
**ELEARNING IN HIGHER EDUCATION INSTITUTIONS: INSTITUTIONAL AND
MANAGERIAL ASPECTS.**

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1. Theme

There is a large body of literature on the use of eLearning in higher education, mainly in the USA but also in Europe (Collins and van der Wende 2002; van der Wende and van der Ven 2003). However, when we leave aside literature on the subject that advocates radical changes in the higher education system and we examine more carefully what is happening in the European context, we realise that the situation is much more complex: while almost all universities are experimenting with eLearning, most of them “do not expect revolutionary change as a result from or related to the use of ICT” (Collins and Van der Wende 2002: 7) and they mostly use ICT to improve existing teaching activities (is mainly a process of bottom-up, rather than to replace them or to access new educational markets through distance learning). At the same time, we should recognize that the word eLearning encompasses different kinds of educational programs and uses of technology, ranging from straightforward distance courses and curricula to blended learning activities (blended learning is a way to design courses that blends different kinds of delivery and learning methods that can be enabled and/or supported by technology with traditional teaching methods, de Boer, 2004) and is open to many possible classifications. To better understand this new way of teaching here there are some definition of the term eLearning. EU publications define it as follows: “the use of new multimedia technologies and the Internet to improve the quality of learning by facilitating access to resources and services as well as remote exchanges and collaboration” (CEC 2001: 2). Cedefop (European Centre for the Development of Vocational Training) defines eLearning as follow: “learning that is supported by information and communication technologies (ICT). eLearning is, therefore, not limited to “digital literacy” (the acquisition of IT competences) but may encompass multiple formats and hybrid methodologies, in particular, the use of software, Internet, CD ROM, online learning or any other electronic or interactive media (Cedefop, 2000). Bearing in mind the EU definition, we can fit in many activities under the eLearning label. They should be classified as Bates (2001) suggests in figure 1. If we imagine a *continuum* between “*no online learning*” and “*fully online learning*” we can create a first taxonomy.

1. *Face-to-face classroom teaching*: “traditional” activities involving teacher and students in the same place and at the same time (synchronous);
2. *Technology enhanced face-to-face classroom*: in some cases we meet classroom lectures enhanced by technology support such as PowerPoint, slides or specific tools.
3. *Mixed mode (reduced face-to-face + on-line)*: In the mixed mode some activities, for example questions or exercises, are completely delegated to the new technologies.
4. *Distance education*: There are courses or degree programmes developed completely at distance; enrolment, fee payment, lessons, communications, and exams are managed from a distance with new technologies

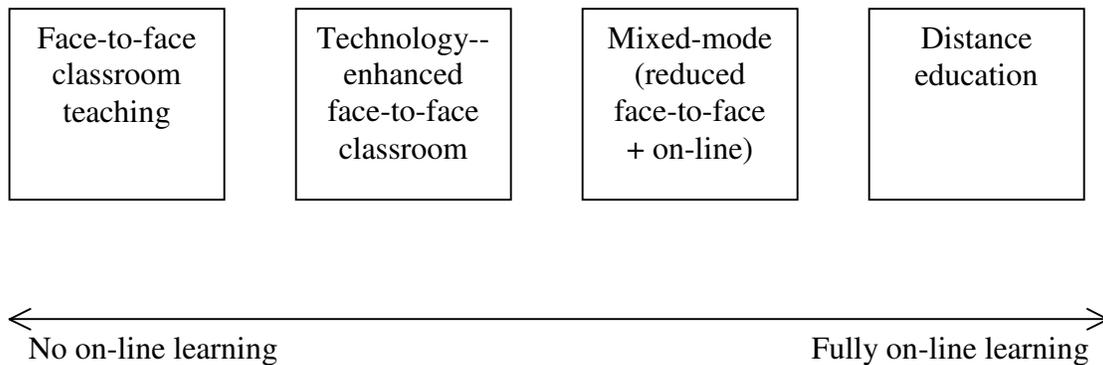


Figure 1. Models of eLearning. Modified from Bates (Continuum of on-line learning applications, Bates T., 2001).

There are many variables involved in an institution's decision to offer its educational program in a certain way to its students. Also a research conducted in the framework of an international comparative survey on the current and future use of ICT in Higher Education (Collis and Van de Wende, 2002) gives an analysis on the scenarios for educational delivery.

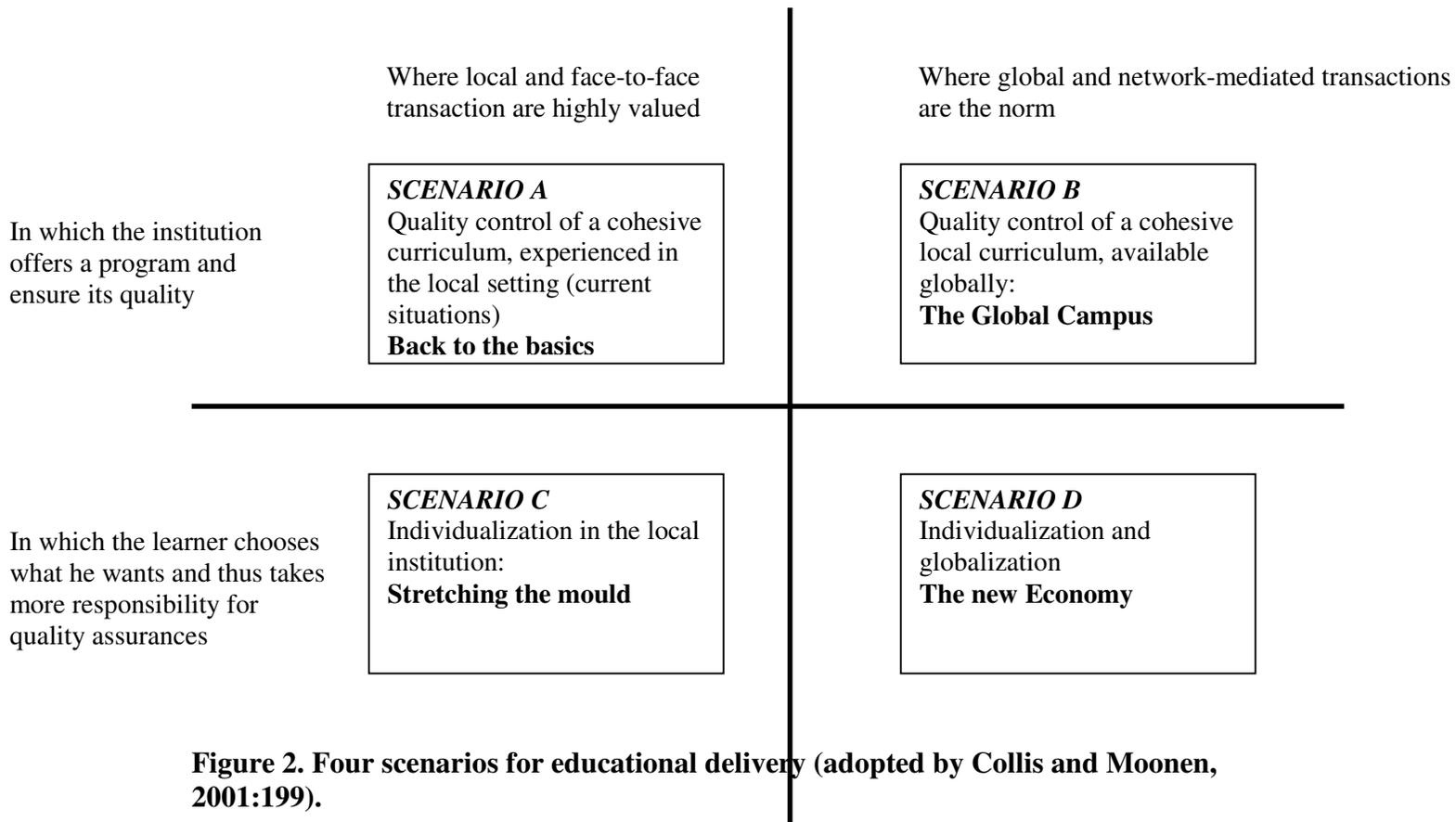


Figure 2. Four scenarios for educational delivery (adopted by Collis and Moonen, 2001:199).

Scenario A is the current dominant situation for many traditional post-secondary institutions. Many universities are starting to experiment with distance participations in their established programmes, Scenario B.

Many traditional universities are now moving towards some forms of Stretching the Mould, Scenario C, by offering more flexibility for participation within their present programmes. Scenario D is the most radical; a systematic example of it does not yet seem to be available in most traditional universities. (Collis and Moonen, 2001)

There are several reasons for this phenomenal growth in higher education and training. The demand for more flexibility from students and teachers is one of the most important concepts and directly influence the kind of learning and hence the kind of teaching. Collis and Moonen (Collis and Moonen, 2001) identify five forms of flexibility that can be supported with ICT:

- Flexibility in location. Where the learner can carry out (some of) the different learning activities associated with the course;
- Flexibility in programme. Subgroups of courses can be chosen in terms of the learner's needs and interests;
- Flexibility in types of interactions. Within a course, for example so students who benefit from group interaction and group-based work can choose these sorts of opportunities, while other students who benefit more from the freedom to organise their own times and ways of studying can also be accommodate within the same course;
- Flexibility in forms of communication. Within a course, so that learners and instructors have a wider variety of ways of communication;
- Flexibility in study materials. So that students have a wider choice of resources and modalities from which to study (Collis and Moonen, 2001).

According to Bates the concept of flexibility, especially related to instructional reasons, is linked with the following main reasons (Bates, 2001):

- Access to educational resources from outside the institution.
- Increased and flexible interaction with students (email, discussion forum);
- Course materials available to students any time;
- Ability to combine text, graphics and a limited amount of multimedia;
- Professional/subject discipline links on an international basis for research and teaching purposes;
- Opportunities for international, cross-cultural and collaborative learning.

It is interesting to note that there are a lot of national as European initiative in the field of Higher Education related to the ICT and eLearning. Technical infrastructure has been put in place and rich experimentation with the educational use of ICT has been undertaken. The emphasis on current national program tries to initiate, stimulate and facilitate innovative use of ICT in national higher education.

The main study case in this research is the program called Swiss Virtual Campus developed in the Swiss context.

1.1 The Swiss Virtual Campus (www.virtualcampus.ch)

“The use of ICT in education began in Switzerland during the 1990s (Levrat 2003; Mendelsohn and Jermann 1997). In 1995, the Commission for University Planning of the Swiss University Conference decided to create a working group on University Education and New Technologies (FUNT). This group assessed the Swiss situation and concluded that the efforts to introduce ICT education were too dispersed and that Switzerland was lagging behind other countries in this area (CUS 1996)”(Lepori & Succi, 2003). In 1997, the FUNT group proposed the launch of the impulse programme called Swiss Virtual Campus, whose mission is to develop high-quality learning modules supported by ICT in Swiss universities (CUS 1997). In 1999, Parliament approved the programme and granted it SFr 30 million for the years 2000-2003. (Conseil Fédéral 1998).

The program had the following objectives:

- to develop accessible teaching modules through the Internet, in particular for subjects that attract large numbers of students. This includes teaching material, exercises, seminars or particular work as well as online or direct aids and assessment. Projects involving teaching modules for large numbers of students were particularly welcome. The courses developed had to be part of a curriculum of the participating Universities.
- to promote collaboration between institutions. Several institutions are involved in each project.
- to entice teachers to explore a new pedagogical dimension so to improve the quality of student learning process. The students are encouraged to use all the information and resources available on the Internet as part of their real studies.
- to offer the possibility for the development centers) to become producers of high quality learning material. The high level regards the content of the multilingual modules, the didactics and the technology.

The federal government intended to provide special support for a certain number of projects (50) for a maximum period of three years.

The program defined in addition some horizontal projects (called support mandates) with the commitment to help the projects in this program to ensure optimal conditions for the Swiss Virtual Campus. These mandates (about didactic and technical topics as about organizational and institutional issues) include more general studies or investigations that address the infrastructure necessary to support the program as a whole.

The Swiss Virtual Campus is run by the Swiss University Conference, which takes the final decision on financing a project or not. Two other bodies have been set up to prepare and implement the whole program: the Swiss Virtual Campus Commission and the Swiss Virtual Campus Steering Committee. In order to guarantee sustainability, a consolidation program for the years 2004-2007 has been applied for. The main objectives of this second phase are the maintenance and support for the qualified projects of the impulse program 2000-2003, a promotion of new projects and the development of centers of competence, service and production for each institution of higher education.

The impulse phase of the program has clearly been a very useful and important catalyst and stimulus for the development of eLearning in Swiss Higher education. Several Universities and the Federal Institutes of Technologies started to support centers for pedagogy, multimedia and software production. These centers play a key role in implementing the program and the hope is that these centers will be able in the future to grow and to take up a central role in the University, so that they can support it in the use of new educational technologies.

Some of the data collected for my PhD research are based on the results of the EDUM project (Educational Management in the Swiss Virtual Campus – www.edum.ch) where I participated as scientific researcher for two years. EDUM was a mandate of the Swiss Virtual Campus with the objective to explore the conditions for the successful adoption of eLearning activities in Swiss higher education institutions, focusing in particular on the framework of Swiss Virtual Campus (see Lepori and Rezzonico, 2003a; Lepori and Rezzonico 2003b, Lepori B. and Succi C., 2003).

2. Problem statement

Given the idea that an eLearning course is structured in a different mode as a “traditional” face-to-face one, the general research question of this study is:

1. What are the main factors/conditions that influence the implementation of an online course in the University?

(I assume that the implementation take place on the meeting point of the meso and the micro level.)

This main question is divided in two sub-questions that are:

1.a) Which conditions influence the implementation of online courses in general in the University? (Literature)

1.b) Which conditions in the Swiss, Dutch and Swedish context influence the implementations of online courses in particular program in the University? (Study case/Empirical Question)

The main hypothesis is that an online course implementation will strongly depend on several factors.

3. Proposed theoretical framework

3.1 Theories on organizational changes

My research question (**1.a**) needs to be analyzed through theories that explain organizational change. Two specific theories on change processes in organizations,

the Institutional Theory and Resource dependence Theory are examined. These theories help to establish a theoretical framework about change process in Universities.

3.1.1 Elements of an organization

Organizations are viewed as the primary vehicle by which the areas of our lives are rationalized, planned, articulated, scientized, made more efficient and orderly, and managed by expert. (Scott, 1998). According to Scott (Scott, 1998) organizations are systems of elements, each of which affect and are affected by the others. Leavitt (Leavitt, 1965) proposed a simplifying model focus on the central elements of an organization:

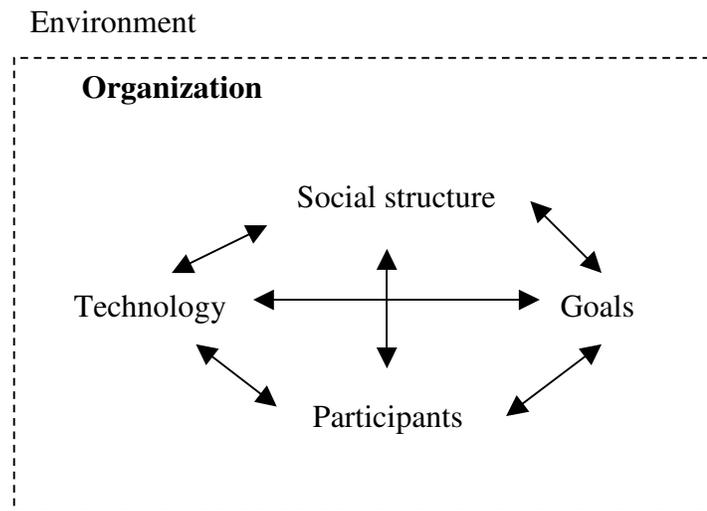


Figure 3. Leavitt' s Diamond: A model of an Organization

Social structure

Social structure refers to the patterned or regularized aspects of the relationship existing among participants in an organization (Scott 1998:17). The societal structure is divided in two components: the normative component and the behavioral one. The first structure includes values, norms and role expectations. "In any social grouping, values, norms and roles are not randomly arranged, but are organized so as to constitute a relatively coherent and consistent set of beliefs and prescriptions governing the behavior of participants. It is for this reason that we speak of a normative structure (Scott 1998: 18). The behavioral component focuses on actual behavior and not the prescriptions for behavior that we can find in the normative structure. "We focus on these activities, interactions and sentiments that exhibit some degree of regularity..." (Scott 1998: 18).

The two structures are related and influence one and other.

Participants

Organizational participants are those individuals who, in return for a variety of inducements, make contributions to the organization (Scott 1998: 18). An individual can be part of more than one organization at the same time. Through this shared people, it is possible that organization influence each other. Participants in the organization are social actors. "It is their energy, their conformity, their disobedience that constitutes and shapes

the structure of the organization. Without their participation, there is no social structure, no organization” (Scott 1998: 20). Some characteristic of the participants like “their age, gender, ethnic distributions, have important consequences for many implications of organizational structure and functioning” (Scott 1998: 20). This element is fundamental to analyze different ways to answer to the change in the organization.

Goals

Goals are defined as conceptions of desired ends that participants attempt to achieve through their performance of task activities (Scott 1998: 21). Some analysts insist that goals are indispensable to the understanding of organizations.

Technology

The technologies of an organization are not only the machines and mechanical equipment, but also comprise the technical knowledge and skills of participations. “To focus on the technology of an organization is to view the organization as a place where some type of work is done, as a location where energy is applied to the transformation of materials, as a mechanism for transforming inputs into outputs” (Scott 1998: 21).

Environment

“Every organization exists in a specific physical, technological, cultural and social environment to which is must adapt. No organization is self-sufficient” (Scott 1998: 21). Pfeffer and Salancik (Pfeffer and Salancik, 1978) emphasize the importance of the environment for organizations. They state that organizations are dependent on their environment for survival and success.

According to Scott (Scott, 1998), to complete the diagram of Leavitt (Figuer3) above presented, we should add double-headed arrows linking the environment to each of the “internal” elements.

There is no power hierarchy among the elements. No one element is in isolation from the others.

3.1.2 Approach to define the concept of organization

There are different approaches to define the concept of organization.

The first approach to organization is a rationalistic one where organizations are seen as collectivities to have certain goal to implement exhibiting highly formalized social structures. According to Etzioni (Etzioni 1964:3), organizations are social units deliberately constructed and reconstructed to seek specific goals.

This view is goal oriented and sees organizations as collections of individual efforts, which might not be achieved by an individual.

The second approach views organizations as social system with different socially structured behavior (social consensus vs. social conflict) but seeking to survive. Scott (1987) defines this approach to a natural system definition of organization as “collectivities whose participants are pursuing multiple interests, both disparate and

common, but recognize the value of perpetuating the organization as an important resource...” (Scott, 1998:26).

The third approach of definition of organizations see organization as a coalition of groups and interests, who are attempting to obtain something from the collective by interacting with others, and each with its own preferences and objectives (Pfeffer and Salancik, 1978). By viewing organizations as an open system Scott (1998:28) defines organization as “systems of interdependent activities linking shifting coalition of participants, the systems are embedded independent on continuing exchanges with and constituted by the environments in which they operate. Organizations are open and dependent on flows of personnel, resources and informations from outside.

External environment of organization is important, because the survival of organization is determined strongly on external basis. The work of organization is linked how the organization is internally able to initiate and control its activities (Pfeffer and Salancik, 1978).

3.1.3 Change in Higher Education institutions. Resource dependence theory and Neo-institutional theory

This paper is work in progress and the theoretical framework and conceptual model presented in this report need further development. A brief overview of these two theories is given.

Higher education institutions are professional organizations where knowledge is the core of these education systems’ purpose (Clark, 1983). Higher education institutions deserve special attention to the disciplines.

One interesting characteristic of the higher education institutions is the idea of academic freedom and/or scientific freedom. Academic people feel they are free to do independent research and that they are free in what they teach. This is relates also to the characteristic concerns the governance structure and the distribution of authority in higher education organizations and the high degree of structural differentiation where “each department is a world in itself (Maassen and Gornitzka, 1999:302). These characteristics affect their ability and capacity for change. A further related characteristic is the size of an organization and its degree of purposes that can also influence the way to respond to external demands.

Their environment can influence the organization. Changes in the environment will also have their influence in the organizations. In fact, according to the contingency approach in organization theory, organizations are open systems that are influenced by their environment. Organizations adapt to their environment to survive. According to the theorists of the contingency, if the environment changes, it can be expected that organizations influenced by this environment will change as well.

From an institutional theoretical perspective the introduction of ICT can be considered as a factor that may cause changes (or innovations) in the institutions concerning higher education. In general change can be defined as *to make or become different* (Cambridge

International Dictionary of English). Innovation can be defined as *to introduce changes and new ideas* (Cambridge International Dictionary of English). Rogers and Shoemaker (Rogers and Shoemaker, 1971:19) state that “if the idea seems new to the individual, it’s innovation”. These two definitions show the similarity of these concepts.

Assuming that supporting new form of ICT in education is a form of organizational change for a university, so this latter must to be able to cope with this change. There are several theories that describe and explain organizational change and organizational adaptations. Examining organizational changes in the areas of relationship between higher education institutions and the new educational and training structures for eLearning courses, two of the main approaches in the study of organizational change and stability have been chosen as theoretical framework on the bases of organizational change: the Neo-Institutional Theory and Resource Dependence theory. These theories share two basic assumptions: organizational choice and action are limited by various external pressures and demands, and the organization must be responsive in order to survive (Maassen and Gornitzka, 1999), but they provide different insights in why and how organizations react to changes.

The Resource dependence theory assumes that organizations are flexible and that the environment has an influence on organizational change. Organizations are not passive recipients of environmental forces. This theory implies that organization will make strategic decision about adapting to the environment. The fundamental assumption is that all organizational actions are directed as securing institutional survival. Despite other goals and aims, survival is the core objective of every organization. Organizations need resources to survive. To understand organizations one must understand how organizations relate to other social actors in their environment; and to understand institutional change it is necessary to examine the way organizations perceive their environment, how they control dependencies, the role of organizational leadership in these process (Maassen and Gornitzka , 1999).

From a Neo-Institutional perspective, organizations operate in an environment dominated by roles, values, requirements, taken for-granted assumptions and beliefs about what constitutes appropriate or acceptable organizational forms and behavior (Scott, 1998; Oliver, 1997). Organizations tend to become isomorphic with them (DiMaggio; Powell, 1993). Changes that are compatible with an organization’s institutional identity or culture can be respondent to in a routine and non-upsetting manner (Maassen and Gornitzka , 1999). This theory focuses on the reproduction of existing organizational structures. Organizations rely on routines and collective norms.

“Resource Dependence Theory is more focused on reducing environmental uncertainty by exercising power, control or negotiating. External pressures have to be controlled, while within Institutional Theory an attempt is made to conform to the demands” (Fisser, 2001).

3.2 Change process in education Change in the University

Theories and scientific studies on the change process in education are needed to identify different steps of this process.

Based on experience in the change process (Fullan, 1991; Collis and Moonen, 2001) the ideal life cycle of a technology innovation in education include the following three phases. The first is the initiation of the change. The second called implementation involves the first experiences of attempting to put an idea or reform into practice. The third is the institutionalization of change, its sustainability within the normal procedures of the institution.

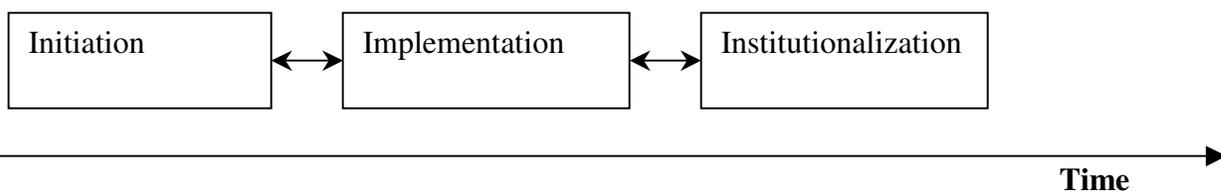


Figure 4. A simplified Overview of the change process

The total time of the process cannot be precisely demarcated. As it is shown in figure 4 the two-way arrows imply that the process is not linear but every phase is constantly in interaction with each other. Steps can be bypassed or go astray or evolve in a convoluted way (Collis, 2001). The most important idea arising from Figure 4 is that *change is a process, not an event* (Fullan, 1991).

In the research the intention is to take in consideration the numerous factors and variables operating at each phase.

Having some understanding about organizations especially higher education institutions and the change process, we can focus now our purpose to the innovation characteristics related to success of innovations. The way and the rate with a proposed change is adopted in an organization, is dependent on these participants. In fact, the change has some characteristics. The way in which the actors perceive these characteristics can contribute to the adoption of a change in an organization. Rogers and Shoemaker (Rogers and Shoemaker 1971:22-23) presented five critical characteristics that determine an innovation's success in higher education institutions. These characteristic are represented in terms of:

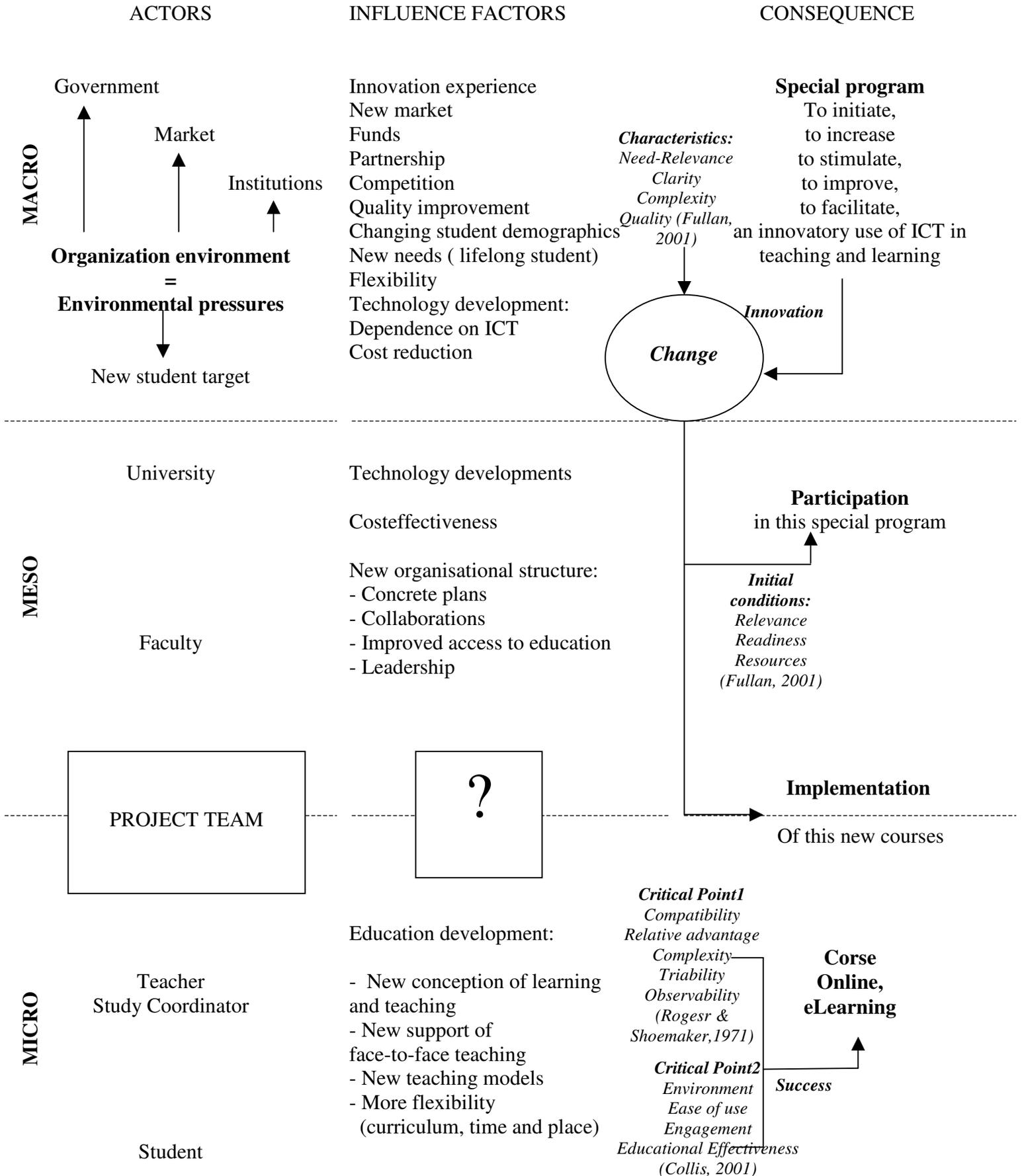
- The compatibility of new idea,
The degree to which a change is perceived as better than the idea it supersedes;
- The relative advantage of new idea,
The degree to which a change is perceived as being consistent with existing values, past experiences and the needs of the receivers;
- The complexity of an innovation,
The degree to which a change is perceived as difficult to understand and use ;
- The triability of an innovation,
The degree to which a change may be experimented with on a limited basis;

- The observability of an innovation,
The degree to which a change is visible to others.

For any change to be adopted by an organization, a positive perception of these characteristics is important. All the characteristics except the complexity are positively related to adoption of change.

3.3 ICT: a special change in education

For this part I am developing a diagram (work in progress) explaining the core theoretical process. See next page



3.4 Factors to be important for successful ICT implementation

Some scientific studies about the implementation of ICT in education are analyzed with the purpose to find the factors that seems have main importance in relation with an online (eLearning) course implementation.

This step of the research is work in progress. Until now, scientific studies focused on the competences and the role of online teaching (Goodyear, 2002; Goodyear P., Salmon G., Spector J. M., Steeples C., Tickner S., 2001; Salmon G., 2000), the conditions that facilitate the implementation of educational technology innovation (Ely, D., 1999), the critical success factors for on-line course (Soong M.H.B., Chuan Chan H., Chau Chua B., Fong Loh K., 2001) and also the obstacles to the integration of ICT in education resources (Pelgrum W.J, 2001) are been taken in to consideration.

Brief overviews on the main important factors that I suppose influence the implementation of on online course are presented. The factors are based on theory literature, existing studies and self-thinking after two years EDUM research.

1. Human Resources. Course development Vs. Course delivery

1.1 Development

People and time involved.

Roles covered for the development.

Examples given:

1. Subject Matter expert
2. Instructional Designer
3. Web developer
4. Graphic – Visual Designer

I put forward the hypothesis: The more professional is the development team, the more probable is the positive implementation of the online course.

1.2 Delivery – Teacher competences

Roles covered for the delivery.

Competences present on “*online teacher representation*”

1. Designer
2. Technologist
3. Content facilitator
4. Researcher
5. Assessor - Evaluator
6. Adviser/ Counsellor
7. Process facilitator
8. Manager/Administrator

I hypothesize that the presence of these competencies will make a positive difference in an online course implementation. The more competencies represented in the “online teacher team” the more likely the ICT innovation will be a success.

2. Collaboration – Participation

2.1 Collaboration during the development

This section analyses the positive and negative factors in working in partnership. Positive factors could be sharing knowledge, efforts and costs.

Negative factors could be differences of content production (in term of style and pedagogy), differences of module use and cultural differences.

2.2 Collaboration during the delivery

This section analyses both the collaboration during the delivery among the different partnerships and the students’ and teachers’ collaboration in term of knowledge production (specified in term of involvement in communication and collaborative tool).

I suppose that positive and useful collaboration both in the development phase and in the delivery phase will increase the benefit of the implementation of an online course.

Because learning is a social process (Soong M.H.B., Chuan Chan H., Chau Chua B., Fong Loh K. (2001)), *I assume that an active, constructive and productive collaboration between teachers and students is an important factor that influences an online course implementation.*

3. Infrastructure, technical tools and support

The infrastructure and the technical tools in term of efficiency and availability are the focus of this factor. The analysis will be completed taking in considerations the used friendliness.

I hypothesize that more the technology is adequate in terms of speed, availability and simplicity to learn, the success of the implementation will be higher.

4. Technical competency

According with some scientific researches in the ICT field (Collis, Bates, van der Wende), a major factor in the success of any computer mediated communication program is the computer literacy of its users.

According to this position, *I presuppose a relation to this factor with the implementation of an online course. A teachers’ and students’ sufferance from inadequate technological competences is negatively related with the implementation of an online course.*

5. Institutions – policy context

The Bottom-up initiatives are not long-lived in a university context. Scientific researches show that some institution-wide strategies are needed, with a sensible mix of top-down and bottom-up approaches (Bates, Collis, van der Wende). For online learning to be successful, educational institutions should develop implementation strategies and provide adequate support structures in terms of infrastructure, staff training, and technological assistance. Adopting and integrating a conceptual and organizational framework of learning constitutes an essential element of any such strategy.

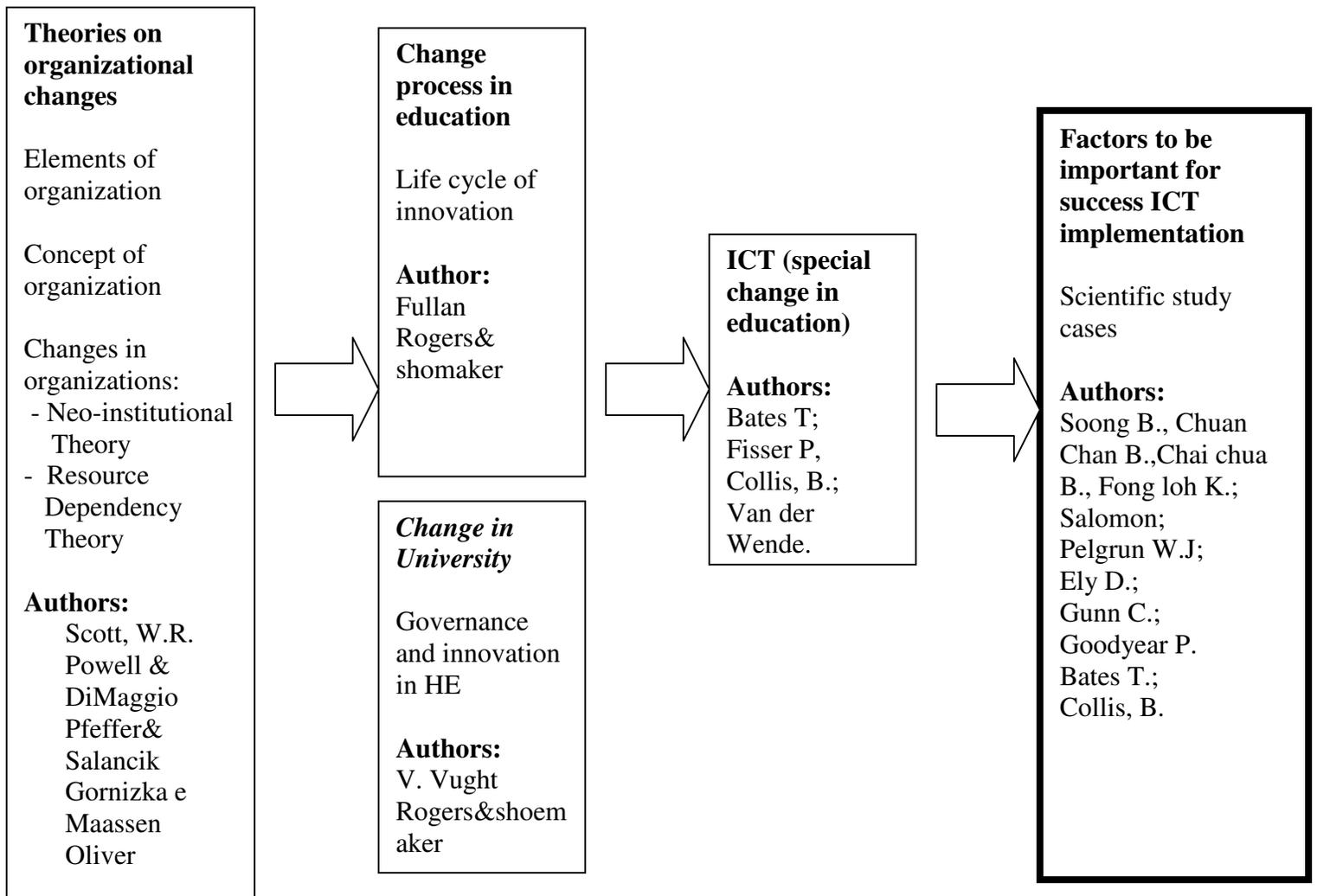
According to Collis (Collis and Moonen, 2001) some institutional components must be present already in the initiation phase of the innovation. These components are the following:

- Vision about technology within the institution;
- Actual level of technology use in the institution;
- Readiness to change in the institution;
- Funding and incentives available;
- Experiences in the past with technology in the institution;
- Adequacy of the technical infrastructure in the institution.

Given this, I believe that if the institutions possess a positive value on these components, the implementation of an online course will have more possibilities to success.

The main factors presented here need further development.

Resuming the linear steps of the theoretical framework:



4. Case-studies Methodology

To answer to the empirical research question **1.b**, three exploratory study cases will be conducted.

In order to understand the main conditions that influence the implementation of online courses in particular programs in higher education institutions, three national programs will be analyzed in explanatory case studies in order to develop corresponding positions.

This is a comparative study. Comparative researchers examine the patterns of similarities and difference across cases and try to come to terms their diversity. According to Yin (Yin, 1994) a study case is an empirical inquiry that investigates a contemporary phenomenon within its real-life context. This research involves all the four applications for a study model presented by Yin:

- To explain complex causal links in real-life interventions;
- To describe the real-life context in which the intervention has occurred;
- To describe the intervention itself;
- To explore those situations in which the intervention being evaluated has no clear set of outcomes.

A comparison demands that issues in comparison are comparable. This is to say that there have to be enough similarities to study diversities or enough diversity to study similarities.

My approach is a multiple case studies (Yin, 1994). Multiple case studies can generally understand to produce more compelling evidence and therefore the study tends to be more robust. In multiple case studies each case must be carefully selected so that it either predicts similar results or predicts contrasting results but for predictable reasons.

The aim is that the study could cover both the conditions of implementation of online courses and the specific countries context. Kohn (Kohn, 1989) uses the term “cross-national” studies. By this, he means studies that are explicitly comparative utilizing systematically comparable data from two or more nations.

The countries selected in this research are: Switzerland, Netherlands and Sweden.

Switzerland is the primary object of my research. The choice of the other two countries is based first of all on the existence of a program aiming to stimulate innovative use of ICT, promoted at national level comparable to the Swiss Virtual Campus. Furthermore Dutch and Swedish countries present similar characteristics with the Swiss one.

Even though Netherland country area is very similar to the Swiss one (41,526 sq km for the Netherlands and 41,290 sq km for the Switzerland), Netherlands’ population is about 16 million people against the 7,5 for the Switzerland.

In Sweden the population is a little bit more than in Switzerland (less than 9 million people), but definitely superior in the geography country area (449,964 sq km).

The Dutch higher education system is a binary system as in Switzerland, and consists in the *Hogescholen* and the 14 universities (12 in Switzerland). The *Hogescholen* are responsible for higher professional training (in Switzerland they are called Universities of Applied Arts).

With respect to the introduction and implementation of ICT, Dutch higher education institutions can decide themselves whether or not invest in the development, implementation and use of ICT. Although there is no central policy with respect to ICT in higher education, there are some (semi) government funded initiatives which have an impact on the use of ICT Dutch higher education institutions: e.g. the SURF Foundation and the Dutch Digital University (Boezeroy, 2003).

As the Swiss Virtual Campus, SURF Foundations works on the basis of a multi-year plan, renewed every four years (three for the Swiss Virtual Campus). For the years 2000-2003 the Swiss Parliament granted for the Swiss Virtual campus SFr 30 million. From

1998 to 2002 SURF Education (one of the three platform developed in this program) has received governmental funds of about 17 million Euros. Innovative projects are funded with 50% matching funds from the participating higher education institutions (as in the Swiss Virtual Campus program). In addition to the 17 million Euros of governmental funding, Dutch higher education institutions have to pay a yearly contribution of 1 Euro per student. Taken together there has been a budget of about 36 million Euro for four Years (Van der Wende, van de Ven, 2003).

An international comparative survey on the current and future use of ICT in higher education edited by Collis and van der Wende carried out also in the Netherlands (Collis and van der Wende, 2002) demonstrate that the implementation of ICT is an evolutionary process and that a few revolutions have appended so far. Change is slow, and not radical. Almost all universities are experimenting with eLearning, most of them “do not expect revolutionary change as a result from or related to the use of ICT” (Collis and Van der Wende 2002: 7) and they mostly use ICT to improve existing teaching activities, rather than to replace them or to access new educational markets through distance learning. It’s mainly a process of Bottom up where the ICT are introduced in the old practices. This report doesn’t consider Swiss situation, but however it represent a similar trend analyzed in the framework of EDUM project in Swiss higher education institutions (See Lepori, B.; Rezzonico S, 2003a).

The Swedish context is under construction

Semi-structured interviews with several project managers involved in the three national programs will be conducted. At least three interviews for the projects involved in the SURF Foundation and three interviews in Sweden will be performed. For the Swiss situation (the main object of the research) several interviews are in the plan.

Furthermore some interview-discussions with promoters and heads of the program are in consideration. A questionnaire, as a further data collection technique, is not excluded. Significant official documents related to the national programs, written documents such as higher education policy papers, institutional document and country reports related to ICT; project reports and keynotes; and reviews of the existing literature about the adoption of eLearning in higher education institutions, including books, scientific journals, and proceedings of international conferences will be used. Moreover, this research will integrate discussions with people involved in these national projects as ICT experts meet during workshop on the field.

Direct observation will not be a direct goal of the case studies, but it can be imagined that this will be a natural process during the case studies

At the final stage, the results of the three case studies will be compared. The final empirical results will be compared with the initial theories.

The method of analysis has not yet been decided.

4.1 State of the art of the Empirical Part.

Direct interviews realized between April and October 2002 with the exponents from 18 out of 50 projects financed by the Swiss Virtual Campus program are already done in the framework of EDUM project. The interviews concentrated on the organization of

eLearning activities and the relationship between presence and distance teaching, necessary resources, financial issues and institutional relationships. In the framework of EUM project, 10 direct interviews with the Swiss Cantonal Universities and the two Federal Institutes of Technologies have already been done, trying to assess how some Swiss and European Universities have integrated eLearning activities into their educational offer.

Three interviews with SURF Foundation projects and meetings with SURF people have been developed during my stay in Netherlands from February 2004 to April 2004.

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