

# **The effect of entrepreneurship education in college students: the mediating role of previous exposure to the family business**

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Entrepreneurship education ranks high on policy agendas in because it is believed to positively affect the economy through innovation and relocation of talent (Kuratko, 2005; Reynolds, 2007; Ács and Armington, 2006). If new business creation has a positive effect on the economy, and entrepreneurship education (EE) has a positive effect on the quantity and quality of available entrepreneurs, should government make entrepreneurship education compulsory in colleges and high schools? Because of the permanent warning of economic crisis, entrepreneurship and EE have more relevance to today than ever (Neck and Green, 2010).

Researchers are making increasing efforts to understand how individuals and teams learn to successfully start a business (Kyrö, 2015). However, this type of research has yielded mix results. Some research report that EE has a positive effect on entrepreneurial intentions while other research reports negative effects. The evidence contradicts to demonstrate whether the effect is higher when students enroll voluntary or mandatory (Oosterbeek, van Praag, & Ijsselstein, 2010), whether previous exposure to entrepreneurship is desirable (Fayolle & Gaily, 2015) or the role of the teaching methods in the final effect (Bechard and Gregoire 2005). In spite of the controversy, government insists in to reward the production of more entrepreneurs in the higher education system. In that effort is important to understand how to produce an entrepreneur from college.

The purpose of this paper is to understand what influences the impact of entrepreneurship education (EE) on college students and why. Measuring the efficacy of entrepreneurship training programs is probably one of the most widely studied evaluation issues and it has been done from various perspectives. Compared with other research (i.e. Fayolle and Benoit, 2015), our study provides a large sample (n=2000) of students from different institutions and backgrounds allowing the study of variables that has been controversial so far. The main theoretical contribution of this work is to test which of the antecedents of entrepreneurial intentions (attitudes or knowledge) is best impacted by EE and theorize why some previous experiments have yielded negative results.

## **Conceptual framework**

The participation in an EE course is supposed to have an impact on the attitudes, self-efficacy, and the intention of participants with regard to entrepreneurial behavior. Fayolle (2015) suggests a negative relation between the variation of entrepreneurial intention and its antecedents depending on the initial level of entrepreneurial intention of students. Factors linked to prior entrepreneurial exposure such as belonging to a family of entrepreneurs had to

be taken into account as previous exposure to entrepreneurship (Begley et al. 1997; Matthews and Moser 1995; Scott and Twomey 1988). As researchers, we agree with Fayolle about the role of previous exposure to entrepreneurship but we include new dimensions to the analysis. Previous exposure does explain the intensity of the effect of EE on entrepreneurial intentions because students with previous exposure develop more knowledge and define their attitudes toward entrepreneurship before the course. Attitudes of students with previous exposure do not change much after EE and may decrease if the training is mandatory or the professor of the specific course has a poor performance. In contrary, a proportion of students without previous exposure experiment important attitudinal change specially those how never reflected much about the phenomena. Our hypothesis is that students with low previous exposure and medium scores on attitudes will experiment the higher impact of the course. Student in the extreme of the attitudinal continuum will not experiment significant changes on attitudinal levels even though they will learn more. This distinction is important to understand why the effect of EE sometime is positive another negative.

Self-efficacy always will increases after training independently of the attitudinal level or the character of the training (voluntary or mandatory). The effect of previous exposure on self-efficacy operates as reality check that is why students with high initial levels experiment low progress. Students with previous exposure but no formal education in entrepreneurship feel overconfident about their skills to start a business. When they report their beliefs they think they are really good as entrepreneurs and therefore they present high entrepreneurial intention at the beginning. After a formal course of entrepreneurship, students with previous exposure adjust their self-perceptions. Students with no exposure nonetheless believe, at the beginning of the course, they know nothing and experience a great leap of learning after the course. Within this conceptual framework we set the following hypotheses to test.

H1: Entrepreneurship Education has a positive impact on entrepreneurial intention and its antecedents (self-efficacy and attitudes).

H2: The intensity of the impact of EE on intentions depends on the initial level of attitudes, the lower the level the attitudes the higher the impact

H3: The intensity of the impact of EE on intentions depends on the initial level of self-efficacy, the lower the level the self-efficacy the higher the impact

H4: The intensity of the impact of EE depends on the levels of participants with previous exposure to entrepreneurship.

H5: The intensity of the impact of EE is explained by the relationship between exposure and attitudes. The lower the initial attitude (among those with high previous exposure), the lower the impact of the EE.

## **Research Design**

We used a pre-test post-test single group design to explore how entrepreneurial intentions could be influenced by an entrepreneurship course. The group consisted of college students whose academic curriculum included a mandatory entrepreneurship course. Two measures were performed: the first before the students started the entrepreneurship course (pre-test) and the second after they completed the course (post-test). The sample comprised 1964 observations who answered both tests (pre and post). 52 per cent were male and 48 per cent

female. Data were collected in ten different colleges from five different regions across Chile. In terms of family income, 37 per cent came from low-income, 37 per cent from middle-income and 25 per cent from high-income households.

Entrepreneurship courses offered as electives were excluded from the sample, as well as those cases where the course was not the first entrepreneurship course on the academic curriculum. Therefore, all courses measured were the first entrepreneurship course received in college by this group of students, and also the course was mandatory for all of them. The sample of students was tested during the first week of the course and after the end of the course. The goal was to have a balanced sample of students from different schools, avoiding the self-selection bias that voluntary entrepreneurship courses may have. Note that the sample of students is not only from business or entrepreneurship majors. Chile provides the possibility of measuring students who attend entrepreneurship classes even though they are not pursuing degrees related to business, engineering or entrepreneurship. In Chile, some medicine and law schools have included entrepreneurship as mandatory for all students.

### **Results and conclusions**

Results and conclusions will be presented in the research meeting.

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(some references are not used in the text yet)

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