

Conference Paper

A Pedagogical Strategy to Teach Entrepreneurship: An Observation Based on Literature

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Abstract

Among the common contemporary interests of universities is the development of students' entrepreneurship due to the vital implication entrepreneurship has on personal success, social contribution, employability and competitiveness. This interest is taking different forms including adding courses or degrees, setting clubs and organizing activities that promote the entrepreneurial culture in the university ecosystem. There exists a plethora of studies on the educational aspects and teaching settings needed to attain goals and achieve outcomes. This literature shows a lack of experience in formal education in teaching and learning for real life. This leads faculty and students to perceive entrepreneurial education as another means for passing exams and getting certificates, without giving due importance to the link between this study and the needs of real life. This article aims to highlight a pedagogical strategy using an interdisciplinary approach to teach entrepreneurship. The main components of this strategy are the development of faculty and students, the interdisciplinary nature of teaching and the proper partnership with the industry. Accordingly, the pertinence to involve faculty members in the process is deliberated, the appropriateness of maintaining interdisciplinarity is highlighted and the academia industry relationship is revisited with observations on its apt directions. In closing, the outcome of the defined strategy on the components of the educational process is considered through a brief comparison between outcomes-based and competency-based methodologies, which highlights the appropriateness of the latter for the entrepreneurship education.

Keywords: pedagogical strategy, entrepreneurship education, interdisciplinarity, academia industry relationship, CBE

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1. Introduction

Talking to young entrepreneurs gives the impression that a majority of them are in it because it is trendy. When university students read about Mark Zuckerberg, the dream of walking his road comes to their minds, without necessarily being aware of the size of the required effort [1]. Everybody believes in the greatness of his ideas and the brilliance of his talent. This belief might bring to young entrepreneurs risky levels of confidence in their entitlement to be rich and successful very quickly.

Universities noted that the rise of the entrepreneurship trend and literature reviews show that entrepreneurship education as a field is not as young as the entrepreneurial trend. The infrastructure of this education had existed years before. The numbers of schools with majors, concentrations, courses, clubs and events targeting the development of entrepreneurship education is huge.

In the study of entrepreneurship education, it is argued that to learn entrepreneurship, student must do it. But this doing is not a pure technical practice, not a lab work as in the education literature. This doing should be based on vigorous theories that define the effective doing of entrepreneurship practices while keeping their firm grounding in theory.

One aspect of the debate in this field is around who should teach entrepreneurship. Is it enough to be taught by entrepreneurs who have proven success based on real-world practical experience? Should it be taught as a theoretical business discipline? Initially, should it be a part of the business curriculum? What about the success stories made by science, technology and engineering graduates, and the success achieved?

It is important to keep in mind that the focus of the scholarly approach to entrepreneurship concentrates on the methods and tools to discover and evaluate the opportunities and exploit them to introduce new goods and services. This approach involves to some extent the ways of organizing efforts, marketing products and processing raw materials, which can be similar to the traditional content of the teaching on organizations, and this makes it easier for business schools to claim offering entrepreneurship education [2].

This position article aims at outlining a pedagogical strategy to teach entrepreneurship. As it is clear from the introduction, the targeted discipline cannot be the Business Administration. So, the approach to building this strategy should be of an interdisciplinary nature. The main components of this strategy are the development of faculty and students, the interdisciplinary nature of teaching and the proper partnership with

the industry. The background of this study is a belief that by teaching entrepreneurship as an application grounded in theory, the student entrepreneurs can develop the competencies that can carry them to success and sustainability.

2. The Interdisciplinary Nature of Entrepreneurship Education

The interdisciplinary nature of entrepreneurship education does not stem only from the background of the students, although this is a factor that cannot be neglected taking into consideration the internal competition inside universities. Teaching interdisciplinarily, by definition, is an approach to provide complementarity of teaching between disciplines. An increasing volume of literature tackles this issue articulating the conceptual framework that reflects the interdisciplinary nature of entrepreneurship education [3].

In this study, it is assumed that this framework should link the themes coming from the student background, like science and engineering, with entrepreneurship, innovation and education. Consequently, this same framework should explore the principles and methods of teaching that can support educational outcomes and achieve competencies. This framework should integrate the pertinent concepts that build the theoretical grounding to teach unmeasurable concepts, like innovation, and measurable concepts, like business development [4]. In specific, the concepts such as project-based learning [5], self-regulated learning are expanded toward the newer directions such as competency-based education and academic entrepreneurship [6].

3. Academic Entrepreneurship

Patent-holding scientists have been well-known to the academic world and patent seeking had been a choice for academics, although many of them prefer to avoid it for a long list of reasons. Universities encouraged this endeavor as it has a direct return on it being an impact indicator affecting their ranking and public image and translated into recruitment and development. On the other hand, academics that placed their selves in the academic career developed thinking like entrepreneurs, where they solved problems on campus and supported students to turn their projects into new businesses. Some academics went further than that as to launch entrepreneurial enterprises. A new literature emerged talking about academic entrepreneurs and the entrepreneurial university.

Academic entrepreneurship occupies an increasing volume of studies in the field of research on higher education. Among the early concepts studied is the shift in the mindset that is required from academics to adopt entrepreneurial thinking. Kerry Ann Rockquemore summarized the differences between an academic and an entrepreneur by contrasting some of their corresponding attributes [7]. She observed that academics move slow while entrepreneurs move fast, academics study problems while entrepreneurs solve problems, academics function in constraint while entrepreneurs create possibility, academics focus on patterns while entrepreneurs focus on exceptions, and finally academics loathe promotion while entrepreneurs live to sell. She concludes that the academic mindset is perfectly suited to teaching, knowledge production and campus life, but it may keep academics from quickly getting into action that makes big ideas a reality.

The reasoning here is aiming to answer the question of whether students should be taught entrepreneurship by professors or entrepreneurs. The answer is simple: they should be taught by professors who are entrepreneurs. This conclusion draws us to state a change in the definition of the entrepreneur where accordingly academic entrepreneurship does not necessarily lead to the creation of an enterprise. This can be seen as the definition of the academic entrepreneur who adopts all the inherent characteristics of entrepreneurship in the academic career. Innovation, leadership, action, problem-solving and impact creation become the physiognomy of the academic entrepreneur.

To complete the structure, it is mandatory to tackle the definition of the entrepreneurial university. This reconsideration is built mainly on the academia/industry relationship. This relationship had been the subject of many studies for a long time and the core of many strategies designed and adopted by universities and aiming at bringing research to market and securing industry funding. These relationships developed into various forms of incubating the innovation brought by scientists. What was thought to be a cultural gap between academia and industry got more understood and developed into various form of collaboration. A long list of successes, and a shorter list of failures, can be drawn.

All this help to give a definition of the entrepreneurial university free of misconceptions. An entrepreneurial university is a research university and not a technical institute designed to train students on how to start or run a commercial activity. It is a learning community and an engine of innovation with values inherited from the academic world and not from the commercial world. And finally, the entrepreneurial university is not an incubator responsible for the creation of new companies. Its role stems from the

high-impact research that it does to solve complex problems that promise to become enterprises.

To close this section, it is important to stress that academic entrepreneurship is not the commercialization of academic research, but it is giving the right value for academic knowledge production, application and transmission. Accordingly, academic entrepreneurship should be approached as 'a significant driver of institutional change, not only within the academic world but also in shaping the organization of markets and states'. [8].

4. The Pedagogical Strategy

Today, it is acknowledged that the main purpose of instructional strategies is to apply learning theories to attain learning outcomes. Many questions keep the education world busy, like the effect of academic contexts, the effectiveness of learning theories, the contribution of instructional strategies and others. These questions lead to a change in the conversation between educators and their communities.

On the other hand, entrepreneurship education deals with developing attitudes, behaviors and capacities at the individual level. It extends to the application of those skills and attitudes that can take many forms during an individual's career, creating a range of long-term benefits to society and the economy [2]. A successful program requires taking into account the local context as well the level and background of the students, the availability of opportunities, the pedagogies to be utilized, developing effective educators, integrating entrepreneurs and professionals in curricula design and delivery, and securing public support and interventions.

Early studies of entrepreneurship education point to active learning methods as the most effective. These methods, which are more complex than the traditional ones, include case studies, team projects and activities with entrepreneurs, and they require engaging students' feelings and emotions in the learning process [2].

An increasing volume of literature speaks today about the use of competency-based learning in entrepreneurship education. Success stories and case studies are contributing to the increase of this number. Competency-based education is the system of instruction, assessment, grading and academic reporting assuming that students are expected to acquire a certain set of knowledge, skills and attitudes while they progress through their education. In addition, students should demonstrate this learning in real-life situations.

Accordingly, a number of factors lead to consider the competency-based learning approach to teach entrepreneurship:

1. The engagement of the students' feelings and emotions in the learning process that contributes to build their attitude.
2. The need to integrate curricular and co-curricular education to provide a holistic experiential education for learners.
3. The need to extend the program to faculty members who assess learning and entrepreneurs who participate in the learning experience.

A strategy is a plan of action designed to achieve some aim. As the aim is to deliver entrepreneurs through teaching entrepreneurship, the proposed pedagogical strategy is made on three lines of actions:

1. To develop interdisciplinarity among students and faculty members.
2. To support academic entrepreneurship.
3. To adopt competency-based education.

5. Conclusion

A comparison of the competency-based approach to other approaches is useless at this level and outside the scope of this study. The assessment of the success of any approach is so delicate especially when it comes to its reliance on the time factor.

The nature of entrepreneurship as a field, the involvement of faculty members who are not directly involved in the subject of the entrepreneurship project, the length of time needed to acquire the learning and demonstrate it, the need to affect a very big deal of the learning outside the class and the deferred assessment of learning, all give the competency-based learning a primacy over other approaches.

It is admitted that instructors have to choose from a variety of instructional strategies in order to provide their students with the proper learning experience on both cognitive and behavioral levels [9]. So, accordingly, the proposed educational strategy is a promising one. A good educational design would allow the success of competency-based education while respecting the content and context of the learning.

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