IMPROVING BUSINESS PLAN DEVELOPMENT AND ENTREPRENEURIAL SKILLS THROUGH A PROJECT-BASED ACTIVITY

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ABSTRACT

The present study reports the experience of a project-based activity similar to the ones developed by the Small Business Institute (SBI) program in which students are asked to plan an event. It is part of a Project Management course taught at Universitat Internacional de Catalunya, in an Undergraduate course in Business Administration. The activity has been designed in such a way that it is expected to help students develop technical and entrepreneurial skills as it requires the use of critical thinking, quantitative methods and tools to interpret data for decision-making.

The results show that active learning materialized in the form of project-based activities make courses more enjoyable for both instructors and students, and most importantly, contribute to develop students' skills such as teamwork and critical thinking. However, while it is useful for students to gain some exposure to the material through pre-class readings and overview lectures, students do not fully understand and realize about their importance until they actively take part and reflect on the meaning of what they are learning.

INTRODUCTION

In recent years, the interest in entrepreneurship education has experienced a significant growth, what has required expanding the traditional business programs such as SBI to include entrepreneurship courses (Liang, 2014). Typical entrepreneurship courses are structured around the generation of a business idea and the development of the corresponding business plan. However, quite frequently, students find it difficult to find a feasible business idea and to develop a full business plan based on that. This difficulty is especially relevant in undergraduate students that, due to their age and inexperience, are frequently unable to generate an idea that is technically feasible, economically sustainable and market-attractive among other characteristics.

The Project Management course at Universitat Internacional de Catalunya has been designed as an introductory module for the later Entrepreneurship course. We proposed the students to develop a project-based activity. The idea behind this endeavor was to introduce students, in an interactive and highly participative way, to several tasks like planning, budgeting, decision making or data analysis that are needed when developing a business plan. In a way, the activity confronts students with many of the challenges that a standard business plan would include, but in a more directed and structured manner, so that it helps students get the idea and develop the skills necessary to complete a business plan later on.

It is worthy to say that this project is designed in order to help students to become entrepreneurs but also intrapreneurs as organizations are increasingly using project-based methods to accomplish tasks.

A project is a temporary endeavor undertaken to create a unique product, service or result. It is temporary in that it has a defined beginning and end in time, and therefore a defined scope and resources. Delivering complex projects on time and under budget constraints is a daily challenge.

Education programs are now adjusting their teaching methodologies to the students' need to know how to plan and evaluate a project, competencies that will be required in their professions. In this respect, there are several voices that claim that teaching methods should include active learning methods in which students adopt a leading role (Ayaz & Söylemez, 2015). Project-based activities respond to this typology of teaching methods and are found to lead to better academic results. Particularly, Fruchter (2001) expresses the usefulness of introducing projects since they help to improve and broaden students' skills. Furthermore, project-based activities engage students in the investigation of authentic problems (Blumenfeld et al., 1991; Kubiatko & Vaculová, 2011).

In this context, this study reports the experience of a project-based activity in which students are asked to plan an event. The project activity has been designed in such a way that it is expected to help students develop the acquired technical skills while it requires the use of different quantitative methods and tools to interpret data for decision-making. This activity is part of a Project Management course taught at Universitat Internacional de Catalunya, in an Undergraduate Degree in Business Administration.

THEORETICAL UNDERPINNINGS

With the rapid advancements and requirements of our society, universities have had to adapt their ways of teaching by shifting their focus on preparing students for their future careers. Higher education has to provide learners, as an industry demand, with skills that can be transferred to other fields (Boyles, 2012; Ruizacárate Varela, García-García, González-García, & Casado-Sánchez, 2013). The idea of making universities closer to industries' requirements is not something new, as it has been done in programs such as SBI for a long time. In this sense, in the SBI program students are challenged to solve small business issues by working in teams (Hoffman, Snyman, Bechtold, & Murphy, 2016). This way, learners are able to foster their competencies and skills by facing business problems in the real world (Lacho, 2009).

Following this line, educators have increasingly emphasized the need of providing students with tools that increase the effectiveness of presentations and writing, boost critical thinking, promote the use of new technologies, enhance teamworking and facilitate the management of projects (Pulko & Parikh, 2003). The application of new teaching methodologies based on the development of skills provides students an invaluable lifelong learning (Kember, 2009; Star & Hammer, 2008). However, students usually have a short-term and goal-oriented point of view, what makes them less aware of the advantages of being educated in skills (Lane, Hunt, & Farris, 2011). Learners' vision can be broadened by involving them in entrepreneurial projects, as they do not provide short-term results.

The necessity of new teaching practices has changed the traditional lecturing at universities, formerly centered on teaching for "knowing-what", to an active learning methodology, with a focus on teaching for "knowing-why" (Fruchter, 2001). Active learning consists of involving students in the learning process, making them participate in activities that improve their performance during and after the course, thus increasing their skills (Bell & Kozlowski, 2008; Prince, 2004). This student-centered approach makes learners more independent and responsible, but they are also accompanied in their striving for solutions by the

educator, who acquires the role of a guide or facilitator (Doppelt, 2003). The positive effects of active learning activities, such as higher academic results and motivation to learn, and a deeper understanding of the content, have been proved in a number of studies (Michael 2006; Phillips, 2004). The previous advantages are especially relevant in the area of entrepreneurship, where students have the aim of creating and leading their own project, what explains why active learning has become the favorite practice for teaching entrepreneurship (Åsvoll & Jacobsen, 2012).

In order to implement an active learning methodology there is a wide variety of activities that can be used. Projects are considered some of the most relevant ones (Friedman, 2000). Project-based learning activities make students find solutions for real problems, facilitating in this way the acquisition of skills that can be used in real-life situations, such as teamwork, critical thinking, and communication skills (Macho-Stadler & Elejalde-García, 2013). For a proper consecution of the project, students need to be able to think, communicate and organize the tasks to do, to collaborate with others and follow the lecturer's guidance. It results in an experience that boosts not only their skills but also their autonomy and responsibility (Kubiatko & Vaculová, 2011) and, more importantly for the objective of the course, increases significantly the ability of students to later develop a coherent, complete and well-thought business plan.

Taking into account the benefits of the project-based learning, the activity presented in this study consists on developing a project designed with the aim of improving the following skills in the short-term: teamwork, as a tool that allows students to obtain better results than working alone (Cortez, Nussbaum, Woywood, & Aravena, 2009; Michael, 2006); and critical thinking, which can serve as a mean to understand concepts and practices needed for the correct consecution of the activity. In the long-term the objective is to develop these skills that will later help the student develop a more robust business plan.

DESCRIPTION OF THE ACTIVITY

Context

Undergraduate students that undertake an entrepreneurship course are sometimes too young and unexperienced to start directly developing a business idea and a business plan. Very frequently they do not know what to do and how to do it when they face a big and complex task like generating a business idea and developing a complete, exhaustive and realistic business plan.

Before creating a business plan, students must have some knowledge about measuring costs, doing realistic sales forecasts, evaluating risks and developing critical thinking. All these skills are absolutely necessary to do a high quality business plan.

In that respect, at Universitat Internacional de Catalunya we have developed a project-based activity similar to the ones developed by the SBI program which main objective is to develop the necessary skills to become an entrepreneur in the near future. The project based activity simplifies the task of building a business plan into a smaller and simpler activity. In this case the idea/project/event is given and the students have to fully develop it and think about all the factors that should be taken into account to perform it successfully. In line with the University mission of positively contributing to society, students are required to consider as one of the most important factors, the social impact of the initiative. Later in the academic year the student will develop a full business plan and the knowledge acquired in this activity helps them a lot to undertake the task with confidence.

Courses on project management provide students with the knowledge, tools and skills to manage projects in an efficient and organized way. The activity described here is part of a course on Project Management taught in the Undergraduate Degree in Business Administration offered at Universitat Internacional de Catalunya. Consistent with the managerial perspective of the course, the course strives to provide a balance between a qualitative and an analytical-oriented approach. Accordingly, the teaching method combines theoretical and practical readings, simulations exercises and case studies, being the "Organization of an event" activity the project in which students will work.

The experience reported in this paper was hold during the first semester of 2015/16 academic year, with a class size of 44 students. Students that participated in this course came from different countries and had different educational backgrounds.

Description

The main objective of this activity is to develop a project plan. This assignment is designed to develop student's skills in actual applications requiring the use of different quantitative methods and tools in interpreting data for decision-making. Acquiring these abilities will be very helpful for later developing a full robust business plan.

Students, working in groups of 5 or 6, are asked to plan an event and assess its feasibility in terms of resources, costs, risks, and impact assessment (environmental and social dimensions). They should imagine that someone has hired them to organize an event (e.g. a conference, an exhibition, a concert, a workshop) where different stakeholders are going to be involved. Not all events are, however, valid. The event should address a social opportunity, meaning that students have to envision and event that respond to a social need or help an underserved population. This event (of their own choice) is scheduled in a two-month period.

The project should cover the following points:

1. Project scope.
2. Market opportunity: fit between value proposition, customer segment and customer expectations.
3. Stakeholder analysis.
4. Work breakdown structure.
5. Project plan.
6. Project and cost scheduling.
7. Risk assessment.
8. Impact assessment: environmental and social impact.
9. General overview.

At the end of the project, each group should deliver the final report and give a 10 minutes oral presentation. The structure of this presentation is similar to entrepreneurial pitches and students are given the instruction to act like if they are facing a potential investor.

The instructions of the project are given one month prior the final delivery. During this month, students will have 3-hours per week to work in the project in class and discuss its progress with the lecturer. The topic of the project (that is, the event to be organized) should be approved by the instructor.

Assessment

This activity contributes in a 30% of the final grade of the course on Project Management. The assessment takes into consideration three main aspects: class meetings (25%), content (50%), and the oral presentation (25%).

Class meetings refer to the active participation of students in working in the project in class. Although all group members are expected to discuss regularly about the project, and must have equal participation in completing the group work, their engagement might be different. Accordingly, this score might not be the same for all the members of a group. The final report is limited to 25 pages and should cover all the points detailed above (see section 3.2). Lastly, an oral presentation is scheduled for the last day of class. It should take no longer than 10 minutes per group. Two members of each group would be presenting the work to the whole class. In order to ensure that all students have been involved in preparing the presentation, the lecturer chooses these students the same day of the presentation.

Both the report and the support material to be used during the presentation must be submitted though the online platform of the course one day prior to the oral defense. Failure to submit these documents on time will result in a penalty in the final grade of the project.

In order to boost critical thinking students are given an evaluation sheet (in the form of a rubric) to self-evaluate the own work, in a scale form 1 (poor) to 5 (outstanding). Also, during the presentations, students are required to evaluate their classmates as if they were investors looking for projects to backup. The instructor also uses the same rubric to assess the projects presented (see Table 1).

Table 1
RUBRIC TO ASSESS THE CONTENT AND THE PRESENTATION

Criteria			Description
Content	Event idea		Original, interesting, well-justified
	Economic feasibility		Reasonable planning, budget and use of resources
	Information		Proper description on how to organize the event
	Risk assessment		Risk impact, contingency plan, control plan
	Impact assessment		Social (adequate target population and perceived need) and environmental
Presentation	Design	Slides	Creativity, originality, clarity, text font choice, style
		Structure	Logical sequence
	Oral defense	Non-verbal skills	Eye contact, body language, posture
		Verbal skills	Elocution, enthusiasm
		Comprehension	Subject knowledge

Two additional questions are included in the evaluation sheet. First, students should adopt the role of an investor and decide the two projects in which they would decide to invest their money in order to execute the project. Second, students are encouraged to self-reflect and analyze in which degree each team member feels accountable and engaged with the project (how tasks were distributed) and their opinion with respect the other team members.

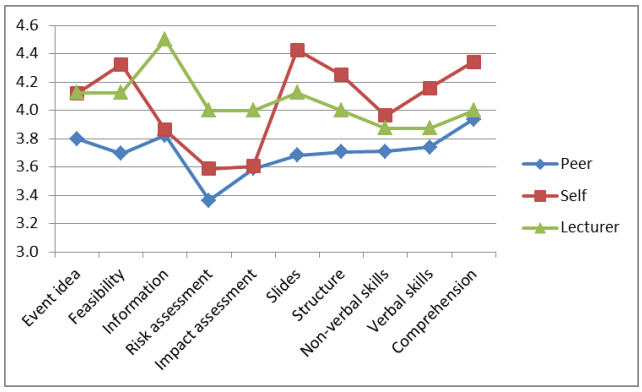
RESULTS

Figure 1 graphically illustrates the evaluations from classmates (in blue), the members of the group presenting (in red) and the lecturer (in green). From this figure it can be interfered that

students tend to be more critical with others' work rather than with their own project. One explanation for this lies in the fact that students are evaluating others' work based on the oral presentations, while when evaluating themselves have the full picture of their work.

It is noteworthy to point out that there are three criteria where lecturer's score were higher than self- and peer- evaluations. The rationale behind this may lay in the fact that the assessment of the lecturer was not only based on the information given in the presentation but also based on a careful reading of the full report. Because of the limited time allowed for presentations students from other groups might find difficult to evaluate the cost structure, the risk assessment and the impact of the project.

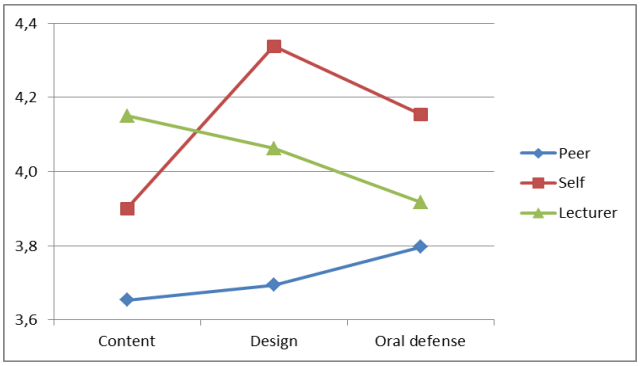
Figure 1
COMPARISON OF THE PEER-, SELF- AND LECTURER'S EVALUATION FOR EACH OF THE CRITERION



When assessing their own work, results indicate that students are quite confident in terms of their verbal skills, knowledge on the topic as well as in the design of the support material for the presentation. Because during this course on Project Management students have to perform several presentations, results indicate that students have developed communication skills that help them presenting their work naturally in front of other people. This result is very important, as in their daily profession, project managers are constantly asked to lead meetings and negotiate with the different stakeholders involved in a project.

Following the rubric provided in Table 1, Figure 2 groups the items in three main dimensions: Content, Design and Oral defense. Results confirm the previous observations.

Figure 2
COMPARISON OF THE PEER-, SELF- AND LECTURER'S EVALUATION FOR MAIN DIMENSIONS



Lastly, all students were assigned with a "class meeting" grade which assessed their participation in class. This session was devoted to discuss the project in class. Table 3 summarizes all the records. Grades from the items included in the rubric were then transformed into a 0-10 scale. The dimensions of "design" and "oral defense" were equally contributing (50% each) to the "presentation" score.

We also analyzed the correlation between instructor's grades and the self-evaluations performed. Results indicate that there is no correlation (p-value=0.5727).

Table 2
RUBRIC TO ASSESS THE PROJECT AND THE PRESENTATION

Group	Topic	Content [50%]	Presentation [25%]	Class meetings* [25%]
A	Basketball tournament	9.2	8.5	8.5 (0.55)
B	Barcelona tour	6.8	8.0	8.0 (0.00)
C	Bear pong competition	8.0	8.8	10.0 (0.00)
D	Solidarity Racing for breast cancer's cure	8.0	8.3	7.0 (2.19)
E	Food truck meeting	8.0	7.3	8.0 (1.41)
F	University Day	8.4	8.0	9.2 (0.41)
G	"Unplugged day" for Google employees	8.6	8.0	9.0 (0.00)
H	Wine workshop	7.6	6.8	7.6 (1.95)

* Standard deviation in brackets

With respect to the self-reflection questions, students show a high degree of satisfaction with the activity. They assess positively certain aspects such as the design of the activity, working in class and receiving the lecturer's orientation, the choice of two people for the oral presentation without previous advice, and the application of concepts learned in class. Moreover, students also gave a positive feedback on having worked in teams, by organizing and dividing tasks in a balanced and fair way, and achieving a high degree of commitment with the project. They express having contributed to the proper consecution of the activity, acknowledging not only their tasks but also others' work. Most of the students also report having understood the importance and usefulness of activities such as the one described in this paper.

DISCUSSION AND CONCLUSIONS

Active learning materialized in the form of project-based activities make courses more enjoyable for both instructors and students, and most importantly, contribute to develop students' skills such as teamwork and critical thinking. However, while it is useful for students to gain some exposure to the material through pre-class readings and overview lectures, students do not fully understand and realize about their importance until they actively take part and reflect on the meaning of what they are learning.

As for the specific experience described in this paper, the objective of which was to serve as a more guided and easy introduction to full business plan development, it has greatly accomplished its purpose. Compared to students of the same course of previous years, who did not do this project-based activity, the business plans later developed were of much higher quality. The information displayed in the business plan developed later in the course was much more structured, steps were clear, data came from more reliable sources and the overall analysis was of much higher quality.

Although the activity has been demonstrated to be of great profit, from direct observation during the session and the feedback obtained from students there is still room for improvement. Particularly, it is possible to envisage some aspects that need to be considered for future editions:

1. Consider the peer-assessment within the project's global mark.
2. Introduce the project at the very beginning of the course, and, as the course progresses and the contents are presented in class, start working in the project.
3. Include peer-assessment of the project's report, so that each group is assigned to another project and should perform a critical review and elaborate a report with their comments.

Several challenges were also faced:

1. The course enrolled a large number of students which impedes a sole instructor to fully gather all the concerns and feedback during the "class meeting" sessions.
2. The course enrolled both engineering and business administration students which showed that business students needed more help as they were not used to project-based activities.

All in all, and based on our experience, we posit that project-based activities are useful for: (i) embedding all the concepts of the course in a single integrative project; and (ii) developing critical thinking through the students' own work and peer-work. Therefore, we argue that there is an urgent need to introduce project-based activities at all levels, but particularly in master courses, where students are expected to be challenged with real (or simulated) cases, as they will be in the near future, when entering in the marketplace.

Studies such as the one presented here highlight the importance of approaching university students to real business situations, something that has been doing by programs like SBI for almost 45 years. Taking in consideration the rapid advancements and requirements of our society, it is of paramount importance that academics devote time and effort to investigate how to best adapt teaching methodologies to this new reality. Project-based activities, flipped classrooms, working in real business projects, etc. are just some examples of how teaching practices are evolving, aiming at close the gap between academia and industry. The application of these approaches in entrepreneurial courses can result in a source of motivation and help students acquire and develop the competences and skills that one might expect from a successful entrepreneur.

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