

PRAXIS: THE EUROPEAN CENTRE FOR PROJECT / INTERNSHIP EXCELLENCE

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Abstract

Project/Internship course units are particularly valuable to undergraduate degrees. It is through this type of courses that students have the chance to practice their technical skills in a real-world-like setting and experience soft skills that are a key factor for employability. There are many distinct flavors of Project/Internship courses throughout Europe. Nevertheless, there is a lack of foundation supporting innovation, development and dissemination of the field. The purpose of PRAXIS is to fill this gap and set a European dimension to this instructional paradigm. In this paper we describe the PRAXIS concept, its development plan and the foreseen outcomes.

1. INTRODUCTION

Project/Internship (PI) course units create an environment that is a unique cradle to forge students' soft skills and attitudes, such as, team work, leadership, communication, initiative, focus. Addressing and improving these skills in students efficiently and efficaciously is seldom done by any other type of instruction. A PI is probably the most efficient way to improve these skills in students since even a very short PI course unit has significant impact in students' competences. It is the appropriate setting to improve students' affective domain, an important domain in today's society, in any study area.

This type of instruction is very suited to the Bologna paradigm raising the interest of European Higher Education Area (EHEA) players into it.

Despite the relevance and added value of this type of instruction, despite the high interest that it raises in higher education institutions (HEI), there is no European cluster specifically addressing the field and there is no planned effort to improve and innovate in the field. The purpose of the PRAXIS network is to set a European dimension to PI instruction type.

PRAXIS' mission is to become recognized as the leading authority worldwide in the field of the PI instruction type by creating and maintaining an environment that promotes and supports innovation in the field aimed at improving students' employability, soft skills and attitudes.

Our goals are: (a) to promote a European Center for Excellence in the field of PI initiatives by leveraging common interests and promoting cooperation among stakeholders, bringing all of them together, creating an environment to discuss and to promote innovation in the field, joining efforts and exploiting synergies and results from each other; (b) set a European marketplace of PI maximizing students' chances to find a project course matching their needs and, at the same time, setting a place to deploy innovative project course units by making them visible and available to students.

The perception of this opportunity to contribute to the EHEA by providing foundation to support innovation in the PI field together with our strong convictions on these assumptions arose from our previous experience in PI related issues, from all the contacts and discussion around these subjects that we have been promoting in the last few years and from our former work on multinational project teams, mainly at the MUTW – Multinational Undergraduate Team Work, an Erasmus Multilateral Project, co-funded by the EU from October 2009 till December 2011[1].

In the rest of the paper we will briefly describe the motivations moving PRAXIS towards its goals, the work plan we are applying to deploy PRAXIS and some final considerations.

2. RELATED WORK

There are many distinct flavors of PI courses throughout the EHEA, such as:

- multinational teams of students working at their home institutions and communicating virtually (MUTW)
- multinational teams working at a host institution (European Project Semester from Copenhagen University College of Engineering)
- multidisciplinary teams (project course at the University of Minho in Portugal and the International Integrated Project from the Fontys University in Netherlands)
- capstone project courses developed in a company or at a research lab (most engineer universities)
- small project course units running at the end of the semester (LAPR course unit at Instituto Superior de Engenharia do Porto in Portugal)

Some European projects and other initiatives focused on students' skills show the interest motivated by the field:

- FS-Biotech - Future Skills for Biotechnology "Skills to transform the future"; an Erasmus project, coordinated by Universidade Católica do Porto, that fosters cooperation between companies and Universities and the adaptation of curricula to companies needs in terms of valued skills
- EUROPLACEMENT is another LLP project that focuses on the development of graduates' transferable skills, and provides them with procedures for quality work experience, adapted to improve their own existing competence sets

Although we have not found any direct competitor for PRAXIS – someone who is worried with a comprehensive study of the field and focused on innovation and on promoting students' employability – there are many institutions that offering internship to students.

The interest in PI and students' employability field is notorious. The issue is that there is no declared centralized hub to join all players together and to promote innovation and exchange of experiences in the field. PRAXIS will set such a facility with the aim of joining efforts, promoting awareness, taking ad-

vantage of synergies and encouraging innovation and dissemination of best practices.

3. MOTIVATIONS AND OBJECTIVES

The lack of foundation to support innovation in the field of PI is the main motivation for PRAXIS. There is an opportunity to fill in this gap and to bring a European dimension to the field, empowering students, HEI, companies and the EHEA in general with an extended set of opportunities to grow and profit from this instructional paradigm.

Establishing a center of excellence and a virtual marketplace for PI clearly marks a position and openly exposes this kind of instruction to all players assuring the European dimension that is required to empower the field. This European dimension will reach both students, who will have the chance to select the offer that is most suited to their needs, and teachers, who will have available the resources to discuss and bring to light their ideas in the field, a clear contribution to the development of EHEA.

There are already several distinct flavors of PI courses, with huge added value to the players, offered regularly in European HEI. However, these opportunities are not available neither known to all the students that might be interested in enrolling. Dissemination is a hard enterprise to take on one's own for several reasons, such as lack of resources and motivation. The benefits of these initiatives are not exploited given their local scope. Having the means to expose them worldwide will certainly generate economies of scale and encourage innovation in the field contributing to the exploitation of best practices in the field.

Student's employability is improved by PI courses to an extent that is not easily achievable by other instruction types. PI courses force students to develop soft skills and attitudes while training technical competence. This mix produces good results fast. Nevertheless, there is no cluster developing the field. There is a window of opportunity to set the agenda and to promote innovation in the field in Europe that PRAXIS intends to take, thus, incorporating new qualifications into the EHEA.

The frontend of both the European Center for PI Excellence and the PI market will be freely available online achieving a worldwide coverage. These facilities set a meeting point for players in the field. Operating them will enforce multilateral cooperation to discuss relevant issues and to organize mobility

for students selecting PI courses abroad. This co-operation is of high quality since it has a concrete goal in mind: improving student's value-to-labor-market.

Both the PI marketplace and the European Center for PI Excellence, two innovative outputs of PRAXIS, will be deployed through the internet and supported by ICT technologies. The comprehensive resource on PI materials, to be gathered and maintained by PRAXIS, including content and teaching materials, mainly directed to students, and technical materials, mainly directed to staff from the higher education institutions, to employers and to other stakeholders, will also be supported by ICT.

The PI instructional type, the focus of PRAXIS, is highly efficient; even a short PI course has high impact in students' competences. The conditions under which students do their assignment in PI courses is unique, significantly contributing to improve students' soft skills and attitudes and, as a consequence, their employability.

From the productivity point of view, PRAXIS promotes the reuse of the best practices in the field by making the most effective PI courses widely available thus contributing to the Europe 2020 Strategy.

3.1. Mission

Our mission is to become recognized as the leading authority worldwide in the field of Project/Internship instruction type aiming to improve students' employability and soft skills. Our activity, focused on achieving a widespread reputation and reach, will be based on the European Centre for Project/Internship Excellence and on the Project/Internship Virtual Market.

3.2. Goals

Our strategic goals are:

1. To promote a European Center for Excellence in the field of Project/Internship initiatives by leveraging common interests and promoting cooperation among stakeholders, bringing all of them together, creating an environment to discuss and to promote innovation in the field, joining efforts and exploiting synergies and results from each other.
2. To set a European market of Project/Internships maximizing students' chances to find a project course matching their needs and, at the same time, setting a place to

deploy innovative project course units by making them visible and available to students.

3.3. Added value

PRAXIS acts on a field closely related to the EU2020 flagships. The main outputs of PRAXIS, the PI market and the European Center for PI Excellence, provide means for students to take advantages of the global Europe wide offer by selecting the most appropriate PI course given their interests. This makes easier for them to get the right skills and competences.

The main issues of Bologna 2.0 are also addressed. PRAXIS provides a widening access to state of the art initiatives, it brings a global dimension to the field and deploys transparency tools.

Creating a cluster and the required framework to promote the PI instruction type and related issues will contribute to the EHEA in an area that can bring important benefits to all players at low cost. The PRAXIS vision is supported on the exposure of what already exists in the expectation that this exposure, in an appropriate scenario, will promote discussion and innovation. The PI market promotes reusing best practices. Reusing, in this sense, means saving, getting the benefits at low cost.

European cooperation is a sine qua non condition for PRAXIS. PRAXIS goals are not achievable without a representative group that has the power to influence opinion and generate the mood. The bigger the consortium, the better chances we have to succeed.

4. WORK PLAN

PRAXIS is a three years project co-funded by the EU, running between October 2011 and September 2014.

The focus of the project during the first year will be on the analysis of the field and design of the models and tools to describe and operate on it. During this first year we will map and model the target field of PRAXIS. When referring to the field we mean the broad area of project/internship and similar instruction types along with any initiatives related to them and to improving student employability. A detailed map of the field, clearly showing where we stand and what the market needs are, will allow us to identify opportunities for innovation and for improvement. The PRAXIS buzzwords for the first year of the project are exploring, mapping.

The second year will be focused on setting up and deploying the center for excellence in the field and the virtual PI market (PI stands for Project/Internship). Designing the market and the center for excellence as well as setting them up targeted for the opportunities previously identified, while assuring the required critical mass, will be the main achievements of the second year of the project. Our second year will be guided by headings acting, innovating.

The third and last year will be focused on exploitation and sustainability to assure the continuity of PRAXIS beyond funding. We will be focused on identifying opportunities for enlarging the consortium and on making PRAXIS a renowned brand in the EHEA and abroad. The third year of PRAXIS will be focused on exploitation, sustainability.

5. CONCLUDING REMARKS

At the PRAXIS consortium, we are deeply convinced that it is possible to improve the quality of most current curricula of undergraduate degrees without demanding for structural changes that force institutions to apply huge resources and that are very costly and time consuming. We refer to improvements in students' employability, in developing students' soft skills and attitudes which are rather important in today's economy and labor market as recognized by the EU. These are transversal to the majority, not to say all, of the study areas, so PRAXIS will be valuable to most study areas.

The cost/benefit ratio of initiatives in PI course units is probably one of the lowest in curriculum development, requiring small changes to provide big improvements. Almost all undergraduate degrees contain a PI course unit in their curricula. All we need is to take advantage of these course units to

make them provide to students, and also to their future employers and the society in general, all the benefits they can and which can be much more than those provided by today's common PI course units.

Offering valuable training to students, on one side, and being recognized by the society as a valuable higher education provider, on the other, are among the general objectives of any HEI. The PRAXIS network moves towards these objectives since it will create new conditions to improve students' skills at no additional cost and without requiring any structural changes in degrees' curricula. From this point of view, all that PRAXIS is doing is providing a distribution channel for the best practices in PI that will become available for use by any HEI without additional costs of any kind. With PRAXIS anyone will be able to benefit from best practices and contribute to innovation in the PI field.

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References

- [1] Multinational Undergraduate Team Work – Excellence in International Capstone Projects, Escudeiro, N.F., Escudeiro, P.M. Eds, IOS Press BV, Netherlands, 2011.