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# Entrepreneur Features as a Competence in the Design of the European Higher Education Area Degrees

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***Abstract*—**This paper aims to explain the project carried out at the University of Cordoba, specifically at the High Polytechnic School in collaboration with two other organizations belonging to the Andalusian Ministry of Innovation, Science and Business: Andalusian Innovation and Development Agency (IDEA agency) [1] and the Territorial Net of Entrepreneurship Support (in Spanish Red Territorial de Apoyo al Emprendedor) [11].

The project is being developed in several stages of which only the first one has already been completed. However, several important preliminary results derive from it, based mainly in the description of the nature of entrepreneurship in the field of university education and its impact on student's competency as recommended by the European Higher Education Area. Some problems holding back the correct future development will also be shown as derived from the specific context of application of the project.

***Keywords*—**EHEA, Entrepreneurship, Innovation, Transversal Competence.

## I. Introduction

QUALITY improvement is doubtless a core preoccupation in the European Union regarding higher education. The Bologna declaration (1999) [9] has meant the creation of a competitive and attractive European Higher Education Area (EHEA) both for students and teachers, as well as for other country's educative systems. The most characteristic changes are related to three main areas of interest: curricular adjustments, technological adaptations and financial reforms needed to make of the European university a central axis of the European knowledge society.

Spain faces a double challenge [5]. The first one is to properly and progressively adapt to the new proposals of the EHEA; secondly, to improve the employability of university graduates. Another important aspect to bear in mind is that the rate of labour insertion of graduates [12] [13] has become a quality indicator of university management as well as an item strongly influencing institutional funds. Needless to mention that the global crisis worsens job opportunities for graduates both for self-employed and civil servants. Lastly, it is essential to mention the importance of collaboration with other institutions whose knowledge and experiences can generate synergies and help to improve pilot projects [4] [14]. Therefore, the aim of this paper is to show the experience of the High Polytechnic School at the University of Cordoba, a project that can be transferred to other universities.

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## II. Aims

This paper aims to explain the project carried out in the High Polytechnic School at the University of Cordoba, by which a new methodology tries to incorporate the spirit of entrepreneurship as an integral competence in the process of creation of the new degrees, within the frame of EHEA (Corduras Martínez 2006)[3]. The following objectives need to be achieved:

- to focus on what entrepreneurship is about and how it can be better detected in university students the entrepreneur spirit.
- to design a methodology favouring the incorporation of entrepreneurship spirit into the students' education curricula, by including specific activities and assessment processes related to such competences.
- to establish the follow-up learning device regarding entrepreneurship throughout the students' university period by a web tool.

By means of the aforementioned goals it will be possible also to clarify the following issues:

1. Why the entrepreneur attitude has to be a transversal competence instead of being included in a sporadic subject.
2. The importance of alliances in this field as a way to improve the service provided to students first and to incorporate new knowledge.

## III. DESCRIPTION OF THE PROJECT

The High Polytechnic School has worked with two different institutions in order to design, implement, and assess this project, namely the Andalusian Innovation and Development Agency (IDEA agency) [1] and the Territorial Net of Entrepreneurship Support [11], both entities belonging to the Andalusian Ministry of Innovation, Science and Business. Their functions are respectively to foster the economical activity and to support the entrepreneurial culture and the business creation [7]. The cooperation between these

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organizations has gone on for several years now and such project is the result of previous cooperation.

At the base of this project lies the lack of specific attention to entrepreneurship attitudes and abilities in the white papers (known as *libros blancos* in Spain). Such competence will allow students to become the protagonists of their education through the development of specific goals from the start of their university degrees. On the other hand, from a socio-economical point of view, students who graduate will be able to generate wealth by themselves with technically feasible initiatives and proposals.

## IV. METHODOLOGY

This project is intended to be concluded by the June 30th 2009. It is being carried out in several stages, listed below:

0. Creation of an interdisciplinary teamwork with members from different backgrounds, such as university teachers belonging to diverse Colleges and Schools at the University of Cordoba, plus experts belonging to entrepreneurial business support as civil servants. Such team was created last year in November and December.

1. Definition of the entrepreneurship attitude as a competency to be developed by university students. Such definition will be the final product of a series of round tables where different social sectors participate. Consultation of specific literature has been a basic resource together with periodical meetings within the team [6]. Along with a proper definition, other important assumptions and agreements are being reached.

This stage is intended to be concluded by February 20th 2009, by reaching a consensus in the most appropriate definition of the entrepreneurial spirit. Despite its still ongoing character, a preliminary definition can be provided as a basis for this contribution.

The entrepreneur spirit lies in beginning, doing, acting, anticipating, fulfilling one's expectations, and developing one's potentialities. It also helps to set goals and to keep hopes about achieving them. Such attitude enormously contributes to being creative, innovative and unique.

2. As there are several features that inescapably determine a university entrepreneur, the second stage is related to the design of several ways of detecting an entrepreneur student. Thus, it is fundamental to establish a set of minimum requirements or abilities defining this profile. Besides, such features can be embodied by some of the already-known transverse competences, such as speaking in public, decision taking, personal organization, conflict resolution and so on.

This stage is planned to be finished by March 7th 2009. The plan establishes that by using the literature available [2] as well as by consulting all the members of the project a core set of features present in all the consulted studies that characterize university entrepreneurs. As can be seen below, a specific array has already been preliminary established [8]:

a. Iniciative
b. Self-confidence
c. Resource management
d. Decision taking and subsequent coming to terms with results.
e. Team work
f. Communication
g. Leadership
h. Creativity
i. Capacity of analysis
j. Capacity of criticism

A brief description of the features is at this point necessary.

Initiative: personal capacity to act on one's own without the interference of external stimuli.

Self-confidence: personal belief that one is able to successfully carry out a specific task or duty.

Resource management: capacity to efficiently handle the available tools for a given task.

Decision taking and subsequent coming to terms with results: related to being able to choose among different possibilities by arguing a reason. It is also related to being able to accept the consequences of one's decisions.

Team work: capacity related to sharing goals, information and vital space with other people.

Communication: capacity to transmit and receive information both in oral and written form.

Leadership: capacity to influence other people in order to reach common goals.

Creativity: provide original and innovative solutions to problems.

Capacity of Analysis: being able to gather relevant information and process it.

Capacity of Criticism: being able to develop one's own modes of thinking.

The relevance of this basic description lies in the fact that the agreement of all members in these concepts can easily produce an essential divergence in the work to further develop in the group. The homogenization of terminology has meant for the planning of this project an indispensable step. The existing literature provides a very wide variety of nuances in the description of these terms, and that is another reason why the team chose to develop new ones easily understandable and manageable for its purposes.

3. Design and implementation of activities fostering entrepreneurship as well as their assessment [10].

Once the most desirable features for university entrepreneurs have been selected, the academic competences will be extracted from them. Then, the academic competences will be included in the plan of studies with the aim of raising the entrepreneur spirit in university students.

The implication of university teachers in this project is essential for its good implementation and success since such competences will be taught, assessed and monitored by teachers. Differing subjects will hold some of these competences which will finally be evaluated in the context of the subjects as well as in an overall assessment of the rate of achievement of the entrepreneur spirit in university students.

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Therefore, this plan does not consider it in an isolated way, by including competences in specific subjects only, but by understanding it under a full covering transverse experience throughout the plan of study.

With this in mind, the entrepreneur spirit will be indispensable within the different degrees because it offers several advantages when understood as an ongoing process along their university education:

a) Favouring a change in the behaviour, values and attitude of university students requires time and work load.

b) By making it a long process achievement, a greater part of the teaching community can take part in the development of the entrepreneur spirit of students.

This stage has not been undertaken yet, as the previous stage has not been finished. The deadline planned for this stage is April 30th 2009.

4. Development of a web tool in which the results obtained can be displayed. An integral part of the project is based on the design and creation of a web tool allowing both teachers and students to monitor the results gathered in relation to the entrepreneur challenge. Specifically, the aim of the web tool is to provide students with their advancement in entrepreneurial subject as well as to act as a common place for revitalizing entrepreneurial interests. This web tool is a 2.0 web where all the information regarding different miscellaneous entrepreneurial activities, such as talks, seminars, visits to technology parks, debate fora and IRC channels will be available to its users. Besides, teachers will also benefit from an interface where it will be possible both to upload and download data about the current state of their students' improvements regarding entrepreneurial matters. In this sense, the High Polytechnic School relies on a specific web development made by its scholarly personnel in cooperation with the study team by means of trials carried out in pre-productive environments with users. That is to say, beta versions of the web tool will be tested with a group of selected teachers and students in order to detect failures.

5. As a transverse activity, the diffusion of results by several means such as conferences, mass media and publications will be attempted at all stages. The diffusion is carried out with a double aim. First, to announce this project in the international teaching community as a way to release its preliminary and definitive results as well as to obtain feedback and benefit from the cooperation from other similar projects being carried out. Such feedback will provide a fresh interaction of ideas, procedures and protocols of action for unexpected obstacles in its development.

The work plan followed by the members of the project establishes that the final aim will be to involve the university community in the development of the entrepreneurial spirit as a transverse element concurrent to students' stay at the university. If the entrepreneurial spirit is not reduced to an isolated subject in the plan of study but an integral part of the students' permanent university education, it will be possible to achieve a university model providing to the European knowledge society graduates who have acquired and internalized entrepreneurial values and features, as well as to help permanent university members such as teachers with support, guidance, a methodological education and monitoring in this innovation so necessary for the EHEA requirements.

The performance of this work plan will finally allow the full implementation of this system by the start of the academic year 2009-2010 in the High Polytechnic School at the University of Cordoba.

## V. CONCLUSIONS

Although the project is still at an early stage of development, several preliminary results can be pointed out.

1. A proper definition of the entrepreneur attitude has been reached: the entrepreneur attitude is the capacity to create or start a project, a business or a new life system, always inspired by self-confidence and determination to act by favouring one's interests with perseverance until they become true.

When speaking of entrepreneur attitude as a competence in the frame of the new university degrees, this means the set of abilities that students must acquire in their learning process and that will allow them to improve their employability.

2. The essential role of teachers in the transmission of an entrepreneurial spirit at the university.

3. The university suffers from the lack of a smooth and real contact with business tissues, above all in relation to the *know how* in the case of entrepreneurship. Therefore, it is necessary to open new ground to multidisciplinary teams composed by people from different backgrounds.

4. Entrepreneurship is the new complementing field at the University to the already known Teaching and Research.

5. Spin off is an indispensable feature in order to achieve the real research transfer to economy, for which entrepreneur members in and from the university are urgently required.

Besides, the planned development of the project has also faced some difficulties. The first one is related to a certain amount of resistance on the part of the university both as an institution as well as some of its members. Secondly, also a sector of students presents an opposition to any change motivated or related to the Bologna process. Thirdly, so far it has not been available any partners carrying out similar projects with whom a nourishing feedback is possible. Lastly, the literature available is not as up to date as desirable and the scope of the studies reveals somehow too classical in its focus and far from the project's goals.

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