



ENTREPRENEURSHIP EDUCATION IN THE UNIVERSITY: DOES IT MAKE THE DIFFERENCE?

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ABSTRACT

PURPOSE: Given the university's responsibility as source of progress and growth through the professional training of qualified labor for the diverse functions required by the productive sectors, the principal aim of this study is to justify a call for attention to entrepreneurship education, since it represents a students' professional option at the service of social and economic welfare. Specifically, we based on Social Cognitive Career Theory to analyze perceptions of entrepreneurship education in the university and propensities toward enterprising careers of a sample of Spanish students. **METHODS:** We assessed students' perceptions of entrepreneurship education in the university, entrepreneurial self-efficacy, outcome expectancies, and preference for business start-up as career choice. MANOVA was used to test differences between first and last-year students in the analyzed variables. **RESULTS:** Perceived entrepreneurship education and preference were found to be high for students at the beginning of university studies, whereas there weren't differences in the self-efficacy and outcome expectations scales. **CONCLUSIONS:** Results suggest that university's entrepreneurship education shortages can explain the general preference of students for wage-earning employment.

Key words: Entrepreneurship education, public universities, self-employment, regional development, innovation

INTRODUCTION

Traditionally, the university has represented the organization with the greatest capacity to generate and disseminate knowledge and to transform it into economic and social utility. It is largely assumed that the educational level acquired must qualify college students to practice a professional activity, which in turn must satisfy the demands of human capital required by the productive sector, in order to contribute to the socioeconomic welfare. From this point of view, universities have generally been institutions at the service of the labour market, including both the employment needs of students, and the qualified labour needs of public or private enterprises and institutions recruiting most recent college graduates.

In this sense, most university academic programs in Spain are mainly centred on training wage-earner professionals and employees, this prevalent approach becoming insufficient given the new structure and dynamic of the Spanish labour market in the last decade (1). As a consequence of the reduction of the civil servant posts available in the administration and the high requirements of professional experience imposed in most selective processes in private organizations, most recent university graduates who face the search of a first job, find high unemployment levels, monotonous, unstable and bad-paid jobs, and scarce professional development options. For instance, unemployment rates of university graduates younger than 30 years old in Spain exceed those of graduates from lower educational levels (2) and, at the same time, salary dispersion between both groups has decreased in the last years (3). In the same line, more than 70% recent superior graduates

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depend on temporary contracts in their first employment, and near 30% perceive that their educational level is over the job exigencies (2,4). It is also worth mentioning that university students seem to be aware of the real situation of the labour market, thus maintaining a negative vision of the usefulness of higher education (2).

For this reason, in the middle of the process of adaptation of the Spanish university system to the requirements of the new European Higher Education Area (EHEA), it is important to reconsider whether the transformations undertaken, both in the university aims and in the way in which these must be reached, will enable a better response to the aforementioned social needs and expectancies frequently assigned to the public university. In this context of change, higher education institutions face the challenge of orienting its formative offer to the new socioeconomic demands, in order to ensure a full coverage of the needs of all university users and, by extension, the society. In short, it is important that the own university system looks for innovative ways to make the most of the human capital generated and to transform it in economic and social utility. Looking for this purpose, entrepreneurship can be seen as a promising option of work insertion and professional development of recent university graduates, at the service of broader objectives of sustainable socioeconomic welfare.

In this context, governmental interest in entrepreneurship began to be explicit in the Lisbon European Council, in March 2000, which set the objective of developing a dynamic enterprising culture and fostering new firm creation as source of sustainable competitiveness in Europe. From this framework, it was contemplated, between others, the need of revising the European educational system and including entrepreneurship into the group of basic competences to be taught from the primary education to the university. Later in the same year, the European Chapter for Small Enterprises (5) also stressed the objective of encouraging entrepreneurial initiatives by young people and developing training programs for small enterprises by educational institutions, particularly at secondary and university levels, in so far as they are focused toward service of individuals and society.

This first steps were followed by many other initiatives in Europe, aimed to specify supportive action plans and guidelines to foster the integration of entrepreneurial skills as part of the university curricula and develop an entrepreneurial culture through higher education. Finally, in December 2006, the European Parliament and the Council recognized entrepreneurship as key competence for lifelong learning, and specified an operative definition for its training along the regulated education (6), involving two different components (7): a) a broader concept of education for entrepreneurial attitudes and skills, which involves developing certain personal qualities and is not directly focused at the creation of new businesses, and b) a more specific concept of training on how to create a business.

From this teaching framework, it is also assumed that programs and courses should be adapted to students with different academic level (8), the rule seeming to be that the higher the level, the more complex and close to business real life the content of teaching should be. From this framework, it seems reasonable that, at the beginning of higher studies, programs and activities should be directed to stimulate students' interests in self-employment and business start-up, insisting on awareness and motivation elements, whereas future graduate and postgraduate students will probably need practical tools and concrete support for their business ideas.

From the previous revision follows that in most European countries today there is a policy commitment to promote entrepreneurship. However, it has until now been unclear whether this commitment has resulted in making entrepreneurship a widespread subject in higher education systems, as no clear statistical picture of entrepreneurship in higher education institutions across European counties exists. In the case of Spain, some previous studies point that Spanish students perceive a general underconsideration of entrepreneurship in the university agenda (1), some differences existing by kind of studies (9). In this sense, it is remarkable that students in Technical and Social Sciences are more satisfied with entrepreneurship training and motivation in their academic programs when comparing with those in Humanities and Experimental disciplines.

Taking into account the previously described situation, it should be a priority concern the development of practical models which help to identify the curricular mechanisms and institutional supports needed to articulate a new strategy in the university aimed to facilitate the emergence of entrepreneurial initiatives among students. Many previous studies on this matter suggest that learning experiences provided by formal educational systems affect the development of entrepreneurial interests and vocations in students (10, 11, 12). Nevertheless, there are less evidence about the specific mechanisms through which higher education impacts on the entrepreneurial preferences and choices of people.

Social Cognitive Career Theory (SCCT) by Lent, Brown & Hackett (13) provides a suitable framework to understand the mediational processes of the effect of formal learning experiences on the development of career interests and choices. Based on Bandura's Social Cognitive Theory (SCT) (14, 15), the model emphasizes the relevance of two psychological variables in explaining the establishment and development of career goals: self-efficacy and outcome expectancies. In the context of careers, self-efficacy refers to the perceived personal capability to do a specific job or set of tasks (15). From this view, entrepreneurial self-efficacy has been defined as the person's belief in their own abilities to perform in the various skill requirements necessary to pursue a new venture opportunity (16). Some research studies have demonstrated the predictive power of entrepreneurial self-efficacy beliefs in relation to the formation of entrepreneurial intentions (16, 17, 18).

Whereas self-efficacy beliefs are concerned with one's response capabilities (i.e., "can do this?"), outcome expectancies involve the imagined consequences of performing particular behaviours (i.e., "if I do this, what will happen?"). Based on these arguments, SCT suggests that people act on their judgments of what they can do, as well as on their beliefs about the likely effects of various actions (14). In this respect, Bandura (14, 15), distinguished between several classes of outcome expectancies with potential to affect career behavior, such as the anticipation of physical (e.g., economic incomes), social (e.g.,

approval), and self-evaluative (self-satisfaction) outcomes. Personal attractiveness of starting a business has been one of the variables more linked to the development of entrepreneurial intentions and actions, together with the personal attitude toward the feasibility of starting a new firm (19, 20, 21).

On the other hand, some previous works assume that both entrepreneurial self-efficacy and outcome expectancies can be easily enacted by educational situations (22). According to Bandura (14, 15), self-efficacy and outcome expectancies in an activity such as entrepreneurship develops through four processes: (1) enactive mastery or repeated performance accomplishments, (2) vicarious experience or modeling, (3) verbal persuasion, and (4) autonomic or physiological arousal. University classroom related activities should provide the opportunity for each of these four processes to be realized, through practical exercises about business start-up, conferences driven by successful entrepreneurs as role models, encouragement to self-employment by professors, etc.

Taking into account the university's responsibility as source of progress and growth through the professional training of qualified labour for the diverse functions required by the socioeconomic reality, it would be expected that university provide the formative resources and institutional supports needed to favour competence and control feelings of students when considering the alternative of starting an enterprising project. Also, academic curricula should encourage students to view new venture creation as work option highly desirable and beneficial in an increasingly complex labour market.

For this reason, we present the results from a survey applied to a representative sample of students within different academic disciplines in their first and last academic year at a Spanish university, seeking to analyze the effect of the transit through university on students' preferences for entrepreneurship as career choice, just as their perceptions of competence and outcome expectancies attributed to this labour option.

MATERIALS AND METHODS

Data was collected from a total sample of 1156 students at the University of León (Spain). The subsample of first-year students was comprised

of 661 participants, this figure clearly over the required 328 size for a representative 95% (being $e = \pm 5\%$; $p = q = 0.50$). By gender, this sample was comprised of 266 males (40.2%) and 395 females (59.8%). Following the usual distinction on studies orientation, 46.7% of respondents indicated a main academic background on Legal & Social disciplines, 40.1% on Experimental & Health, 9.6% on Technical & Engineering, and 3.6% on Humanities.

On the other hand, it was collected data from a sample of 495 university students in their last academic year, the required size for a representative 95% being in this case of 318 (being $e = \pm 5\%$; $p = q = 0.50$). Among the total, 166 were males (33.6%) and 329 were females (66.4%). By studies orientation, 42.5% of respondents indicated a main academic background on Legal & Social disciplines, 34% on Experimental & Health, 18.4% on Technical & Engineering, and 5.1% on Humanities.

Participants were surveyed in programmed university classes, randomly selected for each knowledge area and academic year. All students answered on a voluntary basis to the following scales:

Perceived entrepreneurship education. Respondents were presented five items about their perceptions of entrepreneurship motivation and training in the University. Examples of item are: "In my studies, treatment of entrepreneurship issues is adequate" and "My professors have encouraged me to start a business". Respondents were asked to report the degree of accordance with each item on a eleven-point Likert-type scale form 0 ("strongly disagree") to 10 ("strongly agree"), and an overall measure was obtained by averaging the five items.

Entrepreneurial self-efficacy. We used two items to ask students about their perceptions of personal and professional competence to become entrepreneurs. Responses were ranged on a Likert point scale form 0 ("completely incapable") to 10 ("perfectly able"). For analysis purposes, an overall measure was obtained by averaging the two items.

Outcome expectancies. Participants were presented three items about their expectancies to obtain economic incomes (physical outcome), social approval (social outcome), and personal satisfaction (self-evaluative outcome) by becoming an entrepreneur. Responses were ranged on a Likert point scale form 0 ("strongly disagree") to 10 ("strongly agree"). For analysis purposes, an overall measure was obtained by averaging the three items.

Entrepreneurship preference. Participants were asked about their preference for starting a new business as work option when finishing their superior studies on a eleven-point Likert-type scale ranging from 0 ("minimum preference") to 10 ("maximum preference").

RESULTS

Table 1 presents the means, standard deviations, reliabilities, and correlation coefficients among the study variables. All scales were significantly correlated between them, thus showing a positive link between entrepreneurship education and other career-relevant variables, in terms of perceived competence, outcome expectancies, and preference for self-employment. Also, entrepreneurship education, perceived self-efficacy, and outcome expectancies scales obtained adequate internal consistence, with Cronbach's alpha values over the accepted .70.

Table 1. Means, standard deviations, reliabilities, and correlations

Variable	1	2	3	4
Entrepreneurship education	(.87)			
Perceived self-efficacy	.25*	(.73)		
Outcome expectancies	.36*	.45*	(.72)	
4. Entrepreneurship preference	.33*	.44*	.55*	--
M	4.81	4.73	5.79	4.41
SD	2.16	2.30	2.09	2.81

Note. * $p < .01$; Cronbach's alpha reliabilities are in parenthesis

An inspection of mean scores discloses a poor assessment of the formative resources, support, and encouragement given by the university to satisfy the entrepreneurial aspirations of students, with an average score of 4.81 in the education scale, under the intermediate value of 5. In the same line, students showed low perceptions of competence to start a business and a generalized low preference for entrepreneurship as career choice, mean values being in these cases of 4.73 and 4.41, respectively. On the other hand, students showed better scores in the outcome expectancies scale, with an average score of 5.79.

Next, we performed a one-way between-groups multivariate analysis of variance (MANOVA) to investigate the effect of academic year (independent variable) on the

perceptions of entrepreneurship education, self-efficacy, outcome expectancies, and preference for self-employment (dependent variables). Results from MANOVA showed a statistically significant difference between first and last-year students on the combined dependent variables: $F(4, 1127) = 19.10, p < .001$; *Wilks' Lambda* = .936; *partial eta squared* = .064. When results for the dependent variables were considered separately, only differences in entrepreneurship education ($F(7, 1130) = 70.82$; *partial eta squared* = .059) and entrepreneurship preference ($F(7, 1130) = 6.24$; *partial eta squared* = .005) were statistically significant, using a Bonferroni adjusted alpha level of .0125 (.05/4). Neither self-efficacy nor outcome expectancies scales reached statistical significance.

Table 2. results from MANOVA

Variable	Wilks' Lambda	F	Partial Eta Squared	F	Partial Eta Squared
Entrepreneurship education				70.82*	.059
Perceived self-efficacy	.936	19.10**	.064	0.01	.000
Outcome expectancies				4.16	.004
Entrepreneurship preference				6.24*	.005

Note. * $p < .0125$; ** $p < .001$

Figure 1 displays mean values of first and last-year students in the variables analyzed. First-year students showed higher average scores in the entrepreneurship education scale ($M = 5.29 > M = 3.74$) and preference for self-employment item ($M = 4.50 > M = 3.85$) than their last-year pairs, thus point to the conclusion that the transit through university

doesn't foster the entrepreneurial culture in a properly way. Also, despite no statistical significance was reached, first-year students seemed to have a slightly more positive vision of the outcomes and rewards of pursuing an enterprising career ($M = 5.74 > M = 5.35$). Differences in self-efficacy were less obvious ($M = 4.67 > M = 4.64$).

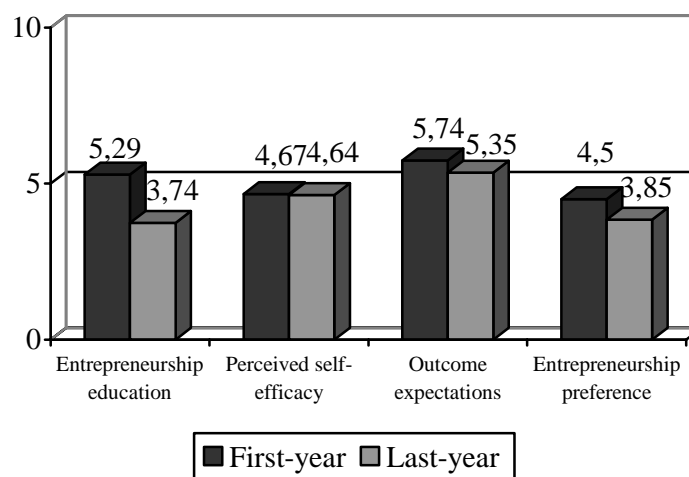


Figure 1. Mean differences between first and last-year students

CONCLUSIONS

Entrepreneurial activities act as one of main driving forces for economic and social development world around. European governments have become increasingly aware of this matter in the last decade and a great amount of political initiatives have been suggested to include the formal education of entrepreneurship competences as part of the academic curricula in higher education institutions.

However, efforts directed to this performance are yet insufficient in Spanish public universities, and most high level academic programs seem to be much more centred on training wage-earner managers or technicians, than offering qualified and responsible entrepreneurs and enterprises to society. Results from this study state a clear underconsideration of entrepreneurship as alternative professional career for university students and, as a consequence, a lack of attention is paid to the needs of those interested in starting a business. To be precise, some interesting conclusions can be stressed with regard to the student's perceptions of entrepreneurship education in the university and their approach toward enterprising careers. First, university students have low expectancies of formal training and institutional support and encouragement for their potential entrepreneurial vocations at the beginning of their higher studies and, at the same time, there is a poor satisfaction of these initial expectancies of entrepreneurship teaching in the university at the end of higher education.

Second, perceptions of entrepreneurship education in the university are in line with the poor interest in enterprising careers showed by students. In short, they neither trust their personal and professional competences for entrepreneurship, nor have a positive vision of the rewards linked to new business creation. What is more, since there are no significant differences in perceived self-efficacy and outcome expectancies between first and last-year students, we can conclude that the transit through university doesn't foster positive attitudes toward entrepreneurship in a properly way, what prove the inexistence of a formalized and structured initiative to teach entrepreneurial competences through the own academic curricula.

Finally, these shortages of entrepreneurship education in the university have their reflection on the poor preferences for self-employment reported by students. Again, in this case, our results suggest that, even though their propensity toward entrepreneurial performances is low, first-year students exceed future graduates. Therefore, the transit through university doesn't influence the preference of students for entrepreneurial career choices, making it difficult to change the prevalent "wage employment culture".

These conclusions point out the need of incorporating entrepreneurship training and motivation in the university education in several ways. First, given the changes of the labour market, it seems reasonable to specify entrepreneurial competences, including both specific knowledge and skills to start a business, and train them as part of the academic curricula. Moreover, it should be a priority concern the development of an entrepreneurial culture in the university, allowing the transmission of positive values and attitudes toward entrepreneurship in both formal and informal contexts of instruction. And finally, all these should be complemented with a greater receptivity and support to entrepreneurial vocations of students. The process of adaptation of the Spanish university system to the requirements of the new EHEA is a good context to take the first steps towards this performance.

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