt really passionate about it to get to get resources, solve problems; market competition and collaboration
The Creativity Seminars		Creativity; analytic thinking; networking		Educating Know better a small business; awareness of entrepreneurs	Are more creative than thought, team work enhances the development of tasks; intangible assets are source of sustainability; creativity is not only the domain of humanities and social sciences

Table 2: Syntheses of the andragogy approaches towards entrepreneurship literacy

Final considerations

In this paper, a revision of 6 andragogy approaches to teach and educate adult people in the field of entrepreneurship has been presented. Without neglecting the importance of building a business plan and of individual counselling, would-be entrepreneurs need tools for autonomous work. In fact, entrepreneurs should be passionate for their ideas and should be capable to overcome any limitations they may face while setting up their businesses. In the specific case of the University of Oviedo the philosophy backing our entrepreneurial programs is to enhance critical thinking, autonomous solution to problems and, definitively, to make students and would be entrepreneurs the owners of

their decision making. After all, innovation, risk assumptions and failure and learning by doing are key aspects entrepreneurs should possess. Additionally creating awareness of the positive effects of entrepreneurship at a societal and economic level are also considered.

Towards developing a set of attitudes, skills and competencies relevant for entrepreneurship and entrepreneurial mind-set, the six mentioned programs have been developed. They have been presented as an example of different approaches to make attractive the field of entrepreneurship. Table 2 summarizes the main aspects analyzed in the case studies. As in any andragogy or pedagogical training program, the objective sought conditions the methodology implemented. In our specific case in some programs an educational approach was followed, whereas in others the learning one was predominant. The programs presented are the result of an evolution on the development of a new focus towards entrepreneurship in our institution. In any case, due to the limited size of Asturias (one million inhabitants) and to the previous existence of business incubators performing training and counselling, our scope was not to substitute them, but to collaborate with them in the achievement of more entrepreneurial students. The traditional focus of academic studies in technical specialization leaves scope for a transversal course on entrepreneurship that both provides insights about the management of a firm or capability to detect opportunities; thus reducing entrepreneurial illiteracy. However, if there is no a specific project in mind setting that program through a business plan course is really a difficult task, which may be neglected by the students. The 6 approaches presented may serve as an example on how to implement creative programs in the field of entrepreneurship despite the risk of failures or not being fully understood.

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NOTES

1. In the mid-twentieth century scholars from psychology and sociology researched the field with an interest in the entrepreneur as an individual and started to study the key traits and the personality of the entrepreneur. This focus occupied a prominent position in entrepreneurship research during the 1960s and 1970s. The best known study in this respect is David McClelland's work *The Achieving Society* (1961), in which he argued that norms and values in a society, particularly with respect to the 'need for achievement', are of vital importance for economic development (Landström et al. 2012, 1155). In the 80's the foundation of academic entrepreneurship research was set. While early studies on entrepreneurship were centered on the question of how the personality or background of the entrepreneur determines entrepreneurial behavior, recognizing and exploiting opportunity became the essence of entrepreneurial behavior as well as the defining processes of entrepreneurship (Shane and Venkataraman, 2000).
2. The specific domain of entrepreneurship could be defined as: How entrepreneurs identify opportunities, formulate business ideas, and evaluate them.
3. How the business ideas formulated by entrepreneurs affect their decisions to exploit opportunities, as well as what influence the difficulty and risk inherent in the pursuit of opportunities have on the exploitation decision.
4. How the context influences the identification and exploitation of opportunities
5. The process by which people exploit opportunities within existing organizations
6. The process of identifying and exploiting high-potential opportunities and internationalization.
7. How is this process temporally ordered, its rationality and planning; or even if there should be any optimal process at all.
8. In 1970 Malcolm Knowles published *The modern practice of adult education* and focused on andragogy rather than pedagogy as teaching method. It is not the scope of this paper to discuss Knowles' propositions, but we support its application to entrepreneurial education due to its scope.
9. (for an extended version please consult Pérez-Bustamante *et al.* 2012).

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