Teaching entrepreneurship to educational sciences students

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Abstract

Entrepreneurship and entrepreneurship education are two very discussed topics in the last years, promoted in all the national and European educational and political reform strategies. Teaching entrepreneurship is a challenge for most of the professors from non-business faculties, where the development of soft skills should be combined with a proactive approach of changing mindsets and attitudes. In this article, the authors will present the results of a survey conducted at national level regarding the needs of developing entrepreneurship competences of students from educational sciences field. After the needs analysis, there was developed a curricula of entrepreneurship education which was tested during an experiment with students from the same specialization. The conclusions, limits and opportunities for teaching entrepreneurship education for educational sciences domain are presented at the end.

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1. Context

So far, the practice of teaching entrepreneurship in Europe tends to be ad hoc. Some schools do not offer any entrepreneurship courses and most students are still unable to take part in entrepreneurship courses and programs (European Commission, 2004b., McCoshan et al, 2010). There are also areas of excellence in terms of countries and schools, but differ greatly with regard to quantity and quality. The main problem is that entrepreneurship is not yet a part of core curriculum in most countries (European Commission, 2004b., European Commission, 2006b; Mendibil, 2006), and therefore "has relied heavily on the enthusiasm and commitment of teachers and schools "(McCoshan et al., 2010, p II). Many entrepreneurial activities in Europe were led by external actors (JA-YE Europen and Jade), rather than the education system itself (European Commission, 2004b).

Entrepreneurship education started over a century ago, with organizations such as Junior Achievement (Volkmann et al, 2009., P. 19). The first program was introduced by Harvard University in 1945 in order to stimulate the economy of the United States of America after the war (Mitra and Manimala, 2008, p 46), followed by an MBA started in 1947 and entitled Management of new enterprises.

Today, the entrepreneurship is taught in Europe through four main channels:
• as a separate subject / course / qualification, focused on learning the skills and know-how for setting up and running a business with a more theoretical focus;
• as an extra-curricular subject, usually voluntary;
• as a core subject in the curriculum, usually focused on the development of transversal competences related to entrepreneurship such as initiative, confidence and creativity;
• a non-formal adult education course (public or private).

2. Teaching entrepreneurship to non-business students

The best way to motivate students from other faculties to learn entrepreneurship is by presenting examples from the field. The emphasis should be placed on essential connections and practicalities, given the target group represented by students.

According to the report: Entrepreneurship in Higher Education, Especially within Non-Business Studies. Final Report of the Expert Group, the benefits of entrepreneurship education are not limited to start-ups, innovative associations and new jobs. At
the higher education level, the main purpose of entrepreneurship education should be the development of entrepreneurial skills and attitudes. In this context, entrepreneurship education programs may have different objectives, such as: a) awareness and motivation) b) training students in terms of starting and running a business, c) developing entrepreneurial skills to identify and exploit opportunities.

Students from non-business studies have often very interesting ideas. However, they are less trained in sales and marketing. These students may need courses on intellectual property, sales, marketing and venture capital. In fact, most students from non-business faculties tend to be product-oriented in their business approach and do not understand that it does not matter how innovative the product would be if the market doesn’t need it. This should help avoid the mistakes made by most young entrepreneurs who are developing products for the first time and afterwards they look at the potential on the market.

The programs and courses should be aimed at acquiring the skills to make students be: more creative, highly motivated, proactive, self-aware, self-confident, open to challenges, to communicate better, to be decision makers, leaders, better negotiators, problem solvers, to work in teams, to think systematically, to be less dependent, able to live with uncertainty, able to identify opportunities.

Teaching should use an interdisciplinary approach, the main objective being to bring together students from different faculties and fields of study that will cooperate to develop joint activities and projects. According to the same report, for students in humanities, the focus will be on self-management and social entrepreneurship, which is a developing area which provides opportunities for growth and which offers opportunities of distinguishing between social and community contexts.

It is important that the courses / programs main objective to be defined precisely and to be oriented towards results. In other words, defining precise objectives of the course will influence the choice of teaching methods and appropriate tools and make it easier to measure the results. The following teaching methods are recommended in this report:

- using active methods (eg, discovery learning, problematical learning, cooperative learning, simulation, role-playing), which may contribute to the development of responsiveness and capacity to address more rational to economic, personal and public problems;
- carrying out observations, case studies, developing business plans and portfolios, working individually and in groups in order to practice entrepreneurial skills; using computer (educational software and Internet) in order to conduct simulation exercises; monitoring and evaluation of business;
- operating with various explanatory alternatives in order to interpret some facts, events, business processes that could contribute to the development of competitive behaviour and rational use of their resources.

Why should there be developed a curriculum of entrepreneurship education in non-business faculties? Skills and entrepreneurial thinking are used and necessary wide outside the academic environment in everyday life. Both in USA and Europe, over 99% of the companies are SMEs, which according to the White Paper on SMEs:
- generate most of the GDP of each country, usually between 55% - 95%;
- create jobs;
- show high flexibility and adaptability to the demands and market changes, faster decision making is specific to the entrepreneur;
- offer the possibility of social and professional fulfilment of a considerable part of the population.

A survey of the Global Entrepreneurship Monitor\(^\dagger\) shows that between 11% -15% of the adults in the U.S. are always thinking of an innovative business idea and 40% of them will also start a business at some point in life (Zacharakis et al., 1999). In other countries, for example, the number of those who are thinking to start a business is higher (40% in Peru) or lower (3% in Belgium). It is generally estimated that about 9% of the world population is actively involved in starting a successful business at a time (Bosma and Harding, 2006).

3. Research and results

During November-December 2011, there was conducted a questionnaire-based survey among 168 students from the Faculties of Educational Sciences, specialization "Pedagogy", from the first, second and third year of study from 3 major Romanian universities: West University of Timisoara, University of Craiova and University of Bucharest. Its aim was to identify the needs of entrepreneurship education of students from the Faculty of Educational Sciences, namely:
- what would motivate students to start a business;
- interest to study entrepreneurship
- usefulness of a course in entrepreneurship education
- what skills / competencies should such a course develop;

\(^\dagger\) http://www.gemconsortium.org/docs/download/2201
After analyzing the data, there was developed the curricula for an entrepreneurship education course. The content was tested in an experimental situation involving 30 students from the first, second and third year of study, specialization Pedagogy, Department of Educational Sciences, West University of Timisoara, from March to June 2012. They were distributed as follows:

- the control group (CG) consisted of 15 students, years 1 and 2;
- the experimental group (EG) consisted of 15 students, in the 3rd year.

The topics of the courses were:
1. Business communication;
2. Negotiation;
3. Problem solving;
4. Workshop at Timisoara Business Software Incubator (about the role of a business incubator, incubation steps and benefits for the incubated companies, discussions with the entrepreneurs of incubated companies);
5. Business plan. Funding opportunities for future entrepreneurs;
6. Workshop with two entrepreneurs in the fields of IT and consultancy on European projects.

This research aimed to identify the limits of the profile of a socio-humanistic faculty ("non-business faculty") compared with one of economics and business, in facilitating the transmission of economic knowledge. Also, the research team have proposed that at the end of the course, all members of the experimental group should be able to develop a business plan.

At this stage of the research, there was analyzed the impact of the experimental situation in the two groups (experimental and control) of students at pedagogy on:

- entrepreneurial intentions;
- investment decision on a certain amount of money;
- decisions to be taken in the company;
- knowledge about funding opportunities for young entrepreneurs from a quantitative perspective, as well as knowledge about:
  - qualities of an entrepreneur;
  - institutions responsible with the administrative and financial issues of a business;
  - the role of a business incubator;
  - soft skills (communication, negotiation, problem solving), which were analyzed from a qualitative perspective.

The limits determined by the profile of a socio-humanistic faculty ("non-business") compared with one of economics and business in facilitating the transmission of economic knowledge could be analyzed from several perspectives.

a) **Student's perspective**: lack of basic knowledge of financial literacy, the involvement/participation in the subject "Entrepreneurship Education" in high school, exposure to stimuli of business (attending lectures/conferences, frequency of reading books/journals in this domain).

b) **Teacher's perspective**: lack of entrepreneurship education courses for teachers in higher education, motivation to participate or support entrepreneurship courses, decisions on interdisciplinary collaboration inside university;

c) **Specialization's perspective**: career opportunity presented to future students; speciality practice, contact with alumni, promotion of educational businesses.

d) **The social-economic perspective**: social and economic situation of the region, the relationship between universities and business medium; local and/or national reform programs, laws, GD.

- After the presentation session of funding opportunities for entrepreneurs and how to make a business plan, students were grouped into 5 teams of 3 people and each group has developed a business plan.
- After conscious and active participation of students in the entrepreneurship education course, it was seen an increase of interest in starting a business from 40% in the pre-test phase, to 86.7% in the post-test phase, which means that one of the research hypothesis was confirmed.

The effectiveness of teaching the discipline "Entrepreneurship education" is greater for a multidisciplinary approach than for a monodisciplinary one. Arguments are related to Mann-Whitney U test, Wilcoxon and frequency analysis, as follows:

- There were no significant changes in the decision that should be taken by the future entrepreneur in the event of theft or gaining a large amount of money.
- The students were not convinced about the appropriate legal forms for businesses they intend to open.
- At post-test, students did not know exactly at which institutions they need to go if they want to submit documents for a business opening.
- The role of a business incubator was not clear even after visiting Timisoara Business Software Incubator.

### 4. Conclusions. Tendencies and opportunities for educational sciences domain

This research was focused on capturing changes from the soft skills level and the changes in the attitudes and behaviours that have occurred as a result of "exposure" to a constant stimulus over a certain period of time (entrepreneurship course). The main
solutions arising at this point, after analyzing data on how a course in entrepreneurship education to students in educational science could be improved and taught, are:

- Signing partnership agreements with business incubators so that students could: participate in meetings of incubated companies, make the practice period in these institutions, participate to courses for start-ups, be aware of all the funding and development opportunities of a company;

- Business contact with young entrepreneurs, with graduates in educational sciences who are entrepreneurs, not necessarily in education, or graduates in economics who have a business in the educational field, is very important. Leading by example is essential in this case and the evidence that “could be done” may determine the students to try it.

- Students should be encouraged to attend as many networking activities, programs, courses, to meet new people and to find common interests that could bring them in a business partnership.

- Promoting social entrepreneurship during the courses "Community Education" or "Sustainable Learning and Development";

- Financial education/literacy is a subject taught in many European countries since primary school. Students from the specialization "Preschool and Primary Pedagogy" should take part in such courses, organized in partnership with the Faculty of Economics and Business Administration. However, the participation of all students in the faculty of educational sciences at these courses is recommended.

- Accessing EU funding schemes and writing projects for professors at this specialization in which they are qualified to teach entrepreneurship education.

- Presentation of as many online tools for business management and promotion during the social informatics courses. The online environment is still in its infancy in Romania and should be exploited. Moreover, the online platforms are a real support for teaching entrepreneurship education which could increase the students’ interest to participate in such a course format instead of a traditional one.

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