

Student approaches to learning and entrepreneurial intentions

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Abstract

An increasing number of universities are incorporating compulsory entrepreneurship subjects into their degrees in an attempt to develop the entrepreneurial mindset of students. Previous studies have found that the main reasons for the entrepreneurial intention of students after having received training in entrepreneurship, are fear of failure, perceived self-efficacy, family entrepreneurial background and gender. This study examines the role of the student approach to learning (SAL) on their entrepreneurial intention. Based on the SAL theory, the study shows that a deep learning approach explains students' entrepreneurial intentions after having taken the course, and that fear of failure, perceived self-efficacy, family entrepreneurial background lack explanatory value. In light of the SAL theory, the results of the study point to the important role of teachers in designing methodologies that ensure that assessment and other contextual elements of the teaching and learning system are constructively aligned to promote a deep learning approach, and thus an entrepreneurial mindset.

Keywords: *Learning approaches; entrepreneurial intentions; entrepreneurial learning; entrepreneurship education; deep learning.*

1. Introduction

There is a broad consensus that it is important to promote entrepreneurship to stimulate innovation, job creation and, ultimately, the progress of society. Accordingly, entrepreneurial activity has become a priority on the agendas of many governments, and a recurring question is, *how can people be encouraged to become entrepreneurs?* The answer to this question requires an understanding of the factors associated with the intention to start a business.

Several perspectives have been used to explain the factors associated with the intention to start a business. One of these lines of research on entrepreneurial intention has focused on analysing the role of entrepreneurship education in business creation.

Nabi et al. (2017) found a positive relationship between entrepreneurial education and entrepreneurial intention. However, many studies have also provided mixed, ambiguous, negative or non-significant results (Bae et al., 2014).

Liñán and Fayolle (2015) affirm that knowledge of the possible causal link between some educational variables (such as pedagogical methods) and the impact of entrepreneurship education on entrepreneurial intention is still scarce. The aim of the present study is to contribute to reducing this knowledge gap through the study of the relationship between entrepreneurial intention and entrepreneurship education by considering students' approaches to learning.

Accordingly, this study uses a new perspective – that of the student approach to learning (SAL) model – to analyse the factors that affect the formation of entrepreneurial intentions amongst university students who, in the last year of their degree, have taken a compulsory course in business creation. As far as we know, this perspective has not been used to study the relationship between entrepreneurial intention and entrepreneurship education, yet it has been widely used in other education-related areas (see e.g. Zhao et al., 2018).

Understanding how students learn is important to develop an effective learning system. This understanding can help educators adopt teaching strategies that encourage students' deep learning. In the case of the present study, these strategies can help foster entrepreneurial intentions and, ultimately, help students view business creation as a viable route of professional development. The results reveal that entrepreneurial intention after taking a compulsory entrepreneurship course depends on the student's learning approach. This finding helps to explain the differences in the results regarding the relationship between entrepreneurship education and entrepreneurial intention.

2. Theoretical framework

2.1. *Entrepreneurial intentions, self-efficacy and fear of failure*

Self-efficacy highlights the importance of entrepreneurs' beliefs about their abilities as a predictor of success in business creation. Individuals will be more inclined to start a business if they believe they have the skills needed to successfully run their own business. The empirical evidence corroborates this relationship (see e.g. Esfandiari et al., 2019). Therefore, we propose the following hypothesis:

H1: *The perceived self-efficacy of entrepreneurship students is positively related to their entrepreneurial intentions.*

The dominant approach to research on fear of failure is to consider it a personality trait that acts as a powerful inhibitor of entrepreneurial activity (see e.g. Langowitz and Minniti, 2007). Fear of failure is a feeling about the outcome of creating a new business. This feeling affects judgements about the likelihood of success. Consequently, it creates a barrier to entrepreneurship that inhibits entrepreneurial behaviour. Therefore, we propose the following hypothesis:

H2: *The fear of failure of entrepreneurship students is negatively related to their entrepreneurial intentions.*

2.2. *Entrepreneurial education, learning approaches and entrepreneurial intentions*

The theory of Student Approaches to Learning (SAL) describes how students learn. According to Biggs (1987), when students find themselves in a learning situation, they ask themselves two important questions. The first relates to the motives and goals that they hope to achieve: *what do I intend to achieve with this?* The second relates to the strategies and cognitive resources that they must deploy to satisfy these intentions: *what must I do to achieve this?* Thus, an approach to learning is based on a motive and a strategy.

There is an extensive literature on how students learn. From this literature, Biggs (1987) identifies two approaches to learning: deep and surface. Students who adopt a deep approach to learning are intrinsically motivated and seek to maximise the meaning of what they learn by linking new knowledge to prior knowledge. Students with a surface approach are motivated by the fear of failure and focus on reproduction and memorisation as a learning strategy.

In relation to entrepreneurship education, Carland and Carland (2010) point out teaching techniques should promote interactive pedagogy that increases students' ability to identify opportunities, find diverse solutions to specific problems and develop a practice-oriented mentality. In other words, teaching methodologies that require deep approaches to learning should be used. The above arguments lead to the following two hypotheses:

H3: *A deep approach to learning is positively related to students' entrepreneurial intentions.*

H4: *A surface approach to learning is negatively related to students' entrepreneurial intentions.*

2.3. The explanatory power of students' entrepreneurial intentions before an entrepreneurship course in explaining post-course entrepreneurial intentions

To understand the relationship between entrepreneurship education and entrepreneurial intentions, scholars have highlighted the need to consider students' entrepreneurial intentions before taking a course on entrepreneurship. Bae et al. (2014) empirically observed that when entrepreneurial intentions before students take a course are considered, their entrepreneurial intentions after the course are unchanged. However, if students must take a compulsory course on entrepreneurship, the relationship should change when teaching and learning methods associated with entrepreneurship education have been developed. That is, the relationship should change when the methodology is able 'to unleash the entrepreneurial spirit of our students, cultivate a mindset of practice, and build environments in which practice can occur' (Neck, Greene, and Brush 2014, 1). Therefore, we propose the following hypothesis:

H5: *When entrepreneurial intentions before taking a course are considered, there is a positive relationship between students' entrepreneurial intentions after taking an entrepreneurship course and a deep learning approach.*

3. Method

To test our hypotheses, we gathered data on a sample of 90 students from a public university in the Community of Madrid (Spain). The students were enrolled in a compulsory course of Labour Relations and Human Resources bachelor's degree programme and took an 'Entrepreneurial Initiative' course in the 2018 to 2019 academic year.

3.1. Variables

Entrepreneurial intention at time T1 was the dependent variable. Entrepreneurial intention was measured as the degree to which students seriously considered becoming entrepreneurs. It was measured with a single item, similar to the approach used by Arafat and Saleem (2017) and Barba-Sánchez and Atienza-Sahuquillo (2018). The item asking whether 'respondents expect to start a new business in the future' was measured on a 7-point scale ranging from 0 (*never*) to 6 (*already an entrepreneur*). *Entrepreneurial intention at time T0* was an independent variable. It measured students' initial entrepreneurial intentions (T0).

Perceived self-efficacy was an independent variable. It was measured using the same approach as Arafat and Saleem (2017) by asking respondents whether they thought they had

the knowledge, skills and experience required to start a new business. *Self-efficacy* was a dichotomous variable that took the value 0 when students considered that they did not have the necessary knowledge to start a business and 1 when they considered that they did have the necessary knowledge to start a business.

Fear of failure was another of the independent variables. It was recorded using the same method as Arafat and Saleem (2017) by asking respondents whether the fear of failure prevented them from starting a business. This was a dichotomous variable that took the value 0 when students considered that fear of failure would not prevent them from creating their own business and 1 when they considered that fear of failure would prevent them from creating their own business.

Approaches to learning. Students completed the Spanish version (Gargallo López et al. 2006) of the revised two-factor version of the Study Process Questionnaire (R-SPQ-2F; Biggs et al. 2001).

We included two commonly used control variables: gender and entrepreneurial family background. *Gender* was a dichotomous variable that took the value 1 for men and 0 for women. *Entrepreneurial family* was a dichotomous variable that took the value 1 when there was a family history of entrepreneurship and 0 when there was not.

4. Results

Table 1 presents the results of the linear regressions performed to test our hypotheses. Model 1 explains the entrepreneurial intentions of students after taking the course. The results for Model 1 show that the entrepreneurial intentions of students after taking the course (T1) are significantly and negatively related to fear of failure (fear of failure T1 = -0.525, $p < 0.05$), significantly and positively related to a deep approach to learning (deep approach T1 = 0.372, $p < 0.05$), and significantly related to gender (gender = 0.271, $p < 0.1$). However, the results for Model 1 show that despite observing the expected signs for the coefficients associating entrepreneurial intentions after the course with self-efficacy, a surface approach to learning and an entrepreneurial family, we did not detect statistically significant relationships. The non-significant relationship between self-efficacy and entrepreneurial intention has also been reported in other studies (Shinnar et al. 2018). The results for entrepreneurial family background coincide with those reported by Dohse and Walter (2012) in their analysis of entrepreneurial intentions amongst students. They did not find a statistically significant relationship between having an entrepreneurial family background and entrepreneurial intentions.

Model 2 explains students' post-course entrepreneurial intentions (T1) whilst controlling for students' initial entrepreneurial intentions (T0). The results for Model 2 show that a deep approach to learning (deep approach T1 = 0.27, $p < 0.05$) explains students' post-course

entrepreneurial intentions whilst controlling for students' entrepreneurial intentions before the course (T0). This result supports H5. Fear of failure and perceived self-efficacy have no explanatory power in Model 2.

Table 1. Results of the estimation of the regression models.

Dependent variable	Intention T1	Intention T1
	Model 1 <i>Standardized coefficients</i>	Model 2 <i>Standardized coefficients</i>
Self-efficacy T1	0.17	0.041
Fear of failure T1	-0.525**	-0.287
Deep approach T1	0.372**	0.27**
Surface approach T1	-0.046	-0.012
Gender	0.271*	0.332**
Entrepreneurial family	0.241	-0.056
Intention T0		0.532***
<i>R</i>	0.723	0.827
<i>R</i> ²	0.522	0.684
<i>R</i> ² <i>adjusted</i>	0.412**	0.597***
<i>F</i>	4.734**	7.719***

Notes: *** $p < 0.001$; ** $p < 0.05$; * $p < 0.10$.

In summary, following the recommendations of Bae et al. (2014) to carefully control for the effect of any variable that may influence the effectiveness of entrepreneurship education before testing its effect, we considered the possibility that a student's entrepreneurial intention might not be determined by the student's learning approach but rather by the student's intention prior to taking the course. Our results show that a deep approach to learning is significantly associated with entrepreneurial intentions after taking an entrepreneurship course, even after controlling for entrepreneurial intentions prior to the course.

5. Conclusions and limitations

This study takes a further step towards understanding how the students approaches to learning affects entrepreneurial intentions and, consequently, entrepreneurial spirit. As far as we know, no previous study has examined the relationship between approaches to learning and entrepreneurial intentions. However, the role and importance of entrepreneurial education and students approaches to learning regarding entrepreneurial intentions have been acknowledge but not investigated.

Biggs (1987, 11) reports that the ‘most effective way of ensuring high quality teaching and learning is for teachers to take responsibility for ensuring that assessment and other contextual elements in the teaching and learning system are constructively aligned to promote deep approaches to learning.’

On the other hand, and without forgetting the relevance that the teaching-learning methodology has on entrepreneurial intention, the findings of this work also contribute to answer the call for research by Nabi et al. (2017) by explaining why students with different value priorities may interpret entrepreneurship education differently. Students with a superficial learning focus, motivated by security, conformity will be afraid of the uncertainty inherent in entrepreneurship and therefore reluctant to entrepreneurship. Whereas students with a deep learning approach, motivated by self-direction, will be more encouraged to entrepreneurship. In this regard, perhaps one of the most remarkable aspects of student approaches to learning (SAL) theory is that through a suitable teaching and learning methodology and a consistent evaluation system, teachers can foster the development of deep approaches to learning.

Additionally, the results of this study suggest that the entrepreneurship education offered by universities could work as a motivator to channel students’ aspirations and attitudes towards a professional career as an entrepreneur. In this regard, in line with the work by Esfandiar et al. (2019), research on entrepreneurial intentions provides policymakers with valuable knowledge of how to foster students’ entrepreneurial capacity. Accordingly, a large body of literature is dedicated to the study of entrepreneurial intentions. Although students’ approaches to learning have not yet been studied in the area of entrepreneurship education courses, they have been studied in regard to other types of education, fundamentally in relation to students’ academic performance, so this paper is filling this gap.

Finally, we must consider some of the limitations of our study. First, as regards the method (i.e. linear regression), although longitudinal data were used, the causality of the relationships has not been demonstrated. However, the explanatory or predictive nature of the model was tested. It should also be noted that entrepreneurial intention models have been replicated in different regions and countries, with differences in behaviour reported between regions and countries. In other words, the relationship between entrepreneurship education and entrepreneurial intentions is influenced by culture. The empirical evidence reveals that culture has a significant influence on students’ approaches to learning (Bowden et al., 2015). Therefore, analysing the possible moderating role of culture in the relationship between entrepreneurial intentions and approaches to learning would help us develop a better understanding of this relationship. It would also allow us to conclude whether an entrepreneurship pedagogy actually exists.

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