



# Impact of Entrepreneurship Education on Entrepreneurial Intentions

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Working Paper on  
**Impact of Entrepreneurship Education on Entrepreneurial Intentions**  
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**Introduction:**

It is widely accepted that entrepreneurship contributes to employment generation and start-ups create more new jobs every year compared to large firms (Wiens and Jackson, 2015). There is also a strong belief that increased entrepreneurial activity will contribute to the growth and development of the economy ((Kirby, 2004: Kuratco, 2005; Herbert & Link, 2011). Therefore it is not surprising that governments across the world are encouraging entrepreneurial activities and trying to create an ecosystem that supports and nurtures new ventures. Educational institutions are fertile grounds for developing the spirit of entrepreneurship (Hofer,2013) and governments have been encouraging educational institutions to increase awareness about entrepreneurship and provide support to aspiring entrepreneurs through mentoring, incubation etc. This has resulted in a number of courses on entrepreneurship being offered in many universities and colleges across the world (Keat, Selvarajah, & Meyer, 2011). . A number of educational institutions provide support in other forms like creation of e-cells, on-campus companies and mentoring by faculty members. In addition to the above, some institutions are also offering incubation facilities for their students who take up entrepreneurship as a career.

**Motivation for the study:**

While the attempt to encourage entrepreneurship through course offerings is appreciated, there are important questions that needs to be answered – Can entrepreneurship be taught? (Haase & Lautenschläger, 2011). Do courses offered by many colleges and universities actually result in new ventures being created? These questions are important because the experience in the past has not been very good (Schramm, 2015) and the number of students who start their own business after a course on entrepreneurship is low. A look at some of the college level courses on entrepreneurship suggests that the topics being covered are nothing but a subset of management topics such as accounting, marketing, operations and environmental analysis in addition to an introduction to what entrepreneurship is.

This paper is an attempt to answer the above questions. We take up the second questions first – Do entrepreneurship courses offered in colleges and universities actually result in new ventures being created? One way to answer this question would be to randomly assign students to two groups and offer the entrepreneurship course (s) to one of the groups. After the completion of the course, track students for a specific period of time (say 5 years) and collect data on how many students from each group started their own ventures. If the group which completed the entrepreneurship course has more entrepreneurs, we can tentatively conclude that the course contributed to increased entrepreneurial activities. If necessary, a test of statistical significance can also be carried out. However, longitudinal studies require long-time commitment, and keeping track of the students once they pass out of the college or university is difficult. In this study, we posit that entrepreneurial intentions leads to entrepreneurship and if the courses offered can influence intentions, behaviour will follow. This is based on the Theory of Planned Behaviour (Ajzen, 1991).

### **Methodology:**

A premier management institute in India (one of the top 10) offers a course on entrepreneurial orientation to first year post graduate students in management. The objective of the course is to increase awareness on entrepreneurship as a career option and provide a basic understanding of the activities that most entrepreneurs engage in. The course also discusses how risks associated with entrepreneurship can be mitigated and the competencies required to succeed as an entrepreneur. The students of this course were administered a survey questionnaire before and after the course. The first questionnaire collected demographic details and had some questions related to entrepreneurship. One of the questions posed to the students was if they had, at any point in time, thought of starting their own business. This was expected to capture their entrepreneurial intentions prior to the course offering. At the end of the course, the second questionnaire was administered and they were asked if they were thinking of starting their own business some-time in the future. This was expected to capture the entrepreneurial intentions of students after the course.

The objective was to understand the level of interest in entrepreneurship among students before the course and see if this number changed after the completion of the course. As the course was designed to increase awareness about entrepreneurship as a career option, the

expectation was that, the number of students expressing a desire to start on their own would increase after the course.

**Analysis:**

The responses of students to the question whether they were considering starting their own business (before and after the course) is given in table 1.

Table 1

	<b>Question</b>	<b>No. of students answering “Yes”</b>	<b>No. of students answering “No”</b>	<b>No. of students not answered</b>	<b>Total</b>
<b>BEFORE</b>	Did you at any point in time think of starting your own business (become an entrepreneur)?	<b>29</b> (44.62%)	<b>36</b> (55.38%)	<b>0</b> (0%)	<b>65</b>
<b>AFTER</b>	Are you planning on starting your own business (become an entrepreneur) in the future?	<b>33</b> (50.77%)	<b>31</b> (47.69%)	<b>1</b> (1.54%)	<b>65</b>

The responses show that before the commencement of the course 44.62% of the students have considered starting their own business at some point in time. This means that entrepreneurship as a career option is not something new and many management students think about becoming entrepreneurs. However, it is also clear that a majority of them do not consider it as a career option. This could be due to lack of awareness of entrepreneurship as a career option. It could also be due to a flawed understanding of the risks associated with this

option and whether they could be mitigated. Not knowing whether they have the competencies required to succeed as an entrepreneur is also a reason for not considering entrepreneurship as a career option.

As expected, the number of students expressing entrepreneurial intention after the course, increased to 50.77%. However, the increase in number of students who showed entrepreneurial intentions was only four, which is not significant. Calculating the confidence interval for the proportion before the course, (with 90% confidence interval), shows that it ranges from 34.48 to 54.76. As both before and after the course proportions, fall within the range, the change in proportions do not seem significant. .

As the numbers were low, it was decided to check how many student had changed their intention (to start his own business) from yes to no after the course. So we matched the answers for each student and found that in total 12 students had changed their answer from No to Yes and 8 students had changed their answer from Yes to No. While the change from no to yes was in line with the expectations, we were not expecting too many changes from yes to no. The fact that 8 students had changed their answer from yes to no, was to some extent a surprise and therefore we invited them for discussion. Four of the students met the author and during the discussion they indicated that they had marked the answer wrongly because they had misunderstood the question to mean whether they were planning to start their own business immediately after the post graduate programme. They explained that they were still interested in starting their own business, but had decided that they would do so later in life (around 3 to 4 years after programme completion). They said that during the course they realized that starting a new venture was serious business and involved many risks which had to be managed or mitigated. They wanted to spend 3 to 4 years working in the industry to gain knowledge about the industry and gain competencies that would help them succeed in their own business. They also said that during these years, they would spend more time on identifying opportunities.

Based on the discussions, the final analysis on how the course impacted the intentions of students is given in table 2.

Table 2

<b>From \To</b>	<b>Yes</b>	<b>No</b>
<b>Yes</b>	25	4

No	12	23
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The above table and the discussions with the students shows that course was successful in increasing awareness about entrepreneurship and it positively influences the intention of students towards entrepreneurship. The author realized that some movement from yes to no was also good. Before the course a student might have considered becoming an entrepreneur due to the hype surrounding entrepreneurship and popular reports on successful entrepreneurs. The course was impactful because it made them realize that entrepreneurship involves hard work, requires the ability to garner resources beyond one's control and a willingness to take calculated risks. The increased understanding of entrepreneurial activities and the competencies required for success could have influenced their decision to move from yes to no. This should be seen in a positive light, as otherwise attempts by students to become entrepreneurs without acquiring the required competencies or resources might result in their failure.

The before and after data was subject to McNemar's test and the results show that there is an association between the course and the decision to become an entrepreneur and it is significant at 10% level ( $p=0.0812$ ).

**Factors influencing entrepreneurial intentions:**

While the course could have influenced the intentions of some students, it is seen that 44.62% of the students had entrepreneurial intentions before the commencement of the course. This essentially means that factors other than the course had influenced their desire to become an entrepreneur. Work experience can facilitate the identification of an opportunity and thus trigger a desire to become an entrepreneur. A difficult boss can trigger an interest in entrepreneurship. Parents who are entrepreneurs can be role models. In some regions, gender can be a handicap as entrepreneurship is not seen as a career for women. Earlier researchers have shown that entrepreneurial intentions are influenced by availability of role models, work experience, gender, self-efficacy and traits such as risk taking propensity (Karimi et al., 2013; Nga and Shanmuganathan, 2010). As data on demographic variables were collected from the students, it was decided to run a regression analysis with the entrepreneurial intention as a dependent variable and factors like type of education, parent's occupation, years of work experience and gender as independent variables. The results of the regression are given below,

SUMMARY OUTPUT								
<b>Regression Statistics</b>								
Multiple R	0.951171458							
R Square	0.904727142							
Adjusted R Square	0.893026967							
Standard Error	0.163847847							
Observations	65							
<b>ANOVA</b>								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	7	14.53130979	2.075901399	77.32594623	9.45741E-27			
Residual	57	1.530228669	0.026846117					
Total	64	16.06153846						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.099885461	0.073453818	-1.359840282	0.179235214	-0.246974196	0.047203273	-0.246974196	0.047203273
Sex	0.039937317	0.047139111	0.847222524	0.400414456	-0.054457125	0.134331759	-0.054457125	0.134331759
In years	0.041398044	0.022695223	1.824086273	0.073382463	-0.004048355	0.086844444	-0.004048355	0.086844444
Qualification	0.001987346	0.021728088	0.09146439	0.927444286	-0.041522399	0.045497091	-0.041522399	0.045497091
Fathers Occ.	0.028466059	0.01608888	1.769300232	0.082193253	-0.003751367	0.060683485	-0.003751367	0.060683485
Mothers Occ	0.007951332	0.015794694	0.503417897	0.616610491	-0.023676997	0.039579661	-0.023676997	0.039579661
1 (b)	0.331996737	0.015423426	21.52548584	4.72588E-29	0.301111859	0.362881614	0.301111859	0.362881614
Q2.	0.07541999	0.059140573	1.275266469	0.207388273	-0.043006965	0.193846944	-0.043006965	0.193846944

The results show that six independent variables explain to a large extent (90.4%) the variance in entrepreneurial intentions. This suggests that the co-efficients for these variables can be used to build a model to predict entrepreneurial intentions among business school students.

### Conclusion - Can Entrepreneurship be taught?

The debate on whether entrepreneurship can be taught has been going on for a long time. The debate is similar to the debate on whether management is a science or an art and if management can be taught. Anyone with some resources and a strong belief in an idea can start a new venture. However, the success of the new venture is dependent on a number of factors like the unique value the business delivers, the size of the market, competition and the business environment. It also depends on the ability of the entrepreneur to acquire resources, persist till it becomes self-sustainable and manage it efficiently. If our objective is to increase awareness of entrepreneurship as a career option, it can be done by offering a course where the students are exposed to the struggles and successes of entrepreneurs. The course can help students understand the process of starting and managing a new venture. Inputs on identifying business opportunities, evaluating them and determining the resources required for leveraging the opportunity can be provided in a course. Knowledge on various forms of legal entities, sources of funds and risk mitigation strategies adopted by successful entrepreneurs can also

be given through a course. While these inputs do not guarantee the success of a new venture, it will help a student decide if entrepreneurship is the career option he or she wants to pursue.

### **Limitations of the study and opportunities for future research:**

The number of students involved in the study was only 65 and results may vary if the number is larger. The prediction model that can be built using the regression co-efficients may not be accurate as it is based on a small sample of students and has not taken into consideration many factors that influence the intention to become an entrepreneur. The study can be expanded by considering additional factors that influence entrepreneurial intentions to improve its accuracy and reliability.

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