IMPROVING THE MANAGERIAL SKILLS OF ROMANIAN UNIVERSITY MANAGERS BY A COUNTRY-WIDE E-TRAINING PROGRAMME

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ABSTRACT

In 2009 The Executive Agency for Higher Education and Research Funding in Romania (UEFISCDI, former UEFISCSU) has launched a set of five strategic projects – co-funded by the EU and Romanian government – aiming at improving the Romanian higher education; among them: “Improving University Management”, e-platform-based. As two of the authors were involved in this three-year project (e-platform development work-package), the paper shares the main lessons learnt and key-decisions made in this respect.

The paper covers: short literature survey on the characteristics of e-learning platforms; applying an original mathematical model to rank them accordingly; “make or buy” decision followed by “in-house” e-platform development; pilot survey on how this e-platform started working.

Paper conclusions include implications for the academy policy makers and administrators as well as ICT (Information & Communication Technology) business managers.

As in-progress-project (completion scheduled by 2011 yearend), further research areas, other conclusions and lessons are still to be learnt.

Keywords: university management, management training programme, life-long learning (LLL), e-learning platform, Romania

“The changes that took place ... are more relevant for Romania, whose educational system is still undergoing a profound reform. In order to answer to the nowadays society needs and to create the conditions for a relevant and responsive educational system to the specific needs of the economy, UEFISCSU initiated the project ‘Improving University Management’, its goal is being to promote updated knowledge, modern techniques and actual management instruments for the higher education institutions across Romania.” (UEFISCDI, 2011)
INTRODUCTION

The Romanian Higher Education system has started to develop and approach to a more European higher education model. The main cause is the Romania’s deep concern about the actual reformation process at both the national and European education level. This triggered the appearance and implementation of strategic projects. Back in 2009, the Executive Agency for Higher Education and Research Funding in Romania (UEFISCDI, former UEFISCSU) has launched a set of five strategic projects – co-funded by the EU and Romanian government – aiming at improving the Romanian higher education (2009-2011): “Quality and Leadership for the Romanian Higher Education System”, “Doctorate in Excellence Schools”, “Doctorate Studies in Romania”, “Improving University Management”, “Students’ Unique ID Number”. The aim of these strategic projects is to support innovation in higher-education institutions so that the existing resources to be used more effectively and at their highest quality. As two of the authors were involved in the “Improving University Management” e-platform-based project (namely: e-platform development work-package), this paper shares lessons learnt and key-decisions made in this respect.

The goal of the “Improving University Management” Project is to improve the management of the Romanian universities. The project covers a period of three years (2009-2011) of active life; after this period the management system in the Romanian universities is to change and continue its activity due to the experience gained from this project. The project is expected to have a considerable impact on university management as the target group is its top management: university managers, administrators, decision makers as well as higher education policy makers. They are participating in a life-long learning process focusing towards developing the leadership skills and managerial capacity. The project aims at achieving three objectives: 1) consolidation of intra- and inter-university collaboration to increase the efficiency of the higher education management, 2) provision of quality managerial decisions by developing the higher education managerial staff and 3) development of the potential of the university human capital by creation of a knowledge and communication virtual platform.

The project highly benefited of international expertise – via University of London – Institute of Education.
The on-line training programme includes modules such as: Strategic Management, Educational Policies, Institutional Governance, Resource Management and Sustainability, Research Administration, Quality Management, Standards of Integrity. The component we are focusing on is connected to the web platform.

The e-learning platform for the “Improving University Management” project represents primarily a way of communication and continuous interaction among all the participants to the formation modules. The users have access to the modules and all the related documentation. In addition, the users are able to interact with one another in a modern and rapid way by using the integrated forum. Among the main activities developed in creating the project’s e-learning platform one highlights: the building of the formation platform, its contents’ improvement and the means of providing access to it.

This paper covers: short literature survey on the characteristics of e-learning platforms; applying an original mathematical model to rank them accordingly; “make or buy” decision followed by “in-house” e-platform development; pilot survey on how this e-platform started working. The methodology includes both secondary and primary research; DISTEH Method (Scarlat, 1980, 1981, 1987, 2000) is part of the research methodology. Paper conclusions include implications for the academy policy makers and administrators, consultants as well as ITC (Information Technology & Communication) business developers and managers.

As in-progress-project (completion scheduled by 2011 yearend), further research areas, conclusions and lessons are still to be learnt.

**LIFE LONG LEARNING (LLL) AND E-LEARNING PLATFORMS**

The life-long learning (LLL) has a growing importance in the knowledge-based society. The labour market and society require stronger and stronger flexibility, adaptability, creativity and motivation from its citizens (both young – who have just accomplished their formal education, and mature – people active in labour market). LLL shapes key competences for each individual.

In time, amid the various trends and changes in the on-line training, there are two paths that go simultaneously in parallel: socio-pedagogy advances and technology advances (Table 1).
Table 1: Trends and changes in education and training (adapted from Scarlat et al. 2010, 622)

<table>
<thead>
<tr>
<th>Trends and changes in education and training</th>
<th>Trends and changes influenced by technology advances</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Classroom education and training</td>
</tr>
<tr>
<td>Trends and changes influenced by socio-pedagogy advances</td>
<td>→</td>
</tr>
<tr>
<td></td>
<td>Formal education</td>
</tr>
<tr>
<td>Life-long learning (LLL)</td>
<td>...</td>
</tr>
</tbody>
</table>

According to Leinenbach (2007), there are key differences between traditional (face-to-face) education, distance, and on-line education (Table 2).

Table 2: Differences and similarities between different types of education and training

<table>
<thead>
<tr>
<th>Type of education and training</th>
<th>Communication type</th>
<th>Interactivity</th>
<th>Media type</th>
<th>Location dependent</th>
<th>Time dependent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face-to-face education &amp; training</td>
<td>One-to-one</td>
<td>Yes (synchronous)</td>
<td>Black/white board</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>One-to-many</td>
<td></td>
<td>Books, paper</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Many-to-many</td>
<td></td>
<td>Video-projector</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distance education &amp; training</td>
<td>One-to-one</td>
<td>Yes</td>
<td>Books</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>One-to-many</td>
<td>(asynchronous)</td>
<td>Letters</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>A/V cassettes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On-line education &amp; training</td>
<td>One-to-one</td>
<td>Yes</td>
<td>Computer/web text</td>
<td>Yes (synchronous)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>One-to-many</td>
<td></td>
<td>Multimedia video-conferencing</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Many-to-many</td>
<td></td>
<td></td>
<td>No (asynchronous)</td>
<td></td>
</tr>
</tbody>
</table>

(Adapted from Leinenbach 2007, 20)

The gradual development of modern on-line education was a continuous process, based on a “positive competition” between the higher educational needs and technology advances; in addition, ICT companies are more and more concerned by e-learning development based on specific quality, content or security standards. Simultaneously, an e-learning pedagogy has successfully developed – from Mason and Kaye (1990), Berge (1995), Berge and Collins (1995); to Salmon (2004) and others; and leading to the key-concepts of e-learning (Mason
Salmon has also developed a five-stage model for e-learning (so-called “e-moderating”): (i) Access and motivation; (ii) Online socialization; (iii) Information exchange; (iv) Knowledge construction; (v) Development (Salmon, 2000).

Formal education is not only the “chalk and blackboard” teaching that is only a method to deliver a content but a barrier to creativity and innovative ideas.

The university (modern type of university that owns and uses an on-line network) has a major role in on-line LLL since it represents the taking off track for a person (graduate students, post-graduates or post-doc fellows). The university is the last stop before starting one’s career and it is also the lifetime reference/link to the knowledge base, social and cultural key features of the individual. A university may be viewed either as a LLL deliverer/provider or as a LLL container. Hence, with the help of LLL, not only does the university help others improve and develop outside its traditional walls but it also helps the ones inside/within its “walls”.

There are several differences between the classical university and on-line university: it is true that the classical university is oriented more towards stable (rather fixed and “heavy-content” materials), limited (time and place constraints) and oriented (no adaptability to students’ background or encouragement of different social categories of people to become motivated and advance in their careers) access to higher education whereas the on-line university sustains a fast and secure virtualization of the higher education always connected to the recent events and trends taking place on the market. The issue is not to decide which type of university is more important. Let us understand the on-line university as the virtualization of the classical university; this view offers an image of interacting creative minds and ideas inside an overgrowing system – the entire world. Or, better, just consider the on-line university a capability of the new generation of universities.

On-line training and e-learning platforms should be discussed together since they are strongly connected through “on-line” and “electronic” but the two concepts are not identical. On-line training refers to all the types of training using the internet or any other system that allows distance training while e-learning platforms are training instruments used in on-line training (Scarlat and Barda, 2010). Some of the main features of the on-line knowledge and experience improvement are the following: no time and fixed place constraints, application adapted to the user needs, well-organized information, student-centred teaching (every student
can learn at his/her own pace), accessibility, high interaction among participants, interconnectivity, team learning and team building activities, variety of course materials.

Besides teaching management, the education has its own management (Hockley, 2007). University management is valuable equally within (through staff improvement training programs) and outside the university (mainly through enhancing techniques to attract students from worldwide, realize globalization and internationalization of education). Quality decisions within the top management decision process are usually supported by quality management programs and trainings of managers. As modern means of education, e-learning has its own management and learning strategies: controlled, self-controlled, and collaborative learning (Leinenbach, 2007).

The quality and performance of the ICT infrastructure is a key success factor in a project like “Improving University Management”.

There have been made evaluations for different e–learning platforms and on different criteria depending on the evaluator’s point of view on selecting the features he/she considered most appropriate for a certain purpose. A summary of the criteria used to select an e-learning delivery platform (ELDP) system for delivering education via open and distance learning (ODL) environment is presented by Muthusamy and Fadzil (2005). The criteria satisfy the requirements for courses such as management as well as other study areas. These criteria represent the multiple perspectives of different actors involved in e-learning process: course developer, course learning-ware developer, course lecturer/tutor, e-learning administrative staff, technical support staff, student, and university administration.

Based on e-learning evaluation criteria as Navigability, Applicability, Instructional structure and Interactivity, Ahmad and Härdle (2008), have analyzed statistically a student sample with the aim to provide data to justify the results or evidence to support that the e-learning platforms are helping the students to learn more effectively.

The evaluation made by Pinter and Radosav (members of EduTools community) based on the “seven tools” ("communication tools", "productivity tools", "Joining the group and tools for animating", "Administration tools", "Presentation tools and lectures distribution", "Software requirements", "Price") helps in comparing four e-learning platforms: Claroline 1.5.3, CourseWork, WebCT 4.0 and Virtual Classroom (Pinter and Radosav, 2005).

Another view on evaluating e-learning platforms is the one using the Qualitative Weight and Sum (QWS) Approach, developed by Graf and List (2005), Vienna University of Technology,
research funded by the Austrian Federal Ministry for Education, Science, and Culture, and the European Social Fund (ESF) under grant 31.963/46-VII/9/2002. Their approach is based on establishing clear criteria and applies different weights for them. This evaluation regards nine open source e-learning platforms: ATutor 1.4.1, Dokeos 1.5.5, dotLRN 2.0.3, ILIAS 3.2.4, LON-CAPA 1.1.3, Moodle 1.4.1, OpenUSS 1.4, Sakai 1.0 and Spaghettilearning 1.1.

Yugopuspito et al. (2006) have proposed a model that measures the e-learning performance in a University.

Scarlat and Barda (2009) have initiated a study on e-learning platforms and their performance – aiming at finding which e-learning platform best satisfies the project’s and customer’s needs. The survey has identified the major producers as well as the set of criteria used to evaluate the e-learning platforms. Choosing the most suitable e-learning platform is not an easy task – mostly because the large variety of their technical features and operation characteristics. This evaluation should be fair and objective (the next section of the paper will actually deal with this issue).

**KEY-DECISIONS MADE IN THE PROJECT – AS FAR AS E-PLATFORM SELECTION**

A set of six e-learning platforms were considered suitable for the “Improving University Management” project – as featured by Drewitz (2009): ATutor, Claroline, Dokeos, Ilias, Moodle and Nano-Train. In order to select the best one, the DISTEH method for absolute ranking was applied (Scarlat et al., 2010). The DISTEH method is an original method – based on one author’s own research (Scarlat, 1980, 1981, 1987, 2000). It was originally named “DISTEH” (Costake and Scarlat, 1981: 18). DISTEH is actually a multi-purpose multicriteria decision-making model (Scarlat, 2005) which was tested in a number of practical training, consulting and research circumstances and continuously improved.

The results of applying the DISTEH method for absolute ranking are displayed below:

I. Moodle (technical distance = 0)
II. Dokeos (1.58)
III. Claroline (2.06)
IV. ATutor (2.23)
V. Ilias (2.59)
VI. Nano-Train (2.91)
Note that – according to the method – the smaller the technical distance (positive value scale, \(0 = \text{max}\)), the better the product’s overall performance: as seen, the Moodle e-platform outperforms all others. This is in line with the results obtained by Graf and List (2005).

However, the e-learning platform for the “Improving University Management” should have some important features as: rapid access to the materials; user friendly interface; possibility to know the latest news especially regarding the topic of the selected work area; flexibility in contacting any registered person on the e-platform; specific facilities in searching for the necessary information on the e-platform.

For these reasons, the DISTEH method for relative ranking was used – in order to identify the most suitable e-learning platform: as a result, the profile of a “would-be” e-learning platform was produced. As this profile does not have a real correspondent among the existing e-learning platforms, such a “would-be” platform should be either bought or in-house developed. Following to a decision made at the Project Board level, the e-platform of the “Improving University Management” project was in-house built ("make" not “buy” decision).

**COUNTRY-WIDE TRAINING PROGRAMME IN MANAGEMENT**

During the “Improving University Management” project, several regional training centres were developed within five major universities (in Bucharest, Iaşi, Cluj-Napoca, Timişoara, Sibiu) – the so-called “competency centres” (UEFISCDI, 2011) and local tutors were trained in parallel with training curricula development. The e-learning platform functions were checked and training modules were piloted.

As part of the e-platform development work-package, a pilot study was conducted in early 2010 – aiming at testing the functions of the e-learning platform and identifying possible solutions to improve its usefulness and accessibility.

**Study Objectives and Methodology**

The specific objectives of this pilot study were to:
- Test the e-learning platform accessibility and functions;
- Assess the structure of the training materials (the e-learning platform’s base of knowledge),

as perceived by the members of tutoring teams (how they feel about the use of the e-learning platform) – in order to identify dysfunctions or problems that may spring while using the e-
platform, and collect suggestions to improve the e-platform accessibility and its functions; eventually to develop a self-monitoring IT application and integrate it within the platform.

The study targeted all competency centres across Romania, located in five university cities (Bucureşti, Iaşi, Cluj, Timişoara, Sibiu) and 15 tutors from the above listed centres – small but relevant sample. The research method was e-mail questionnaire-based survey completed by face-to-face interviews (primary research). The study was conducted between January-March 2010: questionnaire development in January-February and e-mail exchange in March.

Survey Results
A number of 13 filled, valid questionnaires were returned out of 15 questionnaires sent (rate of response 87%). Almost half of respondents (6 tutors ~ 46%) were experienced e-platform users (more than three months); 4 tutors are new users (less than one month) while the remaining (3 users) felt in between (one-to-three months of use). The e-learning platform was used mostly for training material down- and up-loading (42% of cases). Surprisingly, the e-platform was utilized very little for communication with other tutors (8%).

A summary of the survey results is displayed in Table 3. The answers are neatly polarized: with two exceptions, 13 tutors assessed the e-platform’s accessibility and functions as very good or good. The two general exceptions were neutral, did not provide reasons for their lack of satisfaction, or did not express any opinion.

Table 3: e-platform accessibility and functions (1-to-5 scale; 1 = min, 5 = max)

<table>
<thead>
<tr>
<th>e-platform features</th>
<th>Assessment [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Accessibility</td>
<td>8</td>
</tr>
<tr>
<td>Access speed</td>
<td>8</td>
</tr>
<tr>
<td>Quality of the training materials</td>
<td>-</td>
</tr>
<tr>
<td>Quality of communication</td>
<td>-</td>
</tr>
<tr>
<td>Training process usefulness</td>
<td>-</td>
</tr>
<tr>
<td>Teamwork usefulness</td>
<td>-</td>
</tr>
<tr>
<td>Personal development usefulness</td>
<td>-</td>
</tr>
<tr>
<td>Overall usefulness</td>
<td>8</td>
</tr>
<tr>
<td>Overall satisfaction</td>
<td>-</td>
</tr>
</tbody>
</table>
* Two respondents did not provide any opinion

In general, no problems or difficulties were reported while using the e-platform. However:
- Two users signalled conflicts when a certain resource material is accessed by several users and “difficult upload” or “difficult access at some library resources”;
- One tutor has identified reading errors when tried to access some materials of a specific training module;
- One tutor did not use the platform at all while developing training materials.

Just two suggestions were made for the project implementation team:
- to extend the use of the e-platform by posting administrative documents and announcements;
- to count the number of visits per training module (beside the total number of site visits).

**Survey Conclusions**

Most respondents (9 out of 13) are relatively experienced e-learning platform users. The respondents’ opinions are neatly polarized: 13 opinions are positive while two persons are systematically critical (not always documented or sustained).

About 85% of the e-learning platform users (as tutors) have assessed the platform as very/useful, rapid and easy-to-use for: training sessions, teamwork, team communication, and personal development. However, it seems that the e-platform is sub-used for communication and training purposes.

In general, there were no major technical or administrative problems encountered as far as using the e-learning platform for developing training materials. Just two suggestions were made.

**Survey Recommendations**

By the end of the pilot training – as a result of this survey – some changes were made:
- Operate some changes in the e-platform structure – in order to comply with the tutors’ suggestions;
- Minor adjustments regarding the questionnaire format.

As the survey had a test character (after the pilot training sessions; limited to tutors), it is recommended to continue and extend the survey as follows:
- To cover all training sessions – (after the pilot as well as next set of training sessions);
To address to all e-learning platform users (tutors as well as training participants).

By the end of the project (2011 yearend) it is aimed to integrate the questionnaire in the e-learning platform (online survey) for monitoring purposes as well as for automatic report generation.

CONCLUSIONS

While working in the “Improving University Management” Project some management lessons were learnt – for both academics (policy makers, curricula developers and university managers) and business people (ICT business managers and e-learning platform designers).

• Improving the management of the higher education and research system is a strategic issue that might be accomplished by well-designed, clear strategies, and setting project-based, longer term objectives. This is part of the mission of a nation-wide policy making body, and a major task for the higher education policy makers.

• The human capital is a key-resource as well as a driving force in such process; and the management factor is a multiplier in any organisation – mainly within (higher) education institutions. International expertise (as University of London – Institute of Education) is a valuable resource.

• Better higher education management can be achieved by long life learning (LLL) of the university managers and the quality ICT infrastructure is a key success factor. An e-learning platform is the right technology. New technology goes hand-in-hand with modern management. University management is a particular type of management which requires proper and specialized training (being a prestigious professor does not necessarily mean being a good manager).

• The e-learning platform that best satisfies the project’s needs is the one that best matches the needs and expectations of all parties involved: project promoters, beneficiaries and administrators; curricula developers, trainers and trainees. The most suitable e-learning platform is not the best of all but the one that best matches the above needs and expectations. The DISTEH model is a useful tool for assessing the technical performance of e-platforms and ranks them relatively to the point that describes those needs and expectations. This model is a powerful tool to be used twofold: by education technology suppliers (ICT engineering) and education technology clients (decision makers when purchasing).
As result of the DISTEH analysis, the profile of a “would-be” e-learning platform may or may not have a real correspondent among the existing e-learning platforms. Therefore, a “make or buy” decision should be made: either bought or in-house developed. In the current project case, following to a decision made at the Project Board level, the e-platform of the “Improving University Management” project was in-house built (“make” not “buy” decision). This is a good decision making case for top and finance executives.

Good projects do not end when project implementation is completed and good product development does not stop when the product is sold. Regardless the “make or buy” decision, the functions of the e-learning platform and the satisfaction of the e-platform users should be continuously monitored by off-line or on-line surveys; consequently, the training materials as well as platform functions are continuously adjusted and improved. Pilot surveys are used for testing the survey tools (such as off-line or on-line questionnaires). Close cooperation between e-learning platform developers and administrators is required.

LIMITATIONS AND FURTHER RESEARCH

This is just one project experience. After the completion of all (five) strategic projects, their impact should be assessed and more lessons are expected to be learnt.

This pilot survey was conducted right after the pilot training sessions and addressed to the tutors only. The results are not intended to be generalized but rather to improve the research methodology and questionnaire format. Further research will also continue and extend the surveyed population as follows:

- To cover all training sessions – (after the pilot as well as next set of training sessions);
- To address to all e-learning platform users (tutors as well as training participants).

It is also aimed to integrate the questionnaire in the e-learning platform (online survey) for monitoring purposes as well as for automatic report generation.

As in-progress-project (completion scheduled by the 2011 yearend), other research areas, conclusions and lessons are still to be learnt.
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