Evaluating teaching and management innovations in an online university: the case of the Universitat Oberta de Catalunya

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The Universitat Oberta de Catalunya (UOC) is an online university that has innovation as a transversal feature in all its activities and processes. Therefore, innovation is present in the annual objectives of all the academic and management departments in order to increase student satisfaction. UOC stimulates innovation by funding strategic projects as well as organizing regular internal calls for small projects which brings about innovative academic and management proposals.

In this paper we present the method for evaluating teaching and management innovations through internal calls (APLICA), by selecting which initiatives are suitable to become strategic innovative projects (INNOVA) or which features should compose any application available at the OpenApps platform. Besides, general indicators used by the Innovation Program to evaluate the activities carried out are also reported.

1. Internal support to Innovation

The Office of the Vice President for Research and Innovation provides a framework where ideas are collected and converted into projects that receive support and evaluation by the university itself. In order to develop this process three mechanisms are established: two commissions related to innovation (Innovation Council and Innovation Support Council) and the Program of Innovation.

The Innovation Council acts in the strategic level and is consisted of the four Vice Presidents of the university (Research and Innovation, Technology, Faculty and Academic Organization, Postgraduate Studies and Lifelong Learning) and the Director of the UOC. Besides, the Innovation Support Council is a consultation organ for strategic decisions and develops its role in the selection and evaluation of internal processes related to innovation. This Council is integrated by one lecturer coming from each department, one person in charge of each of the management areas more closely related to innovation (Learning Technology, Information Systems, Academic Services, Library and Research and Innovation Support Office) and the Office of the Vice President for Research. Finally, the Innovation Program guaranties that the main ideas of the strategic plan, as well as the main objectives of both councils, are achieved and managed in an optimal way.

1.1. APLICA: internal annual innovation projects call

The Innovation Program, among other activities, manages the internal calls for innovation, which is called APLICA.

APLICA looks for innovative projects in teaching and learning as well as in management. Last call (2012) with a budget of 60,000€ received 70 proposals, 55 led by academic staff and 15 by management staff. The university has 725 employees therefore more than 30% (227) were involved in some of these proposals. This 2012 call has been the most participative of the last 6 years, as from 2007 to 2012 there have been 963 participants in total.

The total amount of participation is 338 as almost half of participants were in more than one proposal. The most active lecturers leading projects were coming from the IT, Multimedia and Telecommunications Department (19 leading proposals, as shown in figure 1) and the management department with more proposals led was the Virtual Library (3 leading proposals, presented in figure 2). It is needed to say that the Educational Technology Department is leading only 3 proposals but they are present and enforcing most academic proposals as memberships.
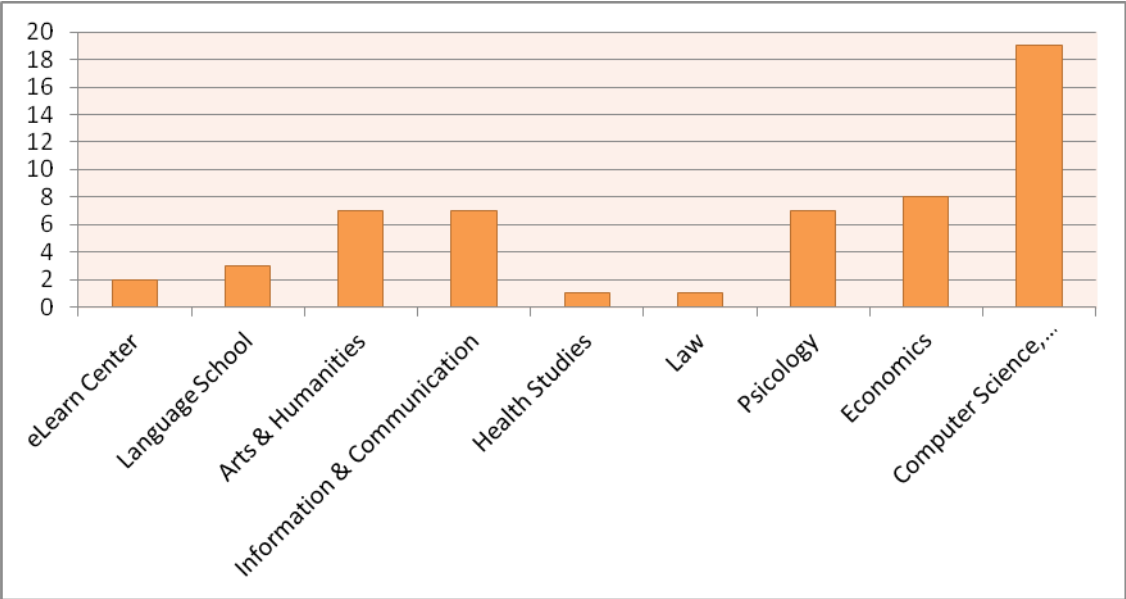

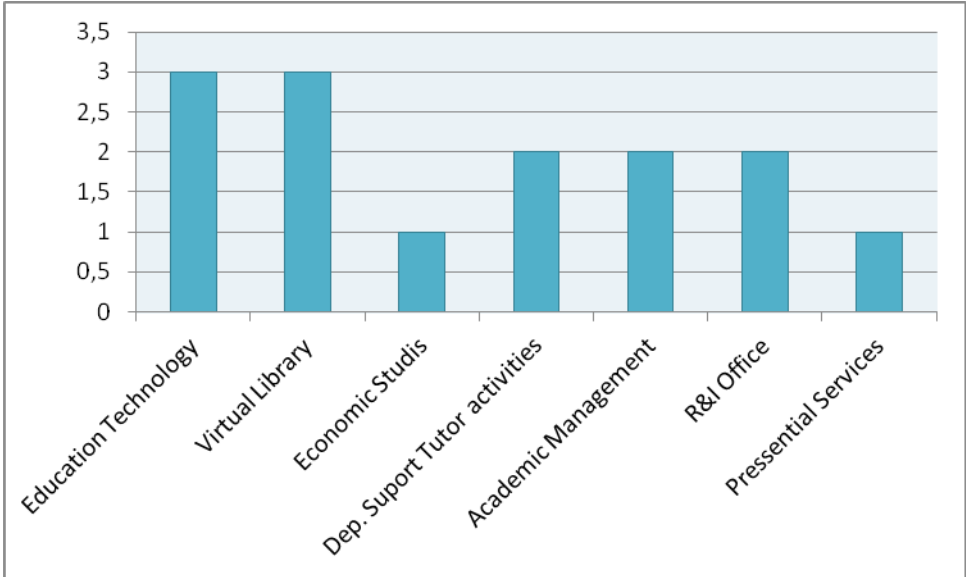Figure 1. Fifty five innovation project coming from academic departments.

Figure 2. Fifteen innovation project proposals coming from management departments.

The evaluation process of 2012 APLICA's call was performed by the Innovation Support Council. Criteria for assessing the proposals were organized in four sets. First of all, taking into account that interdisciplinary and transversality were required, administrative data was assessed for each project. That is to say, the Council was looking for project proposals integrated by lecturers coming from different departments and disciplines as well as was appreciated that the composition of the project consortium was partly academic partly coming from management staff.

Afterwards, formal aspects as the main objectives, product and results expected or problems and needs to be addressed were taken into consideration for evaluating the description of the proposal. A set of other indicators were needed to be evaluated, such as the internal consistency of the proposal, in other words the viability, applicability and scalability of the projects. Finally the required budget was also reviewed. The number of beneficiary people of the innovation, students or management staff, was taken in consideration.

15 proposals received funding from the APLICA call but 24 more were brought into practice after an effort to integrate proposals to existing projects and therefore broaden the scope of the original projects (10), modify existing budgets in order to welcome innovation (7), obtain greater involvement from people responsible for departments and management areas (5) or merging proposals with similar needs/problems to address (2).

Successful projects of this APLICA call will be reviewed in order to become either an internal strategic project (INNOVA) or as a possible application or learning experience ready to be accessed from Open Apps platform (presented below).

From this internal call, the evaluation indicators to assess the innovation success annually were established as presented on table 3.

Proposals	Academic Departments / Management Departments
	Participation (distribution academic departments / management departments)
	Total
Faculty involved in innovation proposals	Responsible of proposals
	Members of proposals
	How many are member of consortiums of more than one proposal
	Total
Projects (proposals with internal funding)	Academic Departments / Management Departments
	Participation (distribution academic departments / management departments)
	How many students will benefit from the innovation
	How many classrooms will benefit from the innovation
	How many academic departments will benefit from the innovation
	How many staff will benefit from the

	innovation
	Total
Number of previous projects with internal funding that are being used in the classrooms or are in exploitation stages	
Number of projects transferred to other educational institutions	

Table 3. Evaluation indicators to assess the innovation success per year.

1.2. INNOVA: internal requirements for becoming an strategic innovative project

An INNOVA project is a strategic project of innovation developed and funded by the university. The proposals for becoming an INNOVA project can be addressed to the Office of the Vice President for Research and Innovation at any moment. The proposals have to be adjusted to the innovation strategy and also have to assure a transversal impact in the institution. The impact can be achieved by different factors, being the most common, that different challenges coming from different academic departments and management areas are collected and achieved. This is possible due to the fact that the composition of the working teams is heterogeneous, where knowhows and goals are merged and the final purpose reaches different challenges of the innovation strategy. The INNOVA projects are approved by the Innovation Council

Currently, there are two INNOVA projects in process, the m-UOC and OpenApps, which involved 54 participants. The m-UOC is the project that leads the university from the actual multiformat to multidevice and multimedia university. Many departments at UOC have worked during the past years to integrate the academic activity into mobile devices for making our university more flexible and adaptable to new trends. The mUOC project is focused mainly on two aspects: (1) Identify and promote key projects, and (2) facilitate the implementation and adaptation to this multimedia and multidevice scenario. mUOC reflects the commitment of the UOC with the mobility and multimedia contents. Next course, September 2012, students and lecturers will be able to use tablets, phones, PCs to learn and teach.

The other strategic project, OpenApps, it is a platform that runs from July 2012 that collects teaching experiences and open apps from the UOC. Open Apps makes available and opens to any person or education institution a catalog of applications and innovative teaching experiences generated at the UOC, in the framework of internal projects, to that may be used freely in other environments looking for open collaboration. These teaching experiences and apps have been conceptualized, developed and piloted by UOC teachers and developers. In the near future apps designed and developed by students will be available at OpenApps too.

The INNOVA projects receive technical and/or management support by the Innovation Program. These projects are also internally evaluated through the indicators used by the Innovation Program (see table4).

Project/result	
Leader	Department/Area/Team
Risc	0 1 2 3

Aplicability	Number of classrooms
	Number of processes
	Number of students
Satisfaction of the result	0 1 2 3
Level of achievement	Development/Pilot/In production/Abandoned
Time of achivement	Predicted
	Superior 1 2 3
	Inferior 1 2 3

Table 4. Innovation indicators for the UOC strategic projects in the learning/teaching or management innovation.

1.3. OPEN APPS platform: requirements for becoming an App

As previously stated, successful innovation projects coming from APLICA's program or external funded projects can be selected as a potential apps for the OpenApp platform. The term app is broadly taken as can include, in this context, any learning experience, any educational system/tools software or any web-based service.

These initiatives for being able to be accessed from OpenApps need to fulfill a brief set of requirements:
- Born in the UOC's environment: that is promoted by lecturers, management staff, students, etc. or they are members of the team that designs and/or develop the app.
- Be innovative: has to present a novel idea or method for innovation
- Open source code and open content: source code available in the case of tools developed by the university and content liberally licensed for re-use in the case of educational content. When the App is a learning experience this .knowhow is offered freely too.
- Be transferrable: useful for other educative organizations or other types of enterprises.

This platform provides open access to UOC's innovations in the learning and teaching arena as well as management, and tries to achieve further development through communities of interest sharing similar needs or problems related to the learning and teaching process or management aspects of the university.

2. Innovation Program: general indicators for evaluation

The indicators defined for evaluating the innovation activity in the UOC Innovation Program include data coming from all departments and areas from the whole university.

On one side, the innovation is evaluated by the Innovation Program from data generated by the support and service activities provided by the Innovation Program itself. That is to say from the two ways of innovation funding coming from the internal budget of the university, the APLICA annually call and the strategic projects INNOVA (both presented above) which are the main axis of activity of the Innovation Program.

And on the other side, as previously stated, innovation is a transversal feature in all UOC activities and processes. Therefore, innovation is present in the annual objectives in all the university structure and thus generating innovation results. The Innovation Program collects all these indicators and analyses them in order to facilitate a regular feedback to the strategy and general management of the UOC. In

this sense, the Innovation Program identifies, collects and updates data that reflects the real innovation effort dedicated in the UOC. Data coming from the number of initiatives and budgets is presented in table 5.

Innovation Indicators at UOC	2012
UOC innovation projects (IPD and other departments)	39 (24 from the Innovation Program: 22 APLICA and 2 INNOVA)
UOC innovation successful results (projects from 2012 already in production)*	2
Innovation Budget	323.000,00 €
Innovation Program Budget	230.000,00 €
Cofunding from other departments	18.000,00 €
External funding	75.000,00 €
Departments involved in innovation projects	11
Proposals received in the Vice Presidency for Research and Innovation for INNOVA 2013	4

Table 5. Innovation indicators used by the Innovation Program to provide feedback of university innovation annually. (Note: data from 2012 is uncompleted as the 95% of the project still in development or piloting phase of the project).

3. Further work

In this paper it has been stated the procedures that encourage innovation in an online university as well as the initial established method for evaluating teaching and management innovations. Adding to that, some general indicators to evaluate the emerging and the strategic innovation have been presented.

During the academic year 2011-12 data is attempted to be collected to fulfill the given indicators and processes. Afterwards the results have to be analysed in order to be able to enhance existing internal calls, review current indicators as well as adapt common procedures and activities to the successful innovations. Furthermore, when possible, knowledge will be transferred to other education institutions and general society.