Enseñanza basada en proyectos como metodología en programas de máster en *management*

Project Based Learning as a teaching methodology in master in management programs

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Abstract

Contemporary business education requires a combination of advanced academic and theoretical knowledge with its practical application. Both academic concepts /principles and real business application will prepare students to look for jobs after graduation. Experiential learning has become a relevant aspect in higher education, especially in master programs, where it is no longer acceptable to emerge with just a theoretical business background. There are different forms of experiential learning in business higher education. Project Based Learning is one of them, a content specific approach, where students are actively involved during the learning process, studying and analysing real problems and questions from real businesses and teamworking to provide the best solutions to them. This approach develops not only technical or hard skills, but also soft skills are enhanced, as students are responsible for communication, social interaction with different stakeholders (team members,

business managers, customers, suppliers, etc.), public presentations and sharing knowledge, commitment, engagement and motivation.

At ICADE Business School, new methodologies have been incorporated (as using simulation games, software, flipped classroom, co-teaching, roleplays, debates, etc.), most of them conducted thanks to the initiative of individual professors, within the scope of a particular subject. This exploratory research aims at going a step forward, trying to identify new opportunities and best practices oriented to analyse the feasibility of implementing PBL methodology in our MIM program as a global and holistic approach.

Keywords: *Learning; Research; Project Based Learning; Experiential; Higher Education; Master.*

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Background

Traditional business education was based on master classes taught by teachers, using textbooks, lectures, tests, quizzes, sets of exercises and problems. There was a lack of experiential content to challenge students. Then, business cases (as Harvard, Darden, Ivey, etc.) were introduced in teaching in higher education (mainly in undergraduate and graduate programs) with the aim of providing the students with the missing experiential content. But these business cases tend to be historical and static real situations, which have been designed and adapted specifically for teaching purposes. Over the years, many of them remain not updated, or look too "manipulated" to become a teaching tool, and cases solutions and discussions are open for other new students. Software and simulation programs have been designed with the aim of increasing students' interactions with some experiential situations. But in the end these simulation programs are not real-world situations, nor real businesses, with real problems, real workers, suppliers or customers. A new level to try to expose students to real business world situations would be to design live cases jointly with real companies which face real and particular problems, challenging students to learn from them and find a proposal to make to the teachers, as well to the management of the company.

Contemporary business education requires a combination of advanced academic and theoretical knowledge with its practical application. Both academic concepts and principles and real business application will prepare students to look for jobs after graduation. Experiential learning has become a relevant aspect of higher education campuses, especially in master programs, where it is no longer acceptable to emerge with just a theoretical business background. There are different forms of experiential learning in business higher education.

Project-based learning

Project-based learning (PBL) is a methodology that organizes all the learning activities around projects, where the learning is context-specific. Projects should be careful selected based on the typology of students, and basically they should be complex tasks, based on challenging questions or problems, where students are actively involved in the design, problem-solving, decision making, and/or search activities. This gives the students the opportunity to work autonomously over extended periods of time, teamworking and sharing of knowledge and understanding through realistic presentations (Thomas, 2000; Bell, 2010).

PBL is a student-centered approach, in which the teacher's role is to help the student build the knowledge foundations, but then it is the student responsibility to start a real and intentional application of the knowledge. Students practically discover and learn through this process, and then they bring back into the classroom what they have learned, finding connections and applications back to their academic studies. PBL fosters creativity, and the use of technology in this approach, as a means not as an end, is necessary and recommended (Bell, 2010). PBL projects should have the following characteristics: (i) be central, not peripheral to the curriculum; (ii) be focused on problems or questions that help students to deal with the key concepts and principles of a discipline; (iii) involve students in a constructive investigation; (iv) be student-driven; (v) be realistic, not school-like (Thomas, 2000). PBL incorporates real-life challenges where the focus is on authentic (not simulated) problems or questions and where solutions have the potential to be implemented. This approach develops not only technical or hard skills, but

also soft skills are enhanced, as students are responsible for communication, social interaction with different stakeholders (team members, business managers, customers, suppliers, etc.), public presentations and sharing knowledge, commitment, engagement and motivation. Thus, PBL blends knowledge and skills development, and allows the students not only to acquire this knowledge, but also to be exposed to the real business world and gain a real experience, which really adds value in a *Curriculum Vitae* when accessing to the labour market. But "improving students' knowledge as well as the students' transition into industry, requires efficient joint ventures by both learning institutions and industry partners" (Chandrasekaran et al., 2013). Kokotsaki (2016) proposes the following recommendations for a successful adoption of PBL: (i) student support on effective time management and student self-management; (ii) regular teacher support through networking and professional development opportunities; (iii) effective group work to ensure that students share equal levels of learning and participation; (iv) balance between didactic instruction with independent work; (v) assessment emphasis on reflection, self and peer evaluation to monitor progress; (vi) an element of student choice and autonomy.

Research on PBL has been conducted in several forms (Thomas, 2000): (i) judgments and assessments about the effectiveness of PBL (summative evaluation), (ii) description or evaluation of the degree of successful implementation of PBL (formative evaluation), (iii) assessments of how the student's characteristic factors impact in PBL effectiveness or appropriateness (aptitude-treatment interactions), or (iv) test new modifications or features of PBL (intervention research). Thomas (2000) also identifies directions for future research in PBL: (i) evidence of the effectiveness compared to other methods; (ii) examining the breadth of PBL effects; (iii) best practices, as procedures for the design, planning, implementation and managing PBL associated with achievement and student learning; (iv) implementation challenges; and (v) on the institutionalization of PBL.

PBL has been introduced in different disciplines in Higher Education, as IT service management (Aničić & Mekovec, 2016), sustainability (Leal Filho et

al., 2016), engineering (Chandrasekaran et al., 2013) or soft skills (Musa et al., 2012).

PBL in Master in Management at ICADE Business School

At ICADE Business School, Universidad Pontificia Comillas, our portfolio in masters includes Master in International Management (MIM), Master in Business Administration (MBA), Master in Marketing, Master in Human Resources, etc. Teaching methodologies in our master programs have followed a traditional approach over the years (master classes, tests, exercises, quizzes, etc.) combined with business cases. During the last years, new methodologies have been incorporated, as using simulation games, software, flipped classroom, co-teaching, roleplays, debates, etc. Most of these approaches have been conducted thanks to the initiative of individual professors, coordinated with the master director, but always focussed within the scope of a particular subject.

In our MIM, on the top of the above-mentioned initiatives, we have launched some new ones oriented towards gaining a higher experiential level, with a cross-functional focus, and more connected to the real business world. Some of these initiatives have been:

- Using the same business cases in different subjects, so students can work deeply in a study case, and understand its cross functional perspective, which is closer to the real business world. E.g. Toyota Motor Manufacturing (Harvard case) being used in Global Operations Management and in Organizational Managing Across Cultures subjects.
- Using real problems or questions from international companies as a case to work within one or two subjects. E.g. Internationalizing models in Latin America for Telepizza, where students had to study and analyse three real scenarios presented by Telepizza, and students had to present in front of an audience (students, managers from the company and professors) their proposals and recommendations. This had also a cross functional approach, as it involved subjects as Internationalizing the company, Global Operations and Strategy Management.

- • Master Project of Thesis in collaboration with a real problem or question from a company. E.g., designing the strategic plan for a rugby club; analysing the internationalization strategy of a multinational company; analysing a logistics problem in an appliance international company; designing the strategic plan for a non-profit organization; etc. Meetings Have been conducted with the companies and a cross-functional perspective has been adopted.

This exploratory research aims at going a step forward, trying to identify new opportunities and best practices oriented to analyse the feasibility of implementing the PBL methodology in our MIM program as a global and holistic approach, going beyond the individual initiatives of some professors.

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