Change processes in the university: a diagnosis of institutional culture and social dynamics

The research aims to explore relationships and dynamics affected by the change and innovation processes in higher education institutions, in order to contribute to the comprehension of innovation in the university at a time when important changes are taking place within higher education in Europe. Six innovations from three universities in Catalonia (Spain) were studied using were focus interviews, focus groups and document analysis. The main results are the following: in relation to the degree of change, innovations differ in the type of leadership required, and in the values and resistances associated with them. The type of leadership, strategies, impact and financing involved vary according to the scope of the innovation. Innovations show different origins according to their nature, being mainly curricular or organizational.

1. Introduction

Open The combination of changing factors has exposed universities to some unprecedented pressures. As a result, many innovative measures have been carried out to improve institutional objectives, structures and processes. Nevertheless, this multidimensional cycle of innovation is still unfinished and new determinants of change seem to emerge and have some influence in the near future. European universities have to face the dilemma of finding a new way to efficiently adapt to the changeable world, and have to do it without losing their specific and traditional role and values, which make them unique institutions, rooted in particular cultural, economic and social contexts.

We subscribe to Hanna (2002, p. 354) who considered that the most important and immediate task of universities today is to build a culture which promotes change as a value at all organizational levels. (...) "It is necessary to develop institutional strategies to create, build and adopt measures to allow universities to overcome the new educational market".

The dilemma of nowadays universities has to do with the need to change and adapt their role to the environment, the more they can achieve this task, the more they can continue being the most important institutions in charge of knowledge creation, criticizing and transferring in the society. Therefore, they have to strengthen their organizational culture focusing on the willingness to change. However, adopting a culture of change requires the establishment of strategies designed to modify the existing organizational culture. Those new values should be addressed to enhance the acceptance of change and the willingness to improve, among other characteristics of innovative culture.

Clark (1998a,b), during the recent years, showed that successful innovative activities in universities were characterized by five factors: a strong management body, developed and promoted surroundings, a diversified financial system, a motivated academic environment and an enterprising culture. Although there are many differences between those factors,

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interactions between them are needed to create an innovative institution.

Also, Sporn (2001) proposed a number of critical factors needed to build well-adapted universities. This author pointed out that universities' adaptation is favored by:

- An environment defined by crisis and/or opportunities
- A clear mission and a good definition of goals
- An organizational culture
- A well defined structure
- · A professionalized management
- · Government participation in decision taking
- A committed leadership.

Today's world is characterized by successive and rapid changes, most of which are not easy to analyze and adapt to. Factors as the knowledge-based economy, the increasing demand of quality, the constant need to rebuild and develop change processes, the shift from the emphasis on teaching to the emphasis on learning, are the incentives of change at the university level.

Sánchez & López (2007) state that universities tend to cellularism (consisting in the professors' isolation in which most of them do not share their experiences outside the classroom). Strengthening organizational culture is the alternative to defeat such trend and to build cohesion. After analyzing organizations of higher education as "weakly-attached structures" (Weick, 1976/2001) they present some research's results that are meant to promote development and cohesion between universities by means of the identification of good management's practices, which were found to contribute to create strong cultures, affinity, and innovation. These authors identified some attributes of an organizational culture able to lead weakly attached structures. If culture is a socially built system based on beliefs, values, laws, shared meanings; practice communities appear as strategies to break with cellularism, distribute the decision-taking power and establish relations aimed to improve innovation.

An innovative culture is that able to create practice communities. The existence of good organizational practices is also an indicator of cultural change. Some factors have been identified as examples of good practices: socialization activities among novel teachers, consideration to Campus' events, favouring communication networks through different means and resources, emphasizing the use of symbolic scenarios and time, supporting

trans-disciplinary activities and the practices related with organizational ethics.

For this innovative culture to be achieved there is a need of a planned and goal-oriented work from the part of university decision-takers and managers of change, it is, through change management. Rebora & Minelli (2007) designed a model of management based on several factors: learning (change of knowledge, organizational culture and routines), resources (financial, technical and human) and power (system of interests and influences).

2. Aims and Objectives

The general aim of the research is to feature the relationships and dynamics involved in the processes of change and innovation in higher education institutions in view of their organizational culture through the analysis of six educational innovations in three universities in Catalonia, Spain.

The assumptions of our research are:

- 1. It is possible to identify the most representative features of the organizational culture of a university.
- 2. It is possible to change the culture of organizations using appropriate strategies for change.
- 3. Successful organizational change depends on the culture of this organization.
- 4. Changes need to be planned, which means that strategies to do it must be devised.
- 5. Change strategies should be differentiated according to the type of organization they are intended.
- Organizational culture of universities must change to respond to the challenges that learning society demand to European universities.

Specific objectives were raised:

- a) To study and compare the characteristics of individual innovations
- b) To identify the perceptions of those involved in the respective academic innovations
- c) To analyze different types of innovations to contribute to the understanding of changes in higher education institutions.



3. Design

Interpretive method for understanding the social meanings that people develop in relation to the context, objects and other people were used.

Theoretical sampling was performed. The profiles of the informants are defined by their careers, levels, experience and training. Selection of the informants is highly representative. We gathered the opinion of the promoters of the innovation process, the views of the faculty that runs the change and the students as recipients of it.

Research is focused in a selection of 6 cases in three universities. Each has been chosen by factors of scope, scale and time. The innovations cases are briefly described:

The educational project of sciences is an organizational innovation and affects the whole of the Faculty. Its implications are diverse: organizational, curricular, and evaluative and also affect the system of relations.

First action plan for equality between women and men. Biennium 2006-2007. The purpose of this Action Plan is to foster a culture of equality in university.

Evaluation of teaching. The Agència per a la Qualitat del Sistema Universitari de Catalunya-AQU (Agency for Catalan University System Quality) created a commission of experts from the Catalan public universities to prepare a guide for designing and implementing a model of teacher evaluation in Catalan public universities.

Early Retirement Plan. It seeks a better utilization of human resources. The Plan aims, firstly, to encourage a voluntary retirement with a part-time employment contract and also enable the stabilization of teachers and promote the rejuvenation of professorship.

Problem Based Learning (PBL) in the School of Nursing. The Nursing School took the decision to innovate on teaching-learning strategies using the PBL method. The innovation was carried out from a curriculum based on a list of topics as the distribution of subjects and exposure of students to an integrated curriculum based on competencies.

Postgraduate Studies on the Deaf Community. In 2003, the Faculty of Teaching Training began to offer two postgraduate courses about the Deaf Community also open to non-graduate persons. One of these was aimed at students who are deaf and

the other, which has led to the creation of Official Master on the Deaf Community, had an itinerary aimed at deaf students and the other at hearing students.

Conversational techniques, the in-depth interview and focus group discussions have been used as collecting data tools. Twenty in-depth interviews and 10 focus groups were performed; the data presented are also based in document analysis. These were distributed as follows among the innovations:

Innovation	Interviews	Focus group
The Educational Project of Sciences	5	1
The First action plan for equality	2	2
Evaluation of teaching: autonomous <i>tranches</i>	4	3
Early Retirement Plan	2	2
The PBL in the School of Nursing	3	2
Postgraduate Studies on the Deaf Community	4	

Table: Distribution of interviews and focus-groups in the six innovations studied.

The duration of the interview was of approximately one hour.

The focus group consists in 8 to 10 people. The duration has been between sixty and ninety minutes. The focus group is implemented as a mechanism for reliability and validity.

As a mechanism for reliability, the conclusions of the focus group generated a social validation of the data provided in the previous stages through the Instrument I (semi-structured interview). The validity is assessed to the extent that the interpretations and possible relationships established from the theoretical coding (open, axial and selective) are set so close to the contributions and conclusions of the focus group.

The model for data analysis performed both a structural and interpretative sequential analysis. In the structural analysis a number of techniques to make visible the underlying structures to understand reality were applied. These structures were of two types: cognitive interaction or relationship. In the interpretative analysis two types of approaches were used: firstly the descriptive approach, where the researcher describes phenomena then performed according to the contributions of informants, (characteristics, constants, context, etc.). Secondly, the reality



construction approach which intends to know the experiences and interpretations of events from those involved in them.

4. Results and Discussion

The innovations were analyzed regarding these dimensions: source, leadership, phases and strategies, values, resistances, impact and funding. Following we present a synthesis of the most relevant results of each case.

The innovation *Educational project of Sciences* has a curricular nature, is a medium term study and involves all the personnel in the centre. This project was designed as a response to the need of being competitive in a work market context, recognized as well as one of the reasons to start an innovative strategy (Dondi, 1999). The ideologists of the innovation also assumed the responsibility of performing leadership and management tasks. Several specific resources were assigned to support the teacher's work, and the whole process of change. It followed the phases mentioned in the literature. The level of implication among institutionalized personnel was high. Thus, it has been an institutionalized change in terms of its conception and in the way it was carried out.

The First action plan for equality between women and men is a structural innovation; it has a broad scope in terms of its impact on the university structure and the quantity of people involved, it has a top-down orientation and long term duration. Regarding its origins, this innovation was carried out according to a temporal contextual opportunity – a new National law for equal opportunities, a new university managerial team, and recommendations of experts in gender. The values that backed this project: equity of opportunities, justice and democracy; were of a very deep nature, difficult to refute, but at the same time not easy to promote. However, the innovation shows efficacy in the fulfilment of the measures adopted, although the validity of these strategies should be assessed in the long term.

All phases and strategies carried out in this plan were designed following theoretical models. Constant, low intensity and distributed leadership, exerted at several levels has been a determinant factor for success. Distributed leadership is considered as the most appropriate way to deal with change in the current university context (Fullan, 2002),

Resistances and barriers to this innovation were not explicit. The cultural nature of the plan was in fact a source of possible obstacles, because of the impossibility to access to the true

reasons of the resistances, and so impossible to modify. Finally, the project's budget was difficult to assess because it depended mainly on public subsidies from governmental entities.

The Evaluation of teaching: Autonomous Tranches is a long scope innovation, designed for a middle term and descendent. Teachers involved are only those who wanted to take part in this assessment. While its promoters and some teachers considered that the objective of this innovation is to improve teaching and offering objective and consensual mechanisms of teaching quality assessments; most of the teachers, mainly those who did not participated in the assessments, showed resistances.

The introduction of periodical assessments of teachers had little impact on teaching, on teachers' motivation or in the wages increasing. In summary, teaching *tranches* seem not worth implementing because they would not contribute to motivate teachers to improve the quality of their teaching. This innovation showed differences between the perceptions of promoters and receptors, usual in high scope innovations.

Both responsibility and leadership are shared by promoters, by planning and assessment offices, departments, and faculties. Dissemination and follow-up strategies were positively considered. Assessment strategies included meetings where teachers' expressed their opinion.

The Early Retirement Plan is a structural and large scope plan, designed for a short term and descendent. This plan's objectives were highly valued by the recipients: the teachers' staff. Leadership was distributed. Regarding its phases and strategies, few differences were found between diffusion, awareness and execution. As a voluntary plan, its execution depended scrupulously on the people freedom to adopt the plan and the information spread was neutral.

This innovation plan received no financial budgets or staffs to its implementation. In spite of being a structural innovation little differences were found between participants, due to the fact that the association to this reform was voluntary.

The Problem Based Learning (PBL) in the School of Nursing is a curricular innovation, involves the whole centre and has middle-term duration. The origins of this plan were the contacts with other European institutions, the assessment of the degree, the centre's strategic plan and the analysis of the possible threatens to its continuity.



The promoters of this innovation form a group with innovation interests, with an institutional vision. During the whole process leadership was held by the direction of the centre, shared with the group of professors. This innovation was progressive and passed through all theoretical phases, a pilot test was performed in its beginnings and both strategies of awareness and execution were considered important. The plan of dissemination involved seminars addressed to the students, and journal articles. At this moment the plan has been consolidated and is now undergoing an informal assessment phase.

The implementation of this innovation was favoured by its diverse sources of funding, one of the key elements of innovations (Clark, 1998).

Values were shared among participants. There was a positive impact on people, and few resistances were reported. There is a deep change in the organizational culture including changes in teaching strategies, professors' profile and organizational structures.

The Postgraduate Studies on the Deaf Community is a curricular innovation applied in the faculty level, designed for a short term and affecting a reduced collective being the inclusion of diversity it's most rated value. Its diffusion was carried out mainly through flyers and a Website. Most of resistances were derived from university's low availability to provide adapted resources for deaf and deaf-blind people. This plan's final impact was considered as positive by participants. One of the weaknesses of this plan was the lack of sufficient funds.

Leadership was high and continuous support was exerted. Agreement between participants regarding the values of the innovation, and an important impact on persons were also characteristics of this innovation.

Conclusions

In general, some important conclusions of our research support the results of previous studies. Considering all the innovations studied, we observe that although some of them were originated by an external pressure, most of the university members assume these changes and implement them (Dondi, 1999). Some of those external pressures were the implementation of the European Higher Education Area (EHEA) in the innovation called the *Educational Project of Sciences* and, a risk of shutdown in the case of *Problem Based Learning (PBL) in the School of Nursing*. In these cases, as in the cases where innovations are

originated by social consensus' values, as the gender equality (First Action Plan for Equality between Women and Men) and the diversity inclusion (Postgraduate Studies on the Deaf Community) we found evidences of a highly motivated academy (Clark 1998a, b).

In the innovations studied we also identified some of the basic factors defined by Clark as determinants of successful innovations in Anglo-Saxons universities. For instance, the *First action plan for equality between women and men*, the *Educational Project of Sciences*, and the *Postgraduate Studies on the Deaf Community* showed strong evidence of the enterprising attitude highlighted by this author.

Finally, we consider that taking into account the set of dimensions used in this research, this study can be useful to carry out analysis of several types of innovations at the University level, to implement institutional change designs, to assess them, and to perform comparative studies.

The innovation cases analyzed showed interactions between the features of innovations, as scope –quantity of people involved–, nature –organizational or curricular–, and term –short, medium or long– and selected explanatory variables –origin, leadership, phases and strategies, values, resistance and obstacles, impact and financing.

Further research on each kind of innovation is needed to enable generalization of our results.

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