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PROCEEDINGS

of 2nd International Conference Institutional Strategic Quality Management in Higher Education

ISQM 2010

organized by
The Romanian Agency for Quality Assurance in Higher Education
supported by the project:
ACADEMIS: QUALITY ASSURANCE IN HIGHER EDUCATION IN ROMANIA
WITHIN EUROPEAN CONTEXT. DEVELOPMENT OF ACADEMIC QUALITY MANAGEMENT
AT SYSTEM AND INSTITUTIONAL LEVEL
POSDRU/2/1.2/S/1, Project Manager Prof. Ioan CURTU

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- volume I -

Sinaia, Romania
October 14 – 16, 2010

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14 - 16 October 2010, Sinaia, Romania

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CONFERENCE TOPICS:

- The impact of international cooperation in Quality Assurance of Higher Education;
- International evaluation in Higher Education Institutions;
- New environments and challenges in Higher Education;
- The Best Practices in Quality Management, new policies and practices in Higher Education;
- Transnational Education of the Quality Assurance;
- Student contribution in Quality Assurance of Higher Education Evaluation;
- Labour market and Bologna graduates.

The content of the present paper is not necessarily the official position
of the European Union or of the Romanian Government

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Development of Academic Quality Management at System and Institutional Level
POSDRU/2/1.2/S/1 – ACADEMIS***

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FOREWORD

The ISQM2010 aims to provide opportunities for exchange of information, good practice and ideas in international university cooperation as a key condition for quality assurance in higher education. It will provide an opportunity for academics, students, educational and quality improvement administrators and researchers to promote discussions and share knowledge, experience and expertise on the developments and best practices in Higher Education Quality Assurance.

This conference will also analyze the challenges and issues pertaining to new developments, innovation, and technology based education. Policies, governance, management in education and transnational education will also be discussed.

Invited and selected papers are written by experts and practitioners from academic sector in order to find new solution and good practices for higher education. The subject of papers of Proceedings covers topics and streams in order to familiarize themselves with the trends and to work towards a common attitude with respect to quality assurance in higher education. The topics of conference are: “The impact of international cooperation in Quality Assurance of Higher Education”, “International evaluation in Higher Education Institutions”, “New environments and challenges in Higher Education”, “The Best Practices in Quality Management, new policies and practices in Higher Education”, “Transnational Education on the Quality Assurance of Higher Education Evaluation and Labour market and Bologna graduates”.

We consider that this conference will address a range of critically important themes relating to quality assurance in Higher Education.

This volume contains 68 selected papers of the 2nd International Conference - Institutional Strategic Quality Management in Higher Education. The International Scientific Committee reviewed all submitted papers and selected the best papers.

We thank all the contributors to the success of this conference.

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DYNAMICS OF CHALLENGES IN ROMANIAN HIGHER EDUCATION AND THE RESPONSE OF UNIVERSITIES

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Abstract

Romanian higher education, elitist and highly centralized during the totalitarian regime, has developed by a structural and functional dynamics in close correlation with the new changes in the social-economic, political, cultural and mentality sectors of a transition society. Romanian universities have experienced a quantitative and qualitative adaptation to an uncertain and contradictory environment. Over the past two decades, some of the signals from this environment have become major challenges and therefore have required rapid responses from the universities or the whole system. A first challenge, with direct impact, especially quantitatively, was the gap between supply and demand. The response was immediate, with the emergence of private providers of tertiary education through the emergence of new state universities and by increasing the annual tuition at state universities. The second challenge was to adapt curricula to democratic life and market economy, whose consolidation was in progress. In this regard, there has been a resizing of the technical, economic, legal domains and of those belonging to social sciences. The third challenge was identified as a slow, but permanent degradation of the quality of higher education. The central responsible institutions tried to counter this tendency, and the majority of universities already introduced internal procedures for quality assurance of their services. The fourth challenge was due to underfunding by reducing resources allocated from the state budget. The system's response consisted in the introduction of tuition fees in the higher education state institutions. The fifth challenge is outlined by the trends of hypertrophy of large university centers, especially the capital. The counteraction of this phenomenon is reflected in the trends of territorial decentralization of the educational offer. The sixth challenge has meant the participation in creating the single European higher education space.

Key words: higher education environment, university restructuring, higher education system.

1. Introduction

Romanian universities, and the overall higher-education system, underwent a spectacular evolution during the transformation from a centralized system to the market economy. Considering the very large momentum in the evolution of such a process, the transformations that came about were the result of political, economic, social and cultural factors. The action of these factors was not a linear one, but it came as shocks, which were integrated at a slower or faster pace in the structure and functionality of the higher-education system. A group of such shocks was assimilated as a challenge, especially when the challenge required consistent reactions from the main actors in the field of higher education.

The structure and dynamics of the higher-education system during the Communist period, but also that of the post-1990 system, have been exhaustively discussed by specialists from various fields. Most studies have focused on studying the education systems at a nationwide scale, highlighting their challenges in the context of the transformation from a centralized system to a market economy and a

democratic society ([6], [2], [9], [11], [14], [20], [17.], [7], [22], [13], [18], a.s.o.). Other studies approach the education system at a global scale ([3], [16]), a European scale [5] or they focus on smaller areas, such as Central and Eastern Europe ([15], [21]). In such a work [3], Dizambourg advances the creation of a potential international model for the evolution of the university sector, which should be grounded in a set of goals; fundamental goals would include distribution of knowledge throughout the overall economic and social structures and centering the education process on the student. At the same time, the reunion of national goals in higher education into a practical model with chances to succeed must also factor in the current challenges university systems with a capitalist tradition introduce as part of policies to optimize the university education system. Among them, one should mention the introduction of university specializations matching the demands of the labor market, the direct and indirect impact of universities in regional development [1] or the role of university consortia as platforms for the development of academic activities, as well as means to increase their visibility [12].

In Romania, the changes that occurred on the domestic and European workforce markets, the increase in the mobility of the workforce and the professional and geographical migration flows have driven employers to emphatically request officially-validated information on the quality of education in the institutions extending education and professional training services. Subsequently, analyses carried out in the field systematically attempted to capture the main characteristics of the radical transformation of the national higher-education system and of the Romanian university in general ([22], [19], [4], [8] etc.).

2. Methodology

The present study analyzes six challenges - deemed major challenges - the Romanian higher-education system faced in the past 20 years, during the process to adapt to the demands of market economy and the process to synchronize with European trends, boosted by the Bologna Declaration. This analysis was grounded, on the one hand, in the direct acquaintance with the dynamics of the university and higher-education system in Romania, and on the other hand in the norms published in the field since the 1990s, the studies carried out and the statistical databases published. In addition to these statistic data, other data and information directly supplied by universities were also used. All these elements allowed for an interpretation of the most important quantitative and qualitative phenomena specific to the university sector.

The guiding idea of this study was to synthetically highlight the main challenges identified in two decades of transformations, which stood out in organizing the structure of the higher-education system and universities in creating their own strategies for territorial insertion. Individualizing these challenges complied with a certain temporal succession, with the universities' reactions highlighting stages in the evolution of the higher-education system. The logic in approaching each challenge consisted in the following steps: presenting the context of its emergence, highlighting the main characteristics, individualizing the universities' or the higher-education system's response. Behind that response, there are either centrally-adopted policies or individual policies of the university institutions.

3. Results

Bearing in mind the relatively limited length of such an analysis, presenting the results for each of the six challenges was deemed relevant.

3.1. A huge gap between demand and offer

Before 1989, the national and regional distribution of universities was uneven; it did not cover all parts of the country and therefore did not offer easy and equal access to studies to all potential

candidates. The pressure exerted on higher education before 1990 was proven by a steady growth of demand for that level of education, but unsatisfactory for a limited offer which focused on those fields that could ensure the country's economic progress.

In this context, the development of higher education came against a first challenge, upon the collapse of the totalitarian regime, *high demand versus numerically low offer*. The extraordinary scale of demand required an immediate reaction from universities, favored by the newly-passed legislation, the emerging university autonomy and the increasingly cooperative attitude of the specialized Ministry. As a result, the next few years saw the offer boom, thanks to the emergence of private universities, the emergence of new state universities and the expansion of traditional universities. "Nowhere else in Central and Eastern Europe did private higher education develop as rapidly as it did in Romania", certain analysts in the field pointed out ([10]). At the same time, private universities were supported and encouraged by a permissive legislation, which eventually brought about a change in the behaviour of potential students, channeled into a predilection for this type of education. In this respect, the growth in the number of students in private universities, especially since 2000, was spectacular.

The diffusion of university services, post 1990, can also be analyzed in terms of the multi-phased growth of the number of cities hosting higher-education institutions or branches of the universities in the various traditional centers. For instance, seven new higher-education centers emerged as early as during the 1990/1991 university year. In the next four years, higher-education establishments emerged in another 10 localities, usually county seats (Buzău, Târgoviște, Târgu Jiu, Drobeta Turnu Severin, Botoșani, Deva) or towns that had played a certain cultural part at a certain moment in time (Blaj, Lugoj, Vălenii de Munte and even Caracal – with the Vălenii de Munte and Caracal institutions closed down during the 1996/1997 university year). Post-1992, some of these institutions were converted by a government's decision into universities; the same procedure was used to turn into universities other institutions in cities that had developed higher-education activities immediately after the collapse of the totalitarian regime (those in Alba Iulia or Arad) or institutions that had operated as technical colleges before 1990 (those in Bacău, Baia Mare, Târgu Mureș, and Reșița, among others). Starting the 2001/2002 university year, there was a drop in the number of higher-education institutions, and even the disappearance of centers such as Vatra Dornei, Făget, Geoagiu or Slobozia. A large part of the 33 institutions dismantled starting with the 2002/2003 university year was located in Bucharest or in the traditional university centers (Iași, Timișoara, Brașov, and Oradea, among others).

3.2. Adjusting the content of study programmes to democratic society and market economy

The Communist heritage of countries in transition towards capitalism included not only the distortions of planned economies, but also the aftermath of a higher education system controlled by the former regime. In Romania, especially in the post-1970 period, university course offerings were dictated by the political system, and were mainly tied to the development of industry and agriculture. This meant an increase in the number of technical and agricultural university graduates, to the detriment of the humanities and social sciences (sociology, theology, communication or public relations). With the collapse of communism, the connection between higher education and guaranteed jobs was eliminated, and, alongside the dramatic decline of the heavy industry and the farmland reform, the future turned quite uncertain for large numbers of engineers, agronomists, physicians and chemists.

In the 1990s, polytechnic and construction universities significantly downsized their course offerings, a trend that coincided with the migration of the highly-skilled workforce abroad, or the retraining and reorientation of engineers to other fields of the economy on the domestic market. The labor-market shortage of specialists in various sectors of industry occurred simultaneously

with an increase in specialists in legal science and economics. A large part of the students of these schools went on to graduate directly into unemployment, a fact enhanced by their increase in numbers in private schools.

Currently there are no definite forecasts of the workforce in the medium and long run, as there is no focus on those fields and specializations with the potential to benefit the country's economy. The relation between the education market and the workforce market is in an early phase, supported by the direct collaboration of economic companies and the academia.

3.3. A slow and steady deterioration of high-education quality

The elitist nature and the complex, "harsh" standards of higher education in the totalitarian period were replaced by mass education and an assessment system that would often make allowance on quality. As one could notice as early as 2001, in its transformation from selective education to mass education, the quality of education underwent a steady process of slow degradation. The first signs as to the deterioration in the quality of higher education were base in the boom of private education suppliers, which came close to 80 in the first decade. As a result, the creation and activity of the National Council for Academic Evaluation and Accreditation (CNEAA), as regulated by Law 81/1993, meant an important landmark in limiting the geometric-progression multiplication of study programs. The accreditation of around 30 universities, starting 2001, first by an emergency decision and then by a law, created the premises for a process of institutionalized selection among private suppliers of tertiary education, slowing down the process of creation of new institutions in the field.

One important landmark in improving the quality of higher education was the creation of the Romanian Agency for Higher-Education Quality Assurance (ARACIS) in 2005 and launching the systematic monitoring of quality in higher-education institutions. In 2009, ARACIS was acknowledged and received a European certification as an institution able to evaluate higher-education quality at a European scale.

During this process, the majority of education providers reacted to the trend towards a deterioration by enhancing responsibility in assuring quality, establishing efficiency criteria in advancing new curricula, periodic assessment mechanisms for both curricula and faculty staff, enhanced caution in promoting faculty members, and permanent modernization of the infrastructure and teaching technologies.

3.4. The underfinancing as a result of diminishing state-budget-allocated resources

In the long run, the Romanian university education system suffered because of public-money underfunding, a process that gradually grew more severe. ***The cumulated annual effects of underfunding higher education***, despite an increase in the absolute values of the basic funding allocated to state universities, are reflected in: the deterioration of assets, the inadequate equipment used in laboratories and classrooms, the absence of structures specializing in supporting university management, the absence of research facilities (libraries and especially access to international publications) or the absence of additional resources needed to assure quality [18].

As a result of the shortage of resources, tuition fees were introduced in state institutions starting with the 1998/1999 year, fees managed by each of the universities depending on their own priorities. In the long run, the state universities' response to underfunding consisted in an

exaggerated increase in the number of tuition-fee students (doubling the number of students whose tuition was funded from the state budget), multiplication of the sets of courses, and enhancing the interest to boost scientific research. The first two actions had direct negative effects, while scientific research rejuvenated university activity.

3.5. A hypertrophy of the large university centers, especially the capital

By the 2008/2009 university year, there were 106 authorized higher-education institutions to operate in Romania, 56 of them state higher-education institutions and 50 private higher-education institutions [24]. Their distribution across the territory indicates both categories saw a significant concentration in Bucharest, a city that accounts for around 33% of the total (28.6% of all state universities and 38% of all private universities). At the same time, the capital city of Bucharest accounts for 43.6% of all students in Romania, as it covers all fields of study, from agricultural sciences to the arts, theater and film.

Post-1990, there emerged a nationwide trend - a decreasing ratio for traditional centers – a trend that not only endure, but grew steeper. This can be explained by both the trend towards a visible hypertrophy of the capital city, but also by the emergence of new university centers with a regional destination, locate in areas with high human potential. In addition to Bucharest, there are at least two other university centers with a very high potential for impact in the region: Cluj-Napoca and Iași; each of them host 10 higher-education institutions, accounting for 6.9% and 6.76%, respectively, of all students in Romania.

When assessing the universities' response to the trend of national or regional hypertrophy, one must consider that Bucharest's importance is exaggerated by the statistic data. We must take into account that circa 270,000 distance-learning students at the "Spiru Haret" University in Bucharest actually carry out their activity in territorial centers active in more than 50 localities in the province. In order to temper the hypertrophy effect at regional scale, some of the large universities with long traditions have created branches, which operate with outstanding success in areas of the country previously deprived of higher-education institutions ("Babeș-Bolyai" University from Cluj-Napoca is the best example).

3.6. A consistent participation to creation of a unique European Higher-Education Area

In addition to the above-mentioned challenges, which concerned features of national or regional restructuring and reorganization, in the past few years the educational system was strongly influenced by existing international pressure, and especially the reform in education triggered by the Bologna process.

The Bologna process means a reorganization of the old educational systems and connecting them to a sole, European, system, grounded in a similar structure of cycles of studies, on students' and teaching staff's mobility, on shared quality-assurance instruments, on supporting scientific research. The process is meant to reshape higher education in the 46 participating countries (the EU member countries and another 19 non-members) and create the so-called European Higher Education Area.

In Romania, the transfer to this new system was a process that began with the adoption of the Law on university study program structure (2004), which added to Education Law 85/1995. Subsequently, because of Law 288/2004, with its later additions and expansions, starting the 2005/2006 university

years, higher-education institutions in Romania went on to organize university education into three cycles, ending in bachelor's, master's and doctor's degrees, respectively [8]. The universities' response to this challenge was unanimous; in many instances it was universities that exerted pressure to speed up steps to implement the stipulations of the Bologna Declaration and the documents later approved by Education Ministers in EU member countries.

4. Discussions and conclusions

The conversion from one economic model to another involves transformation in all fields, including education. If those transformations are not monitored, and, moreover, if no corrective action is taken in due time - if they fail to match the general situation of the higher education system at a given moment - there is a risk they might grow severe in the long run, and, in some cases, turn attempts to temper their effects (by legislative, economic, social means of intervention) into an impossible task.

The dynamics of the above-mentioned challenges required the response of universities and central authorities, which consisted in nationwide strategies as well as specific action by the tertiary-education providers. The increasingly consistent legislation in the field allowed for the containment of the proliferation of education suppliers, but also the slight increase in quality – at least in a few fields (automation, cybernetics, informatics, biology, environment sciences and others). The major problem for Romanian state and private universities is related to the access to sources of funding, and to optimizing the ratio between the various categories of teaching staff.

It is obvious that the very complex problem of the succession and interaction of these challenges and the universities' permanent reactions can be approached from various perspectives. This study is basically meant to highlight the essential and complex aspects of the transition from one system of education to another, in lockstep with fundamental political, economic and social changes.

In order to create a synthetic overview of this transformation, the result of Romanian experience in the field, we submit for debate a model for the transition of higher education from a centralized system to a performance- and quality-oriented and decentralized one. This transformation involves at least four stages, with several actions (Figure 1). All these stages can be identified in the post-1989 evolution of Romanian higher education, and some of the actions are yet to be accomplished.

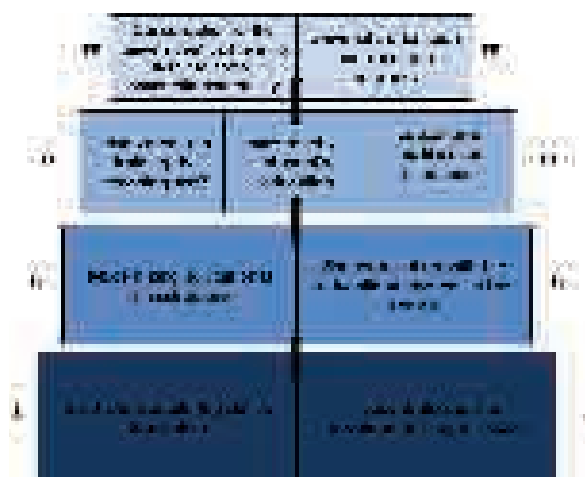


Figure 1. A hypothetical model for higher-education transition

To draw a conclusion, in the post-1990 era, the Romanian university system underwent a permanent adaptation to the demands of market economy, which involved its constant reorganization. This process consisted in a series of changes function of the socio-economic, political, cultural requirements typical of a society undergoing transformation. In the past two decades the system reacted to the challenges that arose nationwide, but, upon Romania's EU accession, this involved a much closer synchronization with the current European educational features. The new academic landscape, including state, corporate, private and virtual institutions, generates itself different types of challenges for continental higher education system [23]. In this context, quality assurance management in Romanian higher education undergoes steady improvement, so that it could fully integrate in the European higher-education space, but also comply with the current and future demands of national economy and culture.

Acknowledgement

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CREATIVITY ROLE IN TRAINING SKILLS AND IN QUALITY ASSURANCE IN HIGHER EDUCATION

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Abstract

Creativity constitutes one of the most important aspects which must be taken into account in quality assurance and assessment in higher education. It is considered that creativity level of higher education graduates must be approached differential on the three levels corresponding to Bologna process, respectively Licence, Master, and Doctorate. Starting from creativity role in training skills, according to Methodology of achieving of the National Qualifications Framework in Higher Education and from the respecting need of performance indicators required by the Government Decision 1418/2006 (Methodology ARACIS); paper proposes to establish the graduates creativity levels of License, Master and Doctoral Studies in correspondence with the five creativity levels developed by G. Altshuller within general methodology of TRIZ innovation.

Key words: creativity, competence, quality, higher education.

1. Creativity Role in graduates training skills

The methodology of achieving the National Qualifications Framework in Higher Education [1], approved by Minister Order [2] defines the qualifications and competence and also classified competencies in two big categories, respectively professional competences and transversal competences (fig. 1). Professional competences are provided by knowledge (cognitive dimension of competence) and by other abilities (functional dimension - the power operated). Within abilities, creativity and innovation is one of the most important descriptors of professional skills. The analysis structure presented in figure 1 result that innovation and creativity can not be a competence but a component, a descriptor of each competence in part.

On this basis, in methodology are detailed creativity levels and innovation in all three levels of higher education according to Bologna Process, respectively License, Master and Doctoral Studies, according to those presented in table. 1.

Table 1. The descriptor "creativity and innovation" for the three levels of study [1, 2]

| | License | Master | Doctoral Studies |
|---------------------------|---|--|---|
| Creativity and Innovation | Developing Professional Projects using well-known principles and methods within the field | Developing Professional and/or Research Projects using a wide range of innovative quantitative and qualitative methods in an innovative manner | Designing and conducting original research, based on advanced methods that lead to the development of scientific knowledge, technological and / or research methodologies |

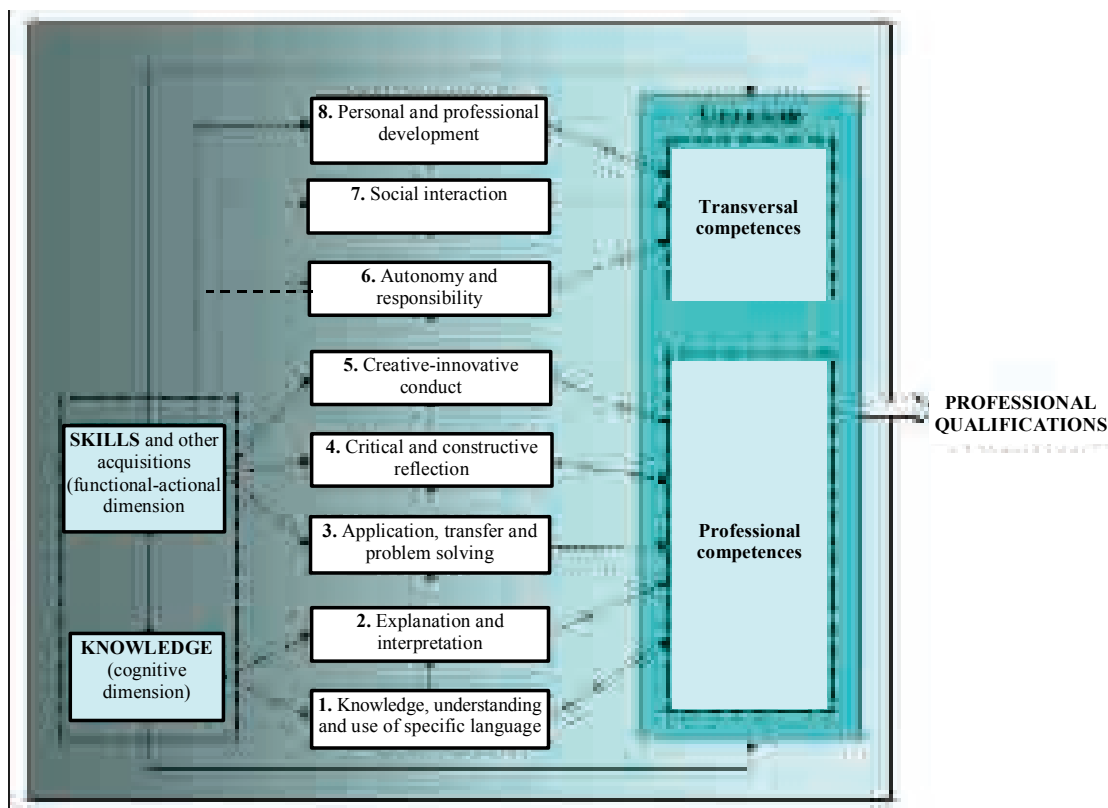


Figure 1. Competences Structure [1, 2]

2. Analysis of innovation levels based on TRIZ methodology

An essential element of the TRIZ innovation methodology is the five levels of innovation set by G. Altshuller. In his researches [3, 4] Altshuller found that many people described a solution that *"eliminate or resolve a conflict and not require changes"*. He noted that quite often, the same problem was solved every time *"again"*, using just, what he called 40 fundamental inventive principles that with the help of them problems can be solved more quickly and efficiently. Between 1960 and 1970, Altshuller classified solutions into five levels, presented in Table 2, and that after Mazur may be summarized as follows [3, 4].

- **Level one:** *routine problems* solved by methods well known in the field. In this case, no invention is required, and about 32% of solutions are found at this level.
- **Level two:** *minor improvements* to the existing system, by methods known within industry and that usually are solved with the help of some compromises. Approximately 45% of solutions corresponds to this level.
- **Level three:** *fundamental improvements* to the existing system through known methods, taken from other areas. In this case the contradictions are solved, and, about. 18% of solutions are found in this category.

- **Level four:** *a new generation which uses new principles* in order to reaches the main functions of the system. At this level, solutions are found more in science than in technology, and about. 4% of solutions are part from this category.
- **Level five:** *a rare scientific discovery*, in essence a new system. In this category is found about 1% of solutions.

Also, Altshuller concluded after his study, that every level used for finding solutions needs more knowledge and it is necessary to consider more options or attempts, before finding the ideal solution.

Table 2. Levels of inventiveness [3, 4]

| Level | Degree of inventiveness | % of solutions | Source of information | No. Of options needed to find the solution |
|-------|-------------------------|----------------|--|--|
| I | Seemingly solutions | 32% | Personal knowledge | 10 |
| II | Minor improvements | 45% | Knowledge from the company | 100 |
| III | Major improvements | 18% | Knowledge from the area of expertise | 1000 |
| IV | New concept | 4% | Knowledge out of the area of expertise | 100.000 |
| V | Findings | 1% | General Knowledge | 1.000.000 |

Each creative achievement can be comprised in one of the five levels. These five levels have been determined by degree of inventiveness, number of options or attempts needed to find the solution and by the source o the solution, comparing the system after concluding the invention with the previous one, before finding the inventive solution.

In establishing these five levels, it's important to determine the number of attempts made by the specialist or the ones before him or by his contemporaries, needed to find the inventive solution. Thus, based on the experience it is estimated a small number of attempts necessary for the first level. For the second level, a few dozens of attempts are needed, while for the third level are needed, maybe, hundreds of attempts. For the fourth level, finding the solution means years or research and thousands or tens of thousands of attempts. And finally, the fifth level, usually takes the efforts of many generations of researchers and hundreds of thousands or millions of attempts.

Another criterion for establishing these levels is source of inspiration for finding solutions. In case of level I this source comes from the own knowledge of the researcher in various fields. At the level II the solutions come from the scientific field in which the researcher operates, and at the level III the solutions must be searched and in other related fields. At level IV of inventivity the solutions come from clarification of effects and phenomena in physics, chemistry or geometry, less understood until that time. At the level V is need to overcome the known borders of science. Currently, it considers that with the help of TRIZ methodology it can be found inventive solutions at levels I, II and III in just few days

Based on research achieved, Altshuller postulated that *over 90% of the problems that specialists are facing have been solved once before*. If specialists could follow a path to ideal solution, beginning with the lowest level, using personal knowledge and experience, most of the solutions can be derived from already existing knowledge in the company, in the industrial field in which is working or in another technical-scientific field. TRIZ methodology seeks to improve concepts at levels III and IV, where the direct application of practice does not lead to obtain acceptable results. Such problems include, usually, a fundamental technical contradiction, where the improving of an attribute of a

system leads to emergence of other contradictions. An example in this way could be the contradiction between resistance to rupture and specific weight of the materials used in aviation.

3. Proposals regarding setting levels of creativity for higher education graduates

Based on the submissions, this paper proposes a correlation between levels of creativity and innovation established by Altshuller and study levels according to the Bologna Process, as presented in table 3.

Table 3: Inventiveness levels for each level of study

| Level | Degree of inventiveness | Source of information | Study level |
|-------|---------------------------|-----------------------------|---|
| I | Seemingly solutions | Personal knowledge | Graduated licensing |
| II | Minor improvements | Company knowledge | License graduate with minimum 5 years experience Graduated Master |
| III | Major improvements | Knowledge in the field | Master graduate with minimum 5 years experience PhD graduate (PhD) |
| IV | New concept | Knowledge outside the field | PhD graduate (PhD) with minimum 5 years experience |
| V | Rare scientific discovery | Everything is known | Dedicated scholar |

Correspondence presented in table 3 may be a useful tool in formulating graduates competences as well as in establishment indicators regarding the quality and implementation of the curricula according to GD 1418/2006 (ARACIS Methodology) [5]

4. Conclusion

Based on the submission in the paper can be established that the degree of creativity of higher education graduates (BA, MA, PhD) can be appreciated based on the five levels of creativity made by G. Altshuller. This structure of creativity degree may be useful in the establishment of graduates competences as well as in quality assessment through specific indicators, according to GD 1418/2006 (ARACIS methodology).

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AGENȚIA ROMÂNĂ
DE ASIGURARE A
CALITĂȚII ÎN
ÎNVĂȚĂMÂNTUL SUPERIOR

STUDENT INVOLVEMENT IN HIGHER EDUCATION QUALITY ASSURANCE: CASE OF KIMEP

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Abstract

Contemporary systems of higher education take on the challenge of producing qualified globally-employable cadre and introduce quality assurance practices that have traditionally been associated with industrial production. In-house quality assurance structures act as important focal points for regular quality monitoring, inviting stakeholders to reflect on services received. Students, being the main stakeholders, witnesses and customers of educational services, play important role in HEI's quality assurance efforts. Established in 1992 by President Nazarbayev in response to the need for well-trained personnel able to successfully develop market economy, the first American-style HEI in Kazakhstan - KIMEP - serves as an example of benefits associated with involving students in quality assurance activities. The case of KIMEP demonstrates that students' input brings about effective quality assurance tools that allow improving educational services and can be recommended for wide implementation.

Key words: quality assurance, higher education stakeholders, teaching evaluation, student involvement

1. Quality assurance in higher education

Nowadays, higher education sector increasingly uses quality-related theories and practices that previously were mainly connected to industrial sector. Hence, it would be useful to review how such practices and theories developed over time. In medieval period, quality control was realized by producing craftsmen who transferred their know-how and skills only to selected apprentices – skillfulness and name of a certain foreman were the token of quality for consumers. Later, craftsmen guilds and corresponding brand marks acted as a quality guarantee. With industrial revolution and division of labor, quality control became a function of special supervisors of quality, who inspected produced goods and discarded faulty products. The practices of quality control changed in XX century to quality assurance with introduction of statistical quality control and statistical process control, shifting from control of output to control of the production process [1, 2]. The latter changes, as Shewhart puts it, are related to mass production, standardization and shift in scientific paradigm from 'exactness' to 'probability' concept [1, p.4].

Applying the mentioned conditions to the higher education sphere, it is possible to understand why quality assurance in higher education is a more recent concept than quality assurance in industry. Higher education experienced shifts to mass production and standardization later than the industry: mass higher education entered reality only after World War II [3], while globalization brought internationalization of education standards only after the collapse of the USSR in the last decade of XX century. And as much as introduction of quality assurance in industry necessitates profound changes in management styles and company philosophies [2],

introduction of quality assurance in education necessitates a new understanding of Higher Education instruments, management styles, goals and aspirations.

Spread of innovation, science and technology gradually, but dramatically, changed patterns of labor force demands. Post-World-War II reconstruction of economies showed that pace of country's economic growth is much influenced by availability or lack of skilled labor force on local labor markets. Mass technical and higher education soon became one of priority goals on post-war state policy agendas. Many countries in North America, Western and Eastern Europe created massive national higher education systems in this period.

Fall of "iron curtain", collapse of USSR and Soviet alliances, unification of modes of economy (with predominant majority of countries choosing market model) accelerated the earlier started process of economic globalization. Globalization of business, in turn, necessitated globalization of labor markets, further putting pressure on unification, standardization and globalization of labor force providers – national systems of education, indirectly promoting educational standards of most active international business players – North American and Western European countries.

At the same period, the accepted philosophy of education also shifts away from elitism towards pragmatism. Higher education is now often seen as an industry that is expected to produce qualified human capital and guarantee its compliance with internationally accepted requirements. Currently, three groups of actors are involved in quality assurance of higher education:

- state bodies that undertake accreditation, attestation and licensing activities
- independent non-governmental entities (both national and international) that perform university accreditations, ratings and external audits
- in-house quality assurance structures that promote internal culture of quality through corresponding measures.

The founders of the human capital theory, Theodore Schultz and Gary Becker demonstrated that education-related investments in people result in their increased productivity and labor market value. Gary Becker brought attention to the fact that higher education provides a student not only with knowledge and skills, but also with a new approach to problem analysis, which boosts the person's productivity [4]. Thus, higher education is now seen as bringing 'competency' [5] – a complex set of knowledge, skills and attitudes. Nowadays, a valuable employee, along with professional preparedness, is required to demonstrate traits necessary in the modern business world: self-reliance, initiative, motivation, ability to plan independently and take personal responsibility for achieved results.

2. Brief on KIMEP

During the last two decades Kazakhstan has gone through a challenging period evolving from a peripheral Soviet republic into a modern independent state, which sets ambitious goal of becoming one of the world's top 50 competitive countries. In March 2010 Kazakhstan, committed to matching the leading nations in the sphere of higher education, became signatory to the Bologna process.

From the first year of Kazakhstani independence, it became evident that the successful development of market economy in the republic required well-trained personnel with new

competencies. In response to this need in January 1992 President Nursultan Nazarbayev issued resolution to establish a Western-style higher education institution (HEI) preparing specialists in business and social sciences - Kazakhstan Institute of Management, Economics and Strategic Research (KIMEP), thus planting the precious seed of North-American educational paradigm into the rich intellectual soil of ancient Central Asia [6].

Today the Institute is a unique and successful not-for-profit entity with the mission to develop well-educated citizens and to improve the quality of life in Kazakhstan and the Central Asian region through teaching, learning, the advancement of knowledge and community service. It offers fourteen degree programs taught in English, including undergraduate, masters and doctoral ones [7]. All KIMEP programs run according to North American model and are licensed by the Kazakhstan Ministry of Education and Science (MES).

To deliver high quality educational services, KIMEP attracts distinguished faculty staff represented by foreign and Kazakhstani scholars with Doctoral degrees earned in prestigious European and North American universities. Faculty members perform research, teach and render administrative services. Their achievements in all three spheres are taken into account in annual tenure and promotion decision as outlined in KIMEP Faculty Code of Practice.

3. Quality assurance practice at KIMEP

To ensure that the Institute offers the highest possible quality of services, it undertakes institutional research and implements quality assurance procedures. A separate unit responsible for this activity was established in 2005 – Department of Quality Assurance and Institutional Research (QAIR). It works in partnership with the academic colleges, schools and centers.

The implementation of quality assurance procedures at KIMEP was prompted by the fact that such practice is an integral part of American-style education. On the other hand, the introduction of quality assurance practices goes in line with KIMEP's aspiration to deliver internationally competitive services, comparable with those of global counterparts and correspondent to international quality guidelines. Moreover, this activity is consistent with KIMEP's motto "Education to change society" as it promotes Institute's social responsibility and encourages critical inquiry, initiative and active civic attitude among its stakeholders.

4. Student involvement in quality assessment at KIMEP

Students represent a major group of stakeholders. Regular student participation in quality assessment plays an educational role – they learn to critically assess their daily experience, show initiative, active and responsible attitude and appropriately channel constructive suggestions. The Institute highly values their opinion on rendered services as the development of comprehensive culture of quality is not possible without them. The feedback of students - important customers and key witnesses of education process - is essential to identify directions of further development and support HEI's decision-making process. It also provides reliable data for regular reporting to the society on HEI's progress.

KIMEP students participate in various assessments of quality of educational services. For example, they have opportunity to provide feedback in the frames of three regular surveys:

- Faculty Teaching Evaluation Survey (FTES), which acts as an effective feedback channel between faculty and students;

- Student Satisfaction Survey that helps to appraise academic and non-academic services;
- Alumni Survey, which collects information on graduates' employment, professional activity and level of satisfaction with the quality of KIMEP education.

To illustrate student contribution, let us consider the example of FTES, introduced since the launch of bachelor programs in the Institute. FTES is a voluntary online survey that allows retrieving the valuable opinion of all students on quality of teaching in each subject they take in a given semester [8]. The survey instrument focuses on three main aspects of teaching quality:

- Faculty – instructional delivery and professional academic attitude
- Class Sessions – management of class sessions
- Course – quality of course syllabus.

The survey results undergo detailed processing and the findings are presented to academic management to facilitate decision-making on further steps to improve teaching quality. The data allows determining different aspects of teaching at KIMEP. It can give a snap-shot overview of teaching excellence at the Institute (Figure 1). It also can help identify any disparities in teaching quality level between various academic units (Figure 2) or faculty of different ranks (Figure 3). Similarly, comparative results can be drawn along a wide spectrum of other criteria.

FTES findings bring about the following quality benefits:

- **faculty members** are able to identify strong/weak aspects of own performance, experience healthy spirit of professional competition and receive valuable feedback from their students
- **academic management** can promptly react to declines in teaching quality, reward high performance, make well-founded decisions with regard of teaching staff's career prospects, plan professional development activities and guide best practice sharing among faculty members, academic units, etc.
- **students** receive higher-quality services tailored to their demands
- **state authorities and general public** can monitor the progress of teaching quality at KIMEP via open reports available on Institute's website.

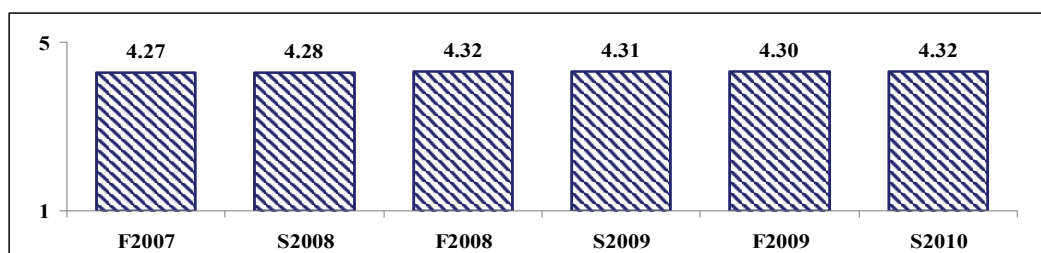


Figure 1. Overall evaluation of teaching at KIMEP: average grade, Fall 2007 - Spring 2010

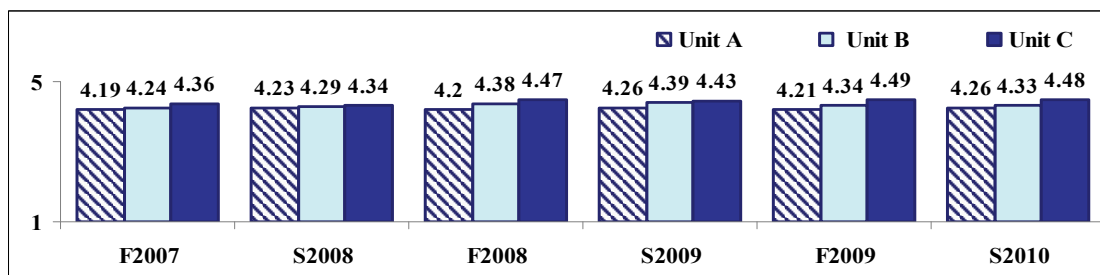
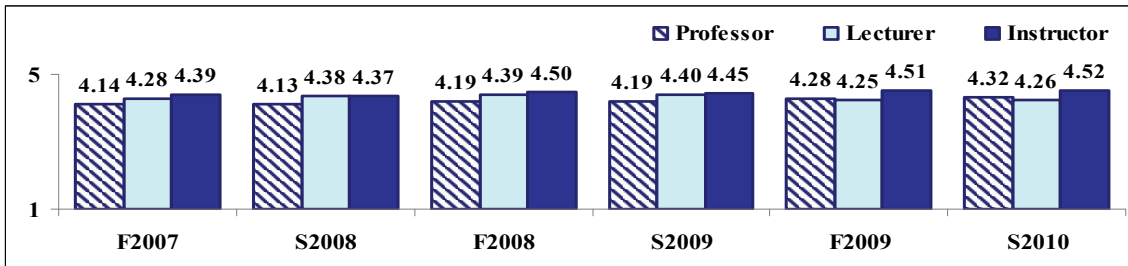


Figure 2. Evaluation of different academic units: average grades, Fall 2007 - Spring 2010**Figure 3.** Evaluation of different ranks faculty: average grades, Fall 2007 - Spring 2010

The successful and consistent progress of KIMEP as an American-style HEI committed to quality assurance is made evident through the recognition of its achievements by state, independent national and international agencies (Table 1).

Table 1. KIMEP's Ratings

| Date | Rating Agency | Title of Rating | KIMEP's Position | |
|------------|---|---|---|--|
| 2006, May | National Accreditation Center of the Ministry of Education and Science of RK (NAC, MES) | General rating of 60 leading universities of RK | 1 st rank in the category of humanitarian – economic universities | |
| 2007, June | NAC, MES | General rating of 60 leading universities of RK | 1 st rank in the category of humanitarian – economic universities | 6 th rank in the general rating list of universities |
| 2008, July | Independent Quality Assurance Agency of RK (IQAA) | General ranking of 60 universities of RK | 1 st rank in the category of humanitarian – economic universities | 8 th rank in the general ranking list of universities |
| 2008, Oct. | NAC, MES | General rating of 60 leading universities of RK | 1 st rank in the category of humanitarian – economic universities | 10 th rank in the general rating list of universities |
| 2009, May | NAC, MES | Rating of 81 HEIs of RK providing bachelor programs | 1st rank in the category of “Management” and “Public administration and local government” specialties. 2nd rank –in “Political science”, 4th rank on 2 specialties: “Journalism” and “Economics” under the “Social sciences, economics and business” group of specialties | |
| 2010, Jan. | Cybermetrics Lab, a research group belonging to the Consejo Superior de Investigaciones Cientificas (CSIC), Spain | Webometrics Ranking of World Universities' websites | KIMEP web-site receives 1 st rank among 69 screened HEI of Kazakhstan | |

5. Conclusion

In the age of globalization, contemporary systems of higher education are taking on the challenge of producing qualified globally-employable cadre. To ensure and prove the value of rendered services HEIs around the world are introducing and refining quality assurance practices that have long been associated with industrial production.

In-house quality assurance structures act as important focal points for regular quality monitoring, inviting stakeholders to reflect on services received. Students, being the main stakeholders, witnesses and customers of educational services, play important role in HEI's quality assurance efforts.

Established in early nineties, the first American-style HEI in Kazakhstan - KIMEP - has shown commitment to providing world-class services and serves as an example of benefits associated with involving students in quality assurance activities. The case of KIMEP demonstrates that students' input brings about effective quality assurance tools that allow improving educational services and can be recommended for wide implementation.

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AGENȚIA ROMÂNĂ
DE ASIGURARE A
CALITĂȚII ÎN
ÎNVĂȚĂMÂNTUL SUPERIOR

THE PARTICIPATION OF THE STUDENTS FROM THE FACULTY OF ARTS OF THE OVIDIUS UNIVERSITY, CONSTANTA, TO THE ASSURANCE OF A HIGH EDUCATION

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Abstract

The image of the quality of the artistic higher education in Constanta is similar to that of the Romanian higher education which presents a greater interest for the values of the system. And it is natural so, those who choose the vocational education have to prove a minimum set of knowledge and skills for the admission contest.

Key words: students, student centered learning, Bologna Process, quality in education.

After 11 years of artistic education in Constanta and after 5 years of implementation of the Bologna Process, we assist at a more conscious involvement of the students from the Faculty of Arts in Constanta in self-evaluation and evaluation.

As a responsible with the quality of education in our faculty, I took good read of the students 'reports on the occasion of the ARACIS visit. The realistic perception, the sincerity and the depth with which the students underlined in their reports the problems of the education process are elements that determined us to consider them partners in the academic quality assurance.

The conclusion is that the students are willing to actively participate in the academic life, to stimulate the artistic education system, quite inert at their proposed changes, changes that belong to the autonomy of those who learn, to the quality of learning, to the less important actual teaching.

The questionnaires that they fill at the end of the semesters and the regular discussions with the coordinators of the study programmes help us to get in contact with the opinions of the beneficiaries of the didactic activity.

The students 'suggestions are selected and analysed by all the participants in the good development of the education process: the year guide (supervisor), the head of the chair, the coordinator of the study programme, the responsible with the quality of education in the faculty and the members of the commission for quality assurance for the specialisation.

The chairs 'will from the Faculty of Arts is that of offering a quality education, starting with the specialized training of teachers and continuing with the educational spaces, labs facilities, the teaching material for all the specializations, facilitating the access to performances, recitals, concerts and exhibitions, places in the dormitories, scholarships, social scholarships, tickets for

the student camps, the assurance of transportation and accommodation when performing concerts, recitals home and abroad.

We have noticed lately that the accelerated rhythm of the development of the contemporary society in all aspects together with the globalization and the competitiveness impose, at all levels, a dynamic and a new approach for the learning processes.

The student is the centre of the preoccupations of the academic community and the interest we give to the quality of learning is not a utopia in the vocational education. If in other institutions of higher education we've noticed an increasing number of poorly trained students regarding the basic knowledge, competence and skills, the students of the Faculty of Arts are superior because they improved in highschool this vocational side. The artistic higher education continues to develop the teaching-learning methods from the vocational schools and highschools i.e. the flexibility of the learning process, the autonomy of the pupil and his permanent implication in the education process.

The reducing of the years of study determines the condensation of the knowledge that must be transmitted through teaching-learning-evaluation activities and the quick and efficient adjustment of the academic curricula in accordance with labour market. Thus, among the teachers of the Faculty of Arts in Constanta there is a positive attitude towards the actualization of the courses (the balance between the number of classes of the discipline and the quantity information that must be transmitted), the mobility of the teaching methods, the various didactic strategies, the evaluation systems, the practice activities. All these determine the harmonization of the programmes so that the students shouldn't be suspicious regarding the 3 year university studies.

The specificity of the artistic education imposes personal organization, material resources and adequate logistics. The culture of quality in this world is an implicit part of the education process, the transfer of culture from the society to the student is achieved through didactic communication, through building the specific skills, developing the capacities and the abilities needed for the adaptation of the way of thinking, acting and being in the modern society.

In the artistic higher education in Constanta, the 3 activities teaching-learning-evaluation are seen as a set of activities at which both professors and students participate, being, at the same time, evaluators and evaluated. As a mainly applicative education the students are permanently evaluated. Only when speaking about evaluation at the theoretic disciplines, that is made periodically, there is a higher risk for the students to learn by fits and starts.

Belonging to a professional community of higher education imposes rules of conduct that must be observed. The partnership student-professor is a characteristic element of the artistic education process. In arts, the coordinated learning implies the reciprocal influence between the student and the professor, so that their experience in the teaching-learning processes complement.

Analysing, in the last 5 years, the students' questionnaires and reports we found out that the students' interests are largely compatible with the interests of the other members of the academic community. The generalization of the higher education doesn't determine the alteration of the students' community of the Faculty of Arts in Constanta. The number of students hasn't registered either significant increases or important diversity and that is why there are no difficulties regarding the social cooperation.

Throughout the participation of the students in the education process we want to increase the transparency and the public responsibility and also to give extra legitimacy to the quality assurance processes.

Promoting education and quality vocational training at all levels can't be achieved without taking into account the actual problems of the society. Education and vocational training must offer a superior standard life to those who actively participate at the educational act implying the increasing standard life of the whole society. The assurance of the necessary competence in order to participate at the labour market is the responsibility of the academic education which must provide the access to new jobs and the improvement of the quality of life.

Even if there is still a lot of disregard for quality between managers, professors and staff, throughout the permanent analysis of the students' signals, the efficient cooperation between the teaching profs and the seminar ones, the continuous classes for every discipline, the flexibility of the library programme, through a evaluation of the practice skills we could aspire to a really qualitative education.

The nowadays Romanian crisis affects mainly the social categories that cannot adapt to the critical sectors of the labour market. Such a restrictive field as the artistic one couldn't seem being able to adapt the educational offer to the labour market. The vulnerable groups from the Faculty of Arts in Constanta (students and professors) tried to determine to increase the interest of the employers from the representative institutions through debates focused on the standards, quality, and certification offered to the graduates, capable of responding at the requirements of the artistic environment of the county, country or abroad.

The Faculty prepared a study that dealt with the qualification necessary from the point of view of the employer and the other economic factors interested in the county.

The deficiencies regarding the adaptation of the formative curricula to the labour market have been gradually removed taking into account the ARACIS standards for covering the classes with specialized full professors so that the students could choose the disciplines necessary to the qualification asked by the employers (optional and facultative disciplines).

Taking into account the students' suggestion, we made a comparative analysis of the number of disciplines for each domain from the Faculty of Arts (music, theatre, plastic arts). We were surprised to discover that the students from the specialization Musical Pedagogy had been right when they called our attention to the extremely reduced possibilities of creating a various educational offer according to the requests of the labour market related to the other domains of degree.

The volume of the physical classes/conventional included in the standards, on categories of disciplines, (i.e. the number of course classes towards applicative activities), observing precisely the percentage recommended by ARACIS, doesn't assure the necessary of 20% for the fundamental disciplines (7) towards 35% for the specialized disciplines (2). It is not evident the way in which is determined the number of classes for each discipline from the other categories of disciplines.

After the ARACIS visit, it has been ascertained that, for the degree programme at Musical Pedagogy, the position/situation/condition of the optional and facultative disciplines is not clear enough. The ARACIS evaluators (the president of the commission and one of its members) considered them one and the same, even if the offer of the facultative disciplines doesn't fit – as number of classes, credits, evaluation forms – the total calculus of classes per week.

If the optional disciplines (the faculty offer) are that part of complementation represented by one discipline at option for the student/group of students/series of students from an offer of minimum two disciplines, how that discipline could represent 12% from the total volume of classes; a more generous offer, that is with more options, means money, and we are passing through a period of crisis.

We've noticed the way in which the recommendations at the other disciplines for other degree domains are made – theatre, plastic arts, where the ARACIS offer is far away more generous and the framing for every discipline is less rigid. For sure there is still a lot to say about the way in which the requests about the accreditation conditions are carried out.

Taking into account the students' suggestion, for a better cooperation with the target groups, the academic staff of the Faculty of Arts in Constanta, tried to support and promote collective actions, a participative way of working, the facilitation of the access to information so that every member should become active and efficient, capable of carrying out viable solutions to the everyday problems of the Romanian society affected by the crisis.

The main goal of the members of the artistic academic staff is to develop an educational and professional partnership between the institutions and the valuable public authorities for the development and promotion of the best education strategies locally, regionally and nationally.

All the participants at the educational and professional partnership are willing to create favourable conditions for a satisfying access to professional forming with positive results, capable of adapting to the requests of the labour market.

The analysis, evaluation and the determining of the corrective measures imposed for solving some critical situations met in the educational process must take into account the fact that this process is a systemized and organized activity made in successive stages with a curricula adapted to the scientific and psycho pedagogic norms.

The image of the quality of the artistic higher education in Constanta is similar to that of the Romanian higher education which presents a greater interest for the values of the system. And it is natural so, those who choose the vocational education have to prove a minimum set of knowledge and skills for the admission contest. The nowadays orientations of the Bologna Process or Lisbon Agenda recommend new quality approaches with a particular stress on the "contribution of the higher education to the increasing of the employment and to the developing of the economy".¹

An important aspect of the quality in the higher education refers to the quality of the education which "must be related, especially, to the degree of the accomplishment of the output markers" (output, outcome, feedback).² There are no differences between the students registered at the admission and those who obtain a diploma degree and every year, the employers are interested in attracting the students in the artistic field.

The Faculty of Arts in Constanta is willing to pay great attention to the increase of the European competitiveness and to attract foreign students from the international and European area. (we already have students from Moldova Republic).

¹ Starea calității în învățământul superior. Barometrul calității 2009, p. 12

² Idem, p. 15

When talking about research in the Faculty of Arts, I underline the fact that the artistic field is not one of the most favourable fields for research. The articles in specialized magazines from the country or from abroad, the participation at conferences, national and international symposium, participations at festivals, national and international contests, vocal and instrumental recitals, theatre performances, national and international exhibitions, all are ordinary activities for the professors and for the students from the the Faculty of Arts in Constanta.

It is evident that all the members of the artistic academic field in Constanta that “only through understanding and respect of the eight quality principles – orientation towards the clients/beneficiaries of the didactic activity, a good organization management (clear vision, towards future, clarifying the targets, sustaining the values, creating trustful and ethical models, the forming for responsibility, encouraging and admitting the valuable contributions), the implication of the people (the use of their talent and capacities, motivation, innovation, creativity, domination of the field, the responsibility of the professors and of the students for the continuous innovation), the systemic approach of the management, the continuous improvement as a result to the correct auto evaluation and to the external evaluation (establishing the changing, improvement targets, the measurement of the efficiency of the mechanisms that determine and implement those changes in good), building the decisions according to the facts, establishing mutual favourable relations with the interested parts” – we can achieve quality results, according to the requests of the Bologna Process.³

The continuous interest to assure a culture of quality in the artistic higher education in the Faculty of Arts in Constanta will determine an education focussed on student. The role and the importance “of the student must be assumed by all the parts from the educational process, starting from the micro level, with the classroom, till the macro level, the executive national and international institutions”.⁴

We realize that only a sincere cooperation, based on respect and mutual trust, will develop the level of the artistic higher education in Constanta. We can say for sure that, much to the satisfaction of our professors and rector of the Ovidius University, we are on the right path towards the assurance of an education focussed on student.

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³ Revista pentru asigurarea calității în învățământul superior, vol. 2, nr. 1, Aprilie 2010, p. 6

⁴ Idem, p. 19





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CAREER DEVELOPMENT OFFICES IN UNIVERSITIES – IMPORTANT TOOL FOR ENHANCING THE EMPLOYABILITY OF BOLOGNA GRADUATES ON THE LABOR MARKET

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Abstract

This paper proposes a model for developing career development structures in the Romanian Universities, taking into account the background and the specific national conditions related to this field. It also discusses the opportunity of integrating these structures into a European network of CDOs, with significant impact on all the actors involved in the quality assurance process of higher education - students/ graduates, academics and employers: candidates entering the university will be provided with information for correctly choose their field of study; universities can collect feedback and tailor their educational offer and content to the needs for the Enterprise sector; finally, valuable information on the availability of qualified human resource in the region will be provided for the entrepreneurs interested in establishing/ extending a business in a new geographic area.

Key words: career office, employability, university-enterprise dialog.

1. Introduction

1.1. General context

The current European labour market becomes more and more dynamic, due to the challenges it is subjected to nowadays: the economic crisis, globalisation, ageing population, reorientation towards a low-carbon emission economy, etc. Recent research [1] shows that highly qualified human resource is needed to face these challenges and the requirements of the future society. The clear message towards all the occupational sectors is the increasing need for higher competences, acquired during tertiary education.

According to [1], in Europe about 33% of the population has a university degree, comparing to USA – 40% and Japan – 50%. Although, the unemployment or underemployment represents alarming phenomena: in the third semester of 2009, 5.8% unemployment within the population of 25-39 years old possessing a university degree, which is 1.1% higher then in 2008 (4.7% in 2008). The higher education represents an additional chance for employment assurance, since the unemployment within the population of 25-39 years old, medium qualified of with no qualification, is of 9.1% and it is rising.

1.2. Trends

An overview on the current distribution of the jobs into different sectors of the European labour market and its evolution during the last years leads to the conclusion that the near future will be oriented more and more on a service based economy, with ICT (Information and Communication

Technology) and “green” technologies playing an important role. In connection with them or independently, other domains requiring new skills and competences are raising, claiming for new tertiary qualifications to be developed.

In this respect, nowadays it is constantly registered an increasing importance for: human capital – in a knowledge based society; flexibility of the human resources – taking into account the dynamism of the present labour market; internationalization – in the globalization context. Therefore, *human capital*, *flexibility* and *internationalization* should become today keywords in defining medium and long term strategies in all European universities. Another argument for this statement results from the EC Report [2], according to which, until 2020, about 20 millions new workplaces will be created in EU; $\frac{3}{4}$ of this number will be developed in the service sectors – some of them new, based on the novel industry, while sectors as constructions, for example, will loose about 2.9 millions workplaces. The need for new and higher levels of skills will increase from 25% to 31% until 2020. More and more jobs are complex and require interdisciplinary knowledge, as well as improved generic competences, i.e. communication skills, problem solving, entrepreneurship, innovation capacity, etc. As stated in [1], *“The challenge for Higher Education is to anticipate and develop these competences for the knowledge reality of today and tomorrow”*.

1.3. Identified needs for Higher Education Institutions

Following the general current context of the labour market at European level and the trends for the next period, and in response to them, urgent needs have been identified to be accomplished by the higher education institutions. Among these, there are mentioned:

- the shift in the competences related approach and a better correlation of the university study programmes to the labour market;
- the improvement of graduates generic (transversal) competences – so it results from several studies, as a general opinion of the employers;
- the facilitation of students transition towards the labour market, from early university stage – as a result of the more and more defuse border between the study period and the one of integration onto the labour market;
- the HEIs adaptation to the university population changes – as a result of ageing and the increasing need for lifelong learning (continuing education);
- the development of tracer studies on graduates – as relevant information for quality assessment of the university educational offer.

These are only some of the issues the universities have to address today, and they try do so, in different manners, in more or less systematic and efficient ways. Considering the six years of experience in European projects dedicated to University – Enterprise dialog [3], [4], quality of student placements [5], career offices [6], entrepreneurship, this paper proposes a potential response to the above mentioned issues: the development of institutional structures in universities responsible for students' career development. It also discusses the opportunity of integrating these structures into a European network of CDOs (Career Development Offices), with significant impact on all the actors involved in the quality assurance process of higher education – students/ graduates, academics and employers.

2. Career Development Offices in Europe

Career Development Offices (CDOs) are gateways between university and enterprise. These bodies are organised in many different ways, from top professional career centres to single person

initiatives. The data requested by enterprise is collected from graduates, prepared and stored as well as the feedback from enterprise to the students regarding the most requested qualifications.

Two recent events organized within the EUE-Net project, the European University Enterprises Network Symposium, 29 April-3 May 2009, Nicosia, Cyprus (http://www.eue-net.org/dissemination/project_events/2009_Nicosia_Cyprus/index.html) and The 1st European Convention of Career Centres, 15-16 April 2010, Vienna, Austria (<http://www.careercon.eu>) gathered together about 90 participants from 23 countries on a European dialog platform addressing this issue and aiming to better exploiting the CDOs achievements by the universities, as successful scheme providing accompaniment to the students in their transition from the classroom to the labour market.

As it resulted from the contributions at these events [6], complementary to the studies performed by a EUE-Net team [7], several hundreds of CDOs exist in Europe at this moment, each of them mediating placements and careers of thousands of students as well as enterprises yearly. CDOs are, therefore, the most important instrument for university – enterprise cooperation on the graduates employment area. Nevertheless, their activities and ways of operation are little known and exploited. This is the major reason of the initiative taken within EUE-Net, to develop a European Network of CDOs integrating their efforts and making the collected information visible and usable for education, enterprise and policy makers.

The main questions that the network should offer answers at European level are:

- How many students will graduate in which qualification in the current year?
- How many workplaces in which qualifications are currently available at regional/ national/ European levels?
- What are the gaps and differences between offers and demand?
- What are the possible paths for improvement and evolution?

These questions are of paramount importance for all actors involved (students/ graduates, universities and enterprises) and yet there is no instrument at present to collect and provide this data to the public. It is appreciated that the Network of CDOs, set-up in April 2010, in Vienna, on the occasion of the 1st European Convention of Career Centres, is the perfect start-up toward the creation of a European framework able to self develop and sustain in the future. An integrative ICT tool to secure data exchangeability across Europe is another challenge to be considered in the near future. Other instruments include a WEB-platform enabling CDO to act all over Europe and an online “real time” barometer of employment demand, profiles, knowledge needs in Europe, information that is crucial for the Universities that need to adapt their study programmes and curricula to the enterprises needs. The European Barometer on Employment and Employability will show at any moment how the University is positioned in the global European context with the employers and will allow elaboration and deployment of precise policies able to align their offer to the real demands of enterprises at an unprecedented level. It offer Universities crucial data to further elaborate studies on trends and forecasts enabling predictability of the demands at a level never reached before.

The network is anticipated to have a significant impact at European level, stimulating growth of the CDOs all over Europe as well as creating a federated image of the matters of employment and employability at European level. At the same time, the European employment database will be of utmost importance for all the actors involved in the U-E cooperation: students/ graduates, academics and entrepreneurs. Thus, it will provide accurate information for the candidates entering

the University stage in order to correctly choose their field of studies for the future career, as they will be able to see which is the current situation in Europe or in their country or region: to what extent the qualifications provided by the Universities match the ones really sought by the enterprises. It will provide also valuable information for the entrepreneurs looking to establish a new business or extend the existing one in a new geographic area (for example in another member state) as they will be able to find out immediately about the availability of human resources in that respective area. And finally, it will help the Universities to tailor their educational offer as well as the educational content (curricula) to the needs for the Enterprise sector.

3. Career Development Offices in Romania

Although at European level the Career Development Offices are well settled bodies, independent or part of the university, acting as “natural mediator” among students/ graduates, university and enterprise, performing a large range of activities, different from a structure to another but acknowledged by all the actors involved, in Romania they are rather recent and not enough developed. The most of them are created after 2005, as a result of the national regulation OM 3235/ 2005 [8], according to which: *“Universities set-up centres for counselling and career orientation, to assist students to take appropriate decisions regarding their own training path”*. However, in this text, as underlined in [7], the career centres role is rather limited, suggesting that the mission is only to advise students on their own professional development. In this respect, some of the Romanian universities have developed bodies especially dedicated to this aim, in parallel with other structures acting as liaison office with the socio-economic organizations and others dealing with Alumni. There are also universities that have integrated the career services functions into one single structure. Better developed are the functions related to student counselling services (career orientation, self marketing, career opportunities, etc.) and services for companies (job fairs, on campus job recruitment, company presentations, etc.) and less visible are the activities related to studies about graduates employability on the labour market, correspondence between the graduated study programme and the job after graduation, opportunity for updating the academic curricula to the labour market needs, tracer studies regarding university graduates, and so on. Regarding their role in mediating students’ practical placement, although they receive offers for practical places from companies, these offers cover only a limited number of requests and the students continue to claim a more practical oriented education.

For intensifying and improving their activity, the Romanian CDOs should develop self evaluation quality indicators with respect to their efficiency in facilitating student/ graduates employability, as well as in tuning the university offer to the labour market needs. The external evaluation methodology of ARACIS (Romanian Agency for Quality Assurance in Higher Education) provides quality indicators related to this issue, but they are quite a few and an institution would need additional ones in order to get a comprehensive view about the relevance of its study programmes for graduates and employers. At the same time, this would facilitate an active and useful contribution of the Romanian CDOs to the European Network of CDOs recently developed.

4. A model for integrating the university structures into the Career Development Office. Case study at Transilvania University of Brasov

The challenge for a Romanian higher education institution is not to set-up a new structure as a Career Development Office, but to turn it into an efficient body, visible within the university, for the students and academics, and acknowledged by the socio-economic community for the benefits it provides. If the institution already has developed structures that serve, partly, to the

CDO declared mission, it is recommended to take advantage of them and, instead of developing a totally new body, to try to integrate the existing ones. These would provide from activities overlapping or parallel processing, facilitating the communication between initially independent entities and contributing to the overall efficiency of the process.

During the last years, *Transilvania* University of Brasov developed management instruments for addressing strategic goals as assuring the quality of study programmes (by increasing graduates employability), opening to the socio-economic environment (by creating a consistent interface with the companies), improving the career services for students. In this respect the following entities were created:

The Department of Liaison with the Economic and Socio-Cultural Community, DESC represents the communication interface between the *university* and the *enterprises/ organizations/ local and regional authorities* on three major directions:

- students education and training: by developing cooperation in placement, graduation / dissertation theses with subjects proposed by the companies; identifying the employers needs and updating the academic curricula accordingly;
- research and development: joint scientific research and technological transfer;
- training in the framework of life-long education, open distance learning, low frequency, by offering courses in response to the identified needs on the labour market.

Within DESC and related to its first action line, *The Quality Reference Centre for Students Practical Placement, QRC-SPP* has been recently developed, as result of a European project (A model for **Quality of trans-national student PlacemeNts in EnTerprises, Q-PlaNet**, www.q-planet.org, supported by the Erasmus Lifelong Learning Programme of the European Commission), with the following tasks:

- identifying and checking for quality standards local enterprises that offer practical placement for students;
- playing the role of regional contact point for quality assurance of students' trans-national placements;
- managing the database for student placements (information provided by quality checked enterprises).

The Information, Counseling and Career Orientation Office, CICOC acts as a communication interface between students and university, through several types of activities:

- Counselling: career planning, training of self presentation for career, models for employment's forms, psychological testing;
- Organizing workshops and trainings, career fairs;
- Disseminating career opportunities to the students, related to placement, scholarships, part-time jobs, etc.

The Alumni of Transilvania University of Brasov provides a communication platform for all the university graduates. The activities performed until now in a limited range, dedicated mainly to facilitate contacts between former students, are presently extended to the development of a tracing study system on graduates career, as pilot into a national project supported by European structural funds.

The three structures presented above, *QRC-SPP* within *DESC*, *CICOC* and *ALUMNI*, usually act independently and not always the communication between them is ensured, in spite of the fact

they address a common issue: the link between students/ graduates, university and socio-economic community. On the other hand, as stated in the previous paragraph, each of these bodies have specific task, but none is developing systematic studies on graduates employability or relevance of the university educational offer on the labour market. At this moment, such studies are performed at faculty or study programme level, mostly on the occasion of periodic quality self evaluation processes.

The model of the new Career Development Office, as it is intended to operate in the future, is presented in Figure 1. In order to ensure the international dimension of the concept, the CDO cooperates with the International Office, responsible for the relations with the international academic community and international students' education and practical training.

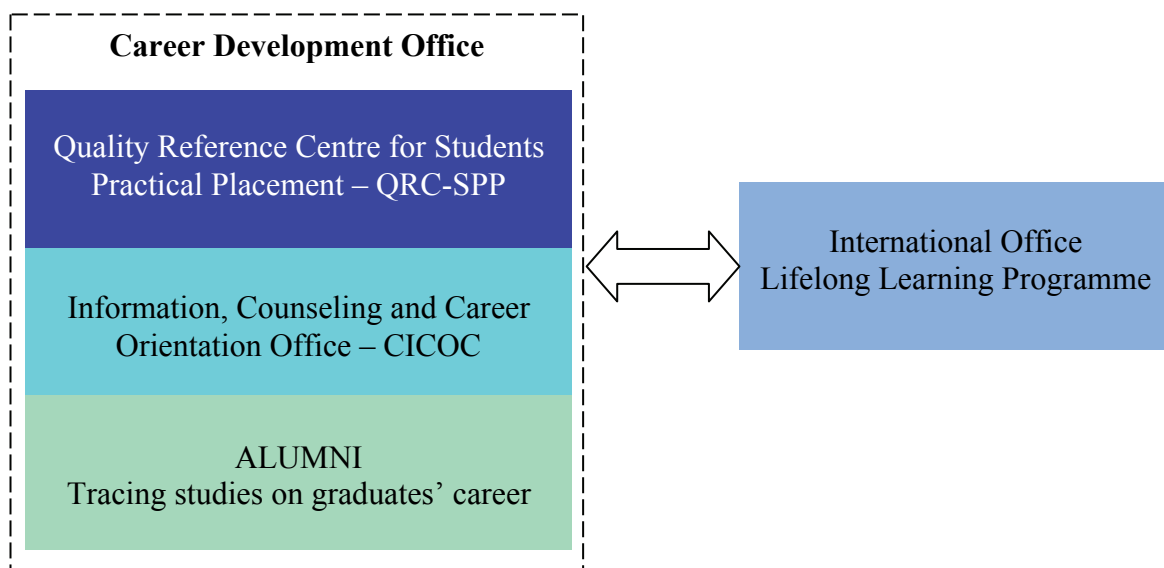


Figure 1. The integration of university structures for developing the Career Development Office

It is intended to be a synergic approach allowing for a more efficient performance of the existing tasks as well as for additional ones, providing useful information for internal and external quality assessment related to employability of graduates, career tracing and correspondence of the educational offer with the present and future needs of the labour market. It is also expected that the new integrated structure to give additional methods and tools to improve and impel the university communication with students and graduates, on one hand, and with the socio-economic community, on the other hand.

5. Conclusion

Currently there is no methodology or instruments developed at European level in order to make possible continuous systematic analyses and anticipation of future needs of enterprises as input to tailor the University offer in terms of education and training. The new context launched by the European Commission in March 2008 – “New skills for new jobs” [2] could not be fully achieved without such scientifically developed instrument.

A potential response of the universities to the challenges related to employability of graduates as well as to ensuring new skills for the future labour market is to develop institutional structures responsible for students' career development. A model of setting-up a Career Development Office by integrating existing management structures at university level is proposed.

For a more efficient use of the information the CDOs provide at local/ regional/ national level, it is discussed the opportunity of integrating these structures into a European network of CDOs, with significant impact on all the actors involved in the quality assurance process of higher education – students/ graduates, academics and employers. The data made available by the network could be exploited by the following target groups: students/ graduates - being more visible on the labour market (including the process of searching for practical placement), increasing their mobility; career centres - by making their graduates visible on a European platform; the enterprises - getting access via one platform to graduates all over Europe; the universities using the feed back of companies to adjust their curricula; policy makers using statistical data for their decisions.

The network is expected to stimulate growth of the CDOs all over Europe as well as creating a federated image of the matters of employment and employability at European level.

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AGENȚIA ROMÂNĂ
DE ASIGURARE A
CALITĂȚII ÎN
ÎNVĂȚĂMÂNTUL SUPERIOR

POLITICS AND STRATEGIES FOR QUALITY ASSURANCE AT „OVIDIUS“ UNIVERSITY OF CONSTANTA

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Abstract

Within „Ovidius“ University of Constanta, one of the objectives regarding quality assurance refers to the development of a culture for quality at the level of the entire academic community. Only within these coordinates can be realized the mission of “Ovidius” University as a whole and of each Faculty in turn. In order to accomplish this objective, a series of operational structures were activated to coordinate and implement the actions of quality assurance: The Department for Quality Assurance in Higher Education Institutions (D.A.C.I.S.), The Commission for Quality Assurance and Evaluation (C.E.A.C.), as well as a person responsible for quality assurance within each faculty. In this article, I will state my interpretation on the implementation of national regulations at „Ovidius“ University of Constanta and his impact in the educational process in matter of QUALITY.

Keywords: *quality in education; implementation of national regulations.*

1. The quality assurance system at Ovidius University of Constanta

During the year 2000, a system for quality assurance was created. All the faculties in “**Ovidius**” **University Constanta** were co-opted within this system. Together with four other university centers in Romania, the institution benefitted from attention from the Dutch Government through the **MATRA** program.

The subsequent legislative modifications led to the discontinuation of the plan and its reduction to the minimal objectives that did not necessitate specific legislative provisions:

- the development and consolidation of a *pro quality* culture;
- the implementation of experimental procedures such as internal and external evaluation (international: *peer-review*) of the specialties *Biology* and *History*, the evaluation of the teaching staff from the Faculty of Physics-Chemistry and the Faculty of Letters.
- the intensification of the activity within the *Black Sea University Network (BSUN)* and the *European University Association (EUA)* in order not to lose contact with the international achievements.

Between 2004-2005, the participation to the project **Quality Culture II** financed by EUA and coordinated by the Free University in Berlin led to the evaluation of the system for quality assurance of curricula in the **Faculty of History and Political Sciences**, the **Faculty of Natural and Agricultural Sciences** and the **Faculty of Mathematics and Informatics**. Priorities were established in this field. In this regard, the **Faculty of History and Political Sciences**, the **Faculty of Natural and Agricultural Sciences** and the **Faculty of Mathematics and Informatics** concluded a cycle for self-evaluation and *peer-review* for one specialty, while the **Faculty of Mathematics and Informatics** finalized a first *draft* of the quality manual.

At present, as a result of implementation of national regulations, “**Ovidius**” **University of Constanta** is an education and research institution which is placed under the sign of cosmopolitism and interculturality, a component of the state owned education system in Romania. It is an institution which provides non-profit education, with an open character, with a juridical body, which is organized and functions according to its own *University Charta* and the regulations attached to this under the Education Law no 84/1995.

At the level of University, quality assurance is the main responsibility of the *Rector*. He presides over the **Commission for Quality Assurance and Evaluation**, which is constituted according to art. 11 in Law 87/2006 and intends to improve the plan for quality assurance approved by the Senate.

The **Commission for Quality assurance and Evaluation** proposes to the Senate the strategy and the plan for quality assurance and aims to maintain its implementation. It monitors the activity in the University and signals the totality of problems that occur in the system from the perspective of quality assurance.

At the level of each faculty, quality assurance is the responsibility of the *Dean*, who cooperates with the executives for each academic program (*program coordinators*).

The *Dean* is responsible for the quality assurance of academic programs, for the allocation of classrooms and their equipment, for the purchasing of necessary library volumes, teaching techniques, practical activities, evaluation of bachelor exams, dissertations and admission exams and also for the institutional evaluation of the faculty.

The *Head of Department* is responsible for the implementation and *Quality Management System* conformity to the reference standard at the department level, but he is also responsible for a number of good practices such as: the evaluation of the teaching staff, of the scientific research and the institutional evaluation of the department.

The Dean, the Head of Department and the quality assurance executives take care that activities such as promotions and the evaluations of the teaching staff be done with objectivity and respecting the requirements of a qualitative higher education within a tridimensional system of landmarks: **competence-aptitudes-attitudes**.

The teacher is responsible for the quality of the teaching act, of student activities, but is also responsible for the quality of the academic program in which he is partner/takes part.

The auxiliary and administrative personnel is responsible for the quality of the administrative activities that occur within the University, as well as for the students' satisfaction according to the services offered.

Currently, the students' involvement in the educational activity is accomplished both as beneficiary and as partner to the didactic act.

In this regard, the students are instructed initially, at the beginning of the activity, in regard to the objectives/requirements of the program, priorities, extension possibilities and the responsibilities attributed to them.

Over the entire study period, the persons responsible for the program keep in touch with the students through their representatives.

2. Politics and strategies for quality assurance

The strategies of „**Ovidius**“ **University of Constanta** in the field of quality are gathered in the Strategic Plan of the University, elaborated for a period of four years. It contains a subchapter dedicated to the management of quality.

Annually, the specific objectives are decided upon and they can be found in the Operational Plan. Then they are subsequently developed into a quality assurance program, for a period of a year, at university level.

Each structural entity/faculty establishes its own strategies and objectives, which are in fact written in the planning of the activity in the field of quality assurance.

Both the program elaborated at university level and those elaborated by each faculty refer to the quality of teaching-learning, of scientific research and of services – internal and towards the academic community. At the end of the time period proposed by these programs, the accomplishment of the assumed objectives is evaluated based on written documents. The deficiencies signaled are corrected as they go.

The politics for quality assurance within „**Ovidius**“ **University of Constanta**, elaborated by the Senate (Senat Decision - No 117 on 04.07.2005), demonstrates the central place of quality in the institutional strategy and the full involvement of the management at the highest level for the accomplishment of the objectives regarding quality: the development of efficient structures such as **Bachelor - Master - Doctorate**, compatible to those from the European Union, excellence in research, infrastructure development, the improvement of learning conditions, of social services and of the quality of institutional management. In order to achieve these goals, “Ovidius” University of Constanta continues to improve the system for quality assurance and evaluation by creating new instruments and their efficient use at the level of each study program, at the level of university structures and the respective faculties.

Starting from the objectives approved at institutional level, clear objectives are then established for each faculty and study program. The politics and strategies are activated in each compartment and they stimulate the participation of each member of the teaching staff and the students to their accomplishment.

Procedures for the periodical evaluation of the teaching staff quality:

- **The collegial evaluation**
- **The evaluation of the teaching staff by the students**
- **Evaluation by the university management**

The quality assurance policy that applies within „**Ovidius**“ **University of Constanta** is permanently correlated to the actions promoted at European and international level, while the quality of educational and research services is provided by:

- (a) The planning of educational services;
- (b) The monitoring of the didactic and research processes;
- (c) The internal evaluation of the results of didactic and research processes;
- (d) The external evaluation of the results of didactic and research processes;
- (e) The continuous improvement of the educational and research services offered by „**Ovidius**“ **University of Constanta**.

The Quality Manual represents the document by which „**Ovidius**“ **University of Constanta** defines and describes its policies, objectives and activities for quality assurance, monitoring at

the same time the degree by which they are understood, applied and developed at institutional level. This Quality Manual presents the *Quality Management System*, developing aspects connected to the organization structure, management executive, the processes of this *System* and the interactions among them, as well as the structure of the documents used for the implementation of the policy and the accomplishment of objectives in the field of quality.

By the efficient application of the *Quality Management System* and by its continuous improvement, „**Ovidius**“ **University of Constanta** seeks to maintain and demonstrate the capacity to provide consistently services and products that will satisfy the clients' demands and those of the applicable regulations, so that, finally, it will obtain an increase in the satisfaction of partners.

At the same time, at the request of different interested organisms, The Quality Manual represents the instrument that the institution has in order to demonstrate the conformity of the *Quality Management System* implemented, both according to the national regulations and the European norms regarding the evaluation of quality assurance in the higher education system. The *Quality Management System* adopted by „**Ovidius**“ **University of Constanta** satisfies all the requirements in SR EN ISO 9001-2001.

According to the policy of „**Ovidius**“ **University of Constanta** in the field of quality, but also to the Operational Plan and Strategic Plan, we specify a few **measurable objectives**, such as:

Strategic (general) objectives of the institution:

- The increase of the competitiveness of services within the university;
- The consolidation and improvement of the Quality Management System implemented;

Specific objectives (on departments/compartments) of the institution:

- University marketing techniques;
- The permanent identification of social demands;
- The increase of the number of clients;
- The increase of the number of research and services contracts;
- The increase of client satisfaction;
- Prompt response to the clients' demands;
- The reduction in the number of non-conformities;

The general procedures represent the basic documentation used for the implementation and maintenance of the quality management system. These describe the type and objectives of the different activities with incidence on quality, as well as the responsibilities, authority and relationships among the people that coordinate, realize, verify or analyze the respective activities.

Within „**Ovidius**“ **University of Constanta**, the following general procedures were elaborated in regard to the quality management system.

- The procedure regarding the elaboration, approval and dissemination of documents;
- The internal audit procedure;
- Corrective and preventive actions;
- Identification and analysis of customer requirements procedure;
- The collegial evaluation procedure of the didactic personnel;
- The SMC analysis realized by the University management (SWOT Analysis).
- Measures Plan.

The operational procedures specify the expected objectives and results of the different activities with incidence on quality.

The internal audits of SMC realized at the level of faculties/colleges/departments in 2009 concluded that the implemented management system functions and has improved.

The strategy of „Ovidius“ University of Constanta in the field of quality aims at the following objectives:

- The promotion of its own culture for quality and of the Ovidius *brand*, based on *values* such as:
 - Creativity and innovation
 - Enterprising spirit
- The integration by 2012 in the European Higher Education Area (EHEA) and in the European Research Area (ERA), in order to play an *active role* in the sustainable development of Dobrogea and the Black Sea area;
- In view of accomplishing its *mission* to be part of EHEA and ERA, the institutional academic management promotes the fundamental European values synthesized into the following generic aspects:
 - Cultural diversity
 - Sustainable development
 - Cooperation and synergy
 - *Networking*
- Extra-curricular activities for students will constantly function for the *implementation* of the values of *organizational culture* in the institution;
- The involvement of students in the educational activity will be accomplished both as beneficiary and as partner to the didactic act;
- The maintenance of an efficient policy and strategy regarding the provision of qualitative educational services.
- The *instruction* and *motivation* of the academic staff in the **field of quality**, with the purpose of stimulating the individual performances towards satisfying the client demands;
- The *selection* and *integration* for didactic career of the best graduates, with the purpose of providing a balance between generations;
- The *testing* of the ABET system (*Accreditation Board for Engineering and Technology*) for the technical faculties.
- The maintenance of an adequate work environment, a fundamental objective for the implication of the staff in the enhancing of the performances in “Ovidius” University.
- The continuous development of the infrastructure.
- The provision of conformity and continuous improvement of the efficiency of the **Quality Management System**

The necessary operational structures were created and activated in “Ovidius” University for the coordination and implementation of the quality assurance actions: **The Commission for Quality assurance and Evaluation, The Department for Quality assurance in Higher Education Institutions** and the quality assurance executives for each faculty (program coordinators). All these structures were approved by the Senate, alongside the attributions and evaluation principles for education quality.

The functioning of the quality assurance structures at the institutional level takes place according to the legislation and regulations in force. In this regard, the Commission for

Quality assurance and Evaluation in „**Ovidius**“ **University of Constanta** has the following attributions:

- (a) it coordinates the application of evaluation and quality assurance procedures approved by the Rector of „**Ovidius**“ **University of Constanta** regarding the institutional capacity, the educational efficiency and the quality management system.
- (b) it elaborates proposals for the improvement of the educational and research services and also the *strategy* and *specific requirements* regarding the introduction of the *Quality Management System* in the university, as well as the evaluation and auditing criteria and methodology within this institution;
- (c) it cooperates with the proper organisms that provide the external evaluation of the quality of educational and research programs. In collaboration with **D.A.C.I.S.** and the quality assurance executives on faculties, the *Commission for Quality assurance and Evaluation* elaborates annually the **Report for the Internal Evaluation of Quality**, which is made public on the university website.

The Commission for Quality Assurance and Evaluation contributes to the development of a culture of quality in the university, both at the level of the academic and administrative staff and at the level of students.

Also, these structures formulate proposals and projects for the improvement of education quality, which are discussed and approved upon within the Senate of „**Ovidius**“ **University of Constanta**.

Mission statement on quality management

In order to meet the quality assurance standards, „**Ovidius**“ **University of Constanta** has settled on the following strategic goals:

- a. to promote complex quality assurance systems and mechanisms
- b. to continually improve the quality of the institutional management.
- c. to ensure quality standards compatible with other European countries
- d. to continually improve quality standards regarding the development, evaluation, revision and improvement of performance indicators and to correlate them with job-imposed requirements .
- e. to raise the standard levels of performance indicators
- f. to ensure the compatibility between our curricula and European curricula, in order to render academic degree standards and quality assurance standards more comparable and compatible throughout Europe
to strengthen international cooperation and European cooperation in particular through jointly developed teaching and research programs.

„**Ovidius**“ **University of Constanta** shall implement by 2012 a full fledged and certified Quality Management system at national and international level within the *European Universities Association* (EUA).

„**Ovidius**“ **University of Constanta** is implementing permanently the measures of improving the quality of education formulated by the committee and collaborates with other universities in the country or from abroad in order to identify and approach the best practice in the quality area.



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AGENȚIA ROMÂNĂ
DE ASIGURARE A
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ÎNVĂȚĂMÂNTUL SUPERIOR

THE HR IMPACT ON UNIVERSITY EDUCATION QUALITY

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Abstract

Higher education is the main supplier of experts who will lead in the near future the Romanian society and its integrated economy into the European Union. Obtaining a quality-oriented behavior is a major constraint in the actual process of real European integration of Romania, representing meanwhile a key aspect in gathering the economic prosperity as the nation longs for more than 20 years. A major importance in this respect has the educational component. It becomes obvious that all of the universities' work must be oriented towards increasing the competitiveness of the institution both at nationally and internationally level. This can be achieved through quality work and results, a performing management, an appropriate financial policy of the rational resources' use and gathering of the new resources, strengthening the international dimension of business and encouraging a responsible attitude by the staff side. For any higher education's institution, the management quality must become the main path to increase its performance and prestige. Unfortunately, in many universities the quality management is confused with accreditation and the efforts are being made to achieving the standards' requirement, while the essential is overlooked - continuous improvement, followed closely by an element often not taken into account in the Romanian educational process: students' perspective.

Key words: Higher education, Quality assurance, Continuous improvement, Human resources, Students' perspective.

1. Introduction

The duty of any institution from the national education system, regardless of its type or level is to provide a quality teaching, learning and research. This arises from the need to build an institutional culture of quality education in order to help students' personal and professional development, while contributing to the society welfare. Thus, the beneficiary of the education system is none other than the society itself. Educational institutions are preparing specialists which will be subsequently played to the economic, social or political circuit.

For a higher education's institution, the management quality becomes the main path to increase its performance and prestige. However, many Romanian universities are confusing the quality assurance with accreditation and the efforts are being made to achieving the standards' requirements, neglecting more important aspects, such as the **continuous improvement**.

Another detail that led us to the current research is the low importance given by some of the prestigious universities to their students' opinion when it comes about the educational quality and also the quality of services offered by these universities to them. Thus, if in Western universities the students are in the middle of the quality improvement process, in many of the Romanian universities student's feedback is very little or not at all considered.

2. Historical review

The first step made for harmonizing the complexity and diversity of degree programs and structures in Europe's higher education system was the *Sorbonne Declaration* in May 1998. Although there were only France, Germany, Italy, and the U.K. who signed the agreement, the declaration was well received and set the stage for broader initiatives.

The *Bologna Declaration* signed by 29 European ministers of education on June 19, 1999 was considered an effort to promote "actions which may foster the desired convergence and transparency in qualification structures in Europe" [3, p. 9].

The next important moments were the *Lisbon Meeting* (2000), the *Salamanca Convention* (2001) and the *Berlin Meeting* (2003) during which it was established the European Network for Quality Assurance in Higher Education (ENQA). Services of the network to its members mainly include information sharing through newsletters, web sites, and bulletin boards, training workshops and advisory support, as well as seminars and special projects. The latest concerns in this respect were shown in the *Bergen Meeting*, which took place in 2005.

3. Aim of the research

The purpose of this paper is *twofold*. Firstly, the research aimed the assesment of Alexandru Ioan Cuza University's students opinion regarding the educational process. The second aim was to identify the students' issues such as referral to impact the quality of university's education.

4. Research objectives

In carrying out this research, *three objectives* were pursued. In order to ease the expression, we shall use the abbreviation **UAIC** instead of „University Alexandru Ioan Cuza”.

O1: *Identifying students' perceptions regarding the education's quality in UAIC.*

O2: *Identifying problems faced by students in university and university's campuses with potential impact on the education's quality in UAIC.*

O3: *Identifying the manner of how UAIC auxiliary staff's activity affects the educational process's quality in UAIC.*

5. Research Questions

1. *What do UAIC's students think about the educational process's quality in their University?* **2.** *What is the UAIC's students' opinion regarding the quality of services offered by their university?*

3. *What do UAIC's students think about the auxiliary staff's impact on their university education's process?*

6. Hypothesis

H1: If the services offered by the University to its students are high quality, the education's process in UAIC will be able to operate at optimum parameters.

H2: If the University management's structures will take better account of the problems faced by students, both within the university and its campuses, the education's quality in UAIC will be improved.

H3: If the University auxiliary staff would benefit from professional development courses, the education's quality in UAIC will be improved.

7. Research Methodology

The present research is a causal and objective representation of reality, its aim being to propose a representation likely to explain a situation. As a research method we used a qualitative method, *the survey sample*. Moreover, qualitative methods are the most useful research methods in human resources management, being also used in plenty other fields. The instrument used in this research was the *questionnaire*. The questionnaire's items evaluation has been made using two types of scales: nominal scale and the Likert scale.

The questions are mostly closed because they are letting the subject to indicate one or more choices from the proposed answers. Thus, responses are more easily given, and data's processing and interpretation are simplified. The questionnaire contains both single-choice questions and multiple choice questions. There were also used questions such as prioritizing items.

To conduct this research, we chose the sample of UAIC's students. Questionnaires were distributed to students belonging to all of the 14 University's faculties, striving meantime to maintain a balance in determining the number of respondents from each faculty's students, due to the big differences existing between the numbers of students in some faculties.

8. Data collection

We aimed to assess views of students from all the years of study, and mainly from the elder ones, considering the latter as having a greater understanding of the issues explored by referencing to a richer and more varied range of experiences. In the information's collecting stage, we considered two target segments: students living in UAIC's dormitories and students living in their own areas, considering that in this manner we can objectively observe all of the student's life aspects.

For the dorms students' sample, we conducted fieldwork, while for the other side of the respondents we have appealed to friends and acquaintances through which we managed to attract respondents and thus to cover the target segment. As necessary for information sharing and questionnaires' collection there were required ten days.

9. Sample

To achieve a representative sample, the drawn questionnaire was applied to a number of 300 students from all University's faculties, keeping a balance between the numbers of each faculty's respondents. The survey includes a series of 30 questions which assess student's opinion regarding the educational quality, the quality of services offered by university and the auxiliary staff's influence on the overall university educational quality.

Before the large-scale research, a **pilot study** was carried out among five different students in order to identify any potential problems with the questionnaires used in the study. After they were validated, the survey packages were distributed among 300 students.

Of the 300 questionnaires that have been sent to the chosen students, five of them were returned partially completed. Thus, we considered reasonable for the sample to remain composed of 295 respondents, 200 living in dormitories and 95 in their own areas.

10. Measures

The measures followed the questionnaires. Each question was multiple choice answers, respondents indicating the variant or variants being more close to the academic reality. Regarding the type of

questions such as prioritizing the options, a **five-point scale** was adopted ranging from **1** (strongly disagree or strongly unsatisfied) to **5** (strongly agree or strongly satisfied).

11. Summary of the main results

After interpreting the results from the questionnaires' processing, we could draw several conclusions.

The first issue would be the relevance of the theory taught in college. Regarding this aspect, at the UAIC's level 24% of the respondents found it to be relevant, while 25% considered it to be inappropriate in the current practice's context. The overwhelming proportion of responses to this question was directed to consider the theory as relevant only in some areas of interest.

It is interesting to follow an analysis at each faculty's level. Thus, we could observe a number of faculties, such as Chemistry, Biology or Physics, especially the ones from exact sciences' field, whose students considered the actual theory as still being appropriate, something expected otherwise. Instead, the students from faculties such as Theology, Psychology, Philosophy, or Economics and Administrative Sciences (FEAA) considered the theory taught during the college as being irrelevant to the practical context.

For questions concerning the dormitories' activity, we have stopped only on the sample of 200 students living in dormitories. Thus, of the 200 respondents, only 7% said they were very satisfied with the accommodation activity in their dorms, 35% satisfied and 31% have adopted a neutral attitude. By contrast, 21% were shown dissatisfied, and 6% very dissatisfied.

As regards the view taken at the faculties' level, we can see that the most satisfied students by these conditions are coming from the FEAA, Geography and Theology, and the most unsatisfied are those from Chemistry, Psychology and Philosophy.

Regarding the relationship with the dormitories' personnel, 15% of the respondents declared themselves highly satisfied with its activity, 46% fairly satisfied, 24% rather unsatisfied, while very dissatisfied were shown to be 15% from the total of 200 respondents. In addition, 81% of the respondents have seen the activity carried out by this personnel as having potential impact on the UAIC's educational process quality.

Regarding the secretariats' activity, at the University level only 3% of the respondents were very satisfied, 25% satisfied, 39% were neutral in this regard, 24% were dissatisfied and 9% were very dissatisfied. The biggest problems that were seen by students as affecting the secretarial activity are the short time allocated to relating with students (25%) and the reduced secretarial staff (21%). There were also 72% of the respondents that considered secretarial activity as having a major impact on their faculties' educational process.

Referring to the medical facilities' staff dedicated to UAIC's students, 13% of the surveyed students have a very positive opinion about it, 27% have a good opinion, 39% have rather a bad opinion, while 9% manifested a strong negative opinion, adding that the medical personnel from this facilities shows gaps in training and moral conduct. 12% of the respondents have not used such services.

In addition, 81% of the respondents stated that the medical services' quality provided by UAIC to its students may or really does impact over the university educational quality process.

Regarding the usefulness of professional development courses for the UAIC's staff over its education quality, 57% of the respondents considered that such courses' organization would positively affect the quality of education.

12. Conclusions and discussions

In the research we have conducted, there were treated many issues faced by the "Alexandru Ioan Cuza" University's students, also trying to realize a scan over the dormitories life, how are the secretariats running, the quality of care provided by the university, its dining services, guard services and the housekeeping activity both within faculties and their campuses.

All these were observed in order to highlight the students' view regarding how the human resources from these organizations understand to do their job. Moreover, we tried to identify if UAIC's auxiliary staff can influence the quality of university's education process, and if so, to what extent and in which way this influence is manifested.

Thus, a first conclusion which can be extracted would be the theoretical basis used in most of the faculties is considered by the students as outdated and in inconsistency with today's common practices. As a general idea, the respondents have opined that the manner of services' providing by the University to its students is likely to influence the UAIC's education quality.

Secretarial work is seen as deficient in all UAIC's faculties. Much of the Psychology and FEAA's undergraduate students believe that the secretarial activity hampers the educational process, instead of acting as its catalyst.

Cleaning service assurance both within the faculties and their campuses is seen as unsatisfactory, particularly in FEAA and Philosophy. The staff from the university's medical facilities is seen as having poor training and moral conduct. Following these results it can be inferred that hypothesis no.1 is validated.

The respondent students stated that the activities implying auxiliary staff may positively or negatively influence the university's education quality. Meantime, the surveyed students considered staff's professional development courses as having a real impact on the university's educational process. These come to validate the third hypothesis.

Due to the total lack of similar research, the second hypothesis is to be verified in a personal further research, the current study going to serve as a reference point in a subsequent comparative analysis.

13. Recommendations and further research

After processing the results, we could refer to the existence of some students' issues able to influence the quality of the University's education. Further, we provide a number of recommendations designed to improve the current situation.

In terms of secretarial activity and its personnel, we considered the opening of an information office in order to relief secretariats' work and to allow them to dealing with more severe problems. Regarding the students' accommodation activity, we highly suggest a more rigorous medical check of the students' dossiers in order to get an accommodation place. This must be done for increasing the accuracy of the granting accommodations' process, the respondents seeing this activity as being poor managed and having corruption issues.

Another recommendations is the bibliography's enrichment and updating as possible, especially in the faculties that require it (E.g.: FEAA, Philosophy, etc.). The surveyed respondents considered that the difference existing between the theory taught in college and the common practices is one of the major problems encountered when they engage in a company.

A very important aspect is the medical services offered by the university, these being seen by the students as not having such a high quality level. Thus, we recommend providing professional medical services able to serve even in more complex cases.

This research is to be continued in the near future. Higher education quality could be also addressed from another perspective than human resources' impact, such as the doctoral studies' quality ran within "Alexandru Ioan Cuza" University. This research may be continued by anyone interested in the field, because from time to time the students' perspective must be required, if not from a formal position, at least from students' research.

In the end, we would like to highlight an aspect that characterizes the Romanian higher education system. We want to relate so much to the Western Europe education's high level, but we are neglecting one important detail: in these universities, the students are the university's most valuable asset and are treated accordingly in this respect. It would be ideal as within the Romanian universities things to be seen from the same perspective.

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AGENȚIA ROMÂNĂ
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CALITĂȚII ÎN
ÎNVĂȚĂMÂNTUL SUPERIOR

QUALITY MANAGEMENT SYSTEMS AS FAVOURIZING FACTORS FOR HIGHER EDUCATION INSTITUTIONAL DEVELOPMENT

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Abstract

In the context of most transition economies, which previously completely lacked quality management and academic structures, the shift from the centralized environment to a results-based one requires very complex process. In this respect, the status of the modern university could be better regarded from a more broad perspective, namely the whole society. It is obvious that the process represents a desirable mélange of several main fields: higher education, quality management, sustainable development at institutional, regional, national and supranational levels. The present paper tries to identify some of the main problems which characterize the Romanian Higher Education Systems and the possible roles that Quality Management Systems could play in the above mentioned desirable respects.

Key words: quality management, higher education institution, sustainable development.

1. Introduction

1.1. Higher Education Aspects

The university in transition societies represents a concept that oscillated between tautology and other representative models for higher education institutions. Referring to its tautological character, the university becomes a “selfish” institution that presents an obsolete and rigid relation with the social environment. The risk of such an approach is the institutional isolation. If considering the orientation to other models, Napoleonian or Humboldtian, the transition university suffers of lack of personality, because these “pure” models should be regarded as being the result of a social requirement, of accomplishing a task imposed by historical necessities. It is very difficult to mix the character of such models in a super-university that tries to offer a global solution to the requirements of the transition society. This difficulty is accentuated by the instability of the society itself. Anyhow, it is widely accepted the fact that introducing Quality Management Systems brought stability in the process of institutional development and, on the other hand, offered new development perspectives.

1.2. Economic Aspects

The shift from the Industrial Economy (hierarchically organized, self-sufficient, secure, autocratically led, requiring homogenous labor force, using low costs as a competitive advantage, always focusing on profit and capital intensive) to the Entrepreneurial Economy (network organized, interdependent, evolving, inspirationally led, requiring diverse labor force,

using time as a competitive advantage, focusing on clients and information intensive) definitely requires an adaptive educational process.

In this respect the present paper traces the desired lines of action, considered as being compulsory for transforming the “old university” into an EnUn:

- the university, as an organization, targets to an entrepreneurial behavior for all internal processes;
- in a certain approach, all involved persons namely members of the academic staff, students, members of the technical staff should transform themselves into entrepreneurs;
- the interaction between the university and the environment follows entrepreneurial patterns.

In close connection to the above-mentioned lines of action, the envisaged targets groups are:

- the university's top management team (Rector, Vice-rectors, members of the university's Senate);
- deans of the faculties;
- managers of different university's departments (both academic and technical);
- representative members of the local community.

2. “Academic” related to “Economic”

The increasing involvement of the university in local community life, its active partnership with the public administration, with the world of business and finance, as well as with NGOs and scientific, cultural and economic societies generate new responsibilities and commitments for the academic community, broadens the scope of its actions and services, all these resulting in a changed image of the university in its local/ regional environment. The change is good as long as the university, on its own accord, becomes an active, omnipresent promoter of cultural and scientific events, and commits itself to the prompt resolution of community problems, using its own human and technical potential. However, the more conservative-minded academics look down on these new forms of social commitment, considering them a “regrettable deviation” from the classical mission of the academic community and showing themselves a disappointing lack of adaptation to the reality.

In its effort to attain its objectives, the university usually finds itself insufficiently funded by the Government bodies and/or local administration. Consequently, it is faced with the need to identify and appropriate new financing sources, which will necessarily lead to a diversification of the complementary services provided by the academic community. After reaching the critical point, this diversification becomes disadvantageous to basic university education and to fundamental scientific research, which lose ground to short-term postgraduate training programs, to the provision of consultancy services, of scientific and expertise assistance, to research projects with immediate applicability in industries.

The creativity and entrepreneurship of some members of the academic community are beneficial to increasing the incomes of certain university departments, to renewing the research equipment and to enhancing the prestige of the university in academic and extra-academic contexts, be they local, regional, national or international.

International practice, however, shows that the beneficiaries of these “industrial services” tend to interfere with the administration of the university, which, sooner or later may lead to a confrontation within the academic community. The representatives of the traditional,

conservative wing of this community vent their fierce opposition to this new opening towards the social-economic environment when the university - with its formative, scientific, cultural mission - tends to take on the characteristics of a business providing profit-making services.

On the other hand, the academic and scientific staff becomes more and more involved in certain activities which have nothing to do with the fundamental mission of the academic community. Nobody can deny the benefits of exterior connections, but when the volume of commercial commitments exceeds a certain critical point, the academic community is affected. Professional associations joined by an even greater number of academics have their own codes of practice, quality standards and regulations with regard to the payment of services provided. There are, however, more and more examples of academics and researchers alienation from their university conduct as a result of the increase in the volume of commitments outside the academic world.

Starting from the need to preserve the prestige of the university intact on the one hand, and to turn every new opportunity to good account on the other hand, it is evident that the university governing body cannot and must not confine themselves to the traditional monitoring of the quality of initial academic training and research.

In the context of strengthening the links between the university and the other factors of the social, economic and cultural environment, strategic academic management involves:

- internal institutional evaluation with a view to identifying the mission and the immediate and long-term priorities, while ensuring a balance between university development policies, its internal norms set by the Charter, and its limited potential;
- design of short- and long-term institutional policies by the collective management bodies of the university (chairs, departments, faculties and the senate), with a view to identifying resources and of promoting those initiatives that show respect for institutional identity;
- the structural reform of the university, so that it becomes sufficiently flexible from an organizational behavior point of view in order to be able to notice new opportunities, to experiment new solutions, to support the innovative activities of some members of the academic staff and to turn to good account the long-term initiatives meant to improve the provision of services outside the University;
- a new financial management, cost-effective and rewarding for all institutional structures, encouraging both scientific performance and academic excellence.

The mere enumeration of these requirements will make it clear to anyone that strategic university management is the complex solution through which the academic community responds to a complex and dynamic environment.

The transition from theoretical requirements to practice can be achieved by combining collective decision-making, typical of the academic context with leadership, in the sense that a strong personality from the academic community assumes the responsibility to lead.

In his turn, the university rector should recruit a team of academic co-workers (vice-rectors) and experts in financial and administrative management (the chancellor or the general manager) who second him in the sustained implementation of the strategy.

The complexity of the interaction between the university and its external environment, the determination to fulfill the mission and the objectives of the higher education institution have caused a clear-cut dichotomy in university management: a separation of the academic

government from the financial and administrative management. Hence, big universities are more and more administered in a manner similar to what is called business management.

3. The adaptation of “Academic” to the “Economic”

In the respect of the above mentioned, a should to be modern university has to compile the environmental reality and to distillate the gained experience in order to adapt its academic offer to the real needs and requirements of the social, economic and cultural domains. In what follows we try to identify and to comment some of the most important aspects of such a process.

- Matching the tertiary educational offer to the overriding needs of the economic, social and cultural life, as well as to the demands and expectations of the direct beneficiaries of the services provided by universities. In effect, they fulfill their mission only when they equip man with all s/he needs to be competitive inside the educational system through the volume and quality of knowledge gained, but also outside it, on the labor market, through the professional skills acquired, through the graduates' ability to apply all this learning in concrete real world situations of a most varied nature and to solve any problems arising.
- With an under-developed labor market and the sluggish tempo of institutional, administrative and legislative transition, it is advisable that academic curriculum should promote wide-scope education, capable to open up new opportunities towards future multiple qualifications. This „generalist” academic education, based on a core-curriculum has certain advantages over narrower specialization: it offsets the uncertainties of labor market evolution; it broadens the graduates' chances to enter the future labor market successfully through short (re)qualifying courses.
- Linking initial training and the labor market more closely requires that a series of questions should be answered: for which purpose do students study the curriculum provided by the university, for whom and for when? The range of study programs offered by higher education is broad enough, it is comparable with the educational offer of the most developed countries; however Romania has a legacy of unjustified obsolete (in their content) study programs, according to the type of enterprise for which the student was going to work after graduation. In certain fields the narrowing of subject specializations leading to the Bachelor's degree has been taken too far.

An educational offer reorganized with a view to covering a wider span of specializations, concomitantly with the development of optional subject packages within the academic curriculum, as well as with a view to giving students the opportunity to choose their own individual study track is a more realistic alternative in relation to the present and, especially the future role of human resources in the sustainable development of Romanian society.

This alternative requires rethinking the role that Faculty, Department and/or Professional Counseling authorities ought to play in providing guidance and assistance to students in their choice change of study track.

- Reducing the number of compulsory attendance hours/week concurrently allowing for more individual study time within the curriculum, through a series of measures such as: correlating the content of disciplines, removing overlaps/repetition of themes treated by different subjects, logical sequencing of subjects, updating teaching technology, shifting emphasis from lecturing to active learning, developing skills and encouraging creativity.
- University consortia set up under the aegis of the Rectors' National Council to cover seven curricular areas (humanities, social sciences, mathematics, computer sciences, natural sciences, engineering, architecture, economic sciences, agricultural sciences,

the arts) have agreed on reducing the number of hours in the students' weekly schedule. Romanian Universities, however, are still offering educational programs based on an overloaded curriculum.

- The curricular differentiation between long- and short-term education implies both the existence of ties between these two types of tertiary education and a stronger emphasis on vocational/professional training in the university colleges curricula. The content of each college subject is thus more relevant to the working environment and emphasizes the practical application of knowledge. A greater part of the curriculum is intended to help students develop vocational and other work-related skills, and gain useful insights into organizational structures in the world of work.
- Structuring higher education into curricular cycles in a pyramid framework of student enrolment ensures a broad-span education and relatively low unit costs in the initial general study cycle, while, in the specialization part of the curriculum, as the students move towards their first or post-graduate degree, there is an increase in the weight of interactive learning as against the initial stage of fundamental knowledge acquisition. Romanian higher education institutions present a good adaptation in this respect since Bologna Process implementation came fully into force.
- With a view to diversifying the educational offer and to adapting it to each student's wants and expectations, the ratio of optional disciplines grows from the first academic year to a significant percentage in the final year. The compulsory courses cover the core curriculum, while the optional packages provide the diversity needed by the students' basic training. Supplementary (extra-curricular) courses are provided on request. Law requires that extra-curricular tuition costs should be bear by the student.
- Once academic programs providing for mainstream education become operational, there will be a shift of focus onto postgraduate education (the third cycle), open to university graduates with highest attainment levels. In this respect, at this moment there are three types of such programs: further specialized studies, intended for the graduates who aim at acquiring advanced, highly-specialized, state-of-the-art knowledge in their field of study, in keeping with ongoing scientific research; Master's Degree programs intended for the graduates who want to expand their knowledge and competencies and to develop team-work, managerial and entrepreneurship skills; Doctoral/Ph.D. programs, the highest form of tertiary education, combining training with scientific research focused on the theoretical and practical handling of an individual theme.
- As continuing education at tertiary level develops, universities will have to match their initial training offer to continuing adult education programs, so that the latter may follow naturally, well-articulated on the solid ground of initially acquired knowledge.
- Initiation of the procedures for the qualitative evaluation of educational programs and the ordering of higher education institutions on a hierarchical basis, will gradually lead to a differentiation in the curricular options of the universities, so that the mission assumed by initial education, scientific research and/or permanent education be fulfilled in optimal conditions of quality, and at the lowest possible unit costs.

4. Conclusion

In the contemporary context the corporate spirit of the university and the cohesion of the academic community are confronted with centrifugal forces originating in the local and regional environment where the university functions. A few examples of the contradictory impact of the interaction between the university and the exponents of the economic, social, cultural, administrative and political environment on the daily activity in a university campus could be emphasized.

Universities provide an increased number of training activities, which are likely to have a positive impact on the stability of academic staff and on the growth of the university's own incomes. However, the correlation between fundamental research and academic education is no longer as close as it used to be, while the greater diversification of higher education forms (short-term, part-time/evening, distance education etc.) and post-graduate short-term study programs dilute the consistency of the academic community. Here clearly appears the role of Quality Management Systems which, if properly put in place and functioning, could act as real stabilizers for an efficient functioning of higher education institutions.

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STUDY ON MANAGERIAL DIMENSION OF EDUCATION FOR PRIVACY

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Abstract

The goal of this study consists of analyzing the managerial dimension of education for privacy at the level of Romanian educational system. The main objectives of this research aim at identification of teachers and high school pupils' representations regarding the types of educational projects involved in achieving the education for privacy. It's about an observational research on perception of high school teenagers and teachers on managerial dimension of private life education developed into Romanian education system. We elaborated and applied a questionnaire for identification the way in which 1456 high school students and 890 teachers perceive the types of educational projects involved in achieving the education for privacy. The results are distinguished through the representations of high school pupils and teachers toward the way of realization of education for privacy through educational projects. We found that teachers appreciate some subcategories of educational projects to achieve the education for privacy. We obtain a new and original model for investigation of privacy education from managerial perspective.

Key words: managerial dimension, privacy, educational projects, representations.

1. The theoretical framework

1.1. Defining of privacy education

The conceptualization of education for privacy is an equally difficult approach and the delimitation of the concept of privacy in contemporary society. In the Romanian literature it can be identified some attempts to approach it. After O. Dragomir [1], education for private life includes those elements that provide the individual progress. This type of education aims the training of skills, setting of benchmarks in value, and the orientation to pro-social behaviors, behavioral modeling, forming of harmonious personality, improving of life quality. A. Miroiu [2] states that education for private life has as a central point the reproductive education (for maintenance of life) and the community (training, the development and the affirmation in family and in local community).

At the level of the "new education" there are involving three dimensions: the normative dimension, the curricular dimension and the managerial dimension. *The normative dimension* is characteristic for the education system and outlines the educational policy of a school organization. In contrast, the curricular and managerial dimensions are specific for the education process through two principal functions: the *informative function*, through which the main contents specific for privacy education are selected and developed and the *formative function*, with emphasis on the personal development of students' and the active participation in community life and social life through an interactive process of negotiation and becoming independent.

We defined three basic understandings in relation to dimensions which support and foundation the education for privacy:

- *the normative connotation*: the new education represents an ensemble of rules which ensure the respect of educational actors privacy in conjunction with the legislative requirements;
- *the curricular meaning*: the privacy education includes knowledge, skills, attitudes, values and specific behaviors that are transmitted and internalized so that contributes to the personal development of pupils;
- *the managerial significance*: the education for private life requires a series of specific steps to contribute at realize of various educational projects.

In conclusion, we propose the operational definition by synthesizing of three meanings. Education for privacy is a “new education” that prepares the students for a balanced personal life in relation to public life through a set of rules, laws, knowledge, skills, attitudes, values, attitudes and specific actions. Like the concept of privacy, the meaning of rules, knowledge, attitudes and actions varies according to social and historical context in which it implemented the “new education”.

1.2 The managerial dimension

Iosifescu [3] appreciate that the practitioners can develop and achieve the following categories of projects on privacy theme in relation to main areas of educational establishment:

- *curricular development projects*, which aim the realization of formal or non-formal activities;
- *human resources development projects*, focusing on information and training teachers;
- *projects of attract financial resources and development of material resources*, based on the purchase of teaching instruments, informative materials, computing and other resources that can provide training to a database of the institution, support for didactic and extracurricular activities;
- *development of community relations projects*, centered by the identification of specific categories of educational resources in the community and their successful integration into the educational process by creating participatory structures, school-community partnership.

We added a new class of projects, namely *the educational intervention projects*, which are based on offering solutions to social problems [4].

The curricular development projects will be developed in accordance with current innovations [5]. At the formal level, the projects are based on strictly directed actions in schools as optional or courses with obligatory character. The teachers can develop different forms of optional content to reflect the “new education” in various forms: at the level of discipline (“Education for private life”), at the level of one curricular area (“History, religion and private life”) or at the level of several curricular areas (“Cultural and aesthetic elements of private life”). At the non-formal level, the teachers can organize activities which involve formalized elements of school type under the guidance of teachers or pupils’ parents: school or interdisciplinary rounds, contests, visits, excursions, conferences, competition, campers, school camps, street animations, training, etc. The non-formal framework includes activities that include adults such as: parents lectureship, administrative committee activities, club activities, scientific or artistic activities. Also, we can include in this category the recycling activities and civic and professional training and a range of activities taking place in the social and cultural environment as a means of entertainment or active rest [6].

The human resource development projects are focused on informing teachers are either on training [7]. The *information actions* consist in development, organization and implementation of courses centered by content regarding on issues and dimensions of privacy education or by pedagogical content relating to implement the strategies of the “new education”. The *training actions* focus on practice skills, attitudes, behaviors, skills needed for privacy education implementation.

The projects of attract financial resources and development of material resources aims to identify potential donors. The teachers can develop projects to attract funds for conduct various activities on the theme of education for private life, according to the eligibility requirements of funding sources. The main stages of an application for funding are: the purpose and objectives, the justification, the project team, the budget, the activities plan, the indicators of achievement of objectives, the sustainability etc.

The development community relations projects have as a means of achieving the educational partnerships [8]. The school representatives will assume the role of promoter, catalyst and facilitator in achieving educational partnerships at the following levels: *local, national and international*.

The teachers can achieve educational intervention projects in their school organization for resolve the privacy issues. There are two categories of projects which determine prompt and effective educational interventions: the *awareness projects* for solving problems relating to privacy in the contemporary world (education campaign) and the *pedagogical assistance projects* (personal development techniques).

The elaboration and the implementation of educational projects contribute to the development of quality of school organization management [9] through the benefits it offers of educational actors.

2. Research on representations of educational actors toward the managerial dimension of education for privacy

2.1 The objectives and the hypothesis of the investigation

The objectives

The main goal of research consists in identification of openness of teachers and students toward categories of educational projects that enable the realization of education for privacy.

The Hypothesis

The first general hypothesis

The teachers consider that a number of actions facilitate the achievement of education for privacy.

The second general hypothesis

The students consider that a number of actions facilitate the achievement of education for privacy.

The third general hypothesis

There are significant differences between the perceptions of teachers and students of the types of educational projects.

2.2. Variables

The concept of educational projects was developed in following categories corresponding to foundation of the managerial dimension: curricular development projects, human resource development projects, development of community relations projects, educational intervention

projects. In identifying the subjects' level of openness, *the dependent variable* used is the appreciation of the importance of the categories of project concerning private life. In order to establish this variable, the subjects were asked to prioritize each category. The following *independent variables* were taken into consideration: socio-professional group (high school students/teachers), gender (male, female), environment (urban/ rural), and the high school students' school year/grade (first year students, second year students, third year students, senior year students).

2.3. Subjects

2346 subjects were involved in this study; they were grouped according to the independent variables, as presented in Table 1.

Table 1 The distribution of subjects according to the independent variables

| | | |
|--------------------------|---------------------------|---|
| Socio-professional group | 1456 high school students | According to the gender variable: 733 females and 157 males |
| | | According to the environment variable: 456 from urban environment and 434 from rural environment |
| | 890 teachers | According to the gender variable: 766 females and 690 males |
| | | According to the environment variable: 1009 from urban environment and 447 from rural environment |

2.4 Methodology

The main instrument that was used for the establishment of the students' and teachers' level of openness for different aspect of private life was summative assessment the questioner [10]. The subjects were reminded that there aren't right choices or wrong choices, but there are just personal choices. The research was conducted in 2009 in northern region of Romania.

2.5 The presentation and analysis of results

The first general hypothesis is confirmed. The arithmetic mean and frequencies obtained for each category of educational projects indicate preference of teachers for certain actions (Table 2). The most preferred categories of educational projects for achieving education for private life by teachers are the *pedagogical assistance projects* (1,12) and the *awareness projects for social problem solving* (0,87). Both projects are part of the educational intervention. Unlike these categories of projects, the developments of community relations projects at local (0,47) and national (0,33) level are less preferred by teachers.

Table 2 The arithmetic mean and the sum for categories of projects preferred by teachers

| Categories of projects | Sum | Mean |
|--|-----|------|
| pedagogical assistance projects | 997 | 1,12 |
| awareness projects for social problems solving | 776 | 0,87 |
| curricular development projects at the non-formal level | 716 | 0,80 |
| human resources information projects | 649 | 0,73 |
| human resources training projects | 565 | 0,63 |
| development of community relations projects at the international level | 513 | 0,58 |
| development of community relations projects at the local level | 418 | 0,47 |
| development of community relations projects at the national level | 295 | 0,33 |

The second general hypothesis is confirmed. The arithmetic mean and frequencies obtained for each category of educational projects indicate preference of students for certain actions (Table

3). The most preferred categories of educational projects for achieving education for private life by teachers are the *pedagogical assistance projects* (1,09) and the *awareness projects for social problem solving* (0,99). Both projects are part of the educational intervention. Unlike these categories of projects, the developments of community relations projects at local and national level are less preferred by teachers.

Table 3 The arithmetic mean and the sum for categories of projects preferred by students

| Categories of projects | Sum | Mean |
|--|------|------|
| pedagogical assistance projects | 1588 | 1,09 |
| awareness projects for social problems solving | 1439 | 0,99 |
| curricular development projects at the non-formal level | 1164 | 0,80 |
| human resources training projects | 1101 | 0,76 |
| development of community relations projects at the international level | 862 | 0,59 |
| human resources information projects | 799 | 0,55 |
| development of community relations projects at the local level | 581 | 0,40 |
| development of community relations projects at the national level | 514 | 0,35 |

The third general hypothesis is confirmed. We applied the Independent-samples T Test to verify this hypothesis. The results of test indicate that exist significant differences at the level of following categories (Table 4): the human resources training projects, the awareness projects for social problems solving, the human resource information projects. The teachers prefer more the human resource information projects, while the students prefer more the human resources training projects and the awareness projects for social problems solving (Figure 1).

Table 4 The statistics of independent-samples t test for the categories of educational projects, after variable socio-professional category

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|----------------------|-----------------------------|---|------|------------------------------|----------|-----------------|-----------------|-----------------------|---|-------|
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| training projects | Equal variances assumed | 28,644 | ,000 | -2,666 | 2344 | ,008 | -,12 | ,046 | -,211 | -,032 |
| | Equal variances not assumed | | | -2,738 | 2037,370 | ,006 | -,12 | ,044 | -,208 | -,034 |
| awareness projects | Equal variances assumed | 1,235 | ,267 | -2,344 | 2344 | ,019 | -,12 | ,050 | -,214 | -,019 |
| | Equal variances not assumed | | | -2,357 | 1914,107 | ,019 | -,12 | ,049 | -,213 | -,020 |
| information projects | Equal variances assumed | 60,072 | ,000 | 4,108 | 2344 | ,000 | ,18 | ,044 | ,094 | ,267 |
| | Equal variances not assumed | | | 3,959 | 1662,599 | ,000 | ,18 | ,046 | ,091 | ,270 |

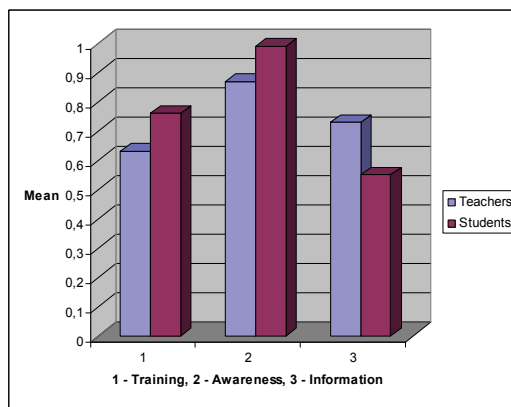


Figure 1. The graphic representation of media on perceptions of teachers and students from those three categories of projects

3. Conclusion

After analyzing the results of the statistical data, the following general conclusions can be stated:

- Both teachers and student prefer that the main way of achieving education for private life the pedagogical assistance projects and the awareness projects for social problem solving.
- There are some significant differences, because the teachers prefer more the human resource information projects, while the students prefer more the human resources training projects and the awareness projects for social problems solving.

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AGENȚIA ROMÂNĂ
DE ASIGURARE A
CALITĂȚII ÎN
ÎNVĂȚĂMÂNTUL SUPERIOR

ASSESSMENT OF ACADEMIC PERFORMANCE

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Abstract

Evaluation is a requirement in establishing academic performance. Academic activities from higher education establishment include teaching and research activities. The established performance criteria and indicators are driven by values, organizational culture and objectives developed by university management. At the same time, assessment criteria and indicators are required by law through detailed rules or by institutions that evaluate teaching performance in order to authorize the activity of some centers. The paper presents the performance criteria and level of importance given to these criteria to evaluate teacher performance from University "Ștefan cel Mare" Suceava. The developed assessment method based on performance standards allows the formation of a portfolio that contains information from which we can estimate performance over time.

Key words: criteria, indicators, performance, assessment.

1. Theoretical aspects

The success of an organization depends on the managers' ability to develop human relations based on the recognition of merits and efforts, insensible to the measurement method used or the interpretation manner. In order to increase quality of all activities is necessary to individually assess the human potential. Evaluation of human resources is a process which seeks appreciation of efforts / results made in the organization and in the support of the organization by its employees. The success of an evaluation is given by the correct definition of objectives, the use of methods and appropriate tools to provide reliability and objectivity. In higher education there are concerns about the evaluation of teachers by management [1]. These concerns follow assessment of skills [2] and satisfaction [3]. The evaluation is carried on based on advanced systems [4] but can cause rejection reactions from employees [5] if the process is not understood [6]. The concerns about the implementation of a teacher evaluation process led to new models which appear to respond to the requirements of government regulations and standards. Such models by which to improve the assessment are proposed by Egginton, Bill E [7]. It is clear that performance evaluation implies the existence of performance criteria. Teacher performance evaluation is done in Canada [8] based on five competences that include 163 indicators that consider professional practice. Understanding the evaluation system, the transparency and the assessment of the importance of responsibilities are the premises of a successful evaluation [9].

2. Legislative and regulatory requirements for performance evaluation

With the implementation of quality standards to Law no. 87/2006 [10] a change was produced in the organizational culture on teacher evaluation. Requirements expressed by the external evaluation methodology, standards, benchmarks and performance indicators list approved by Government Decision no. 1418/2006 [11] have determined to establish procedures for periodic evaluation of the teaching staff based on four criteria: self-evaluation, peer evaluation, teacher evaluation by students and assessment by university management. An equally significant influence on the imperatives of a teacher performance evaluation is GD. 551 of 2007 [12] which have established criteria and standards which assesses ability to carry out research and development. Other regulatory items regarding teacher evaluation are the orders of the Ministry of Education and Research no. 5098/3.10.2005 [13] and MO 5099/3.10.2005 [14] supplemented by MO 5348/2006 [15]. Regulations in determining which functions must be satisfied by teachers are given by the National Council of Scientific Research in Higher Education which establishes using quality indicators the level of funding or the accreditation of university research and excellence centers.

3. Elaboration of evaluation criteria

The choice of performance criteria includes identifying the major groups of activities and grouping them in processes. The identification of the activities that will evolve was done starting from the objectives set by management and legal requirements.

The performance standards are defined by the criteria of quality assessment processes in the form of performance descriptors appearing in a synthetic form of statements and indicators expressed as a value. The elaboration of performance standards aims to fulfill descriptive and selective functions to impose a certain level by using a common language: assessor - assessed. Assessment by using descriptors and indicators allows it to be characterized by transparency, balance, fidelity, validity, objectivity, equivalence assessments, high sensitivity and applicability. Such evaluation allows a hierarchy that can not be challenged because it is based on evidence. For this, performance measurement must be relevant, unbiased and without disabilities due to incorrect interpreting of information. The performance descriptors for standards and indicators enable to determine whether there is achieved a certain level of performance by the teacher. At the same time, evaluation becomes an active – participatory way that brings to the peer the profile of the processes conducted in the academic community. Through performance standards is provided reliability of the assessment system implemented by management at college and university. The standard becomes a useful tool for internal management of academic performance.

To develop performance standards, the main challenge was to find a large number of descriptors to cover obligations and concerns of university teachers. A second major challenge was to establish a sensitivity rating scale to reflect levels of importance and assigning default values for indicators of assessment. Establishing a balance between teaching and research tasks which must meet a teacher was another challenge to try to answer without making it appear to favor some groups of activities. The fact that Ștefan cel Mare University (USV) is a joint university, in which coexist technical and humanist education led to the establishment of descriptors of a mixed type and a reference system that must be, at the same time, common and equivalent. The establishment of performance standards and the design of an evaluation scale to meet existing regulatory requirements sought to create a framework through which to obtain an proper emulation environment to conduct academic processes. Meanwhile, through the assessment of the results of teachers,

conclusions may be adopted and based on them, fundamental decisions can be taken in assessing the results of quantity and quality of undertaken academic activities. The performance evaluation process becomes a regulator, a provider of information and an essential dimension in process improvement, accounting effort and performance assessment of teachers.

The implementation stage and obtained expertise in which lies the performance evaluation system of teachers in Ștefan cel Mare University allowed the application of a process of improvement in the development of a new scale of assessment. The process improvement was achieved in ten steps, as follows:

1. Analysis session regarding the practical application of the evaluation grid and the issues raised during the evaluation.
2. Forwarding the proposals to the Quality Assurance Department
3. Registration of proposals
4. Appointment of a committee to review proposals
5. Committee meeting for the discussion of the received proposals
6. Development of a proposal for a new evaluation grid
7. Submission for public academic debate of the new evaluation grid
8. Recording observations and suggestions
9. Analysis and introduction of received amendments
10. Approval of the evaluation scale in the university senate.

The evaluation grid developed by the committee is presented in Tables 1-5.

Table 1. Teaching performance

| No. | Performance indicator | Distinguishing features | | | | |
|------|--|-------------------------|----------------------------------|---------------------------|----------------|----|
| | | F1 | F2 | F3 | F4 | F5 |
| 1.1. | Publication of manual / university course / workbook within a publishing company. | In a foreign language | International | National listed by CNCSIS | No. of authors | |
| 1.2. | Publication of study support for seminar works, reference books for laboratory/project within national printing companies acknowledged by CNCSIS. | | | | No. of authors | |
| 1.3. | Publication of pre-university manual within a publishing company | In a foreign language | Abroad | In Romania | No. of authors | |
| 1.4. | Publication of new edition / revised edition of manual / university course / workbook within a publishing company. | International | National acknowledged by CNCSIS. | No. of authors | | |
| 1.5. | Publication of new edition / revised edition of study support (seminar homeworks, reference books for laboratory / project) published within national publishing companies acknowledged by CNCSIS. | No. of authors | | | | |

| No. | Performance indicator | Distinguishing features | | | | |
|-------|--|--|------------------|------------------------------|----------------|-------------------------------|
| | | F1 | F2 | F3 | F4 | F5 |
| 1.6. | New unpublished teaching material accessible to students in electronic format, within Intranet/Internet or printed (no ISBN): support for course, seminar works, laboratory reference book, workbook, reference book for yearly project. | No. of authors | | | | |
| 1.7. | Publication of new edition / revised edition of pre-university manual. | Abroad | In Romania | No. of authors | | |
| 1.8. | Participant in post-graduate courses. | Abroad | In Romania | | | |
| 1.9. | Participant in training courses. | Abroad | In Romania | | | |
| 1.10. | Coordinator of international bachelor degree/master study programs. | Organised by USV / in a foreign language | Partner from USV | | | |
| 1.11. | Coordinator of national bachelor degree/master study programmes. (Organized by USV). | | | | | |
| 1.12. | Coordinator of Doctoral School | | | | | |
| 1.13. | Grant from community funds won by international competition for teaching /training activities | Project coordinator | Partner | Contract value in EUR/12.500 | | |
| 1.14. | Grant won by national competition for teaching/training activities | Project coordinator | Partner | Community Fund | National Funds | Contract value in lei/100.000 |
| 1.15. | Teaching activity for bachelor /master degree/post-graduate studies held for faculty support and un-awarded (confirmed by the head of department, dean). | Total no. of effected conventional hours | | | | |

Table 2. Scientific research

| No. | Performance indicator | Distinguishing features | | | | |
|------|--|--|--|-----------------|----------------|----|
| | | F1 | F2 | F3 | F4 | F5 |
| 2.1. | Publication of author book (monography, speciality treatise, studies, atlases, dictionaries), other than university courses. | International publishing companies (in foreign language) | Publishing companies listed by CNCISIS, scientific collections | No. of pages/10 | No. of authors | |

| | | | | | | |
|-------|---|---|--|--|---|----------------|
| 2.2. | Publication of edition | Manuscript (critical edition), with ISBN | Documents, with ISBN | No. of pages/15 | No. of authors | |
| 2.3. | Publication of translation | Source texts, texts of universal cultural heritage, with ISBN | Texts from speciality literature, with ISBN | No. of pages /15 | No. of authors | |
| 2.4. | Article/study published in ISI (A) / ERIH A listed magazine | Relative factor adjusted) /no. of authors | | | | |
| 2.5. | Article/study published in a specialty magazine. | Nationally acknowledged by CNCIS (B+) / ERIH B. | Nationally acknowledged by CNCIS (B). | International, with referees and international editorial team (with ISSN) | Speciality, national (with ISSN), (C). | No. of authors |
| 2.6. | Article/study published at conferences with proceedings | Written in volumes published in international publishing companies. | Indexed in international data bases, other than ISI, listed in CNCIS | No. of authors | | |
| 2.7. | Article/study published in volumes at scientific events | At conferences with proceedings rated ISI. | Abroad | International, Romania (published in an international language) | National, Romania | No. of authors |
| 2.8. | Sustained paper (confirmed by documents, delegation). | Scientific event abroad | Scientific event in Romania | Scientific event abroad, no publication in volume, included in the event programme | Scientific event in Romania no publication in volume, included in the event programme | No. of authors |
| 2.9. | Product and technology resulted from research activity, based on patent, homologation or own innovation | No. of authors | | | | |
| 2.10. | Prospective and technological study / service resulted from research-development activity, ordered by the beneficiary – contract confirmation | No. of authors | | | | |
| 2.11. | Service resulted from research-development activity, ordered by the beneficiary – contract confirmation | No. of authors | | | | |

| | | | | | | |
|-------|---|-------------------------------|-----------------------------------|---------------------------------------|-------------------------|-------------------|
| 2.12. | Physical model experimental model, functional model, prototype, norm, procedure, methodology, regulation and new or improved technical plan, accomplished within national programs or ordered by the beneficiary – contract confirmation | No. of authors | | | | |
| 2.13. | Project/research grant won by international competition, in the year of contract signing. | Coordinator | Coordinating partner | Contract value in EUR/10.000 | | |
| 2.14. | Project/research grant won by national competition, in the year of contract signing. | Coordinator | Coordinating partner | Contract value in lei/80.000 | | |
| 2.15. | Project/research grant won in the following years after contract signing. | Coordinator | Module responsible/pa rtner | International competition | National competition | |
| 2.16. | Investment in endowment / infrastructure and overheads, supported by copies of expense estimates afferent for the period of time/stage of project / grant / research contract (the exchange rate valid on the date of contract signing will be used in case of value of expenses expressed in Euro); assigned to the manager / project responsible who can share the rating per member of research team. | For 5000 lei | No. of authors | | | |
| 2.17. | Researcher involved in project / grant / research contract | International | In Romania | (No. of paid research hours)/17 | | |
| 2.18. | Submitted unearned project/research grant | International competition | National competition | Coordinator | Partner | No. of authors |
| 2.19. | Patent | International competition. | In Romania | No. of countries | No. of authors | |
| 2.20. | Confirmation of regular deposit formation for patent | No. of authors | | | | |

| | | | | | | |
|-------|--|--------|-------------|--|--|--|
| 2.21. | Participation paper at invention events | Abroad | In Romania | | | |
| 2.22. | Introductory study / comment / preamble/ after word | | | | | |
| 2.23. | Ph.D presentation | Paper | Examination | | | |
| 2.24. | Scientific research report presented to department | | | | | |
| 2.25. | Public PhD paper presentation (rating granted during the year of presentation) | | | | | |

Table 3. National and international recognition

| No. | Performance indicator | Distinguishing features | | | | | |
|------|--|--------------------------------|--------------------------|-------------------|--------------------------|--------------------------|-----------------|
| | | F1 | F2 | F3 | F4 | F5 | F6 |
| 3.1. | Participation in teams of ISI (A) / ERIH A. ranked magazines | Member of scientific committee | Editor | Co-editor | Member of editorial team | Adjusted relative factor | No. of editions |
| 3.2. | Participation in teams of (B+)/(B) magazines | Member of scientific committee | Editor | Co-editor | Member of editorial team | No. of editions | |
| 3.3. | Participation in teams of ISI (A) / ERIH A. / (B+) / (B) ranked magazines | Reviewer | No. of reviews | | | | |
| 3.4. | Scientific reviewer for well-known publishing companies | | | | | | |
| 3.5. | Member of scientific committee at scientific event (conference, symposium, invention salon etc.) | Abroad | In Romania | | | | |
| 3.6. | Moderator for a section of a conference | International abroad | International in Romania | National | | | |
| 3.7. | Conference Plenary Session Presentation | International abroad | International Romania | | | | |
| 3.8. | Member of a doctor's degree dissertation committee | Abroad | In Romania | In the university | | | |
| 3.9. | Member of an admission committee/ doctor's degree exam | Abroad | In Romania | In the university | | | |
| 3.10 | Member in a doctorate paper reading committee | Abroad | In Romania | In the university | | | |

| | | | | | | | |
|------|---|---|---|--------------------|---------------------|----------------------------------|-----------------------------------|
| 3.11 | Writing assessment on a doctoral thesis | | | | | | |
| 3.12 | Member of the national professional board. | | | | | | |
| 3.13 | Evaluator of educational processes | International | National / university | No. of reports | | | |
| 3.14 | Evaluator for scientific research contracts and other projects subject to competitions. | International | In Romania | No. of reports | | | |
| 3.15 | Volume Editor | International | In Romania | | | | |
| 3.16 | Reviewer / censor: books, booklets, collections of problems, journals etc. ISBN rated | International | In Romania | | | | |
| 3.17 | Visiting professor for lectures | At a foreign university | Conferences / lectures on specific topics, in Romania | | | | |
| 3.18 | Quotations of papers / work | In ISI rated or equivalent journals ERIH / ERIH A | Adjusted relative factor | No. of authors | | | |
| 3.19 | Quotations of papers / work | In international data base indexed journal (B+, B) / ERIH B / book published by a foreign author / book published by CNCSIS recognized publishing house | In reviews or chronicles / specialty articles / scientific papers, score awarded in the year of citation. | No. of authors | | | |
| 3.20 | Member or correspondent member of the Academy | Romanian Academy or a foreign national academy | Romanian Technical Academy or other specialty Academies in Romania | | | | |
| 3.21 | Scientific award / medal for lifetime achievement etc., awarded by | Foreign academies | Romanian Academy or foreign equivalent | Foreign university | Romanian university | Foreign professional association | National professional association |
| 3.22 | Doctor's Degree (scores obtained in the years following Ph.D. dissertation). | | | | | | |

Table 4. Student related activities

| No. | Performance indicator | Differentiation Features | | | |
|-------|--|---|--------------------|----------------|-------------------------------|
| | | F1 | F2 | F3 | F4 |
| 4.1. | Training student / team to participate in professional competitions | International stage | National stage | USV stage | no. of supervisors (trainers) |
| 4.2. | Coordinator of student activities other than teaching - circles, meetings (justification with written reports of participation). | No. of coordinators | | | |
| 4.3. | Guiding students in developing papers/projects for participation in scientific student events | International | In Romania | In USV | No. of supervisors (trainers) |
| 4.4. | Awards obtained in national student competitions / events | Individually | Team | Award category | No. of supervisors (trainers) |
| 4.5. | Ph.D. Coordinator | No. of sustained thesis | | | |
| 4.6. | Thesis coordinator | Practice part / published article / patent | No. of supervisors | | |
| 4.7. | Dissertation/Teaching degree coordinator | Practice part / published article / patent. | No. of supervisors | | |
| 4.8. | Year guide / tutor activities | No. of groups | | | |
| 4.9. | Organization of training in firms and institutions | No. of students | No. of supervisors | | |
| 4.10. | Organization of study visits in other cities | No. of organizers | | | |
| 4.11. | Organization / management / judge of cultural, scientific, sports events for students | International level | National level | In USV | In the Faculty |

Table 5. The activity in the academic community

| No. | Performance indicator | Differentiation Features | | | | |
|------|---|--------------------------|----------------------|---|----------------|------------|
| | | F1 | F2 | F3 | F4 | F5 |
| 5.1. | Participant in the competition committee to occupy teaching positions | President abroad | President Romania | Member abroad | Member Romania | Member USV |
| 5.2. | Participant in admission committee faculty / university | Member | Secretary commission | Total no. of effectuated physical hours | | |
| 5.3. | Participant in committee license exam / dissertation committee | Member | Secretary commission | No. of students | | |

| | | | | | | |
|-------|---|---|------------|-------------------|--|--|
| 5.4. | Elaboration of timetable | No. of semi groups /groups | | | | |
| 5.5. | Faculty web page updating | No. of updates | | | | |
| 5.6. | Activities requested by university management (Head of Department / department / college / university) - confirmation from the applicant through decision. | Total no. of effectuated physical hours | | | | |
| 5.7. | Development of documentation authorization / accreditation / periodical certification of a program of studies (Bachelor, Master, Distance Learning), (scores assigned by the coordinator of the study program). | International | In Romania | No. of authors | | |
| 5.8. | Organization of international conferences and symposiums for organizations of international recognition (score assigned by the coordinator). | No. of organizers | | | | |
| 5.9. | Co-organizer of international conferences and symposiums for internationally recognized bodies (score assigned by the coordinator). Organizer of international conference in the country (score assigned by the coordinator). | No. of organizers | | | | |
| 5.10. | Member in the organizing committee of a conference | International | In Romania | No. of organizers | | |

Note: CNCSIS - National Council of Scientific Research in Higher Education

The evaluation method

The assessment uses the evaluation grid. The evaluation grid starts from the basic principle of assessment based on performance descriptors of a process that has specific characteristics. The score used to prioritize activities was established by taking into account:

- the strategic objectives established in the strategic and operational plan of the university;
- scientific assessment of the effect in the academic world;
- location of impact levels - local, national or international;
- the number of participants for the activity;
- the impact certain activities have upon scientific effort;
- the contribution to attract revenue to the university budget or towards the infrastructure.

The application of evaluation and the validation

Evaluation is conducted in two stages. The first phase provides an overview of their results by descriptively adding the results required in the scale of indicators and in the second stage is

carried on the verification of the accuracy based on the evidence presented by a commission appointed by decision of the dean, at the faculty level and the decision rector at the university level.

Analysis of results and their use

Evaluations take place at the beginning of the academic year by the Head of Department - to establish the work load in the pay roles and in early calendar year by a committee appointed at the college level - to establish hierarchies for granting rewards.

The grid for performance evaluation is a guide developed that includes information necessary to the assessor, assessed and management. The evaluation will maximize the benefits arising out of: recognition of teachers' value, clarification of the position and role that teachers have in the faculty; the development of the team spirit and the involvement of all employees of the organization ensures, in time, the stability of "best practices" etc.

4. Conclusions

The evaluation grid, with the descriptive nature of the assessment, becomes a source of information based on active participation from teachers. In relation to the objectives of university management, the evaluation grid is simultaneously: a guide that includes information necessary to the assessor and the assessed; a testing and measurement instrument that give benchmarks to measure outcomes of teaching activities and the results can be ranked and compared. The evaluation based on the evaluation scale, as designed, creates a process that reflects the assessment of managers. Coverage of all scales for assessing performance in a database allows the creation of a frame for a transparent dissemination of information, comparative assessment of results and a fair feedback of performance. Evaluation is done by centering on the proven results.

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AGENȚIA ROMÂNĂ
DE ASIGURARE A
CALITĂȚII ÎN
ÎNVĂȚĂMÂNTUL SUPERIOR

NEW ASPECTS REGARDING QUALITY MANAGEMENT SYSTEM AT „PETRU MAIOR” UNIVERSITY OF TARGU-MUREȘ

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Abstract

In this paper the results of applied research on the collection, documentation, implementation, maintenance and improvement of the quality management system (QMS) at “Petru Maior” University of Târgu-Mureș (PUM) is presented. The paper is based on principles formulated in a series of quality management standards ISO 9000, ARACIS methodology of external quality assessment, documentation of quality management systems at universities, the author's experience of quality management system documentation of the university. The methods of internal and external quality assurance, identification of quality management system processes, the organization of QMS and internal quality assessment are highlighted. The periodical measurement and the allocation of ARACIS indicators specific to each type of process is documented in the Process Matrix, which is a novelty for quality management systems at universities. It establishes correspondences between the requirements of ISO 9001 and ARACIS indicators.

Key words: quality assessment, quality management processes, process matrix, operating procedure.

1. Introduction

Higher Education Institutions are undergoing important changes involving the development of new roles and missions, with implications for their structure. Governments and institutions are implementing strategies to ensure the proper performance of universities and several studies have investigated evaluation of universities through the development and use of indicator systems. There is a difficulty involved in establishing classification criteria for existing indicators, on which there is currently no consensus [3].

There is very considerable variation both nationally and institutionally in the way quality issues are “managed” in higher education. There is also a considerable rate of change in this field: new national agencies get established; existing agencies change their methodologies; the wider context of relationships between higher education and the state is itself changing and higher education institutions are having to react to a growing range of external pressure, of which the requirements of national quality agencies are but one [2].

An international comparisons of the extent of commonality or diversity in the main national external quality assurance frameworks for higher education show that a “general model” of external quality assurance does not universally apply, but that most elements of it do apply in most countries. The “general model” provides a starting point from which to map deviations. In each country, there may be specific additions of elements or omissions from the model, but more usually there are modifications or extensions of elements. These variations are determined

by practicalities, the size of the higher education sector, the rigidity/flexibility of the legal expression of quality assurance (or the absence of enshrinement in law), and the stage of development from state control of the sector [1].

PMU has established, documented, implemented, maintains and improves a quality management system (QMS) under the requirements of ISO 9001 since 2005. This standard specifies requirements for quality management system, to demonstrate the organization's ability to ensure product quality and customer service, and to assess of the stakeholders the organization's skills.

With the promulgation of the Emergency Ordinance no. 75/2005 on quality assurance in education and the ARACIS establishment in 2006, quality management system of the PMU had to meet the requirements of "External assessment methodology, standards, reference standards and the list of performance indicators" of the Romanian Agency for Quality Assurance in Higher Education.

Recently PMU has reorganized its QMS, by following the new editions of the quality management standards, ISO 9001:2008 and the requirements of ARACIS.

The objective of the work presented in this paper is to present case study of the quality management system of PMU with its novelty aspects.

2. Quality Assurance

In PMU the quality assurance function, is considering implementing two categories of objectives: internal and external. Correspondingly one can speak of internal and external quality assurance.

2.1 External Quality Assurance

External quality assurance activities are to give confidence to customers (students, employers) that the quality of the university system is able to provide the required quality.

External quality assurance activities are carried out by the university, the university's customers or other third party. From case to case, these activities consist of regular evaluation of the study programs, institutional reviews, etc.

External quality assurance activities conducted by university and universities customers consist of the regular evaluations, usually annual or when the academic management decides, that are conducted by Committees of Evaluation and Quality Assurance (CEQA).

These committees are formed at the university / faculty / study programs, representatives of academic management, teachers, students and employers.

It is an on quality advisory body to the UPM Senate that operates an order to provide quality educational services in higher education institutions, no. 3928/21.04.2005. It has the following objectives, in full accordance with the requirements of Romanian and European higher education:

- to implement decisions of the Senate on quality assurance;
- proposes to Senate the establishment of operational structures of regular monitoring and evaluation of the quality of programs or activities in the faculties and departments.

Annual internal evaluation reports are presented by CEQA and approved by the Senate and published on internet. The “Annual report of internal evaluation of quality at PMU” is elaborated by using “Synthesis Reports Regarding Self-Evaluation of Study Programs at Faculty Level”. It contains proposals for improving education quality.

Measures of education quality improvement are implemented at institutional level and at the level of each faculty/department, for each program of study.

a) Improving education quality at institutional level

Action plan to improve education quality at PMU as a consequence of internal institutional evaluation in each university year, which is presented, debated and approved in Senate meeting. The action plan envisages measures/actions, terms and individuals responsible for implementing measures.

b) Improving education quality at faculty/department level, for each program of study

Following the analysis of annual self-evaluation reports of study programs at faculty level, a synthesis is elaborated evaluating each program of study pointing out mandatory requirements/performance indicators that need to be improved and a plan of action is elaborated in order to fulfil mandatory requirements and performance indicators, providing actions, responsibilities, terms, and necessary resources. CEQA assumes the action plan elaborated at faculty level and validates proposed actions. In order to adopt the best practices in the fields of quality, the committee cooperates with other universities at home and abroad on the basis of materials and information and visit and benchmarking reports. External quality assurance activities carried out third party consist in assess performed by ARACIS on a regular basis, for each study program proposed for accreditation and at institutional level.

2.2 Internal Quality Assurance

Internal quality assurance activities is to give confidence to the university leadership that proposed quality is obtained.

In order to ensure internal quality, PMU has developed and implemented a quality management system, structured and adapted to specific educational and research activities it undertakes and processes that it performs.

The quality system involves all phases of the educational cycle and processes, from identifying the needs of beneficiaries and to the final meeting their requirements.

In these activities, it is recommended for the university to focus on educational marketing, to determine and define customer needs, its requirements for educational programs.

PMU management is responsible for implementing quality system. To this end, it:

- has defined and documented activities that contribute directly or indirectly to the achievement of quality;
- has defined the general responsibilities and specific responsibilities in quality, as well as responsibilities and delegated authority for each activity affecting quality;
- has defined organizational structure related activities affecting quality;
- has established, documented, implemented and updated operating procedures.

3. The Processes of the Quality Management System

The keys to advancing quality assurance are to, first, strike a balance between internal/external and improvement/accountability emphases; second, recognize the value of various quality assurance approaches, for different purposes; and, third, acknowledge the trade-offs and tensions inherent in various approaches. The changes implied by quality assurance must start at the local level, i.e., individual courses and programs of study. The task of documenting such changes and, thereby, recognizing the impact of quality assurance policies and practices (accreditation and evaluation or assessment) makes it necessary to use different metrics at different levels of a higher education institution [4].

At PMU all activities take place in a quality assurance regime. PMU has identified QMS processes and ordered them in four categories: management processes, basic processes, support processes, and processes of analysis and improvement inside PMU.

- Management processes to coordinate the work of the University are processes of: determining customer requirements; setting policy and objectives; planning; management analysis; human resource management; management of financial resources; management of material resources.
- Basic processes are processes of: making curriculum; making syllabus; making the state the functions of the department; organizing and conducting the entrance examination; conduct of teaching activities; preparation and conduct of students practice; scientific research; tracking the deployment projects; elimination of practices inconsistent with ethics; conduct of examinations.
- Support processes necessary for the activity are: process control documents; process control records; the organization and management of the library; the supply; communication process; the maintenance, upgrading infrastructure; occupation of teaching; competence, training, staff awareness.
- Processes necessary for measuring, analyzing and improving the effectiveness of QMS are: the monitoring of the level of customer satisfaction; processes monitoring and measurement; improving quality management system; internal audit process; treatment of non-conformities; corrective actions; handling of complaints and allegations; preventive actions; benchmarking.

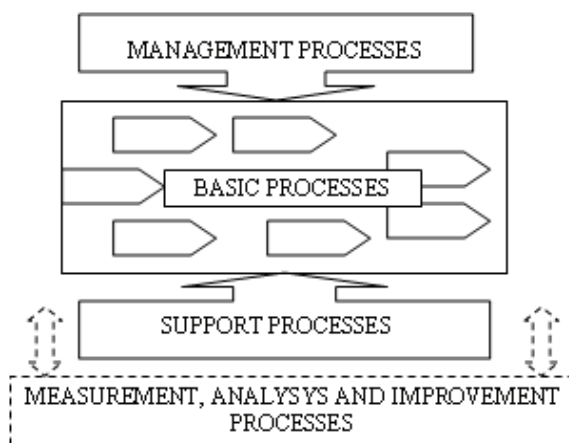


Figure 1: Types of processes identified by PMU

Starting from the process categorization PMU has drawn up a processes map (Figure 1). For each departmental process is named a process responsible - the executor or head of department; for interdepartmental processes, as well as for projects, there are process / project owners - they are responsible for controlling the interfaces and the achievement of performance indicators of the process.

The documentation of these processes, the periodical measurement and the allocation of ARACIS indicators specific to each type of process are documented in the Process Matrix. It outlines a new element for quality management systems in higher education. Complete documentation of processes ensure planning, operation and effective control of processes.

Criteria for selecting indicators are that they are measurable quantities and are related to staff motivation system.

Defining elements of matrix processes are exemplified for the preparation of curricula:

- Name of process: Preparation of curricula
- Documented: operational procedure: *PREPARATION OF CURRICULA*, code: PP-7.3.01
- Process responsible: Head of Department
- Input data: specifications for curricula offered by university; Education Ministry requirements; ARACIS requirements; legislation; benchmarks from Romania and EU
- Output data: Curriculum
- Measuring method: number of new programs / updated; number of non-conformities of curriculum
- Measurement frequency: annually
- ARACIS indicators: The structure of study programs (IP.B.1.2.1.), Differentiation in implementing programs of study (IP.B.1.2.2.)

Specific Objectives - Indicator IP.B.1.2.1: at reference 1; Indicator IP.B.1.2.2: at reference 2 (<http://www.aracis.ro/proceduri/>).

Elaboration of the processes matrix in this way is a novelty for quality management systems in higher education. It establishes correspondences between requirements from ISO 9001 and requirements of ARACIS standards/indicators.

4. Organization of Quality Management System

Total Quality Management has much to offer higher education but that it is not just a case of translating ISO 9001 from a product-based to a service-based system. Sensible application of total quality management principles in higher education in order to show a realistic improvement takes time, commitment and considerable investment by top management. The starting point should be a better understanding of customer needs, which can then be addressed through a process of service quality improvement which permeates the organisational structure [5].

To lead the university to efficiency and to continuous improvement of its performance, PMU top management have integrated the eight quality principles of modern management in its strategic lines that are followed by guidance and conduct all activities. These eight principles were treated as:

- a. PMU has understood that its success is given of how to understand and meet customer expectations and requirements, the watchword being “focusing on customer”;
- b. Top management of the university has initiative and is a demonstration of all staff in terms of achieving goals, applying a broad sense of the word “leadership”;
- c. Only with the full involvement of all employees and their skills using the university can succeed;

- d. Activities of the university are treated as parts of processes;
- e. It is imperative that the processes identified to be understood and managed;
- f. The universities' performances have to be in continuous improvement;
- g. All decisions of the university is based on a rigorous analysis of data and information;
- h. Collaborators of the university are treated as partners in a mutually beneficial relationship of development and value creation.

Following the allocations identified in the processes matrix there are developed operational procedures that are applied in order to achieve ARACIS performance indicators.

For example the curriculum development process is documented in the procedure with the same name, applied by PMU staff involved in designing curriculum: teacher responsible for specialization, Head of Department, Dean, Rector, with the objective of developing ARACIS performance indicators: the structure of study programs and differentiation in implementing study programs [6].

Unlike other developments specific documentation for higher education as novelty, PMU documentation comprises two specific procedures that are specific for completion and evaluation of research, namely: Tracking conduct scientific research projects, internal endorsement of the results and disposal practices inconsistent with ethics, and Elimination of practices inconsistent with ethics for publication of articles, books and similar materials.

5. Internal Quality Assessment

Mainly internal assessment of quality is achieved through internal audits carried out with the annual frequency.

Internal quality audits are performed in PMU in accordance with the standard ISO 19011 - Guidelines for auditing quality management systems and / or environment, in order to determine whether the quality management system of the university:

- a) comply with legal requirements and ARACIS requirements,
- b) meet the requirements of standard ISO 9001 and the requirements and objectives which it has proposed PMU in connection with it,
- c) is effectively implemented and maintained with efficacy.

Internal audits serve to maintain and improve efficiency of quality management system and adapt to new requirements.

Usually, the criteria by which audited areas are selected are: at least once a year teaching activities and processes are audited with priority; at least once a year in the audit plan is included each activity covered by the quality manual; necessarily are audited processes and activities where major irregularities were found in the previous audit; are subject to audit activities that have direct responsibility on matters complained of students.

Responsible of the audited sectors are required to initiate corrective actions for deficiencies found during the audit in their area of activity.

The results of internal audits are recorded in an internal audit report showing the actual state of quality in the university. Audit reports are input data for management analysis.

6. Conclusions

The quality management system implemented by PMU has practical implications for practitioners from universities due to the establishment of the correspondences between the requirements for quality management systems formulated by ISO 9001 international standards and accreditation body for academic management systems ARACIS. It is documented in Process Matrix and procedures. The case study is an example for quality managers from universities. The contribution consists in the modality of documenting processes, the periodical measurement and the allocation of ARACIS indicators specific to each type of process from the Process Matrix, which is a novelty for quality management systems at universities. It establishes correspondences between the requirements of ISO 9001 and ARACIS indicators. Another obvious result is the documentation of two new specific procedures for making and evaluation of research.

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SOME ASPECTS AND GOOD PRACTICES IN THE QUALITY ASSESSMENT OF THE HIGHER EDUCATION

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Abstract

This work presents some aspects regarding the requirements and academic criteria for the assessment of the scientific level of a study programme and also some aspects regarding the efficiency and opportunity requirements. The need of maintaining a balance between requirements is emphasized as well. Some ideas regarding the evaluation of the higher education and of the scientific research are also discussed and some good practice rules in the quality assessment of the study programmes and in the institutional evaluation are emphasized. Some reasons for the necessity of the quality assessment (within the RAQAHE system) of the doctoral studies are also presented. This main purpose of this paper is to assist the higher education's quality assessors, as the fulfillment of the European requirements and exigencies in this field requires continuous improvement both of the external and of the internal quality assessment procedures.

Key words: quality, assurance, good practice.

1. About 'Academic' Criteria and Opportunity Criteria

The evaluation process for the quality of higher education analyses aspects regarding the scientific or 'academic' level and aspects regarding the efficiency and opportunity, materialized as criteria, requirements, standards and indicators. The aspects (requirements and criteria) regarding the academic level refer to the content of the educational plan (content of the curriculum), the content of analytical programs (discipline charts), teaching staff and quality of the teaching-learning process, at the scientific research level, laboratory endowment, etc. The aspects (criteria and requirements) regarding the efficiency and opportunity target the success rate for the study years and academic degree, the employment percentage of the graduates, the concordance between the mission of the study programme and graduates' competencies, on the one hand and the requirements of the labor market on the other hand, the concordance between the study content and the mission assumed by the programme, the education costs and others, [1], [2], [3], [4].

It is hard to say which of these aspects (features) have priority, as when performing a much more insightful analysis, they are requisite for an education process that will comply with the needs of the society.

Still, it can be noted that until a few decades ago, the elements connected with the academic level of university education were prevailing. But today, the aspects related to efficiency and opportunities seem to prevail. And this is due to the fact that even more universities digress from

the classic, Humboldtian model, becoming more pragmatic, acquiring the valences of entrepreneurial institutions. The future will show the extent to which this is a good thing.

It is appreciated that it is appropriate to preserve a balance between the requirements related to the academic aspects and the ones related to opportunity and efficiency. This balance is properly underlined and expressed in the compulsory normative requirements and the quality standards with which the Romanian Agency for Quality Assurance in Higher Education (RAQAHE) operates, and the achievement of this balance must be a constant preoccupation for the perspective improvement of the respective requirements and standards.

A few good practice regulations are to be retained during the external and also internal evaluation process of the quality in the superior education,

The date of the provisional (temporary) authorization, accreditation date, date of periodical evaluations and granted rates must be followed and mentioned in the internal evaluation (self-evaluation) report, in order to know the evolution of a study programme (specialty); and this to avoid the cases of some programmes that are not periodically evaluated on time (after more than 5 years), rendering the accreditation withdrawal.

This paper intends to emphasize some good practices and some aspects of greater importance regarding the assessment of the quality of higher education.

The ultimate goal of the quality assessment is to help the assessors; also, to help the universities to fulfill in the best conditions the European requirements and exigencies in the field of higher education. Reaching this goal requires continuous improvement both of the external and of the internal quality assessment procedures. A special emphasis should be placed on the curricula, on the activity of the teaching personnel, on the learning outcomes and on the results of the scientific research.

The level of an academic study programme must be in accordance both with the top-level knowledge in the field and with the requirements of the labor market.

2. Aspects Regarding the Assessment of the Higher Education

The mission and the objectives of the study programme must be properly defined. The competencies acquired by the graduates after passing the licensure degree examination / the master's degree dissertation must be properly define as well. The programme's mission and objectives, as well as the graduates' competencies must be attached to the education plan (curricula), in its preamble.

The courses from the education plan (curriculum) - fundamental, field (profile), specialty and complementary courses – either compulsory or optional, must comply with the reference codes determined by RAQAHE. Also, they must have a high scientific level and agree with the mission and objectives of the study programme. There are situations when the fundamental and field courses foreseen in the education plan do not comply with/are not within the spirit of the approved reference codes, the curricula content being appreciated as non-compliant. And this because certain fundamental courses and certain field (profile) courses pertain to each study field that must be found in the education plan of a specialty.

There must be a concordance between the curricula from the licensure degree and the curricula from the master's degree that must develop/complete or refine the knowledge acquired during the licensure degree studies.

The curriculum must also foresee the practice rendered by the students as courses, including the practice for elaborating the licensure degree paper / master's degree dissertation.

The weights of the courses in the education plan must be expressed considering the number of allotted hours, as well as the study credits, a semester including a number of 30 credits.

The education content and the scientific level of the education process are reflected in the curriculum (education plan), analytical programmes (contents of the courses) and/or syllabuses (outline of the main chapters of the course), but also depend on the performance of the teachers and students' level.

Each course of the curriculum, including practical training, must have an analytical program and/or syllabus according to the standards. (The analytical program is usually for the teacher and the syllabus is for the students, containing elements of special interest to them).

The analytical programs (content of the course) must explicitly define, among others, the course's objectives, competencies acquired by the students at the respective course, the chapters, the themes and allotted time, the number of hours allocated for lecture, seminars and practical activities, laboratory activities, course projects (papers), bibliography, methodical indications for teaching and examination, credit number etc. Sometimes the competencies acquired by the students are not explicitly defined, considering that they stand out from the course themes, which leave room for interpretations.

The syllabuses (in the form utilized mostly in the USA universities) contain the key information for the students: the name and the contact information of the professor which teaches the class and of the teaching assistants, the time and place of the teaching activities (lectures, laboratories, seminars, projects etc.), the office hours of all the instructors associated with the class, a short description of the course and an outline (the titles of the main chapters), the basic textbooks (and other references), the prerequisite courses and the grading policy.

Within some universities a single document is elaborated for a certain course, denominated either as analytical programs (content of the course) or as syllabus, which contain all the information usually included in the classical analytical programs and classical syllabuses.

By the scientific content brought out by the education plan and syllabuses, the study programme must agree with the assumed mission, with the science development level in the field, with the qualification code on national level and requirements of the labor market. In this manner the requirements regarding the efficiency and opportunity of the evaluated programme's operation is also complied with.

Very important for evaluating the content of a study programme is to bring out the resemblance with study programmes having similar objectives, developed within prestigious universities in other countries, sometimes considered as role models. So, the resemblance and the differences between the respective programmes must be brought out at the education plan's level (curricula

level), but also at the level of analytical programs, targeting the study acknowledgement through the transferable credits system (the European Credit Transfer System - ECTS).

Last, but not least, the evaluation process must check the way in which the learning outcomes are analyzed. The feedback between the learning outcomes, the students' workloads and the teaching and examination methods must be assessed as well. All of these must be analyzed in a context in which the credits transferable through ETCS must be backed by real knowledge, skills and competences.

3. Aspects Regarding the Assessment of the Scientific Research

The scientific research in universities is an essential and inherent component of higher education. A higher education with no scientific research is unconceivable, [4].

The university scientific research must not be developed randomly, but according to a research plan, complying with the mission of the study programme and strategic plan of the faculty, [5], [6], [7].

The scientific research programs within a university study programme must be materialized in journal articles, proceeding notifications, studies, monographs, treaties, national and international grants, projects and contracts with various beneficiaries, but also master's degree dissertations and PhD dissertations.

The situation when the scientific research activity resumes only to contracts or collaborations that even if they produce revenue, are not connected to the study programme, is not desirable.

The evaluation process of a study programme must consider only the themes, papers and contracts related to the programme. And this because some situations do not present the research plan pertaining to the programme, but the research plan of the faculty or department contains all the preoccupations on scientific research, including the ones that are not related to the programme.

The scientific research plan must also include theoretical and/or experimental research themes - even the ones that are not related to a contract - whose results provide the perspective development of the research.

The scientific research activity connected to a programme is developed within the coordinating department and within an acknowledge research center of the university.

It is desired for the own research laboratory to include installations, devices and modern calculation technique to allow the performance of elevated level research.

In the purpose of a proper documentation of the professors and students, the library must also include high level papers published recently, subscriptions to Romanian and foreign journals and reviews, electronic access to prestige publications and data bases.

The research results must be dissimulated by presenting the papers to scientific events and by publishing the articles in reputable, acknowledged journals.

The collaboration with foreign universities by professors, researchers and students exchanges, common organization of scientific events, common resolution of research themes, elaboration of PhD dissertations in joint custody are also benefic for the scientific research activity.

Students, especially master's degree applicants and PhD applicants must be drawn into the scientific research collectives of the teachers.

The themes (subjects) of the master's degree dissertations and especially PhD dissertations must be registered in the scientific research plan, representing the grounds or that must represent parts of some themes from the scientific research.

The requirements presented above do not exhaust the quality requirements imposed to study programmes. They can be applied to all university study cycles - licensure, master's degree, PhD degree – determining minimum compulsory levels (standards), specific for each and every cycle.

* *

As the compliance with such criteria and minimum standards is also a requirement for providing the quality **in case of PhD studies** and even post- PhD studies, it is necessary to submit them for evaluation as well, in a manner mainly resembling the licensure and master's degree evaluation, considering the specific elements in case of Ph.D.

For the doctoral studies, the evaluation is usually performed at the level of the doctoral school of at the level of the faculty. The evaluation of the doctoral programme can be performed during the institutional evaluation of separately. Academic aspects, as well as opportunity – related aspects should be equally observed.

The PhD advisers must be appointed according to the stipulations of the current law.

Each person pursuing doctoral studies (referred to as “PhD student” or “PhD candidate” – sometimes function of the stage of their doctoral studies) must have an individual plan of study. The individual study plan is generated under the supervision of the PhD advisor and is approved by the board of the university.

The individual plan of study must record the exams passed by the student, the research reports he/she presented while enrolled in the PhD programme and should also indicate the topic of the doctoral dissertation.

The topics of the PhD dissertations must be in the field of student's license or master studies.

The results of the research included in the PhD dissertation must have been presented at reputable scientific events, published in proceedings and/or highly regarded journals.

To assure the quality and efficiency of doctoral students' advising, a PhD advisor should not have more than two (maximum three) PhD students in the final stage of completion their dissertation within a year.

The theses with interdisciplinary topics should be guided in a co-advising system by two or three experts in the particular fields.

4. Conclusion

This paper intended to emphasize some good practices and some aspects of greater importance regarding the assessment of the quality of higher education. The goal followed is the fulfillment in the best conditions of the requirements and exigencies in the field of higher education which were decided at the European level. Reaching this goal requires continuous improvement of the external assessment of the quality, but also of the internal quality evaluation as well. A special emphasis should be placed on the activity of the teaching personnel, on the learning outcomes and on the results of the scientific research. The level of an academic study programme must be in accordance with the top level of the knowledge in the field but also with the requirements of the labor market.

A balance should be maintained during the quality assessments process between the academic aspects and the aspects regarding the opportunity and the efficiency.

The doctoral studies should be evaluated as well, and in their case the criteria related to the level of the scientific level should prevail.

Acknowledgement

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AGENȚIA ROMÂNĂ
DE ASIGURARE A
CALITĂȚII ÎN
ÎNVĂȚĂMÂNTUL SUPERIOR

THE 360-DEGREE ACADEMIC EVALUATION A CASE STUDY: „IULIU HAȚIEGANU” UNIVERSITY OF MEDICINE AND PHARMACY

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Abstract

Well aware of the great necessity of having an accurate and realistic Quality Management System within a university, „Iuliu Hațieganu” University of Medicine and Pharmacy has aligned itself to the European Standards of Quality Assurance and Academic Evaluation in Higher Education. An element of great importance for a well defined Quality Management System is the 360-Degree Academic Evaluation. The present research paper approaches the issue of implementing a 360-Degree Feedback System within a Higher Education Institution, trying to answer to the following questions: Why should a university have a 360-Degree Academic Evaluation? How can a university integrate in its Quality Management System a 360-Degree Academic Evaluation? Who benefits from the 360-Degree Academic Evaluation? How difficult could be to implement a 360-Degree Academic Evaluation? Therefore, the current paper relies on a precise case study regarding the implementation process of a 360-Degree Feedback System within the „Iuliu Hațieganu” University of Medicine and Pharmacy. The study emphasizes the importance and the advantages of the above mentioned evaluation system, the steps of integrating such system in a Higher Education Institution, the difficulties met during the implementation process and of course, the anticipated effects of the 360-Degree Academic Evaluation System on teaching, learning and research quality.

Key words: Quality Management System, 360-Degree Academic Evaluation, implementation process, „Iuliu Hațieganu” University of Medicine and Pharmacy.

1. Introduction

In the nowadays society, one of the highest concern of any Higher Education Institution is to provide qualitative teaching, learning and research, so that it contributes to the students' personal and professional development, to the welfare of society and its sustainable development. In this context, we consider that in order to assure academic quality, a Higher Education Institution must be able to provide evidence of the internal quality management system compliance with the universally accepted standards.

The recent studies, approaching the issue of best practices in Higher Education Quality Management, emphasize a general tendency for organizations of integrating more and more

complex and accurate quality assurance systems. In the same time, the researches draw attention to the emergence of a new element, of great importance for a well defined Quality Management System, which is the 360-degree feedback tool.

Taking into consideration the major interest of researchers regarding the 360-degree powerful feedback tool, the present paper addresses the issue of implementing a 360-degree feedback system within a Higher Education Institution. Firstly, the study presents the main characteristics of the above mentioned system and the different approaches met in the specialized literature. Then, a case study is conducted on “*Iuliu Hațieganu*” University of Medicine and Pharmacy, focusing primarily on the implementation process of a 360-degree academic evaluation system.

2. A Theoretical Approach: The 360-Degree Feedback System

2.1. Defining the 360-Degree Feedback Tool

In the past decade, organizations are constantly looking for ways of improving performance, both at an organizational and an individual level. Most of them came to the conclusion that using multiple sources to provide feedback about their performance can lead to noticeable improvement. The researches show that “*when done well, multi-rater feedback systems can lead to enormous positive change and enhance effectiveness at the individual, team and organizational levels*” [1]. In this context, there has been a massive growth in the use of 360-degree feedback system. According to Kim [2], this newly developed method for assessing employee performance is gaining popularity mostly in the private and public sectors.

With regard to the use of 360-degree feedback, Pan Kim concludes that “*organizations use the 360-degree feedback in a variety of ways, including: performance feedback, promotion, management development, training needs assessment, organizational culture change, team-building and leadership alignment*” [2]. The 360-degree feedback has become one of the major focus areas in the field of applied psychology and contemporary organizations are implementing 360-degree feedback systems as part of their managerial development programs [3].

Furthermore, researchers, scientists, human resources specialists, teaching staff, managers, all have approached the subject of 360-degree feedback, within their works, from different perspectives, providing a variety of definitions. We find that the simplest definition of the above mentioned concept is met in Clive Fletcher’s contribution to the so called “*360 Degree Feedback. Best Practice Guidelines*”, which classifies the 360 degree feedback as being “*a process whereby an individual (the recipient) is rated on their performance by people who know something about their work (the raters)*” [4].

In the same time, the specialized literature draws attention on a series of other terms used to describe the 360-degree feedback system, such as: “*multi-rater feedback*”, “*multi-source feedback*”, “*full-circle appraisal*” and “*group performance review*” [2], “*multi-rater instruments*”, “*peer appraisal*”, “*180-degree feedback*” and “*540-degree feedback*” [5] or “*upward feedback*”, “*360-degree feedback assessment*” and “*full-circle evaluation*” [6]. Essentially, all of these concentrate around the same idea: a process that involves not only the individuals themselves, but also other people (supervisors, colleagues, customers, and so on), providing data about some aspect of the individual’s work.

Among the most valuable features of the 360-degree feedback system are **the provided information**, which is gathered in an organized and systematic manner (usually based on a

questionnaire format, where specific behavior and competences are described and respondents are asked to assess the individual on a range of items) and **the input**, which comes for those who are directly affected by the way one performs one's job. Therefore, by involving more than one person, the whole process can be regarded as more objective. Also, by combining a variety of different people's perceptions, *"the 360-degree feedback shows increased accuracy of perceptions and supports organizational culture that defines itself as participative, empowering, team oriented and offering equal opportunity for all its members to succeed"*[2].

Most of the dedicated studies underline the existence of two separate versions of the 360-degree feedback: one for professional development and the other one for performance appraisal, emphasizing that the development version should rely more heavily on qualitative feedback, while the appraisal version on quantitative responses. Ultimately, it is up to each organization, to establish the purpose behind using the 360-degree feedback tool. Further on, we are going to briefly analyze the use of the 360-degree feedback in Higher Education.

2.2. The 360-Degree Feedback in Higher Education

Taking into consideration that quality assurance is a continuous ongoing process and it is also always in change, we consider that Higher Education Institutions and other national structures, whose activity aims to continuously improve the academic quality in these institutions, should constantly adapt to the universal parameters of quality assurance. It is observable that, in the current society, Higher Education Institutions have become more and more similar to any other organizations, *"they will function more like corporations and competitive business enterprises"* [3], by constantly adapting and integrating quality assurance mechanisms used in the private sector.

Each day, educational leaders put forth outstanding efforts to improve the quality of educational services. Being an indicator of organizational performance, the quality of the education should be the primary goal of all educational institutions, including universities [7]. According to the study conducted by Armstrong, Blake and Piotrowski [3] *"Ripple (1980) was the first to discuss the importance of developing personal talents and managerial skills in college and university administrators via an upward, downward, and parallel evaluation process"*. The authors of the above mentioned study also underline the fact that 360-degree feedback models, highly touted in business settings for the past decade, have finally made some initial inroads in educational settings [3].

Moreover, the second part of the current study presents the implementation process of a 360-degree feedback system in a Higher Education Institution, specifically in *"Iuliu Hațieganu" University of Medicine and Pharmacy*.

3. A Case Study: "Iuliu Hațieganu" University of Medicine and Pharmacy

3.1. The Study Objectives

The present study approaches the issue of implementing a 360-Degree Feedback System within a Higher Education Institution, on a very particular level. We intend to provide a holistic view on the implementation process of such system in our university.

The research is going to shed light on the following questions: Why should a university have a 360-Degree Academic Evaluation? How can a university integrate in its Quality Management

System a 360-Degree Academic Evaluation? Who benefits from the 360-Degree Academic Evaluation? How difficult could it be to implement a 360-Degree Academic Evaluation?

Therefore, the current paper relies on a specific case study regarding the implementation process of a 360-Degree Feedback System within „*Iuliu Hațieganu*” University of Medicine and Pharmacy. The study emphasizes the university's progress in terms of quality assurance mechanisms and the anticipated effects of the 360-Degree Academic Evaluation System on teaching, learning and research quality.

The core element of our motivation, in conducting this study, is our true belief that the accumulated experience could be useful to other educational institutions, which intend to adopt a 360-degree feedback system, by helping them to understand some of the process implications. We also agree that other universities' practices in this direction could contribute to the improvement of our system, being perfectly aware of the 360-degree feedback tool high level of complexity.

3.2. Methodology

Due to the vastness and complexity of the necessary information to the present research, we consider that a case study is the most adequate research method to be used. It is well known that case studies tend to be selective, focusing on one or two issues that are fundamental for understanding the system being examined. They are also *“designed to bring out the details from the viewpoint of the participants by using multiple sources of data”* [8]. Therefore, the study's unit of analysis is represented by *“Iuliu Hațieganu” University of Medicine and Pharmacy*.

In order to respond precisely to the research questions, the present case study is built on three main dimensions: the first one consists of the presentation of the quality assurance process within the university, emphasizing the main structures, policies and objective strategies of the Quality Management System. Furthermore, the second dimension focuses on the elements of a 360-degree feedback system, which are to be integrated in the university Quality Management System. As a final point, the third dimension offers a broad view on the progress made by the university from that type of academic evaluation, consisting only of students' evaluation, to the recent 360-degree academic evaluation.

Moving on, we will present the data analysis, in accordance with the already three case study established dimensions.

3.3. Data Analysis

3.3.1. Quality Assurance in “Iuliu Hațieganu” UMP Cluj-Napoca

The institutional frame for monitoring quality in „*Iuliu Hațieganu*” UMP Cluj-Napoca is assured by more structures, policies, and objective strategies for the quality management of teaching-learning, research, administrative, and auxiliary activities. As from 2001, we have elaborated the Manual of Quality, which contains the principles for ensuring quality, infrastructure, institutional construction, and working instruments.

In 2004, the university has decided to set up ***The Vice-Rector's Office for Academic Evaluation and Quality Assurance***, a structure responsible for elaborating the quality evaluation and assurance system. Another structure which contributes to ensuring quality within the university is ***The Department for Academic Evaluation***, set-up in 2005, whose

responsibilities include the elaboration of specific instruments for the evaluation of didactic activities, the application of these instruments, the results analysis, and the editing of the reports regarding the internal evaluation of didactic activity within the university.

Through the specialty of their activities, the operational structures mentioned above contribute to the promotion of a quality culture inside the university. Another factor promoting the culture of quality is the active involvement in the process of quality evaluation of both the teaching staff, and the students.

The university continuously implements the measures to improve the quality of education, as proposed by the authorized structures, and cooperates with other universities from the country or from abroad, for the identification and adoption of good practice in the fields of quality assurance.

3.3.2. The Elements of a 360-Degree Academic Evaluation System

According to the reviewed literature, the 360-degree feedback system necessarily implies multiple rating sources. The specialists also stated that each organization, which intends to implement such system, is encouraged to adopt its own evaluation mechanisms, adapted to the organizational culture and climate.

Therefore, our university conceived a 360-degree academic evaluation system, composed of four types of academic evaluation: the students' evaluation of the academic staff, self-evaluation, the colleagues' evaluation of the teaching staff and last, but not least, the hierarchical superior's feedback (Figure 1).

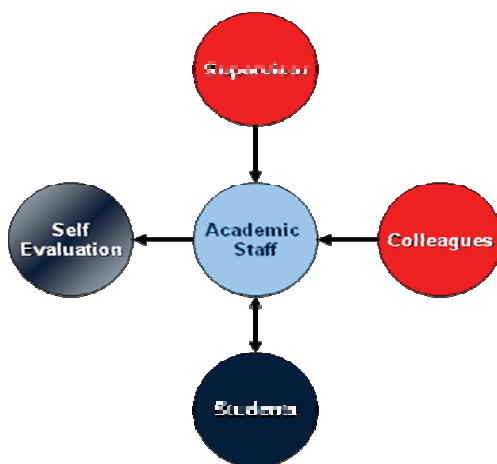


Figure 1. The Elements of a 360-Degree Academic Evaluation

Referring to the main purpose of our 360-degree feedback system, as the specialists suggested, in the first phase, this is meant to contribute to individuals' professional development, raising their self-awareness. Taking into consideration the fact that the 360-degree feedback system is in course of implementation, the university managers are willing to create a strong cohesion among all the evaluation forms and the existing quality culture. It is considered that only after the raters and the recipients become familiar with the 360-degree feedback system, a use of this, for performance

appraisal purposes, can be brought into discussion. Still, there is an intention in this sense, on university's quality assurance agenda, to link the 360-degree academic evaluation to job rewards.

3.3.3. The implementation process – From students' evaluation to 360-degree evaluation

The Students' Evaluation of the Teaching Staff

The evaluation of the teaching staff by the direct beneficiaries, is made based on the didactic activity evaluation forms available within each faculty, approved by the university's Senate.

At university level (global evaluation), the internal evaluation of the didactic process took place in 2004 and 2005. In 2006, we have performed the evaluation of the professional formation process for the first academic cycle. In 2007, the evaluation of the didactic activity has been performed for each study year, compiling two volumes of evaluation reports, one for the the Faculty of Medicine and one for the Faculties of Dental Medicine and Pharmacy. In 2008, the evaluation has also been performed for each faculty.

Afterwards, willing to obtain more valid and accurate results, the Vice-Rectorate of Quality Assurance and Academic Evaluation decided to build other evaluation forms. Therefore, the Department for Academic Evaluation has organized focus group meetings with the students, in order to elaborate the didactic activity evaluation questionnaires, the evaluation procedure, and for filling in the questionnaires.

As from 2008, the evaluation of didactic activity is made nominally, for each discipline in part, thus facilitating the identification of the aspects which demand amelioration, as well as the positive aspects which need to be capitalized forward. The evaluation of didactic activity is made periodically, using, for this end, questionnaires which evaluate the entire didactic activity within each faculty and each study year in terms of the direct beneficiaries – the students. These questionnaires reflect the students' perception towards courses or practical activities (with all the aspects involved: the teaching staff performance, the conditions offered to the students), and they are used on formative purpose.

Self-Evaluation

Another major component of the 360-degree feedback system is the self-evaluation form. Our university disposed, until this year, of a self-evaluation questionnaire, which was also modified, in accordance with the newest criteria of quality assurance. Therefore, the university teaching staff will perform the self-evaluations, from now on, based on the newly approved questionnaire, which corresponds to the 360-degree academic evaluation objectives.

Collegial Evaluation

Periodically, on the occasion of position contests (risings), the university used to organize the collegial evaluation. The evaluation was performed based on the legal criteria for the respective position, but also based on collegial evaluation. At the moment, a peer-evaluation grid is developed at University level, soon to be validated by the University Senate, and to be put into effect starting with the current academic year.

The evaluation of teaching staff by the hierarchical superior

At University level, both the peer review and the one conducted by the institution management (the hierarchically superior headman) were carried out during trial contests dedicated to occupying teaching positions. Each Head of Chair is responsible for evaluating the teaching staff. This is also a

very important aspect of the 360-degree in the middle of conversion, currently a new questionnaire for this type of evaluation being created by the quality assurance representatives.

3.4. High-Tech 360-Degree Feedback System

During the implementation process of the new evaluation forms for didactic activity we confronted a major problem: the response rate has decreased in time, due to the rater overload. Students were complaining about the number of questionnaires they have to complete, while the series representatives were dissatisfied with the heavy application procedure. Being aware of the consequences that rater overload could have on the evaluation quality, our management looked for a solution to avoid this kind of problem in the future.

Therefore, the 360 evaluation process has been set by our university to be conducted over the internet. In order to assure raters privacy and confidentiality, the university invested in highly professional software. As the specialists already attested, it is costly to develop online versions, but the provision of choice in completion method and the immediacy of online completion plus the improve tracking that can take place makes it beneficial [5].

3.5. Conclusion

Someone said that *"Multirater reviews should drive change – not just produce reports!"* [9]. Being caught in the middle process, we came to the conclusion that generating meaningful results is harder than we thought.

The study also underlines the fact that it is not that simple to integrate a 360-degree evaluation system, it takes time. Universities must realize the considerable time investment it will take to introduce the 360-degree concept and to integrate it at all levels of their organization. They should not hustle during the process.

As for the best way of a university to integrate in its Quality Management System a 360-Degree Academic Evaluation, apparently, there is no unique recipe for all institutions, due to the existing differences in terms of organizational and quality culture.

The concept of 360 degree feedback makes a lot of sense and, if used well, should have a great deal to offer. It seems to suit the move towards the less hierarchical, more flexibly-structured and knowledge-based organizations of the future [4]. Once well defined and generating valid results, from the 360-Degree Academic Evaluation outcomes benefit equally the raters and the recipients. The benefits of the 360 process in the Higher Education domain would prove, in time, to be outstanding, if there is a commitment throughout the institution to do something concrete with the feedback and follow up on it.

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REFLECTIONS ON QUALITY ASSURANCE IN THE EUROPEAN HIGHER EDUCATION AREA

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Abstract

The paper gives a description on Quality Assurance procedures and problems observed on occasion of nearly 20 evaluations as a member of the Pool of Experts of the Institutional Evaluation Programme of the European University Association and as Foreign Expert for the Romanian Quality Assurance Agency in Higher Education. Despite of big differences with respect to the legal framework and the governance of higher education institutions in different countries Quality Assurance is a common task within all countries and institutions. But procedures, measures and consequences differ and in many cases more profit could be made from the procedures and the collected data. Some common problems can be observed such as overloaded bachelor programmes, employability of bachelors, missing incentives for mobility of students and staff as well as international aspects of Quality Assurance. The paper gives some suggestions what to observe and how to proceed in order to implement Quality Management systems at higher education institutions.

Key words: international context, balanced policy, Bologna implementation.

1. Introduction

Since the late 1990s the Council of the European Union has required quality assurance (QA) in higher education (HE) in all European Union countries. In 1999 the European Ministers of Education adopted the so-called Bologna Declaration for the creation of an integrated European area for HE by 2010 in which HE should be structured in Bachelor-Master-Doctorate studies. The aim was to make HE in Europe more comparable and better visible from outside as well as to facilitate student and staff mobility. The challenge with these innovations was that the new European HE system should be compatible with the cultural diversity of European countries and also respect the tradition of university autonomy and academic freedom such as recognized by the Magna Charta Universitatum 1988.

The contextual framework of this paper is my background as rector of the University of Klagenfurt from 1999 to 2003, my experience as a member of the Pool of Experts of the Institutional Evaluation Programme (IEP) of the European University Association (EUA) and my activity as Foreign Expert of the Romanian Quality Assurance Agency for Higher Education (ARACIS). In these functions I have participated in 20 evaluations in eight European countries and in Columbia (South America).

In the following I will describe some general questions with respect to the introduction of a quality culture at HE institutions and summarize problems observed at several institutions in different countries. Some recommendations and open tasks for further improvement conclude the paper.

2. General Remarks on the Introduction of Quality Assurance

For a successful introduction of QA in HE institutions the procedures should be balanced between improvement, support mechanisms and bureaucracy. But up to now the support part seems not to be sufficiently realized at many institutions. Hence critical people might see only the additional bureaucratic load.

QA also cannot be considered only as a national task. It is a European and global challenge. Hence the introduction of QA should be based on national and international procedures. HE institutions in small countries should not practice only national accreditations and in no case undergo only national evaluations. Countries like Austria lose a big chance with respect to internationalization by the installation of pure national quality agencies. Instead of the established national Austrian Agency for Quality Assurance (AQA) I would have preferred a country-overlapping agency e.g. an Austrian-Hungarian-Slovakian-Slovenian agency. In any case there should be a balance between national and international procedures concerning QA.

Furthermore, QA should always be a central concern of the whole institution. QA has to cover all aspects of actions in the institution, namely teaching, research as well as governance and administration. Usually it starts with a commitment of the leadership and a top-down process to all members of the institution. But there should be also room for bottom-up initiatives. The result should be a quality culture of the institution and not different quality cultures of faculties and departments. The institution's community should be informed on the outcomes of the installed QA systems.

Finally QA systems have to be linked to strategic planning and decision making bodies and the collected information and reports have to be used for the further development and improvement of the institution.

National legislation causing different forms of governance in HE seems not to have a big influence on the introduction of QA. During my evaluations I have met public and private HE institutions with very different structures of leadership. There are institutions which are traditionally governed by a rector together with an internal senate, others governed by a rector together with external stakeholders, (mainly private) institutions governed by their founders and descendants. And last but not least I know a university which has been ruled successfully by a majority of students in its governing board for nearly 400 years.

In Austria the legal development with respect to university governance goes in the direction to give more power to an outside board (no university members allowed) nominated by the ministry and the university. This board called *Universitätsrat* elects the rector who acts as a general manager of the university responsible to the *Universitätsrat*.

Nevertheless, despite of their differences in governance many HE institutions have similar problems and aims concerning the introduction of QA systems. The main problems of all institutions are to define procedures and actions resulting from evaluations and the accumulated information as well as the involvement of stakeholders into QA. But there is one legal fact which definitely does influence the introduction of QA systems, strategic planning and many other things of an institution. A too short term of office of the rector and other managing leaders of the institution hinders the introduction of any medium- or long-term procedures. A period of only 2 years for university leaders definitely seems to be too short. Hence in many European countries there is a trend to a 4 year-period for the rector or leader of a HE institution with one possible reelection. On the other hand too long function periods certainly hinder innovation at institutions. The actual Austrian legislation with infinitely possible reelections of the rector is certainly also not optimal.

3. Actual Situation of Quality Assurance in Higher Education

3.1. Quality Assurance in Governance and Management

All HE institutions I have visited have started with quality management procedures in order to guarantee QA within their institutions. But as already mentioned, in many institutions some common deficiencies with respect to QA can be observed. Enormous amounts of data with respect to quality and scientific output are collected and stored. All members of the institution including students spent considerable time completing reporting systems. But this data afterwards is not analyzed nor used for any changes and improvements. This means that many institutions still have not managed to introduce functioning QA systems and procedures in order to improve quality. The collection of information and data works very well. But feedback to the members of the institution including students is not provided and the gained findings are not linked to strategic planning and used for decisions by the governing bodies. There are also no clearly defined consequences of good and bad evaluations. Last but not least there are hardly any support mechanisms for staff and students coming from the results of QA procedures. Mechanisms supporting academic staff in their teaching and research missions should be installed.

Another open question at many institutions is the involvement of external stakeholders into QA. Representatives of teachers, students, administrative staff and external partners should all be involved in the QA system.

Furthermore, many institutions do not have clear or homogeneous rules on student admission, staff recruitment and staff development. These things are also part of the quality culture of an institution.

A missing corporate identity of the institution also hinders severely the introduction of a common quality culture. There are universities in Europe, mainly in the former socialist countries but also in other countries, which are actually a collection of several very independent faculties which share only the name of the university and have not developed any corporate identity. The name of the university might even not figure on the visiting-cards of faculty members. Sometimes the rector of such an institution does not know the budget of a faculty and has to ask the deans of the faculties for the budget to run the rectorate. But now, in order to participate in international programmes and to be a “player” in the European higher education area these loose faculties have formed a university, because faculties are not partners in many European agreements. At an institution of this kind it is very difficult to introduce a common QA system.

3.2. Quality Assurance in Research

Many of the European HE institutions are teaching institutions. In connection with QA nearly all institutions want to move in the direction of a teaching institution with research or even want to become a research institution. There is general concordance that teaching at HE institutions should be based on research. But it is clear that there are, especially for smaller institutions, not enough financial resources to create their independent research units. Especially if an institution is financing itself mainly by student fees it is difficult to raise enough money for research. Hence it is absolutely necessary to focus research in order to become visible and to enforce co-operations with other institutions in order to form critical masses. Each country will effort only a small number of real research institutions, will have several teaching institutions with recognized research groups and several teaching institutions where research is mainly done in co-operation with other institutions. But up to now many HE institutions have no clear research policy. Smaller and medium sized institutions will have to look for co-operations in order to perform recognized and visible research and will have to focus research and to enforce certain research areas.

The quality of research in HE institutions appears to be easier to evaluate than the quality of teaching. There are numerous indicators at national and international levels to evaluate research. But not all indicators are suitable for any institution.

3.3. Quality Assurance in Teaching and the Bologna Process

HE institutions in all countries agree that university-teaching should be student centered and research based. At present we have severe problems with respect to undergraduate teaching in the institutions in many European countries. The implementation of the three-cycle Bologna system with bachelor, master and doctoral studies has been realized in many countries under enormous time pressure. The majority of European countries introduced bachelor programmes of 3 years, some countries such as Spain of 4 years. But in the majority of the institutions the first implementation resulted in a school-similar system without any time for autonomous student work and self learning parts. The overloaded bachelor programmes also obstruct student mobility.

In order to guarantee employability of bachelors many European HE institutions have made the mistake to press former careers of 4 and even 5 years into the new 3 year bachelor programme corresponding to the Bologna system. As a result especially the new bachelor programmes are overloaded and the education is over-regulated. This fact hinders main ideas of Bologna such as student mobility and self learning parts of students. There are European countries such as Italy where undergraduate students have to be present in lectures between 35 and 40 hours per week. It is clear that these students do not have any time for self learning parts within their studies. The overloaded bachelor programmes in Austria and Germany have caused severe student protests during the last academic year. At Vienna University the auditorium maximum, the biggest lecture hall, was occupied by protesting students for several weeks last autumn.

Hence, till now the ideas of Bologna have not been fully realized. Therefore we urgently need a second "Bologna-step" in order to decrease work load of students in classes and to increase autonomous student work and self learning parts. The new bachelor- and master-programmes have to be evaluated with respect to contents, employability, internationalization and mobility. Practical instruction of undergraduate students has to be enforced. Contacts between higher education institutions and enterprises should be strengthened. A clear language policy in education should be followed.

The actual overloaded Bologna cycles and the growing autonomy of HE institutions in Austria had the effect that mobility of students even between Austrian universities decreased. Actually only about 15% of the students of my university have experienced an exchange programme. We would like to raise this number to 50% within the next 10 years and try to enforce internationalization.

With respect to the evaluation of courses by students - a common procedure now in many institutions - there are very often no clear rules for consequences and, if there are consequences, they are frequently not communicated. So students have the impression that there is no effect of their evaluations. Only a few institutions offer a special training for young teachers or teachers with bad evaluations. Good and bad teaching is not really discussed within many institutions and the corresponding boards.

In other countries, and Romania seems to belong to these countries, bachelor students complain that their education is not enough practical oriented. The bachelor still seems not being fully recognized by employers and employability of bachelors is not really established.

Internationalization of teaching is another weak point at many institutions. As already mentioned, many institutions do not follow a clear language policy and do not offer courses taught in English or another foreign language. Curricula are not at an international standard and there are not enough incentives for student and staff mobility. In many countries the introduction of the Bologna three cycle system and the growing autonomy with respect to the creation of study programmes have even decreased the number of exchange students or student mobility even inside a country. Bureaucratic study regulations and a missing courage for gaps – students cannot be taught everything of their discipline during their studies – hinder student mobility.

3.4. Some Suggestions for the Implementation of Quality Assurance Systems

A functioning QA system usually starts with a strong commitment of the institution's leadership to QA. In order to implement procedures and to develop a corporate climate for improvement and QA a responsible board of QA should be installed. Preferably this board includes internal and external participants – teachers, students, administrative staff as well as external stakeholders. For the implementation I suggest to consider the following hints:

- be open for alternative suggestions and bottom-up procedures;
- support creativity and do not over-formalize procedures;
- encourage internal quality discussions and reflections;
- define measurable indicators and criteria for quality;
- set up consequences and install procedures of consulting and assistance based on the results of evaluations and quality monitoring (e.g. location of a part of the budget based on performance, staff training);
- install incentives for quality (e.g. bonus for good practices, seed money for improvements, support for mobility of students and staff)
- introduce evaluation procedures – if convenient on a voluntary basis – but do not overkill of evaluations;
- keep information on QA actions and results going.

4. Two Current European Evaluation Procedures

4.1 The Institutional Evaluation Programme of the European University Association

The IEP is a service for members of EUA that offers institutional evaluations to HE institutions. The IEP-procedure has a strong emphasis on the self-evaluation process in the institution. The institution has to form a steering group which elaborates a self evaluation report. This motivates the institution to analyze and discuss its actual strengths and weaknesses and to develop strategies for the future. IEP-evaluations are undertaken from an European and international perspective and the key question is the institution's capacity for improvement and change in order to face the current challenges of higher education. The evaluation process consists of two visits by five members of the IEP-pool (including rectors and vice rectors, senior higher education experts and students). At the end of the second (main) visit an oral report on the main findings is presented to the institution. A written report by the evaluation team based on the oral report with recommendations in order to promote quality developments is send to the institution within about eight weeks. In order to observe changes and consequences EUA offers optionally a follow-up evaluation to evaluated institutions. It has to be emphasized that IEP does not rank nor accredit

institutions or study programmes. The IEP-evaluation is a “visit by friends” on invitation of the institution. It offers the unique chance to discuss the situation and problems of the institution with experienced higher education experts. The two visits give the opportunity to the evaluation team to ask for additional information between the visits and to spend all time during the visits for interviews and meetings. Main objects of investigation and advising of IEP are internal organization and governance, teaching and learning, research, quality culture and internationalization.

IEP started in 1994 and has conducted till today about 250 evaluations in many European and several South American countries. Some of these evaluations were “coordinated evaluations” at national or regional level in which all universities or a sample of institutions were evaluated. Up to two years ago students were only included into evaluation teams on demand of the visited institution. Since 2008, in correspondence with ENQA regulations students are included into all IEP-teams.

4.2. The External Institutional Evaluation of the Romanian Quality Assurance Agency for Higher Education

Though you will probably know the ARACIS-evaluations much better than me I would like to give my view on your national procedure. ARACIS-evaluations are strictly conducted in correspondence with the European Association for Quality Assurance in Higher Education (ENQA) and have a clear focus on the evaluation of study programmes. The ARACIS external evaluation of academic quality in accredited higher education institutions is carried out for the periodical certification, every five years, of the academic quality of the educational and research services as part of the educational process within an accredited university. Actually there runs a project “Quality assurance in higher education in Romania within European context. Development of academic quality management at system and institutional level” sponsored by the European Union. The ARACIS-procedure also starts with the elaboration of a self evaluation report by the institution. But contrary to the self evaluation report asked by IEP my experience with the self evaluation reports in the ARACIS-procedure is that they try to present the institution as good as possible and do not contain any self critics or mention problems. The reason for this is that the ARACIS evaluation is more or less an inspection verifying the managerial activity and institutional structures, the internal quality assurance procedures and the continuous fulfillment of the normative requirements of academic degree university studies. As a consequence of a bad evaluation an institution could loose the accreditation of a study programme. ARACIS-teams consist of ten and more members, especially high qualified expert evaluators from the fields corresponding to the visited study programmes. Students are included into the team. After the one visit to the institution reports on the evaluated study programmes, the managerial and financial activities and occasionally the report of the participating foreign expert are summarized to the External Institutional Evaluation Report, which is published on the ARACIS’ homepage. Half of the time during an ARACIS visit is spent on formal checks of papers and information provided by the institution. Only the other half is used for interviews and meetings with university members and stakeholders. Sometimes the interview-groups are very big – 50 and more people – and it is not possible to go into details. Nevertheless, I consider the ARACIS institutional evaluation as an important step for quality assurance in higher education in Romania. The procedure is well organized and works with excellent peers. But bureaucracy should be reduced and the institution as a whole should be more in the center of the review. The actual practice of huge interview groups will not disclose irregularities. The evaluated institutions should be encouraged to be more self-critical and to make better use of the evaluation by looking more into the future than into the past.

4.3 Further Comments on the Presented Institutional Evaluation Procedures

The IEP- and the ARACIS-procedures complement each other and are both very useful in order to establish and assure quality in HE institutions. As already mentioned, the focus of IEP-evaluations is on the institution as a whole and its decision-making processes and structures. IEP is not accrediting, ranking or comparing institutions.

Accreditation and evaluation procedures like the ARACIS-process guarantee certain standards of teaching and research to be fulfilled. Hence these procedures are very important to assure quality in HE, especially in HE systems with high autonomy. Already the fact that there exist periodical evaluations makes HE institutions to observe certain quality standards and to respect legal requirements. But for the limited time available during an evaluation also ARACIS can only check formal requirements and not judge in detail the quality of teaching and research. A profound judgment on special study fields and research areas can be expected probably only from peer review processes by international experts of the corresponding scientific community.

5. Conclusions

In summary, QA in HE has become an important concern for policy-makers and institutions. QA is pointed out as a strategic goal of nearly all institutions and all try to prove their daily commitment to permanent quality improvement. But many institutions still have not installed functioning QA systems. Procedures like the IEP- or ARACIS-evaluations assist HE institutions implementing QA.

Strategic planning and a development plan are essential for the introduction of a functioning QA system. Only a clear view of the future of an institution considering regional, national and global needs forms a solid basis for a qualified development. Many institutions follow only the main goal to grow and accept any extensions, fitting into their profile or not. The idea that “small can also be beautiful” is not very popular within the HE area. Greater emphasis should be placed on the quality of results than on the quantity.

The European advantage is that there are many enthusiastic and highly motivated people working within HE institutions. We have to encourage these people to follow their ambitions and intentions for excellence. HE institutions should become more pro-active, taking the future into their own hands and not only wait for instructions and legal changes from outside. Already several years ago I watched a student protest action at Salamanca University in Spain – a nearly 800 year old institution – where students required to strengthen culture and education instead of capitalism and economic thinking within their university.

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AGENȚIA ROMÂNĂ
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UPON SOME AVAILABLE IMPROVEMENT WAYS OF BOLOGNA PROCESS IN ROMANIA

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Abstract

In our country, implementation of the Bologna Process started in 2005/2006 education year, after adopting the main law frame. As each one knows, in our country, a structure based on three cycles of university study was adopted and all the objectives of ministerial conferences were established just our education goals. Nowadays, after ten years of Bologna Process, a lot of experience has been gained, a part being good practice, experience, but a part being wrong or unsatisfactory experience.

Believing that the Bologna Process has to be consolidated, that its ideas have a powerful attraction beyond the EHEA, I consider that a special attention must be paid to those ways and tools, by which the results, the carrying out of adopted objectives, can be improved.

Starting from these considerations, this work intends to present some aspects, some means, for getting more from Bologna Process. I consider that in chain of those three cycles of university studies, the second cycle is the soft part. Then, the form in which the ECTS was implemented can be also improved. The linking and the continuity of the studies in a scientific field are adopted until now, make me to consider them to be not in a best manner.

Key words: Bologna Process, cycles of university studies, ECTS, learning outcomes.

1. Introduction

Romania belongs to the group of those 29 signatory countries of Bologna Declaration (1999), which represents the primary document used to establish the general framework for the modernization and reform of European higher education. Nowadays, after more than ten years of Bologna Process, a lot of experience has been obtained, a part being a good practice or experience, but a part being a wrong or unsatisfactory experience.

Of course, many aspects and goals of Bologna Process made a success and almost all the participants, staff and students, have the same opinion. An example can be, one of the most important goal of the Bologna Process in Romania, our system for quality assurance in higher education, but my paper is not focused on this subject.

Romanian higher education system, after Bologna Process implementation, has a structure, which allows a real compatibility with other education systems of European Union countries and offered a real and efficient mobility for students, staff and researchers. In the same time, some students have problems in their mobility referring to ECTS and others.

A very important and dominant question is whether the Bologna Process implementation in our country lead to a progress in the qualification level of students, or, in other words, whether the outcomes of Bologna Process are better or not, comparatively with previous state of higher education (before Bologna Process implementation).

As in the Budapest-Vienna Declaration on the European Higher Education Area of the Ministers, responsible for higher education in the countries participating in the Bologna Process, the recent protests have reminded us that some of the Bologna aims and reforms have not been properly implemented and explained.

This paper intends to present some consideration upon general aspects referring to Bologna Process implementation, focusing on the second cycle. Next to it, I would like this paper to be a stimulus for a new thinking, about what shall we do for improving the outcomes of the first two university cycles, for a better and more efficient working together, and how the ECTS could be improved. All these are referring to Bologna Process for higher education system of Romania.

2. The organization of the first two university cycles in Romania

By the Law No. 288/2004 on the structure of university studies, the higher education system of Romania was organized in three cycles of studies, according to the Bologna objectives. The implementation of the above-mentioned Law started in 2005. In the same year, according to the Law No. 288/2004 and the Government Decision No. 567/2005, the re-organization of doctoral studies in form of third cycle in the newly set-up Doctoral Schools occurred. Therefore, the first and the third cycles started in 2005.

As the second cycle is concerned, this was regulated by the same Law No. 288/2004 and in detailed way, by the Government Decision No. 404/2006, but its implementation started with the academic year 2008/2009 and 2009/2010 for engineering education, respectively. Between 2005 to 2009 years (a period of 3 and 4 years), the master studies were developed by universities, but in their old form of post-university studies.

My analysis of Bologna Process development in our country determined me to consider the second cycle to be the weak link of this process.

Looking back at the Bologna Process implementation, I consider that the late coming of regulations of the second cycle of Bologna Process, together with a tolerance of Ministry of Education, produced a negative influence upon a right implementation of those three Bologna cycles.

However, this aspect is not the main cause in the explanation of our insatisfaction regarding to how those three cycles work today, this aspect caused that question about Bologna Process: ***are the outcomes of Bologna Process better or not, comparatively with outcomes of previous higher education structure ?***

In my opinion, the main causes of the negative aspects in Bologna Process implementation can be found only in universities. Of course, the ministry of education had and has a responsibility, about Bologna Process work in our country. This aspect is not a target of my paper.

Protected by a wrong understood autonomy, many important persons with responsibility in organizing of the education process gave priority to the personal interests. In this aspect, many examples can be found in the Black Book of Bologna Process in Romania (2006), next to those

examples known by each of us. An example can be found at the six page of the Black Book of Bologna Process in Romania.

In many universities, passing to Bologna cycles was made by compressing all the previous courses, as they to be developed in a new time period (in three or four years, respectively). This process is a dangerous one, which affects not only first cycle, but the second cycle too.

Same dangerous way was that, by which basic field of study and specialty field of study were in the same measure reduced as all disciplines to be included in three or four years, respectively. Both ways lead to negative outcomes, beginning from the pedagogical considerations, to the final outcomes; for example, two disciplines, which one is based on the other, are developed in the same time.

In my opinion, the basic field of study represents the foundation on which all other knowledge must be put in a logical interconnection, like for construction and developing of a house. If the foundation is not a strong one, the later developing is not possible or is something very difficult. Therefore, this part of curriculum – basic field of study – has to be restructured, but in a careful manner, thinking to all the university cycles, like a one.

From this point of view, it would have been better whether the ministry of education, in that time, when Bologna Process started, would be asked to all universities to build a curriculum for all three cycles for each study program. So, the teachers could be seen that their courses have the same number of hours, or just more then previous Bologna Process implementation.

Regarding to master programs we easily could ascertain that many of the masters' program disciplines repeat the courses taught during the first cycle of studies. Next to it, the master's timetable is not right chosen (late at night, teachers do not come, they are un-attractive, many students already work and do not come to classes, only to the exams). Many master programs are developed, not for spreading of the research results or for responding to the requirements for a deep specialization; rather some master programs seem to be organized in order to offer a didactic work for some professors.

Judging in terms of competence area versus level of knowledge, understanding and creativity, the Bologna cycles could be represented like in the Figure 1.

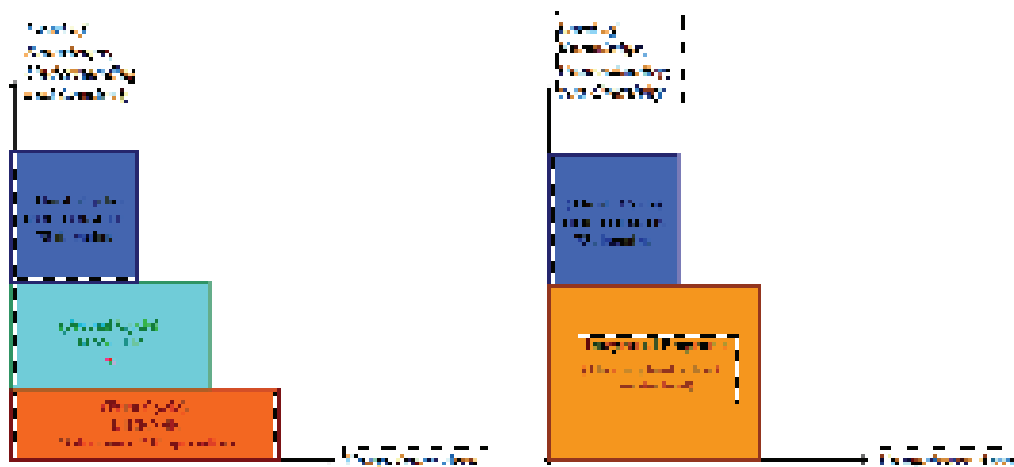


Figure 1. Bologna cycles in a 2D representation

In Romania, the first cycle is regulated by a government decision, being organized on domains and for each domain, a number of university programs are defined (H.G. nr. 749/24.06.2009, published in M.O.R. nr. 465/06.07.2009).

The third Bologna cycle is organized on a number of domains too (O.M.E.C. nr. 356/15.02.2007, published in M.O.R. nr. 224/02.04.2007). The same number (73) is an occurrence, but a correspondence between domains of those cycles (I and III) can be noticed.

As the second cycle is concerned, no domain is defined and next to a late regulation, these university study programs are developed under two different way: by approving of the Romanian Agency for Quality Assurance in Higher Education, or by approving of the Senate of the University, in which the master program is going to be developed.

The master programs, evaluated by the Romanian Agency for Quality Assurance in Higher Education are confirmed by a minister's order (O.M.E.C.I. nr. 4666/03.08.2009, published in M.O.R. nr. 603/01.09.2009).

Nevertheless, until now, such an order does not make any connection between the domains and study programs of the first cycle with these master programs. Therefore, many questions could appear. An example can be studied, by referring to the mechanical engineering domain.

For analyzing the connection between first and second cycles, thinking that any master program has to be based on the knowledge of the first cycle, I tried to put face to face the license and the master programs, for the mechanical engineering domain (adopted example).

By this operation, from those 31 master programs, 5 programs seem to be outside of the mechanical engineering. I consider that a master program has to give the possibility for deepening, for reaching or for a broadening of the knowledge, which defines a specialization, began in the first cycle. Such thinking leads us to some conclusions, presented below.

Analyzing the example offered by the mechanical engineering domain, we could ascertain some aspects. We could say that the master programs have no own domain, or the license and master programs have the same domain; in this case, the license domain would be going to have a new name: "the license and master domain". Is this suitable or not ?

We also notice that no license program is going to be developed at the next study level (master program) and that, in the same study domain (license domain), new study programs appear directly at the master level. Is this useful or not ?

I consider that the organization of the first two university cycles in Romania makes difficulties in construction of the National Qualification Framework.

An explanation, for the aspects described above, surely can be found, but only in connection with the personal interests; these aspects are beyond this paper.

Then, we could ascertain that between licenses and master programs no connection or far connections can be made. This aspect would not be explained by the market requirements. Surely, market requirements and the education level represent two different subjects.

3. Some proposals for better working of the second cycle

In many higher education systems, bachelor's and master's degrees are seen as clearly self-supporting entities, whereas in others, the two cycles form rather a cumulative sequence of knowledge, skills and competencies in more or less the same disciplinary area.

Considering that those three university study cycles work finally like a unit, defining the university studies and that, on the other hand, each cycle of university studies works independently and represents a distinct activity, all three cycles have to be regulated similarly. I consider a domain of master programs to be necessary to be defined, like for the first and third cycles.

Thinking that each master program has to be based on a license program, a suitable idea could be that the master study domain to have the same name (the same knowledge domain) of license program on which it is developed.

We could notice that no license program (in mechanical engineering domain) is continued at master level (Table 2). Is it a market requirement ?

Another idea, for improvement of the second cycle is referring to quality assurance of this cycle. Is the second cycle less important than the first cycle ?

This paper does not intend to give any answer to these questions, but intends to invite for a reflection to such problems.

Instead, two ways for developing of master programs, only one-way would have to exist, namely the way of ARACIS using or using of any quality agency, which is member of ENQA and listed in European Quality Assurance Register for higher education.

For a better developing of master programs, it is necessary, for each position in an organization schedule, the required studies to be specified (license, master, or doctoral degree). In this way, the interest and the willing of the participants will increase and the universities could be better organized.

The Master delivers the high-level skills required by the knowledge economy. At the same time, the Master offers certain challenges. It is not yet universally simple for students and other stakeholders to be guaranteed first-glance recognition of what a particular Master offers. A set of informative markers should be developed for the benefit of all users. With these considerations in mind, I consider the master programs to be the main domain for mobility.

Next to it, Master programs mean research too. By this reason, the using of a foreign language is a necessity which has to be satisfied beginning with first cycle.

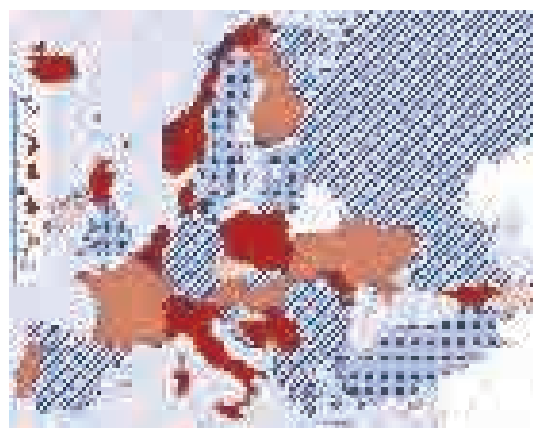
A distinction between master programs, which continue the license programs, and the master programs, which continue the license programs, but in additional direction, it is necessary to give different names to master programs. My proposal is scientific master program and professional (specialization) master program, respectively. Differences in orientation or profile of programs should not affect the civil effect of the master degrees.






The Master has a crucial role to play in the knowledge society. It assures the acquisition of competences on which doctoral research depends. It develops human capital in many fields and it should be accessible from as many points of view and as many persons as possible.

A last remark has to be done in connection with transparency and flexibility. I consider that a good flexibility allow, observing all the settlings, to put in work a Master program in a half of university year (max. six months). The flexibility and transparency also mean that lifelong learning and the possibilities for all types of students to participate should be taken into account when developing a master program and just a joint study program.

4. Some consideration upon ECTS

Just at the beginning of Bologna Process (1999), the ECTS was an objective, which has got step by step more precision as a concept and has became one of the most important objective, assumed and used today by the all signature countries.



-  Allocation of ECTS is based on learning outcomes and student workload.
-  Allocation of ECTS is based on student workload.
-  Allocation of ECTS is based on contact hours, or a combination of contact hours and student workload.
-  Various references are used to define the credits.
-  ECTS is mainly used for transfer purposes.

Source: Eurydice.

Figure 2. ECTS allocation ways in academic year 2008-2009

In a larger sense, the credits could also be acquired in non-higher education contexts, including lifelong learning, provided they are recognised by receiving Universities concerned, as the Bologna Declaration says.

Figures 2 presents some ways of ECTS defining, in academic year 2008-2009. The Figure 3 presents ECTS used in defining those three cycles.

As the Figure 3 shows, in Romania no dominant model exist. This aspect may be a favorable aspect which offers more flexibility and adaptability.



Figure 3. The model implemented, in the most common programmes, in the Bologna countries, 2009-2010

There are four ways for allocation of ECTS: allocation based on learning outcomes and student workload, allocation based only on the student workload, allocation based on contact hours or a combination between contact hours and student workload and allocation based on different combinations of the mentioned parameters. In Romania, ECTS allocation mainly is based on student workload, or on contact hours, or on combinations of these.

In my opinion, allocation of ECTS, based on learning outcomes and student workload is the best way. An improved ECTS should have to be adopted in Romania. For example, a better ECTS would have to deliver different credit numbers for different marks, for the same discipline. In this way, the recognition of studies, the student mobility could be easier and more suitable.

5. Conclusions

The Bologna Declaration in 1999 set out a vision for 2010 of an internationally competitive and attractive European Higher Education Area, where higher education institutions, can fulfil their diverse missions in the knowledge society and where students benefiting from mobility with smooth and fair recognition of their qualifications, can find the best suited educational pathways. Since 1999, 47 countries have signed up to this vision and have made significant progress towards achieving it.

Not all the objectives will have been reached by all the participating countries by end of 2010. First priority for the future should be given to completing the existing action lines.

With these ideas, I consider that the second cycle must be improved by a better organization, by a more adequate ECTS and by more preoccupation for a right equilibrium between market requirements and academic study level.

All these are available, first of all, for Romanian higher education system.

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EVALUATING SERVICE QUALITY IN HIGHER EDUCATION USING QUALITY FUNCTION DEPLOYMENT (QFD)

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Abstract

In this study quality function deployment (QFD) techniques are applied to evaluate the service quality of undergraduate Systems engineering education in a Turkish University from the perspective of students. QFD analysis was performed on the survey data from undergraduate System Engineering students at a Turkish University in order to identify the quality characteristics most highly valued by students, the elements of educational service they consider most important and least important, and relationships between student quality requirements and institutional service elements. Results show that System Engineering students value contemporary teaching methods (computer-aided lectures and environment where they can practice) more than traditional teaching methods. Results also show that students are demanding quality primarily in the area of faculty characteristics. The implication is that institutions which provide engineering education should not neglect the importance of investing in faculty when they are seeking to upgrade the quality of their programs.

Key words: Quality Function Deployment, Undergraduate Engineering Education, Educational Service Quality Evaluation.

1. Introduction

Since 2003 higher education in Turkey has expanded at an extremely rapid pace. In the past decade alone, the number of universities in Turkey has doubled to 146. According to a report by YÖK (Higher Education Council of Turkey), as of July 2010, there are 95 state and 51 private universities in Turkey. This rapid expansion has placed the dream of obtaining a university education within the reach of most high school graduates. At the same time, however, expansion has generated increased concern about maintaining the quality of higher education in Turkey. In addition, educational institutions, especially private universities, are now facing increased pressure to recruit students and must strive to make their programs more attractive. These factors have increased interest in developing effective means of quality management for educational programs; thus, educators in Turkey are now turning their attention to quality management techniques utilized in the business world.

In the field of engineering education as well, quality management principles are attracting growing research interest. As the number of engineering programs increase, competition to recruit best (highest university entrance exam score) student increases. Engineering programs have recognized the need to prove the quality of their education in the national and international arena. Thus, since 2004, increased number of engineering programs in Turkey are being evaluated and accredited by the *Association for Evaluation and Accreditation of Engineering Programs (MÜDEK)*- recognized by the Higher Education Council (YÖK) of Turkey as the National Quality Assurance Agency in accrediting engineering programs. MÜDEK is also authorized by ENAEE to award **EUR-ACE Label** by the decision made by ENAEE Administrative Council on January 21, 2009. As of 2010, there are 16 universities and 101

QFD has been used widely in the field of manufacturing since 1966. The first large scale application was presented in 1966 by Kiyotaka Oshiumi of Bridgestone Tire in Japan, this company used the method to describe each customer necessity (effect) and to describe the design substitute technical characteristics and the process factors (causes) needed to control and measure it. [1] As the benefits of methodology are approved, applications in service industry increased. The use of QFD technique in Higher Education is not new. Pitman et. al (1996) applied the QFD technique to evaluate the MBA programme at Grand Valley State University, Michigan, USA. Hwang & Teo (2001) demonstrated three applications of QFD namely course design & delivery, course registration and research grant application in the Business School at the National University of Singapore. Lam & Zhao (1998) demonstrated the application of analytic hierarchy process (AHP) and the quality function deployment (QFD) in evaluating the effectiveness of teaching in achieving educational objectives at the Department of Applied Statistics and Operational Research, at the City University of Hong Kong. [9] , [6], [8].

3. Methodology

In order to determine the “Whats” of quality engineering education and then identifying the “Hows”, a focus group of 25 students from the System Engineering department was built. The group consisted of students from sophomore, junior and senior students.

The group first used brainstorming and cause-and effect diagrams, in conjunction with semester-end student course evaluations, and MÜDEK engineering program requirements, to identify the quality characteristics that undergraduate system engineering students want in their engineering education program. After identifying the “whats”, the group started working on translating customer requirements into educational service items, such as class discussions, group projects, teaching methods, written exams, and mandatory industrial practice, by which the requirements could be met.

| Required Quality Items | Importance | Service Elements | | | | | | | | | | | |
|--|------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | A11 | A12 |
| The course content is practical | 5 | 9 | 9 | 9 | 3 | 9 | | | 3 | | 9 | | 9 |
| The course content inspires students to think independently | 3 | 9 | | 3 | | | 3 | | | 9 | 9 | 1 | 3 |
| The faculty is knowledgeable | 5 | 9 | | 3 | 1 | 3 | | | | 9 | | 1 | |
| The faculty has industry experience | 5 | 9 | | 3 | | 1 | | 1 | | 3 | | | 3 |
| The faculty is committed to teaching | 5 | 9 | 1 | 1 | 1 | 1 | | 1 | 3 | 3 | | | |
| There are proper facilities to supplement teaching | 3 | 9 | 3 | 3 | | 3 | | 1 | 3 | | | | 9 |
| Multimedia equipment is used in teaching | 2 | 3 | 9 | | 3 | 1 | | | 3 | | | | |
| There is appropriate linkage among courses in the program | 3 | 9 | | | 1 | 1 | | | | 3 | | | 9 |
| Contemporary teaching methods are used | 4 | 9 | 9 | | | 1 | | | 3 | 3 | | | 3 |
| Pleasant interactions exist between faculty and students | 5 | 3 | | | | | | | | 3 | | | 3 |
| Faculty evaluation of students is fair and objective | 5 | | | | | | 3 | | | | 3 | 3 | 3 |
| There is a designated textbook and supplemental teaching materials | 2 | 1 | 1 | 1 | | | 1 | 1 | | 1 | | | |
| Instructors consider students' level of understanding when teaching | 3 | 9 | 1 | 3 | 3 | 3 | 3 | 9 | | 3 | 3 | 9 | 9 |
| The university provides adequate facilities/ equipment in classrooms | 3 | 9 | 3 | 3 | | 3 | | 3 | 3 | | | | 3 |
| Class sizes are appropriate for the courses | 3 | 3 | 3 | 9 | 3 | 9 | | 1 | 1 | 3 | | | 9 |
| The students are able to take the elective courses they want to | 4 | 3 | 3 | | | | | | | | | | |
| Student involvement in research projects is encouraged | 4 | | | | | | | | 3 | 1 | 3 | | |
| Instructors are empathetic | 4 | 9 | 1 | 1 | | | 1 | 1 | | 3 | 3 | 3 | 3 |
| Instructors give appropriate feedback to student performance | 3 | 9 | 9 | 3 | | | 9 | 9 | | 9 | 9 | 9 | 9 |
| Instructors are able to bridge theoretical and practical aspects when teaching | 4 | 9 | 3 | 3 | 3 | 3 | 1 | 1 | 3 | 3 | | | 9 |
| Instructor's ability to generate high level of interest and interaction in the class | 3 | 9 | 3 | 3 | 3 | 3 | | 3 | 3 | 3 | | | 9 |
| Instructor's use of English | 3 | 9 | 3 | 9 | 1 | 3 | | 1 | 3 | 9 | | | |
| Instructor's preparations for the class | 3 | 9 | 9 | 9 | 3 | 3 | | 3 | | 9 | | | 9 |
| The course content provide ability to function on multidisciplinary teams | 3 | 9 | 3 | 9 | | 3 | | 1 | | 3 | 9 | | 9 |
| The course content provide ability to engage in life-long learning | 4 | 9 | 3 | 9 | | | 9 | | 3 | | 9 | | 9 |
| The course content provide ability to design a system, component or a process to meet desired needs | 4 | 9 | 3 | 1 | | 3 | 3 | | | | 9 | | 9 |
| The course content provide ability to use techniques, skills and modern tools necessary for engineering practice | 4 | 9 | 3 | 3 | 1 | 3 | 3 | 3 | | | 9 | | 9 |
| The course content provide ability to identify, formulate and solve engineering problems | 4 | 9 | 3 | 3 | 9 | 3 | 3 | 3 | | | 9 | | 9 |
| Instructors give appropriate guidance on students' career plans | 5 | | | | | | | 1 | 3 | | | | |
| Instructors enable students to take responsibility for their own learning | 2 | 3 | 3 | 3 | | | 3 | 1 | | 1 | 9 | 9 | 9 |
| Technical Assessment | | 752 | 299 | 330 | 125 | 217 | 148 | 144 | 138 | 287 | 336 | 107 | 546 |
| Technical Assessment RANKING | | 1 | 5 | 4 | 11 | 7 | 8 | 9 | 10 | 6 | 3 | 12 | 2 |

Figure 2. Quality function Deployment (QFD) Matrix (A1 Computer assisted lectures, A2 Lectures, A3 Case studies, A4 Problem solving sessions, A5 Laboratory sessions, A6 Homework assignments, A7 In class exercises, A8 Seminars/ Guest lecturers, A9 Class discussions, A10 Class projects, A11 Exams, A12 In field practice)

The “whats” and “hows” determined by the group were then placed, respectively, in the columns and rows of the HOQ. For each of the student requirements (whats), respondents were asked to provide importance rating between 1 to 5, 1 being the lowest score. Then, the respondents were asked to evaluate the strength of the relationship between each “what” and each “how”. The evaluation was done by giving the scores of “1”, “3”, or “9” in the squares at the intersection of each row and column. A value of “1” indicated a weak relationship, a “3” indicated a moderate relationship and a “9” indicated a strong relationship. In a case of no relationship, respondents were instructed to leave the square blank.

The importance ratings assigned to each square by individual students were multiplied by the weightings and were added to obtain an overall score for each column. The final QFD matrix is shown in Figure 2.

4. Results

In a House of Quality matrix, a “what” row with all blank squares means that a requirement (VOC) has not been satisfactorily addressed and a service element should be added to address it. A “how” column with all blank squares means the service element does not satisfy any of the requirements and should therefore be eliminated. After these adjustments, HOQ matrix is reviewed in terms of most important quality requirements, most important and least important service elements, the relationship of quality requirements to important service elements. [1]

Most important quality requirements that were rated with a value of 5 in the matrix are found to be: practical course content, faculty knowledge, industry experience and commitment to teaching, fair and objective evaluation of students by faculty, pleasant interaction between faculty and students, and guidance given by faculty on students’ career plans.

Most important and least important service elements can be determined from the scores at the bottom of the columns in Figure 2. The three most important service elements with their technical assessment scores are found to be: 1) Computer assisted lectures (752), 2) In field practice (546), and 3) Class projects (336); The three least important service elements and their scores are: 1) Exams (107), 2) Problem solving sessions (125), 3) Seminars / Guest lecturers (138).

The quality requirements that are most closely related to three most important service element are shown in Table 1.

Table 1 Required qualities that are highly related to the three most important service elements

| Service Element | Highly related required qualities |
|----------------------------|--|
| Computer Assisted Lectures | Practical course content, course content inspires students to think independently, knowledgeable faculty, faculty has industrial experience, faculty commitment to teaching, proper facilities available to supplement teaching, there is appropriate linkage among courses in the program, contemporary teaching methods are used, instructors consider students’ level of understanding when teaching, university provides adequate facilities/equipment in classrooms, instructors are empathetic, instructors give appropriate |

| | |
|-------------------|---|
| | feedback to student performance, instructors are able to bridge theoretical and practical aspects when teaching, instructor's ability to generate high level of interest and interaction in the class, instructor's use of English, instructor's preparations for the class , course content provide ability to function on multidisciplinary teams, course content provide ability to engage in life-long learning, course content provide ability to design a system, component or a process to meet desired needs, course content provide ability to use techniques, skills and modern tools necessary for engineering practice, course content provide ability to identify, formulate and solve engineering problems |
| In Field Practice | Practical course content, proper facilities available to supplement teaching, there is appropriate linkage among courses in the program, , instructors consider students' level of understanding when teaching; class sizes are appropriate for the courses, instructors give appropriate feedback to student performance, instructors are able to bridge theoretical and practical aspects when teaching, instructor's ability to generate high level of interest and interaction in the class , instructor's preparations for the class , course content provide ability to function on multidisciplinary teams, course content provide ability to engage in life-long learning, course content provide ability to design a system, component or a process to meet desired needs, course content provide ability to use techniques, skills and modern tools necessary for engineering practice, course content provide ability to identify, formulate and solve engineering problems , instructors enable students to take responsibility for their own learning. |
| Class Projects | Practical course content, course content inspires students to think independently, , instructors give appropriate feedback to student performance, course content provide ability to function on multidisciplinary teams, course content provide ability to engage in life-long learning, course content provide ability to design a system, component or a process to meet desired needs, course content provide ability to use techniques, skills and modern tools necessary for engineering practice, course content provide ability to identify, formulate and solve engineering problems. |

5. Discussion

The results of this QFD study underline the importance of faculty characteristics in the quality of undergraduate system engineering education at Yeditepe University in Turkey. It is important to note that six of the top seven quality requirements are related to characteristics of instructors: faculty knowledge, faculty industrial experience, faculty commitment to teaching, fair and objective evaluation of students by faculty, pleasant interaction between faculty and students, and guidance given by faculty on students' career plans. If the ultimate goal is to increase the quality of system engineering education in the eyes of students, emphasis must be placed on building these characteristics of system engineering faculty members. Students expect their teachers advice, mentor and coach them. They want their teachers to be fully committed in their education, and should have certain personal characteristics such as caring attitude, empathetic , pleasant student-teacher interactions, and encouragement during teaching.

According to the results of this study most important quality requirement as perceived by students is practical course content. According to Chou et.al., 2003, learning occurs as plans based on past experiences and prior knowledge are applied and tested. Therefore, it is important to teach students to use reflection while learning practical course in order to make personal interpretations and judgments about industrial experiences, which also results in improved students' field performance. [3]

The results also show that system engineering students value contemporary teaching methods (computer-aided lectures and environment where they can practice) more than traditional teaching methods. Thus, the two service elements most valued by students are computer

assisted lectures and in field practice. This result is not surprising, since 'in field practice' and 'computer assisted lectures' are the primary teaching strategies in schools of engineering worldwide. Field practice, although was indicated as an essential requirement in engineering education, was also seen as a source of disappointment by many students due to following reasons: students face unexpectedly hard working conditions, no contact person at the field they are performing their practice, and they do not see themselves ready to perform in the field. At the same time some provider organizations complain about unsatisfactory student performance. Although, an assigned committed faculty member, who is in charge of university-industry relations, exists at the system engineering department, it is obvious that it is not sufficient. Thus, a group of faculty members should be selected to help build trusting, mutual, and rewarding relationships. This group of faculty should be responsible to provide support to both students and organizations to help overcome the negative experiences.

Computer assisted class lectures were the second most highly ranked service element. The content of teaching in engineering is theoretical but also requires solving complex engineering problems, which can be done by writing codes and/or using commercial software programs. Thus, students prefer to gain necessary computer skills, which will prepare them for competitive world of engineering. It must be noted that some students complained that some lectures had repeated content, leading to monotony for students, wasting valuable class time, and increasing dissatisfaction. Another criticism raised by some students about class lectures was that the teaching aimed to the "lower level" and missed students with higher level of knowledge, thus generating increased demotivation among students with higher level of knowledge. In order to address this, educators are being encouraged to adopt methods which promote collaborative learning. In one of these methods, instructors engage students in group discussions and/or case study applications during class time and then require them to submit a written summary after each class.

In summary, QFD can be seen as an effective tool in determining customer needs, an accurate tool to translate them into service elements, and a necessary tool helping to present information graphically for easier understanding and interpretation. On the other hand, the main problem of using QFD is in managing and analyzing large relationship matrices, which involve both high number of quality requirements and high number of service elements. The preliminary way to overcome this problem is to reduce a project into a set of sub-projects so as to simplify the relationship matrices. [7]

6. Conclusion

The term "quality" has been central to higher education authorities' philosophy, and its importance continues with the promise of renewed, foreseeable prosperity for the higher education of the future. The use of QFD methodology provides useful information to higher education authorities for developing quality improvement strategies.

This study suggest that the key to satisfying the quality requirements of system engineering students at Yeditepe University in Turkey lies mostly in computer assisted lectures and field practice. From the perspective of students, the key to quality in both areas lies in faculty characteristics. The suggestion is that, although institutions are facing intense pressure to compete in offering students the most state-of-the-art physical facilities and equipment, they cannot afford to neglect investment in their faculty. Despite advances in teaching facilities, equipment and methods, in the eyes of the students, input from faculty members who are

personally committed to their development, is most valuable. The study also highlights the need to reduce negative experiences in the field practice portion of engineering programs.

Further QFD studies are needed to compare the quality requirements of students with requirements of working engineers, faculty members, and other staff at organizations. Conflicts in the requirements of these different groups may be beneficial to determine in order to more efficiently manage conflicts among the needs of these groups.

A limitation of this research is that the sample in this study is limited to students studying at Yeditepe University System Engineering department. There are eight other engineering departments at Yeditepe University; they can also be included in the study for further research on service quality in engineering higher education at Yeditepe University. Furthermore, additional universities from Turkey with engineering education can be added to the study to contribute to better quality in engineering education in Turkey.

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CONSIDERATIONS REGARDING QUALITY IN HIGHER EDUCATION

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Abstract

The aim of the paper is to clarify some significant issues related to higher education quality substantiating the fundamental partnership between the student as the main customer of the university and the educational supplier. Furthermore the paper highlights certain considerations regarding the current status of academic quality in Romanian higher education system. The author sets forth the introduction of such concepts as key disciplines and key laboratory in order to define the key study programs as fundamental for the development of postgraduate, doctoral and postdoctoral programs in a specific field.

Key words: quality, higher education, key discipline, key laboratory, quality assurance.

1. Introductory remarks

Given the current circumstances of globalization and international competitiveness, universities nowadays have to increase the costs of the educational process parallel to the improvement of quality, performance, innovation and social responsibility. The subsequent constraints are mainly triggered by a drastic diminishing of state funding assigned to the educational system since the intensified social pressure entailed a re-direction of these funds to the social assistance field.

Universities now increasingly focus on their potential role as regional partners in innovation “clusters”; they develop programs with business and industry; they open up technology transfer offices; they offer consultancy and training activities in order to assist entrepreneurs in making use of new knowledge and some even adopt their innovative character as an institutional identity. [8]

Universities currently represent the major factor for social progress due to its being the most significant knowledge supplier. Knowledge is a key organizational asset that creates and adds value to the organization's products and services. It is composed of those insights and understandings that give meaning to the information and data at the organization's disposal. Knowledge originates in the minds of knowing subjects who evaluate and interpret it in the light of the framework provided by their experiences, values, culture, and learning. In the organizational context knowledge takes a range of explicit forms and formats, including processes, procedures and documents as well as more tacit forms, including values, beliefs, emotions judgments, and prejudices. If properly applied, all forms of knowledge can provide the driving force for action. [5, 6]

The outstanding tasks undertaken by universities, i.e. to create high quality information further turned into knowledge, has been emphasized by the Romanian President, Traian Basescu, who called attention to three major objectives to be attained by Romanian universities until 2015:

- A three-time increase of the innovation indicator for higher education institutions related to the reference year 2009;
- A five-time increase of the scientific output related to the same reference year 2009
- At least three Romanian universities should be ranked among the top 500 world universities according to the Shanghai Jiao Tong standard.

The above-mentioned objectives can only be attained in the context of providing the necessary financial resources, human capital assured by renown and well motivated specialists, accompanied by state-of-the-art infrastructure and cutting-edge technological equipment as well as building a quality culture embedded at all university levels.

2. Aspects of Quality in Higher Education

Prompted by the eagerness to highlight the close connection among the stakeholders committed to the attainment of quality standards in the educational process, most actors of the educational system would turn the student from a customer into a partner.

This approach is contrary to the fundamental principle of quality definition and attainment which, according to fig. 1, is the result of a correlation between the needs of the customer on the one hand and meeting these requirements by the educational supplier in the context of a contract or commitment.

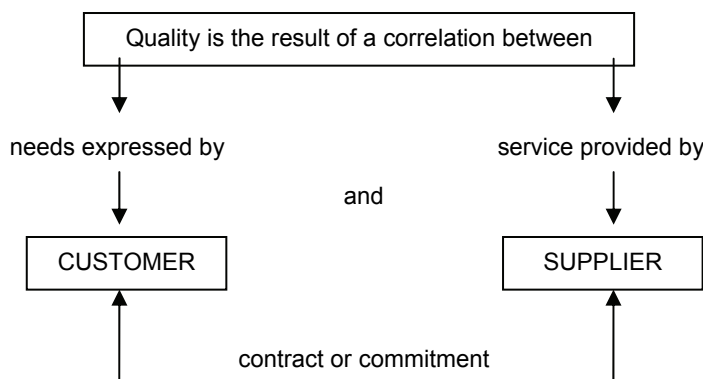


Figure 1. Quality

Juran in *Leadership for Quality. An Executive Handbook* defined the customer as “any person who receives or interacts with a specific product or process. [1] Therefore, mention should be made here that the student is the main customer of a university, evincing a dual nature, i.e. as both an internal customer involved in the educational process and external customer due to the quality of beneficiary and integral part of society. [4]

One may also refer to the more general concept of customer who pays for it but who may be once removed, such as parents, governors, employers, government or society as a whole, but client is primary customer – who directly receives the service, in our case the student. Thus the confusion regarding the customer turned into partner may be accounted for by the existing partnership relation between supplier and customer.

At this stage we may conclude **that the student is the main customer of the university and the supplier of educational services and the student share a partnership relation.** We should call attention to the fact that each entity of an organization simultaneously plays the

double role of supplier and customer, thus creating within the organization a quality chain of supplier and customer in view of accomplishing the final quality product. [2]

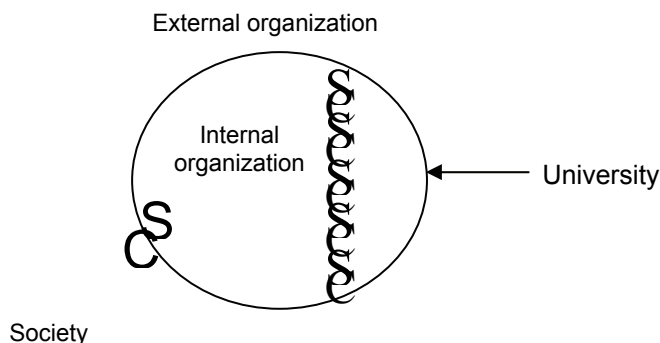


Figure 2. Quality chain

The emergence of a quality culture has also entailed the feeling that quality is an ever more complex and intricate to design concept. This is testified precisely by the evolution of the attempts to define the concept of quality: [3]

- ISO 8402-95: Quality – the totality of properties and characteristics of an entity, which confers the ability to satisfy the necessities expressed and implied
- ISO 9000-2000: Quality – the degree to which some implied characteristics satisfy the requirements
- ISO 9000-2006: Quality – the degree to which some intrinsic characteristics satisfy the requirements.

Despite certain existing definitions, sometimes expressed quite elaborately, we recommend a definition of **educational quality as the degree a particular set of inherent characteristics of a study program is able to meet the requirements (quality standards).**

Such concluding remarks of the report [7] are both accounted by and triggered by the **poor quality of the educational process** hence the quality management process undertaken by Romanian universities is currently a defective one since it has overlooked one of the fundamental principles of quality management, i.e. **a process-focused approach** which requires:

- Systematic definition of the activities included in the educational process in view of attaining the desired result;
- Assigning clear and precise responsibility and accountability for the management of major activities (lecture, seminar, laboratory, etc.);
- Analysis and measurement of the capability of major activities;
- Identifying the interfaces of major activities within and among the organizational functions;
- Focusing on such factors as: resources, methods and materials, meant to improve the major activities of the organization;
- Assessment of risks as well as their consequences and impact on customers, suppliers and other stakeholders;

The major goal of quality assurance is the accomplishment of quality process thus focused on continuous surveillance and improvement.

3. Quality of Study Programs

University ranking or hierarchy accompanied by the quality of academic study programs currently exert a pressure on higher education institutions in view of continuous improvement. The fundamental goal of any study program is to provide the key competencies and abilities for an academic training.

Current systems of academic ranking and university hierarchy are not able to perform an overall assessment of universities given their diversity even among the apparently homogenous ones. Therefore an assessment of the study program quality represents a prerequisite for in the undertaking of comparing and further ranking due to certain criteria that prove to be both applicable and measurable.

There are two important stages in the assessment process of study programs: **authorization – focused on the quality of process input and accreditation – focused on the output and its represents the quality validation of the process input as well as the quality of the educational process.**

Another mention should also be made regarding a distinction among ISO 9000-related quality standards which mainly rely on constraints in view of standardized processes and activities as well as ARACIS-related standards of excellence thoroughly founded on a complex quality culture.

Therefore new concepts such as key discipline and key laboratory are planned to be introduced in the specialized literature in view of performing an accurate assessment of study programs. Thus any ranking of study programs shall take into account the number of key disciplines and key laboratories.

The key discipline can be defined as any discipline included in the academic curriculum for a specific study program and which meets the following requirements:

- compulsory discipline in the curriculum of the specific study program
- discipline coordinator is a key professor:
 - full professor who has acquired an international scientific reputation and who is also a doctoral advisor
 - member of international professional associations
 - member of scientific committees / editorial board of renown international journals indexed in International Databases
 - member of organizing / scientific committees of international conferences with ISI-indexed proceedings
 - chairman of international scientific conferences
 - recipient of national and international awards
 - participation in national and international research contracts as project director
 - director of a research centre in the area of expertise
 - fundamental discipline in the curriculum of the specific study program
 - the syllabus meets the requirements for training competences and abilities
 - discipline resorting to modern methods of teaching and learning
 - discipline that involves a significant number of students in research undertakings

A key laboratory is particularly aimed for the activities related to a key discipline and which meets the following requirements:

- laboratory where research activities represent at least 50% of overall activities
- high level of technical endowment with state-of-the-art technology and cutting-edge research equipment and specialized software
- participation in research laboratory networks
- RENAR laboratory accreditation
- Number of researchers and students involved in research contracts and projects
- Laboratory equipment funding from own resources obtained by the research team coordinated by the key professor

Therefore a key study program at any faculty or university should be designed in compliance with such a framework. These key study programs substantiate the development of postgraduate, doctoral and postdoctoral programs.

4. Concluding Remarks

Educational quality represents the most important goal of universities and in close connection with the development of a quality culture. The student is the main customer of higher education institutions, evincing a dual character, i.e. as both an internal customer involved in the educational process and external customer due to the quality of beneficiary from the result or the educational process and an integral part of society. The student and educational supplier share a partnership relation.

The emergence of such concepts as key study program, key discipline and key laboratory provide a more true-to-life context for the quality assessment and ranking of study programs.

Society is responsible for the quality of university graduates and higher education institutions play a major role in this respect. It is imperative that all stakeholders in society and community pool their efforts together to achieve this goal, otherwise the sole undertaking of a university would not suffice.

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SOME ASPECTS CONCERNING QUALITY MANAGEMENT SYSTEM IMPLEMENTATION AT THE UNIVERSITY OF PETROSANI

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Abstract

The paper presents the particularities of QMS implementation at the University of Petrosani. We chose to analyze, from the QMS dedicated models, the two models which have proven their use in the Romanian higher education institutions: the ARACIS model and the ISO model. In this context we made a correspondence between the two models, based on the criteria and performance indicators of the ARACIS model on the one hand and on the QMS documents (Procedures and Recordings) of the ISO model on the other hand. The paper presents some examples of correspondence for the following procedures: Procedures regarding initiation, approval, monitoring and periodical revision of the study programs and activities, Procedures for the objective and transparent evaluation of academic results, Procedures for the periodic evaluation of the teaching staff quality. In the end we synthesized several positive and negative aspects concerning the QMS implementation at the University of Petrosani.

Key words: Quality Management System, ISO 9001 model, ARACIS model.

"A quality management system does not guarantee that you will win the race, but his absence may make you lose it"
H. James Harrington

1. Introduction

In today context dominated by educational reforms aiming to harmonize the objectives, content, practice and management of education with a new paradigm of teaching and learning, implementing a Quality Management System (QMS) in university is intended to encompass the advantages of internal quality assurance and interface with society and external environment. Thus are created premises to meet future needs of the individual and the community.

2. Quality Management System

Quality Management System from University of Petrosani (UPET) designed and implemented since 2008-2009 academic year, aims to meet the requirements of SR EN ISO 9001:2008 and application of the underlying principles of quality management. To achieve the system were considered legal and regulatory requirements and the requirements of European standards of reference, and also the University particularities, requirements of strategic management, policy and quality objectives. [5]

The management of the University of Petrosani has a systemic approach of quality management, by viewing the university as a system comprising faculties, departments, research centers, libraries, and support services for the education process. Each faculty/department has a well defined status and is an entity within the quality management system, characterized by functional links with the other entities and systems. This approach allows for involvement at all levels of management in the QMS implementation and its continuous improvement, by understanding the customers' needs and reflecting them in qualitative services. [8]

Process-based approach in quality management involves the identification, description and documentation of relevant processes, activities that involve both the management of the university and faculty leaders and which involve taking into consideration the requirements and expectations of stakeholders. To this end, a team of specialists together with the responsible for quality designed a structure of the quality management system and set the relevant processes for universities and faculties. Following the recommendations and requirements of ISO standards we identified several types of processes: management processes; basic processes; support processes; feedback processes.

2.1. Process Documentation

Each process is described through a procedure developed by the organizational entities operating in the process. Thus, the mode of operation and control of each QMS process is planned (described) in a uniform manner, on PDCA methodology basis, by establishing:

- Who is responsible for respective process;
- Measurable objectives of the process;
- Input data of the process;
- Output data of the process;
- Activities of the process, methods which provide the assessment/measurement of process performance, and records associated with monitoring of the process;
- Resources (human, material, of infrastructure, environment) required for operating, keeping under control and monitoring of the process.

Each responsible of a process is in the same time both customer and supplier for the other processes. Thus, the process documentation ensures the communication of customer requirements, according to the chain of processes within University.

Assigning responsibilities

Having as support the established processes, and the procedures that document them, the management of the university together with responsible for processes define and assign the responsibilities for teachers by Job Description.

Assessing and improving process performance

Processes are assessed and measured in accordance with the procedures and instructions, and the results are registered in the recordings they set out. These results are input data for management analysis and for establishing, on this basis, further measures for performance improvement.

The main documents of the QMS are:

- quality manual, documents containing information on the QMS, useful in order to achieve internal and external purposes;

- quality plans, documents showing how to implement the QMS products, projects and contracts;
- quality system procedures, work instructions, which specify concrete ways of achieving the activities and processes to meet requirements;
- guides, documents setting out recommendations or suggestions;
- specifications, documents establishing requirements to be met;
- quality records, documents providing evidence, targets and activity performance

The documents should include the responsibilities and prerogatives of those who produce, carry out audits, inspections and coordinate activities and implementation of quality assurance. [9]

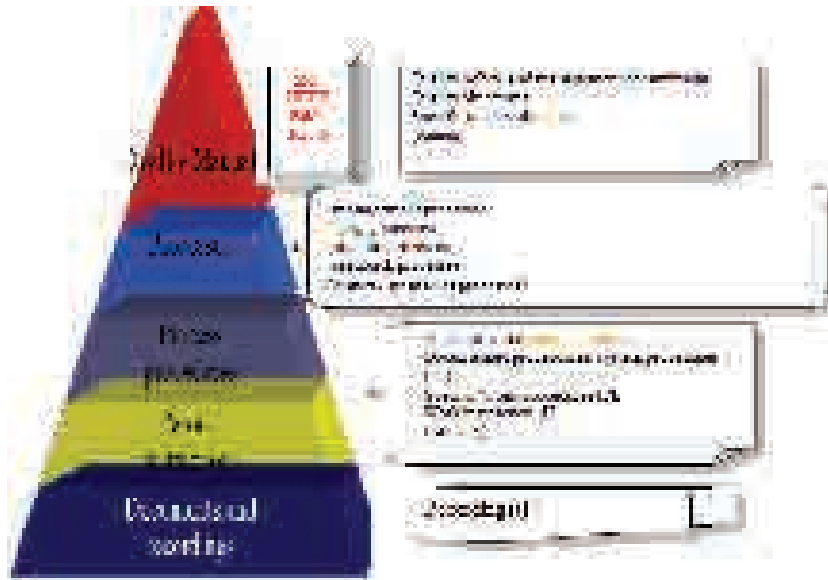


Figure 1. The main documents of the QMS

2.2. Organization for quality

Education quality insurance is a permanent preoccupation of our academic management and is achieved on grounds of the Regulation for internal evaluation and education quality insurance at the University of Petroșani and the quality assurance policies.

The management structure responsible with the quality assurance at the University of Petroșani consists of:

- The Rector, directly responsible with quality achievement in the University;
- The Vice – rectors, the Deans, the heads of management and teaching departments are responsible with quality achievement in the field they are in charge with.

They are in charge with the planning and elaboration of specific procedures and regulations, as well as with the continuous monitoring and improvement of the quality of the processes in their portfolio.

Commission for Evaluation and Assurance of Quality of the university is established by Law 87/2006 for the approval of Government Emergency Ordinance 75/2005 on quality assurance in education. The Commission consists of 8 members and coordinates the implementation of

procedures and evaluation activities and quality assurance stipulated by law and by decisions of the Senate, proposing to improve the quality of university activities. The management commission shall be chaired by the vice-rector. [7]

Commission for Quality Assurance of the faculty is coordinated by the responsible for quality assurance from each faculty/department/administrative structure. The commission carries out quality assurance in the university, monitors the quality of educational programs, develops *the report of internal evaluation* on the quality of faculty education and assists in external evaluations.

The person responsible for quality assurance at the university has as main tasks:

- to ensure that QMS processes are established, documented, implemented and maintained;
- to establish resources for the operation of QMS in faculty;
- to propose measures for continuous improvement.

3. The ISO 9001 model and the ARACIS model

Treated as separate models, the ISO 9001 model and the ARACIS (Romanian Agency for Quality Assurance in Higher Education) model coexist because for provisional authorization and accreditation of study programs specific standards were developed that are used by ARACIS. These standards are focused on quality assurance: institutional capacity, effectiveness and quality management education. Standards require a system of quality management in the institution and must be based, as referential of good practices, on ISO standards. So, ISO standards provide support for achieving the standards of ARACIS model.

Designing the QMS helped us to meet the criteria, the standards and performance indicators applied in quality assurance and accreditation. These are used by higher education institutions and ARACIS, as it follows: (a) represent the reference for quality management in higher education institutions, (b) provide the construction framework of databases and information that the institutions can use to monitor the internal and external demonstration of the state of academic quality assurance, (c) are used by ARACIS in the evaluation process and external quality assurance in the accreditation and the development of a culture of quality. We present below an extract from the correspondence table between the two models:

Table 1. The correspondence between the ARACIS model and ISO model

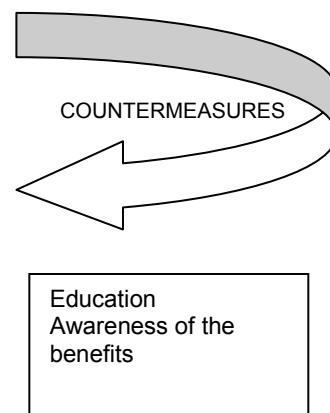
| ARACIS model | ISO 9001 model |
|--|--|
| correspondence between the two models | |
| Criteria/ performance indicators | QMS documents (Procedures/Recordings) |
| Procedures regarding initiation, approval, monitoring and periodical revision of the study programs and activities | |
| S.C.2.1. The approval, monitoring and evaluation of study programs IP.C.2.1.1. The implementation of rules with respect to the initiation, approval, monitoring and periodical evaluation of the study programs | PL -12/0 "Quality and curriculum content" F-29/0 "Application of the scoring calculation criteria for evaluating the quality program of studies master / doctoral" F-37/0 "Quality program of studies" MC -UPET , „List of Regulations, guidelines, methodologies” – „The Regulation regarding the initiation, approval, monitoring and periodical evaluation of study programs” (MC -UPET annex) |

| Procedures for the objective and transparent evaluation of academic results | |
|---|--|
| S.C.3.1. Students Evaluation I.P.C.3.1.1. The University has its own regulation regarding the evaluation of students I.P.C.3.1.2. The integration of examination into the teaching – learning design, courses and curricula | PL -21/0 "Examining and evaluating students" MC -UPET „List of Regulations, guidelines, methodologies" – „Regulation regarding the examination and grading of students" and „Regulation regarding the students' professional activity" (MC -UPET annex) PL -14/0 "Teaching courses" PL -07/0 "Syllabus" F -39/0 "Course sheet" F -42/0 "Syllabus" |
| Procedures for the periodic evaluation of the teaching staff quality | |
| S.C.4.1. Research and educational staff quality I.P.C.4.1.1 The proportion of teaching staff and students I.P.C.4.1.2. Peer Evaluation I.P.C.4.1.3. The evaluation of the teaching staff by the students I.P.C.4.1.4. Evaluation of the teaching staff by the Head of the Department | F-25/0 "Scoring for assesing candidates" F-27/0 "Sheet for prof/associat prof." F-31/0 "Sheet for lecturer/assistant" F-38/0 "Research activity synthetic chart" F-40/0 "Multicriteria evaluation of each teacher" MC –UPET „Teaching staff with tenure", „Associated teaching staff", "Regulation for the occupation of teaching positions by contest" (MC -UPET annex) F-22/0 "Peer evaluation questionnaire" F-40/0 "Multicriteria evaluation of each teacher" MC –UPET „Regulation regarding the periodic evaluation of the teaching staff quality"(MC -UPET annex) PL- 18/0 "Evaluation by the students" F-21/0 "Evaluation by the students questionnaire" F-36/0 "Questionnaire for evaluating the quality of the course / seminar" PL-9/0 "Multicriteria evaluation of each teacher" F-43/0 "Questionnaire for the evaluation by the management questionnaire" F-40/0 "Multicriteria evaluation of each teacher" F-33/0 "Job Description Form" MC –UPET „Methodology and criteria for granting merit salary and bonuses" (MC -UPET annex) |

4. Conclusions

We summarize our research highlighting some positive and negative aspects concerning the QMS implementation:

| | |
|--|---|
| Commitment and quality policy. Quality objectives. | Weaknesses of integrating quality objectives in strategic objectives due to poor allocation of resources |
| QMS documents | Not all the QMS documents are well known and followed |
| Providing interface with external structures | Communication with external structures is sometimes seen as a constraint Organizational structures are not always functional |
| Organization for quality Procedures for periodical evaluation (evaluation by students, peer evaluation, evaluation of the teaching staff by the Head of the Department) Training program with quality responsables | Sometimes, the evaluation results are not materialized in measures of continuous improvement The training program is just formal |
| QMS | Barriers still exist even if some were removed. Refers to the additional costs involved and some outdated mentality |



The success of implementation and the “life” of a Quality Management System depends on the people, on the way in which professors, students and other stakeholders understand and respond with positive attitude, knowledge and action (individual behaviour). Only this way, the change towards a “quality behaviour” is sustainable, the performance level required by a efficient and effective quality system is maintained and improved by self mechanisms, and the active implication of all the actors assure the time stability of the “good practices” presented in the system documentation.

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ERASMUS COOPERATION IN THE CONTEXT OF TRANSNATIONAL EDUCATION

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Abstract

In this paper are presented the international cooperation of the University of Petrosani. In this context first is mentioned the importance of the student support services in the structure of a university. One important part of these services is to find programs that could help students develop both study filed knowledge and skills and linguistic, cultural, communication and integration skills. A solution for these is represented by the mobility grants, the most common among universities being Lifelong Learning Program – Erasmus. Next, in the paper is presented the implementation and the management of Erasmus program at the University of Petrosani and the paper ends with some aspects regarding the achievements and the challenges resulted from the last years experience.

Key words: cooperation, Erasmus, education.

1. Introduction

The current concerns for achieving quality in Higher Education (HE) explicitly relate to a student-centred education. In such a modern education system, Student Support Services (SSS) must play a central role for enhancing the student participation in the university. [1]

The literature supports the fact that SSS are very successful in helping students “navigate” in the university and find their best suited “destinations” in life.

In general, the term of SSS refer to a range of services covering different intervention areas and different stages in the student life cycle.

One essential way to enhance the student experience in the university is to design programs that acknowledge their individual needs.

Program planning focused on the institution's mission and students' needs can result in a dynamic advising system having the capacity to adapt to internal and external change.

Obviously, the academic advising practices vary from institution to institution, making it difficult setting of blanket recommendations that guarantee positive results of specific decisions within each university. However, the many cases presented in the international literature can provide some relevant aspects that should be consider when deciding.

Students' mobility, as student support services connected with academic advising, offer:

- Educational, linguistic and cultural benefits from the study experience in another European country;
- Better cooperation between universities and educational environment improvement;

- Open minded specialists with international experience;
- Recognition of study periods by ECTS.

The most common mobility is the ERASMUS one, financially supported by the European Union. The purpose of Erasmus is to improve the quality of higher education and strengthen its European dimension. It does this by encouraging transnational cooperation between universities, fostering the European mobility of students and teachers, and contributing to improved transparency and academic recognition of qualifications and studies throughout the European Union.

2. Erasmus at the University of Petrosani

Continuous education strategy in the University of Petrosani consists of using educational services for national and international students, graduates and postgraduates in order to achieve a set of objectives, measures and methods to respond to new needs, changes and challenges resulting from the recent European integration of Romania. [1]

These are focused on: integration in the European Higher Education Area; integrated study programs; multidisciplinary and inter cultural approach; curricula development, including e-learning, enterprising education, SME as social partners; quality standards implementing according to the Bologna Process guidelines; providing the specific needs for people with disabilities and disadvantaged groups. [2]

According to the university strategy, the main objectives and priorities for the Erasmus activities in the context of Lifelong Learning Program are:

- Develop lifelong learning strategy for the Continuing Education Center and the Open Learning Center from the University of Petrosani in order to develop knowledge, competences and skills for reinforcing economic development and social cohesion in our region.
- Enhance the quality and performances of University of Petrosani in order to offer more attractive study programs for professional knowledge and competences improvement and for professional reconverting.
- Use European software experience to help us develop a virtual campus for our University in order to achieve the modernization agenda and to offer full visibility of our programs and activities.
- Achievement of thematic networks with partner universities in order to cooperate for curricula development, multilateral projects, joint doctoral and master programs, didactic and research activities at teaching staff level.
- Develop and enhance the "knowledge triangle": education, research and innovation in order to improve entrepreneurship skills for students, teaching staff and researchers, including SME as social partners.

University of Petrosani has always given full visibility to all the Erasmus activities carried out since 1998, the first year of participation in the Erasmus Program.

For the Lifelong Learning Program we are continuing to give full visibility to the Erasmus activities, Erasmus University Charter and Erasmus Policy Statement by publishing them on the university website, printing in the monthly University Bulletin and displaying on all the university and faculties billboards.

For all the Erasmus activities, all the criteria are based on chances equality for all the people (students and staff with disabilities and from disadvantaged groups), gender equality and combating xenophobia and racism.

The University of Petrosani is a European university which implemented since 2004 Bologna Process rules. We already use the ECTS as part of European education, accreditation and qualification systems. The University uses ECTS as international Erasmus Program recognition system.

The university has a special center for European Programs and International Cooperation. To manage the projects in the most efficient way the University has a European Programs coordinator who cooperates with the professors responsible for the mobility in each partner university and with the representative of students' organization.

The selection of students and didactic staff is based on objective criteria such as academic achievements, scientific activities and language knowledge, without any discrimination of gender, race, religion or origins. The University accepts qualified students and staff from all the European Union without any discrimination.

The curricula for all the study programs, ECTS structured, are published on the website. All the students can access counseling services available at faculties and departments levels. Each outgoing student is tutored by professors in order to give him the needed information regarding the host country, host university and specific curricula. The Erasmus coordinator provides the necessary means to find the right coordinator and the appropriate accommodation in the host university.

For the incoming students, the coordinator helps them choose the appropriate study program, find the best accommodation and integrate in the local students activities.

If needed the University provides free of charge preparatory and refresher language courses for both outgoing and incoming students and didactic staff.

The didactic staff Erasmus grants are recognized as part of their didactic activities and as an important part of the career development.

The University of Petrosani has a good and wide experience in Leonardo da Vinci students' mobility projects. This experience is used to ensure the quality of students' placement activities in the new Lifelong Learning Program.

For this reason, there is clearly defined the placement objectives at skills and competences level. There is chosen the appropriate target country, host organization, project duration and placement content for each beneficiary to attain these objectives. Also, there is established a contract whose contents are transparent for all parties involved. The contract contains clear details regarding the work program, budget structure, responsibilities and rights of all the parties involved and the quality criteria used for evaluation of the program.

The University of Petrosani uses preparatory visits, if necessary, in order to negotiate a tailor-made program for each beneficiary. Regarding the monitoring and tutoring arrangements, these

themselves easily to the restrictions of the present mobility definition, and at the doctoral and post-doctoral level it directly limits mobility. A good definition for a wide range of activities has been “activities which result in credits”, and we would like to propose that this credit definition be included in future discussion, allowing for shorter stays abroad and for the period abroad to be split – when clearly and appropriately motivated.

A main priority of the University of Petrosani has always been the integration of the cultural and academic strengths of the individual universities, underlining the regional aspects as well as the academic cultures. The aim is to strengthen the quality of the exchanges, and we would like to stress this particular aspect as it is of importance to the further development of mobility of young people. Mere quantitative measures for mobility are not sufficient incentives for students or higher education institutions if not sustained by quality cultural and support services to ensure high quality outcome of the exchanges.

It is of importance to the University of Petrosani that the focus is shifted from quantitative measures to concentrate on content-related matters, the learning outcomes, without which the individual student will not increase his or her competences regardless of the destination and/or duration of a stay abroad. This also relates to thesis work (quite important at master level with possible spontaneous spin off effects in research co-operation between institutions), work placements, internships and other forms of activities during a period of mobility, and in this area there is a need for improvement, in particular concerning recognition issues. Once mobility is assured as a structural component of the degree course (e.g. by degree course related mobility flows, by identifying appropriate time windows, etc.) quality mobility underlines the clear added educational values of the study period abroad, values based on the quality of the learning outcomes, be it of an academic, a personal or a practical character. Several studies and the experience show that employers highly value the international and intercultural competences acquired during an exchange or work placement provided the mobility period has not been one of ‘academic tourism’.

One important aspect of quality mobility is the opportunity to develop multilingual skills and thereby contribute to a growing sense of European citizenship.

Doctoral mobility needs to be further promoted, also within the education programs. The questions concerning quality education, employability issues and quality culture are just as crucial and important to the increasing number of doctoral students throughout Europe and beyond. In particular, there is a need to strengthen the employability aspects at doctoral level and stress the generic and transferable skills obtained, an area which is often overlooked at the third cycle level because of its special character. This is an area which lends itself to extended networking among research universities.

As mentioned above mobility programs also have to be adapted to the special character of the doctoral and post-doctoral levels. This very often means that a series of short work-intensive stays abroad is more appropriate in a given research program than one long period of absence from the home institution.

Closely linked to the priority of quality mobility and the wish to increase doctoral mobility is the central question of ‘employability’. All too often employability is confounded with ‘employment’ and the need to train a well educated work force. But higher education is about far more than preparing the next cohort of workers and about far more than transferring acquired scientific knowledge to the economic benefit of society. There is sufficient evidence from a large number

of countries that tailoring education programs to immediate labor market needs often leads to unemployment for the involved students after graduation. Some of this can, of course, be modified by a higher level of mobility of the labor force to countries where there is a need for particular types of employees, but in most cases this type of graduate mobility will not solve the problems of “education for unemployment” based on short-term needs of the labor market.

Apart from acquiring new knowledge and skills students are being trained as responsible individuals and mature citizens. Only in this way can future graduates use the skills and the knowledge to contribute to the development of their societies – creating new enterprises, new jobs, alternative ways of solving problems, functioning in multi-cultural environments, etc. “Employability” is about the social role of future graduates, not the short-sighted fulfillment of today’s labor market needs. The present economic crisis only further underlines the need to have a clear focus on how diverse and multifaceted, creative and entrepreneurial the future graduates need to be. Universities train people to think, to synthesize, to combine, and to analyze – they train tomorrow’s inventive, responsible entrepreneurs.

Mobility can contribute immensely to the development of entrepreneurship by providing international networks to future graduates, enable them to function in multi-cultural and multi-linguistic societies, and embed them in a culture of quality with a clear view to the opportunities afforded by change.

4. Conclusion

It should be adopted a more comprehensive and flexible definition of mobility:

- For activities awarding academic credits, allowing for stays of less than three months;
- The possibility to split the overall study/training/research period, when clearly and appropriately motivated, into two, or possibly more, coordinated stays abroad;
- Based on quality mobility, focused on content-related issues, independent of time frames.

Mobility should be promoted under the headline of quality mobility to stress the necessity to concentrate on the contents and learning outcomes of all mobility activities. The importance of teaching staff exchanges are recognized for their intrinsic importance in developing a mobility culture. Transparent recognition procedures aim at achieving high quality average standards in the number of credits gained abroad and recognized at home. A considerable increase of doctoral mobility should be supported, and that the issues particularly relating to the mobility of young researchers are improved. A diversified concept of employability should be promoted to underline the needs of a knowledge society of graduates with skills, creativity and knowledge to function as responsible individuals and mature citizens.

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UNIVERSITY LIBRARY PERFORMANCE INDICATORS, HARMONIZATION WITH QUALITY REQUIREMENTS IN HIGHER EDUCATION

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Abstract

This paper aims at improving the criteria and performance indicators for university library services, in the context of the external assessment of the Romanian universities and study programs, in order to better reflect the library services impact on the quality of the education and research processes. University libraries are subordinated structures, with special responsibility in achieving the quality of the education and research processes. In respect with this assumption, the authors analyze the system of performance indicators of university libraries in Romania, defined through the methodology of quality assessment in Higher Education. Analysis highlights that library indicators are mostly quantitative, without relevance for measuring the impact on the quality of university services and to establish directions for improving the performance. Based on this analyze, an improved model for assessing the university library services is proposed. The last part of the paper examines the trends in the changing of performance indicators of university libraries, based on the international standard ISO 11260 - Library performance indicators. Implementing the proposed solution involves further researches focused on developing the mechanisms and instruments for assuring and measuring the quality of library services and processes.

Key words: quality assurance and evaluation in Higher Education, university library, performance indicators.

1. Introduction

University libraries in Romania are an integrated part of the national education system and they have an important and specific role in the process of teaching, training and education, as well as in the research activity within universities. Their purpose is to constitute, organize, process, develop and preserve collections of books, publications, other specific documents and databases to facilitate their use in information, research, education or recreation [1].

The activity within university libraries is characterized by indicators/ statistic data which serve both the management of the library and university, and the national organisms as to facilitate the coordination among libraries. The preliminary study conducted by the authors [2] shows that statistic data used to control the activity of national university libraries are not sufficient elements: it is necessary to create personalized assessment systems which should better reflect the way the library meets the needs of the institution it serves. The new challenges arising from increasing economic pressure, structural changes and technological innovation requires that

libraries become more flexible in order to continuously align with the structures dynamics and the quality criteria of the higher education institutions.

Starting from these assumptions, the paper aims at improving the system for assessing the university library performances, so as to support the better satisfaction of the university's needs. The importance of the theme arises from the increased exigencies of the universities in terms of services library quality, in the context of concerns aims at harmonizing the Romanian Higher Education with the quality standards of the European Higher education area.

The paper presents, as a distinct part, the diagnostic analysis of the current system of performance indicators of university libraries in Romania, according to the general models for assessment of the study programs and of the universities, developed by the Romanian Agency for Quality Assurance in Higher Education (ARACIS). Starting from the weaknesses already identified, the authors propose a possibility to improve indicators so as to better reflect the effects of the library services on achieving the quality goals of the university it serves. In the second part of the paper, the need to implement more complex systems for library assessment is stressed, and in this respect the standard ISO 11260 - Library performance indicators is recommended. Implementing such models is in connection with the development of library processes, mechanisms and tools for planning, monitoring and quality improvement, which support the continue adequacy of the library services to the requirements of the university.

2. Diagnostic analysis of ARACIS indicators for the university libraries assessment

Under existing laws, university libraries in Romania currently use two different systems of indicators: the first one that characterizes the activity and library dynamics under unitary rules established by the National Library Committee, and the second one reflects (or should reflect) library performances in terms of meeting the requirements of the university it serves. The simultaneous use of two assessment models is not a specific situation: it is encountered throughout the world, and it is justified by the different assessment objectives, which determine different criteria for characterizing the university libraries [2], [3]. The synthesised analysis in this chapter refers to the second approach, and aims at examining the structure and nature of performance indicators of the university libraries, used in Romania in the context of the university quality assessment.

The framework model for library performances assessment is a part of the Methodology for external university assessment, standards, benchmarks and list of the performance indicators [4], prepared by ARACIS. This methodology covers the external evaluation of study programs and higher education institutions and is one of the tools that are supporting the quality assurance in Higher Education.

In the ARACIS assessment model, the library is understood as a structure / process that supports training and skills development of the students, and the research activities, as well, through the access to learning materials and other documents. Table 1 shows, in column 1, criteria and performance indicators of university libraries included in the Guide for external evaluation [4] and the set of indicators measured by ARACIS [5]. The amendments proposed by the authors, listed in column 2, are considering an even clearer expression of requirements and the introduction of some indicators that reflect more accurately the quality of library services and their impact on educational and research processes they serve.

Table 1 Criteria and performance indicators of university library services

| ARACIS criteria and performance indicators | Improvement proposals |
|---|---|
| Criteria and indicators that reflect the study programs supporting [4] | |
| University has a library equipped with a reading room; Indicators: number of seats in the reading rooms at least 10% of the total number of students | University has a library, whose operating structure respects the national regulations relating to libraries. |
| The library has its own fund of books with a number of copies sufficient to cover all the subjects in the curriculum; Indicators: at least 50% must be books or specialized courses for the area under evaluation occurred in the past 10 years. | The library has a fund of books in the field of the study program, covering all subjects in the curriculum; At least 50% of the titles of library collections are published during the last 10 years. |
| Library has a sufficient number of subscriptions for Romanian and foreign publications and periodicals. | The library has subscriptions for Romanian and foreign periodicals, enlisted in the fundamental field of study program; the minimum number of subscriptions. The library has access to information databases in the study program field. |
| The library must have, besides electronic access, the appropriate number of books and subscriptions for the major journals in the country and abroad, for each study discipline that defines a study program. | The library is equipped with a reading room (there should define the criteria on the number of seats in the reading room; percentage of the number of seats out of the number of students); The library has a computer room with access to electronic publications (to be defined number of computers); Users have online access to the publications catalog (Online Public Access Catalogue - OPAC). |
| Set of indicators measured by ARACIS [5] | |
| Each library has a program and resources to purchase books and magazines | The library has a plan for acquisition of publications and allocation of financial resources (to be defined sources of financing the purchase). |
| Number of books in library, from which for borrowing. | Number of books in library; number of titles borrowed/ consulted out of the total number of the library publications |
| Number of titles borrowed/ consulted in a year | Number of titles borrowed/ consulted out of the total number of the users in a year time |
| Number of recent titles (latest 5 years) which exist within library | Number of titles purchased in the past five years relative to the total number of library publications |
| Number of students registered in the library | Number of students registered in the library out of the total number of students |
| Seats in the reading room / total number of students | Number of seats in the reading room out of the total number of students; rate of seat occupied in reading room |
| Total purchases (books, magazines, journals) | The amount of publications purchased in a year out of the total expenditure per student equivalent |
| Free access to international databases (online) | The number of international databases (online), frequency of the accesses. |

The main weak point of the ARACIS model for library performance assessment is the use of some indicators considered irrelevant, mainly quantitative. For example: the number of publications does not reflect how the library supports the development of student skills in scientific research and educational activities; the number of seats in the reading rooms is also less important in the context of computerized libraries allowing students the access to publications outside the library.

The emphasis should lie on indicators such as frequency of accessing information (identification requested/ unrequested publications), rate of the seats occupied in the reading room, users' satisfaction and other useful outcome indicators to assess the adequacy of library services to users' requirements. Library description in economic terms, through the costs of publications and library services relative to equivalent students, is also important; their dynamics reflects the activity effectiveness and makes possible to assess the impact of change projects on library performances.

Another issue under discussion of the ARACIS model is the level of standards and benchmarks for certain performance indicators: to meet the standard level of 10% required by ARACIS documents, for example, a university with 10000 students should have over 1000 seats in the reading rooms. Introducing regulatory levels should be done with caution, based on rigorous analysis and calculations, taking into account the changes in libraries and the differences between libraries, in terms of target public.

3. Criteria and performance indicators for library services according to ISO 11260

From the above comments come off the need of the proper grounding and ongoing adjustment of the system of criteria, indicators and performance standards for university library services, in order to adapt them to new requirements of internal and external environment. In this respect, considering the requirements of ISO 11260 - Library performance indicators - is recommended [6]. Some considerations about the ISO 11260 importance and configuration are made below.

The international standard ISO 11260 includes a set of criteria and performance indicators for all types of libraries, being necessary to select appropriate indicators for each particular situation (depending on the library characteristics, structure, financing). The main purpose of using these performance indicators is the auto diagnostic, but ISO 11260 indicators can be used for a basis of comparison among libraries.

The performance indicators in ISO 11260 are grouped into five categories: 1) Perception by users, 2) Public Services, 3) Technical services; 4) Promoting and publishing services, 5) Availability of human resources and their use. The main indicators related to these criteria are presented in Table 2.

Table 2 List of performance indicators for libraries, ISO 11260

| Criteria and sub criteria | Performance indicators | Common elements with ARACIS Guide |
|--|---|-----------------------------------|
| 1 | 2 | 3 |
| 1.1.Users perception - General aspects | Users' satisfaction | - |
| 2. Services for public 2.1. General aspects | Percentage of users in target population Frequency of visits to the library / user Costs/ user; | |

| | | |
|--|--|--|
| 2.2. Providing documents | Availability of titles Availability of requested titles Percentage of requested titles in collections Availability of titles extension Level of the fund publications use / users Rate of the documents utilization Average time to find documents | |
| 2.3. Refinding documents | | |
| 2.4. Borrowing documents | Rates of movement of collections | |
| 2.5. Supplying documents from external sources | Number of borrowed publications/ users Costs relative to the borrowed publications | |
| 2.6. Information and reference services | Speed of interlibrary | |
| 2.7. Searching information | Rate of correct answers provided Success rate of searching | |
| 2.8. Users training | - | |
| 2.9. Equipments | Equipment availability Rate of the equipment utilization Rate of the seats occupation in the library Availability of automated systems | |
| 3. Technical services Documents procurement Processing documents Cataloging documents | Average time to purchase the documents Average time for processing documents Costs/ title cataloged | |
| 4. Promotion and publishing services | - | |
| 5. Availability of human resources and their use | - | |

The last column of Table 2 shows that the methodology and ARACIS guidelines are not correlated with the ISO 11260 requirements. Their harmonization can be achieved by applying the authors' proposals to improve standards and performance indicators, summarized in Table 1, column 2, which also ensure a better adequacy of library to the quality requirements in higher education.

The standard ISO 11260 is related to the more general aspect of quality management of the library services, implying that the use of these indicators involves the development of library processes, mechanisms and tools for planning, controlling and improving quality. Without such tools, risks occur that indicators do not reflect reality, because of measurement error and subjective interpretation of indicators. A relevant example is the indicator "user satisfaction", whose determination requires conducting investigations based on questionnaires in order to quantify the users' perceptions about library services. The main criteria for the user satisfaction assessment are: opening hours, conditions and facilities for study, availability of documents, interlibrary borrowing service, information and reference service, users' training, the attitude of the library staff, library services in their integrity.

4. Conclusions

University libraries are components of higher education institutions whose mission is to actively participate in the process of teaching and scientific research and providing access to all information resources to specific users: students, graduate and doctoral students, teachers, researchers.

The assessment of university libraries is related to the objectives of quality in the higher education institutions they serve. In Romania, this connection is achieved through inclusion of the library performance indicators in the methodology and quality standards for assessment of study programs and higher education institutions, developed by ARACIS.

The analysis of the ARACIS documents shows that current models do not adequately reflect the quality of library services. The authors' proposals refers to the improving system of performance indicators of libraries, in terms of clarity of the requirements expression and introduction of new indicators to reflect more accurately the quality of library services and their impact on educational and research processes they serve. For the reconfiguration of library performance assessment system, ISO 11260 - Library Performance Indicators can be a landmark. The implementation of the proposed solutions involves the development of future research aimed at developing mechanisms and tools for quality assurance and improvement of library services and processes.

The authors' conclusion is that universities are able to use additional criteria and indicators for assessing the library performance, but one should be careful when establishing these indicators, given the specific context of each university.

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AGENȚIA ROMÂNĂ
DE ASIGURARE A
CALITĂȚII ÎN
ÎNVĂȚĂMÂNTUL SUPERIOR

AN INTEGRATED APPROACH OF THE PROFESSIONAL DEVELOPMENT. SOME IMPLICATIONS TO DISTANCE - EDUCATION

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Abstract

*The study aims to explore the importance and the impact of work-based learning for professional development of the distance-education students. The first part of the study sets the context by examining the contribution of the **off the job** and **on the job** training to the professional development, the second part describes the Van der Krogt multidimensional model of learning, and the third one analyses the distance-education as a network of learning-networks. This integrated approach provides proposals for the institutional strategic distance-education management and for reference and performance indicators for quality evaluation of the distance-education programs of study.*

Key words: professional development, learning networks, distance-education, work-based learning.

1. Introduction

Professional development is realized by different structures and ways so it is needed a theoretical frame of reference, an integrated model to identify and correlate coherently the existent professional development structures.

There are two professional development systems:

- (a) „**Off the job training**”, a formal system for professional development, which has two components: initial professional development and continuous professional development;
- (b) „**On the job training**”, professional development organized in the context of work organization („work- based learning”).

The first statement: *There are some discrepancies within the formal professional development system, between initial professional development and continuous professional development.*

Up to now, the accreditation interest focused only on initial professional training and it is the time to put the question: What about the accreditation of the continuous professional development programs?

The innovative elements have been introduced especially during the last 10 years. Since 2001, the National Centre for Training the Staff in the Pre-university Education has the responsibility of accrediting, monitoring and evaluating the implementation of the continuous teachers training programs [1, 2, 3, 10]. No matter who the provider might be, the procedure for accrediting, implementing and evaluating the programs is identical.

The second statement: „on the job based learning” is undervalued. There are a lot of professional learning situations (incidental learning, learning by observation, learning by doing the job, learning by mistakes, learning by projects etc.), which happens during the work and have to be integrated and valued as well by educational formal institutions. It is desired to look more seriously at the possibilities offered by professional work to organize learning and work.

The third statement: there is a gap between formal professional development and work-based learning. At least, the former ignores the latter. The relationship between learning and work is usually left implicit [4, p.32]

Although formal training remains a well-known and well-used practice, nowadays professional training is increasingly delivered on-the job, in the workplace. Higher education institutions, as formal providers of professional qualification programs of studies agree the idea that learning should be relevant for work, taking more seriously into account the way learning is organized in the context of work organization. Learning-network theory may provide an appropriate frame of reference.

2. The Learning Network Theory in Work Organization

The social network approach views organizations as a system of objects (e.g. people, groups, and organizations) joined by a variety of relationships. The characteristics of this linkages as a whole may be used to interpret the social behavior of the persons involved. In the learning network perspective, the individual is recognized as the primary source and destination for learning, while acknowledging that learning takes place primarily by means of social interactions. In The Learning-Network Theory, Van der Krogt, Poell et al. [4, 5] conceptualizes training systems in organizations in terms of learning-networks. The Learning-Network Theory points out that learning is generated in every organization, but the way it is generated differs. Each learning-network has three main components: actors, learning processes and learning structures (Figure1):

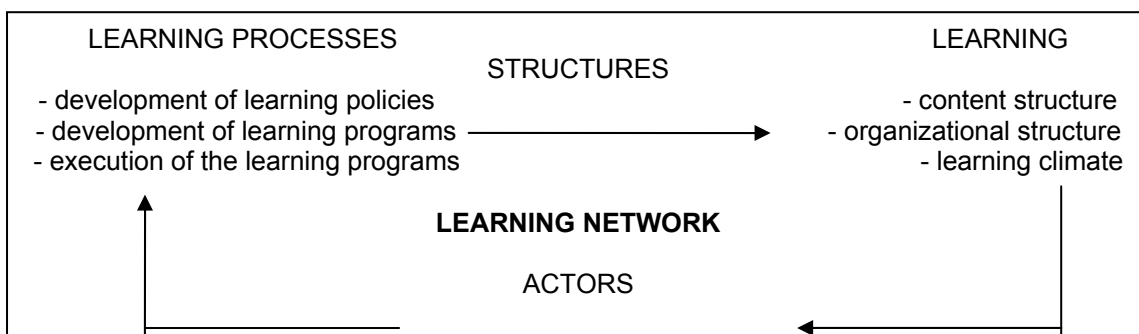


Figure1. The Learning -Network of an Organization [4, p.8]

a) actors: employees, managers and consultants are at the core of the model. They organize learning activities, or learning processes, in interaction with each other;

b) learning processes: in their interaction the actors create learning programs, policies, and practices. All these processes are referred to as learning processes, although not in a psychological sense, but rather as social activities and with reference to an organizational context;

c) learning structures: the interaction between the actors and their strategies will result in certain structural arrangements regarding the content and organization of the learning project. These learning structures in turn have an impact on the views, interests, and strategies of the actors. [4, p.77]. Learning networks can be organized in different ways. The diversity in learning structures is

captured along three dimensions: vertical, horizontal and external, and four theoretical types of learning-networks (Figure 2):

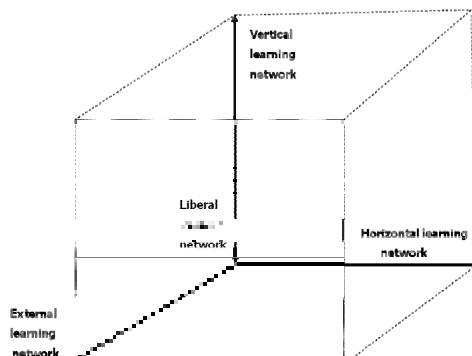


Figure 2. Four Theoretical Types of Learning-Networks in a Three-dimensional Space [5, p.73]

- In the **liberal learning-network**, **individuals** are responsible for their own work and learning, take care of coordination and control of learning themselves. They decide what they want to learn and organize a loosely coupled network of people to help them achieve it. The learning program consists of individual activities and is relatively unstructured.
- In the **vertical learning-network**, the **management** of the work organization decide on new work policies, design learning programs and give supervision to the learners, his employees. The learning program is linearly planned and function oriented.
- The **horizontal learning-network** refers to the formal and in-formal groups the learner belongs to. **The working group** tackle work-related problems, attempts to solve problems by reflecting on experience, and bringing these into practice in an investigative manner. The learning program is problem oriented and integrated with daily work.
- In the **external learning network**, actors outside the work organization (e.g., scientific and professional institution/associations, trade unions, government agencies, commercial training agencies) can offer formal or non-formal learning programs, externally coordinated and profession oriented.

An overview of the four theoretical types of learning networks is provided in Table 1.

Table 1: Four Theoretical Types of Learning Networks [adapted from Van der Krogt and Poell, 4, p.41]

| Types Com-ponents | Liberal Learning - Network | Vertical Learning- Network | Horizontal Learning – Network | External Learning- Network |
|-------------------------------------|--|----------------------------------|-------------------------------------|---|
| ACTORS Dominant actor | Individual learners | Managers and HRD staff | Learners as a group | Formal educational institutions, professional associations, trade unions, commercial training agencies |
| LEARNING PROCESSES | | | | |
| Development of learning policies | Implicit Individual, liberal Isolated activities | Top-down Linear planning | Cooperative | Externally coordinated Inspiring |
| Development of | Collecting | Designing | Developing | Innovative |

| | | | | |
|---|---|--|--|--|
| learning programs | | | | |
| Execution of learning programs | Self-directing | Guiding | Counseling | Advisory |
| LEARNING STRUCTURES | | | | |
| Content structure | Unstructured (sharing ideas and experiences) | Task or function oriented Structured (training, coaching) | Thematically, group reflection. Problem or organization oriented | Methodical Profession oriented |
| Organizational structure; nature of relationships | Loosely coupled (contractual) | Centralized (formalized) | Decentralized (Egalitarian) Team-based | Focused externally (professional) Externally arranged |
| Work climate | Liberal | Required | Integrative | Innovative |

Some limitations of the network perspective are: the focus is not on how mental learning processes operate within individual people, on learning in the psychological sense; it is less normative then it is descriptive, explanatory, and action oriented [4, p.102].

3. Distance-Education as a Network of The Learning-Networks

Applying the learning-network approach to distance-education allows us to a better understanding of the distance-education identity, and to the improvement of quality assessment tools.

Making the relationship between learning and work development explicit is very important for the distance-education. Although the methodology on evaluation distance-education have some stipulations like: *“Distance –education offers the students the possibility to study individually, at their work places (our underline) or at home, and to...”*[6, p.1], *“Accredited higher education institutions may associate with other higher education institutions, foundations, agencies or government and non-government institutions, interested in distance-education study programmes, in the conditions provided for by the law”*[6, p.8], nowadays, the relationship between formal distance-education and student work organization is usually left implicit.

The higher education providers of distance-education programs consider learning as an individual activity, formalized in training courses off-the-job. But the attendants of this kind of program are working in different organizations, mostly as employees which want to acquire qualifications that are useful within a professional discipline, rather than within one organization. **So, the employees who attend distance-learning programs should not be treated as full-time students**, but both as students and participants in work processes that offer, as well, learning possibilities. They are simultaneously engaged in the organizational learning networks (liberal, vertical and horizontal) and in different external learning-networks, that of distance-education program offered by a certain university being only one of those. **The learning environments of the distance-education students are radically different than those of the full-time students.**

The research suggests that, “educational achievements are not only shaped by the way education is organized but also by the socio-economic background of the learners and their

socio-cultural environments, and by changing skills and competences required for employment, education and training, self-development and participation in society”[7, p.6; see also: 8, p.242 and 9, p.77]. As the majority of our distance-education programs’ students stressed, formal distance-learning is effective when they, as employees and distance-learning students, consider those courses as tools of their personal and professional development, and ineffective when they fit neither the employees characteristics nor the type of the work they perform.

Romanian Agency for Quality Assurance in Higher Education is interested in the quality of the professional development programs[6, 11].

The distance–education students’relationships with their work-places cannot be ignored any more. In order to do this, it is recommended that “accredited higher education institutions may associate with other higher education institutions, foundations, agencies or government and non-government institutions, interested in distance-education study programmes, in the conditions provided for by the law”[6, p.8]. The learning-network model offers a wide variety of possibilities to link distance-learning to work and a frame of reference to guide people’s actions and reflections in organizing work-related learning projects.

The formal educational institutions which offer distance-education programs of specialization believe that they and the distance-education students are in a vertical learning network, as is their learning relationship with the full-time students. Usually, they have a stronger relationship with their work organization than with the distance-education provider. The distance-education students are in a vertical learning network with their work management, not with their distance-education teachers or tutors. The traditional asymmetrical teacher-student relationship is changed in distance-education, because distance-education changed the kind students refer to the science, and to the students and teachers roles and responsibilities (Table 2).

Table 2. An Overview on Two Approaches on Distance-Education

| | The Present Approach to Distance – Education | An Integrated Approach to Distance-Education |
|--|--|---|
| The Professional Development Objective | -“Work ready” | -“Competent in the workplace”, responsible for continuous personal and professional development |
| Structure | -Institutionalized, confined to a formal, educational institution for a set period of time | -The use of on and off sites as legitimate learning environments |
| Process | -Learning occurs only from pedagogical activities (training, teaching, homework, tutoring, individual study) | -Learning occurs also from participation in practical professional activities during regular work. |
| Educational relationships | - One-to-one (tutor- student) | -One-to-one (tutor-student; student-student); -One-to-many (tutor-group; student-group); -Many-to-one (group-tutor; group-student); -Many-to-many (tutors -to-students groups) |
| Learning | - Individual centered; - Controlled, performance centered - Syllabus centered | - Individual and group centered; - A lot of learning types - Problem-solving centered |

It is expected that distance-education will become a very actual type of education especially for adults which have a low vocational training (or none at all) and wish to improve it or even to

change their first specialization. In all forms of education, success is above all conditioned by good communication and co-operation between the partners involved. The management of distance-education have to take more into account some facts as: a) usually, the teachers involved in distance-education have a basic training to teach children and youngsters, not to meet the need of adults; b) the adults and even the teachers are not appropriately informed about the specific structure of distance-education and about the ethical dimension of this specific educational partnership which is the essence of the distance-education.

4. Conclusions

Nowadays, there is a an increasing convergence between distance-education and what is used to be seen as traditional education. The reality called distance-education is multidimensional. Contrary to the traditional understanding, distance-education is a network of networks rather a simply two-way process.

The learning-network model seems to be a useful frame of reference for understanding, reflection on, and action in distance-learning, an alternative theoretical framework on work-related learning.

- The first lesson learned is to avoid one-best-way thinking about the distance-education. Learning-network theory suggests a multi-faceted approach of distance-education. The different strategies that actors use reflect diverse ways (vertical, horizontal and external dimension) in which learning can be organized.
- Learning-network theory focuses on people. The actors implied in distance-education processes are not only the students and teachers of the university which deliver the distance-education program of study, but the students work-managers and professional groups, other formal and informal actors. Distance - education is not limited to courses provided by the university. Distance-education implies formal as well as non-formal and in-formal learning activities. Extracurricular and work activities, programs on radio and television, fares, home or leisure-time activities, shopping, transportation, self-education are some of them. None of these opportunities is to be neglected. But, in all forms of education, success is above all conditioned by good communication and co-operation between the partners involved: university, its economic partners, and other educational non-formal institutions: libraries, museums, etc. Some examples refer even to the participation of employers in developing study programs (the curricula development board included specialists nominated by the regional economic partners, who made proposals and approved the curricula).
- The integrated approach of the distance-education makes us able to draw some conclusions regarding distance-education evaluation criteria and standards. The present methodology on distance-learning contains criteria and standards to evaluate the quality of distance-education only as a formal (external) learning, that being a single dimension of the process; other ways in which distance-education students learn during the period of their formal distance-education program are ignored, even the transfer of training content to the job. Because distance-education system is perceived in such a way, the assessment standards are formulated especially in terms of structures and functions, and in lower proportion in terms of actors strategies, action theories, and interaction processes. Perhaps, we have to reconsider the accent, as specialists suggest [4,p.52]: "putting real-life people (actors) instead of abstract structures in the centre of attention, learning-network theory allows us to better comprehend how learning networks are organized and how they are modified".

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A MUST IN NOWADAYS EDUCATION: ENVIRONMENTAL ISSUE

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Abstract

Environmental Education in any country should develop along a certain path. Environmental Education could be a strategy emphasizing the development of scientific knowledge and technical or managerial solutions to environmental problems. We must not forget the sense of caring and responsibility for the earth. Environmental Education did not spring from any one academic discipline, but rather as a product of a co-evolutionary process within science, public awareness of environmental issues, and educational ideas. This paper explores the fact that environmental education provides a space to examine the negative environmental impacts experienced by people worldwide, and to refocus on democracy, creativity and action.

Key words: environmental education, climate change, adult education.

1. Introduction

We use different phrases that describe climate in transition, these phrases having a history of their own. At the beginning of the 20th century, researchers preferred *climatic change* or *climate change* when referring to some climatic events (such as ice ages). Both terms are still used often, they can describe past, present or future shifts – both natural or human-produces – on global, regional or local scales. When the scientists understood the global risk from human-produces greenhouse gases, they realized they needed a specific term to describe it. So, in 1975, Wallace Broecker, of New York's Lamont-Doherty Earth Observatory, published a paper in the journal *Science*, entitled "Climatic Change: Are We on the Brink of a Pronounced Global Warming?" By the early 1980's, the phrase *global warming* gains currency among scientists. By 1988, global-warming label appeared into headlines worldwide, becoming a standard among media and the public.

Nowadays, it's certain that our planet is warming. In the same time, it's true that many scientists avoid the term *global warming*, preferring instead *global change* or *global climate change*. They are concerned about the fact that *global warming* could be interpreted as a uniform effect – an equal warming everywhere on the planet. In fact, a few regions may cool slightly, even if Earth, on average, warms up.

On the other hand, politicians prefer to use *climate change* for a different reason. *Climate change* sounds less frightening than *global warming*. In the same time, it is true that the phrase *global warming* gets people's attention more quickly than *climate change*.

Gaia theorist, James Lovelock and a few activists and scientists favour now *global heating*, a phrase that implies human implication in what's happening.

No matter what phrase we use, the reality is that there is plenty of uncertainty about details in the climate change picture: how much it will warm, locations where rainfall will increase or decrease, and so on. Some of this uncertainty is due to the complexity of the process involved, and some of it is simply because we don't know how individuals, corporations and governments will change their greenhouse emissions over time. But there is a clear agreement that global climate is already changing and that fossil fuels are at least partly to blame.

Our planet is getting warmer, globally averaged surface temperatures have increased by about 0.7 degrees Celsius over the 20th century. Such an increase might not impress us, but it impresses climatologists who know that such a speed of the change has no precedent over at least 10.000 years. Of course, the same climatologists are worried about the effects of this 0.7 degrees warming (sea level rise, melting glaciers, an increased risk of flood for coastal places, drought, changes to plant and animal life, more frequent, persistent and intense El Niño events, more powerful hurricanes, and so on). More than that, the scientists cannot solve this global problem. The solutions must be taken by Earth inhabitants, and for this, they must become aware of the present and future environmental risks. That's why we need Environmental Education.

1.1. History

Roots of Environmental Education can be traced back as early as the 18th century, when Jean Jacques Rousseau, in *Emile: or, On Education*, stressed the importance of an education focused on the environment. Several decades after Rousseau, a Swiss-born naturalist, Louis Agassiz, encouraged students to study nature more than books. Then, in 1911, Anna Botsford Comstock, the head of the Department of Nature Study at Cornell University, a prominent figure in the nature study movement, wrote the Handbook for Nature Study, which used nature to educate children on cultural values. But the modern Environmental Education movement became more important in the late 60's and early 70's. The first article about Environmental Education as a new movement appeared in 1969, written by James A. Swan.

The first Earth Day, on April 22nd, 1970, paved the way for the modern Environmental Education movement. Later in the same year, American president Richard Nixon passed the National Environmental Education Act, which was supposed to incorporate Environmental Education into schools. Internationally, Environmental Education gained recognition when the UN Conference on the Human Environment, held in Stockholm in 1972, declared that Environmental Education must be used as a tool to address global environmental problems.

The course of this education was guided by United Nations Education Scientific and Cultural Organization (UNESCO) and United Nations Environment Program (UNEP) which created three major declarations:

- 1) in 1972, Stockholm Declaration, which included seven proclamations and 26 principles to inspire and guide the people of the world in the preservation and enhancement of the human environment;
- 2) in 1975, Belgrade Charter, the product of the International Workshop on Environmental Education;
- 3) in 1978, The Tbilisi Declaration: the document includes new goals, objectives, characteristics and guiding principles of Environmental Education.

The aim of this paper is not to analyze the Environmental Education in Romania or in other specific country, but to stress the necessity of this kind of education. A better development of Environmental Education needs a dialogue between policy-makers, educational planners, practitioners, and between governments and Non-governmental Organizations.

2. Environmental Education: awareness and action

2.1. Definition of Environmental Education

Like globalization and adult education, there is no single definition of Environmental Education. According to a working definition provided in 1992 by UNEP/UNESCO, Environmental Education is “a permanent process in which individuals gain awareness of their environment and acquire the knowledge, values, skills, experiences, and also the determination which will enable them to act individually and collectively to solve present and future environmental problems (...) as well as to meet their needs without compromising those of future generations.”

Environmental Education could be considered a combination of the environmental movement and adult education, combining an ecological orientation with a learning paradigm to provide an educational approach to environmental concerns. Put in other words, Environmental Education refers to efforts in teaching environmental issues and how individuals and businesses can manage or change their lifestyles and ecosystems to live sustainably.

Environmental Education refers to organized efforts to educate our global societies about how natural environments function and, particularly, how human beings can manage their behavior and ecosystems, in order to live sustainably. It is sometimes used more broadly to include all efforts to educate the public and other audiences, including print materials, websites, media campaigns. Related disciplines include outdoor education and experimental education.

According to Tbilisi Declaration, Environmental Education is a learning process that increases people's knowledge and awareness about the environment and associated challenges, develops the necessary skills and expertise to address the challenges and fosters attitudes, motivations, and commitments to make informed decisions and take responsible action. The goal of this education is to promote formation of abilities and attitudes necessary for understanding the relations among persons, culture and environment, in order to develop conscious and responsible activity for a better quality of environment.

Environmental Education should transmit knowledge on the interaction between local activities and their effects which may occur further away. Direct impacts, such as deforestation and diseases caused by polluted water, are visible and tangibly affect daily life. Solutions to them can be found in the short term if appropriate measures are taken. Indirect environmental impacts may include increased soil erosion, general depletion of resources such as food, animal fodder and water, reduction of numbers and diversity of wildlife and increased risk of bush fires and flooding. Indirect effects take longer to be felt. They occur over a wider geographical area. Their solution requires long-term planning, commitment and global approaches.

In the last four decades, the environmental factor is becoming increasingly important and can hardly be ignored in education efforts committed to social and political goals. The main problem is that much Environmental Education is still purely science and technology oriented rather than addressing environmental and social issues in an integrated way. Linking environmental and social issues and locating environmental problems within the context of our daily life and action

are important challenges for Environmental Education. This kind of education therefore needs to address all sectors of society: people, communities, public institutions, the private sector, governments, policy-makers and international organisations.

2.2 Timeline of Environmental Education

- mid 1970s: Environmental Education is recognized as a distinct field study;
- late 1980s: Environmental Education focus on learner experience;
- late 1990s - early 2000s: focus shifted to how to teach Environmental Education;
- 1997: United Nations Educational, Scientific and Cultural Organization (UNESCO) hosted a conference on adult education, Environmental Education being one of the 33 workshops present in the program. According to the UNESCO website, in 1968 it was organized the first intergovernmental conference aimed at reconciling the environment and development now known as sustainable development.

2.3. The global dimension

“Thinking globally and acting locally”, which has been a very used slogan since the 1992 United Nations Conference on Environment and Development (UNCED) conference in Rio de Janeiro, is one of the guiding principles of most Environmental Education programmes. While community initiatives are vital, it is evident that the local level cannot be the only focus of change. It is also necessary to create greater awareness of global environmental problems, through networking, advocacy and lobbying at all levels, from government to the factory floor. Because of the global dimensions of current problems, Environmental Education for one region must include Environmental Education elsewhere. For example, Environmental Education for Africa must start with educating people in the North, because as long as industrialized countries continue to take large quantities of timber from Africa, Asia and Latin America, deforestation and desertification in these regions cannot stop. At the same time, environmental conditions – water, energy, climate and soil – are different in each region and each local context. Educational tools therefore need to take into account the specific cultural, political and environmental contexts. The scientific research paradigm has dominated the relatively young and evolving body of Environmental Education research in the last decades. The development of the Environmental Education research gained momentum during the late 1970s and the 1980s.

As I already mentioned, Environmental Education creates a link between the environment and social/economic/political and cultural aspects of people’s lives. For instance, when fisheries collapse due to overfishing in some places, economic and cultural identities of the inhabitants are destabilized. In the same time, Environmental Education is a participatory process of political and social learning, and not only a matter of individual behavior change and information transmission. The individuals can/should make changes in their lifestyles, but the most serious environmental problems result from the practice of capitalist globalization.

Of course, it is important to keep people informed on environmental issues like pollution, science, technology, but, on the other hand, Environmental Education uses participatory methods based on the understanding that learning is a far more complex, extensive and important process than information transmission. Environmental education starts with people’s ecological knowledge, initiates debates to create new ecological understandings of our world. Environmental Education is a process that is community oriented. Humans’ ideas and theories

are grounded in the life-world, emerging from experience. Environmental Education uses a variety of critical and creative practices, strategies and tools in the praxis of learning.

2.4. Characteristics of Environmental Education

Environmental Education could also be a social movement learning, as in some countries, being, in the same time, a central component to antiglobalization actions around the world. In other countries, this education field brings together students, the elderly, artists, educators, activists and union members, in order to discuss strategies and explore troubling environmental issues. Example: The Polaris Institute in Ottawa, Canada, which supplies learning materials to teachers, in order to develop leadership capacities for economic justice. Besides, in many universities (University of Waikato, New Zealand), students wove together theoretical debates on environmental issues, aboriginal rights, with hands-on research and experiential community learning. And this is not all. Based on a belief that learning is about working with people to challenge and create, environmental educators use the arts and dialogue, debate and experience, to tackle complex, contemporary issues.

Linking education and activism creates a symbiotic educational opportunity for both practitioners and learners. The benefits flow in both directions and are mutually dependent for their existence. Forging stronger links between environmental educators and community groups and movements can help create more workable strategies and achieve mutual goals. The integration of the environment into general and vocational adult education can provide a range of new opportunities for an Environmental Education which is more relevant to learners' concerns. This is particularly important for developing countries which are today experiencing serious environmental problems that directly affect people's lives.

Environmental Education, if it is to be meaningful to adults in their daily life, needs to address ecological questions in terms of the social, political and economic factors involved. In industrialised regions, for example, Environmental Education entails dealing with the crisis of modern production systems and their consequences for employment. In developing regions, on the other hand, it deals with issues relating to global production structures, national economy, international trade, local agriculture, development aid and foreign debt.

Environmental Education, in Romania or elsewhere, must focus on:

- awareness and sensitivity about the environment and environment challenges;
- knowledge and understanding about the environment and environmental challenges;
- concern for the environment and help to maintain environmental quality;
- skills to mitigate the environmental problems.

As for participation for exercising knowledge and environmental related programmes, the methodology must take into consideration a move from the classroom to forests, fields. It takes place in both formal and non formal learning environments and programs. Environmental Education is a relatively new and unique field of study and practice, but, on the other hand, it has evolved in the last 30 years.

In his book, *Environmental Education in the 21st century, theory, practice progress and promise*, Joy A. Palmer (2005) provides an overview of the characteristics of a dominant "quantitative paradigm" in Environmental Education research, as follows:

- presents results in numerical, and more specifically, in statistic form;
- derives from the natural and physical sciences, and reflects the tradition of scientific inquiry;
- takes a "logical" positivist view, which assumes that there are social facts with a single objective reality apart from individualst beliefs;
- takes the position that truth consists of observable and verifiable (or objective) facts, and not of internal conditions, such as personal dispositions or values. This gives rise to a „fact-value" dichotomy;
- seeks to establish patterns of relationships between causes of social phenomena;
- procedures were established for generating questions and designs before the study begins;
- researcher tends to rely upon instruments as an intermediary devise for data collection purposes;
- estimates are obtained using known analysis procedures.

The majority of the studies which were published in the 1970s and 1980s reflect these characteristics, trying to realize a congruence between outcomes and assumed goals, and trying to derive generalizations (theories) empirically and this way to legitimate scientific knowledge. Many studies from that period were concerned with the identification, prediction and control of the variables which were believed to be the critical determinants of responsible environmental behavior.

Two decades after positivism and the quantitative tradition drives the definition and development of a research base for environmental education, their characteristics continue to have a powerful influence today.

Environmental Education emphasizes ecological principles and relationships between human society and the natural resources surrounding it. It is far broader than a branch of outdoor education, occurring both indoors and outdoors. We can say that Environmental Education's most important goals are to heighten awareness of and foster respect for:

- (1) self;
- (2) others, through personal attitude and political decision-making;
- (3) the natural environment, through direct experience.

The characteristics of the environmental learning are the following:

- 1) learning should be conceived as a process;
- 2) the process is continual, based on experience;
- 3) learning results from resolving conflicts between opposing modes of adapting to the world;
- 4) the learning process involves holistic adaptation to the world;
- 5) it must involve interactions between the learner and her environment;
- 6) learning occurs when the student is creating knowledge.

Environmental education became an increasingly mainstream educational practice, but, in the same time, it has become the subject of heightened analysis and tension.

There are basically two lack of consensus areas. I mention them without going into further details. One relates to the ongoing debate of accuracy and fairness in environmental education materials and methods that has been historically fueled by industry. The second relates to environmental education's potential role in the educational reform movement. No matter the answers, the Environmental Education must become an important educational field in every country.

There is nothing new: teachers in this field of study consider environmental problem with a holistic approach, combining social, political, and environmental concerns into community dilemmas. The key components of every strategy for nature preservation are environmental education and awareness activity of the public. In this way, we can discuss about a public support and a promotion of development, with the help of a better knowledge and understanding of environmental problems.

Romanian educational system can be characterized by the lack of any organized preoccupation for environmental problems. In spite of the fact that is trendy to be eco these days, the books and the articles concerning environmental problems are not enough. Modernization of Romanian education system influences the possibility of choosing, in the future, between a healthy environment and an degraded environment because of human actions, between an educated and informed public and an ignorant public concerning environmental problems.

3. Conclusions

Each human being has a natural behavior, which is seen during life. His/hers qualities must be driven towards good things. Education helps these qualities to be relevant, and knowledge brings a completion to this knowledge. A human attitude which must protect the nature has as a departure point education. A person who protects the nature will do it because he/she understands the necessity of doing this, because he is educated in this way.

During time, Environmental Education receives many meanings: the nature study, outdoor study, nature preservation study, education for environment, about environment, in the environment. Environmental Education is seen more than a educational discipline. In many countries it is a mandatory discipline, seen as a kind of life preparation for assuring a evolution of human society in concordance with natural environment.

The benefits of introduction Environmental Education in schools, no matter the chosen method, are obvious for teachers and students:

- it's attractive for students, concerning actual, critical, relevant aspects;
- it permits an interdisciplinary approach (biology, chemistry, geography);
- it stimulates the team work;
- it contributes to the development of creativity and thinking.

In the same time, participatory methods allow learners to make connections between social issues and environmental problems, which allow learners to understand the core causes of major environmental issues and the resulting social inequalities. This methods allow teachers to stress the importance of environmental awareness, so that learners do not forget their relationship with nature.

These methods imply:

- a knowledge of environmental problems and their causes;
- the skills to engage in social activism to combat /prevent these problems;
- the attitude of respect and connection to the natural world;
- a desire to change current practices to protect the earth.

Environmental Education takes place in a nonformal education setting. This means that the organized learning can take place in many forms: vocational education, literacy education, on job training. Environmental problems are a reality and cannot be ignored (global warming, pollution, habitat devastation, over population, waste disposal, diminishing resources). The deeper aim of this paper was to open up the study of Environmental Education by thinking critically about existing approaches, and beginning to think about alternative possibilities. Our world is changing dramatically, and, as a consequence, we must change too. This includes the changing of our educational system.

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AGENȚIA ROMÂNĂ
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USING INDUSTRY INTERNSHIPS TO IMPROVE THE QUALITY OF ENGINEERING HIGHER EDUCATION IN EUROPE. THE EXPERIENCE OF FRENCH GRADUATE ENGINEERING SCHOOLS

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Abstract

Internships are a widely established practice in French engineering schools, encouraged but also supervised by CTI. In this article, the experience of French graduated engineering schools after more than three decades of industry internships is explained. The perspective of the Commission des Titres d'Ingénieur, as well as other different national approaches in Europe and the United States are addressed. Finally, some conclusions are drawn regarding the main challenges affecting industry internships and the impact of this practice into engineering education quality.

Key words: engineering programs accreditation, engineering education in France, Internships, relationships between university and industry.

1. Introduction

There is an overall consensus, among engineering accreditation bodies in Europe, that research and educational partnerships between universities and industry improve the quality of Engineering Education and strengthen the competitiveness of industry. In order to be an effective entry route to the engineering profession, engineering curricula should include an early exposure of the students to practice [1, 2, 3].

In France, especially during the last three decades, many relationships have been developed between graduate engineering schools and companies, aiming at adapting the programs to the needs of the job market. In traditional in-school engineering programs, these partnerships may result in different extra and intra curricular activities, such as sponsoring of student activities, forums and seminars, lending equipment, teaching by company representatives and, particularly, internships in companies scheduled within the school curriculum.

The French engineering accreditation body (CTI -Commission des Titres d'Ingénieur-) establishes, for all French five-year engineering master programs, a minimum internship period of 28 weeks (14 of them must be compulsory done in industry, whereas the rest could be done in a research laboratory). This requirement, quite specific to the French engineering education system, is recognized to have a number of positive effects, such as increasing the short-term employability and the international mobility of engineering graduates [4]. Nevertheless, different challenges and questions marks arise such as what should be the extension for the internship period, the best way of measuring the learning outcomes or debriefing the experience [5, 6].

In this article, the experience of French graduated engineering schools after more than three decades of industry internships is explained. The perspective of the Commission des Titres d'Ingénieur, as well as other different national approaches in Europe and the United States are addressed. Finally, some conclusions are drawn regarding the main challenges affecting industry internships and the impact of this practice into engineering education quality.

2. Internships in industry in French Engineering Schools

2.1. A brief historic account

Among French Engineering Schools, the existence of internship periods in industry as well as testimonies of the importance of an early exposure of the student to the engineering practice can be traced back to the XVIIIth century. As an example, students at a well established French engineering school such as the *École des Ponts et Chaussées* used to organize summer industry placements in different regions of France or even abroad. Related to this, it is interesting to read a fragment of an article of Konstantinos Chatzis [7] which describes the organization of the cursus at the *École des Ponts et Chaussées* not long after its creation (1747):

Sur cet enseignement théorique vient se greffer une formation pratique poussée que les élèves reçoivent, au cours de la belle saison et auprès des ingénieurs du Corps, sur les chantiers les plus intéressants, formation accompagnée par ailleurs de gratifications. Des élèves expérimentés, tout au plus au nombre de dix, appelés "appointés", se voient parfois détachés, pour un ou deux ans, auprès des ingénieurs de province à la demande de ceux-ci.

Quelques heureux élus peuvent compléter leur formation à l'étranger: une mission de huit mois en Italie, terre d'architecture, puis en Hollande mais aussi en Angleterre, pays plus technicien, est offerte chaque année à un élève, celui-ci devant réaliser "des dessins cotés des principaux ponts, des écluses, des machines et autres choses les plus pittoresques qu'il aura rencontrées dans son voyage, et ces dessins ou une copie, ainsi que les mémoires relatifs, seront déposés à l'École pour servir à l'instruction des autres élèves".

Similarly, the organization of on-the-field placements was a classic practice in certain engineering disciplines, such as agronomy [8].

Nevertheless, the systematic organization of industry internships within the engineering cursus in France started in the 60's. According to certain authors, the upcoming of integrated industry internships in France is directly linked to the systematic introduction of non-technical subjects within the engineering cursus and the development of a particular engineer conception: the engineer as a generalist professional who is able to operate in a variety of complex environments [8].

Not surprisingly, as we will see later, one of the main positive effects that's usually attributed to industry internships is that they provide opportunities for the student to apply a combination of knowledge, capacities and attitudes acquired along the engineering cursus to a real professional situation [9].

CTI has played an important role in the consolidation of this practice with the introduction in the 90's in its accreditation standard of a compulsory internship period of 28 weeks for all engineering programs in France. Currently, the average length of the internship period in French engineering schools is 32 weeks.

2.2. Characteristics and objectives

Typically, French engineering cursus include several integrated internships periods which are progressively introduced from the beginning of the third year; these internships can be of different kinds and lengths and serve to different purposes.

Regardless of the kind of internship, we can find some main common characteristics:

- The experience is controlled and mentored by both the engineering school and the hosting institution (company, research laboratory, NGO, etc.).
- There is always a previous planning phase in which the objectives, the assessment methods, and the intended learning outcomes are clarified.
- After the internship experience, there is always some sort of return of the experience. Typically, a report has to be handed in by the student. Very frequently, debriefing sessions are organized in order to extract the main lessons of the experience.
- In France, all internships of an extension longer than 2 months have to be remunerated [10].

As to the purpose of internship experiences, we can identify some major objectives [8, 9]:

- To assure a certain awareness and openness of the students to the professional world, particularly to the societal, ethical and human aspects.
- To become acquainted with organizations and organizational structures. To be able to acquire some basic professional reflexes and relational skills and understand their future role within the organization.
- To apply a combination of knowledge, capacities and attitudes learnt along the engineering curriculum to a real professional situation.
- To provide a first contact with the professional sector, which is meant to improve the short term employability of the student. Notably, more than 35% of French engineering graduates find their first job at the same company in which they made their internship.

2.3. Typology of internships at French engineering schools

A possible typology of internships organized at French engineering schools is proposed below:

- **Operative Internship (*Stage ouvrier*)**
This kind of internships is usually placed at the beginning of the engineering cursus (after the two first years of preparatory courses) and they are of a short duration (less than one month). In these operative internships, the students need to perform a low-level (usually manual) operative work (such as the work done by a building worker, a cashier, a farmer or a bricklayer). The aim is to make the student better understand the nature and difficulties of the work done by people at the base of the companies; people to whom he/she will probably have to directly or indirectly coordinate during his or her career. The return of the experience in this kind of internships is not articulated around the specific content of the job but rather around such as the fostering of basic professional attitudes and routines (professional ethics or providing feedback to the immediate hierarchical superior, for example), or even the analysis of the societal or human aspects, such as health and security [11, 12].
- **Company internship (*Stage entreprise*)**
In this case, the student is placed in a real working situation; ideally, he or she will be in charge of a real working assignment. Despite of different authors maintaining the importance of the authenticity of the experience [13], the degree of real integration of the

student on the organization varies according to the particular situation and the profile and characteristics of the student.

These internships are organized along several months (the length varies depending on the specific programme).

CTI's standards establish a minimum length of 14 weeks for internships in companies.

- **Research internship (*Stage recherche*)**

French engineering programmes correspond to a master level (level 6 of the European Qualification Framework), and hence enable direct access to doctoral studies. Consequently, it is important for engineering programmes to include a research dimension. A number of CTI's standards are linked to research practices in the institutions and their impact in the engineering cursus [14].

Moreover, research internships are intended to develop innovation skills [15], which is an important component of the French engineering competences profile defined by CTI [14].

Many engineering institutions in France include internships which are performed in research laboratories (within or outside the institution).

- **Final engineering project (*Stage fin d'études*)**

At the end of their studies, engineering students need to face a real (hence complex) engineering problem; It is a final capstone experience that will force them to employ the competences acquired along the program.

This final project is frequently performed in a company or in a research laboratory and constitutes an additional internship period.

- **International internship (*Stage international*)**

The main objective of CTI's international policy is facilitating the mobility of French engineering graduates and professionals [16]. As a consequence, CTI promotes the international development of the French engineering higher education institutions. According to the last survey made by CNISF (*Conseil National des Ingénieurs et Scientifiques de France*), 70% of French engineering students make an educational period abroad (well ahead of the 20% goal, fixed in 2009, at the ministerial conference in Louvain).

Internationalization of French engineering schools has been actively promoted and supported by CTI through diverse initiatives. Notably, CTI is a member of the *European Consortium for Accreditation* and has established mutual recognition agreements with other European Accreditation bodies, such as NVAO (*Netherlands Vlaamse Accreditatieorganisatie*) and OAQ (*Organe d'accréditation et d'assurance qualité des hautes écoles suisses*). CTI also supports and controls the quality of the different international cooperation initiatives of engineering schools (joint degrees, offshore sites of French HEIS, etc.).

At the professional level, CTI has signed different agreements for the mutual recognition of engineering professionals between France and Canada [17].

One of the consequences of this focus in internationalization is that, increasingly at least one part of the company internship or of the research internship is made in another country.

International internships pursue a number of objectives that should be added to the standard goals of a national internship experience, such as the development of communication skills and international openness and awareness [18]

- **International Development Internship (*Stage coopération au développement*)**

Without altering the essence and main purpose of the internship, engineering schools usually provide opportunities for the student to develop his internship experience in a variety of environments. Increasingly, some students might be interested in developing their internship period in a *Non Governmental Organization* in the field of cooperation for development, which, in addition, enables also an international experience [19].

- **Gap year** (*Stage long/année de césure/année sabbatique*)

In this case, the students interrupt their studies for a whole year in order to work full time in a company (in France or abroad). Depending of the institution, between 5% and 80% of the students in a cohort turn to this option.

Advocates of this practice maintain that this gap year provides the students with an opportunity to configure or refine their professional project, which will help them make better academic and professional decisions during the final year of studies [12]. On the other hand, a number of difficulties associated to the gap year are frequently pointed out, such as the ambiguous academic and professional status of the student during this period or the extension of the studies [20, 21, 22].

3. Internships in other countries

Internships as compulsory and integrated components of the engineering curricula seem to be more developed in France than anywhere else [23]. According to Maury, we can elaborate the following international comparison taking in account the actual importance of internships within the engineering cursus [8]:

- Regular presence of internships:
 - Germany: *Fachhochschulen* students (2/3 of engineering students) must make a one-semester internship, other engineering students at least 2 months, final degree projects are often done at companies. However, German engineering higher education is mainly focused on fostering technical competences rather than in providing an early professional experience.
 - United-Kingdom: even though internships are rarely part of the curricula, in practice, few students join a Master program right after the Bachelor. Additionally, students frequently go on a gap year before finishing their studies and in some institutions they are encouraged to do summer internships [24]. According to Onof, the differences between UK and France regarding the the relevance of internships in the engineering cursus are due to two main reasons. Firstly, engineering education in UK is more applied and specialized than in France. In UK, the student's constant exposure during the regular cursus to application makes internships less of an urgent matter. Secondly, the broad range of internship experience which is offered in the French system seems well adapted to the profile of the French *ingénieur* (a generalist professional who will probably work in a variety of societal and economic contexts). In contrast, the UK engineer is historically viewed much more as a high-level technical expert.
- Occasional presence of internships:
 - North America: leaving aside some exceptions such as the one of Sherbrooke University [5], integrated internships are not frequent in the engineering curriculum; however, many students acquire a professional experience (not necessarily related to their studies) through summer jobs [17].
 - Spain: up to year 2007, the contents of the Spanish engineering curriculum were fixed by law. Integrated internships didn't have a place in this system, even though they were frequently offered as an optional subject. After a regulatory change in 2007, higher education institutions can now define program content in an autonomous way. As a result of this, in many engineering schools internships are currently being integrated in the curriculum [25, 26].
 - Italy: very few students will make internships as part of their engineering curriculum. This practice seems to be increasing in some Italian institutions, but in any case as a compulsory subject [23, 27].

- Switzerland: internships are not usually present into the engineering curriculum. L'École Polytechnique Fédérale de Laussane constitutes an interesting exception; after an international CTI accreditation in 2003, EPFL decided to include a period of compulsory internships within its curriculum, which has proved to have very positive pedagogical effects.

The reason for those important differences in the use of internships is more than a question of pedagogical practices. It is the whole model of relation between academic training and professional practice which sets the main keys; this model includes two dimensions:

- The relations between the industry and academic institutions, and in particular the fact that teachers have a professional experience or intense relations with industry or not;
- The conception of engineering careers as an essentially two-phase line where some years of sound scientific education prepare for several decades of professional practice and specialization (this is the case, for example in UK or Canada), or either, as an spiral of life-long training where several academic and professional experiences are enchainned and interact with each other (which is mainly the case in France).

As a consequence, those countries with fewer relations between industry and academy, or further away from the life-long training paradigm, will coherently rely less on the importance of internships. At the end of this article, after analyzing the advantages and problems of the internships, we conclude with an overall positive outcome, but it is important to be aware that their use is related to more general education and professional policies.

4. Some main problems and challenges

In June 2010, L'École des Ponts et l'Université Paris Est Creteil organized two conferences [28, 29] in order to discuss the main issues related to the integration of internships in French engineering schools and abroad [30]. Without questioning the important role of internships in the French engineering education model, participants in these conferences pointed out a number of challenges and problems connected to this practice. Moreover, an expert network on internships has been created as a result to these two meetings, aiming at continuing with the debate and develop some general guidelines (Research Network on Internships and their Governance [29]), which show that the improvement and the effective integration of internships in the curriculum are sources of concern for French engineering schools. In the following paragraphs, a brief summary of the main challenges and problems discussed during these initiatives will be done.

A first source of concern about internships in France is related to their own success. As they get more present in curricula, and not only in engineering studies, company will face an increasing demand which enhances the risk that some less interesting internships are offered to the students.

Still from the perspective of the companies, it is clear that an internship must offer them a return and not just be done for the benefit of the student. Moreover, high-value internships for the company would likely represent a real professional experience useful for the student. Additionally, the company might be able to promote itself among students, get a better knowledge of the profile of young professional that will soon come to the job market and, in particular cases, appreciate the quality of an intern and offer him a job when he ends his studies. The risk is that this last component (internships as a recruitment source) is quite often the most important one for companies, which somehow neglect other important pedagogical objectives.

From the point of view of academic institutions, the main risk is that internships become a comfortable (and even inexpensive) choice where students are not in the campus and someone else is responsible for their education. Internships should never be just an accumulation of periods working in companies; they need to be intimately integrated with the academic components of curricula, considering the following aspects:

- Internships terms, conditions and objectives must be linked to the skills already developed by the students, and accordingly, subsequent academic periods must take into account the internship outcomes;
- As a consequence, internships can be either searched by the university or by the student (as it is also something to be learnt) but, in the second case, the university must also verify their content and interest, and discuss about them with the company and the student;
- The student must have an academic tutor who must be regularly informed about the internship progression so that he can help him to get more profit of the experience, and correct the eventual problems that may arise; additionally, this represents an excellent opportunity in order to develop industry-academy relations. Some questions arise as to the profile and competence portfolio that this academic tutor should have. The European project PROCERTU [31], has proposed a competence referential and a certification procedure for academic tutors. This referential is structured around the ISO/CEI 17023:2003 norm.
- The internship, as a hybrid of professional and academic activity, must conciliate two components: the engagement of the student with the company objectives and the fulfillment of professional tasks; and the essential pedagogical element which is the "right to fail and to be mistaken". In other words, students have to consider the internship as a real-life job experience while they are doing it, but then the pedagogical and training component should never be forgotten. With the help of the higher education institution, students should be critical and reflective about the professional practices they have witnessed (both technical and deontological) and about their own career perspectives (an internship which makes a student change its professional orientation is sometimes more useful than one which confirms him in his original choice).
- All engineering schools have developed some kind of formalized procedure in order to plan and assess internships and organize the students' return of the experience. However, there is some debate as to what the most effective methods would be. To this respect, the great quantity and variety of internships poses additional pedagogical challenges to higher education institutions.
- Finally, there is also a concern, not only about quality of internships but also about quantity. At the current moment, internships account for an important part of the French engineering cursus. In order to allocate such a great number of internships, program content has been substantially lightened over the last decades. Some critical voices coming from companies point out a lack of technical background of current engineering graduates.

5. Conclusions

Integrated internships within the French engineering curriculum have a long history and currently constitute an important component of the French engineering curriculum.

CTI has played an important role in the development and consolidation of this practice among French engineering schools. At the current moment, CTI establishes, for all French five-year engineering master programs, a minimum internship period of 28 weeks (14 of them must be

compulsory done in industry, whereas the rest could be done in a research laboratory); moreover, different international accreditation experiences show that the French internship model could be successfully, if not exported, at least adapted to institutions in other countries.

Comparisons with other countries seem to indicate that the presence of internships in engineering education is more than a pedagogical matter; internships are closely linked to the particular profile and role of engineering graduates within the different countries and also to the relations between the industry and academic institutions.

Without denying the benefits and the important role played by internships in France, a number of challenges and difficulties have been pointed out by French engineering schools and have been discussed along this text. The academic and professional community together with CTI is currently working together through different initiatives in order to find the best answer to these problems.

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AGENȚIA ROMÂNĂ
DE ASIGURARE A
CALITĂȚII ÎN
ÎNVĂȚĂMÂNTUL SUPERIOR

STANDARDS AND PERFORMANCE INDICATORS IN HIGHER EDUCATION IN ROMANIA

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Abstract

The present paper has as its target to present the regulations characterizing the quality of educational services in higher education, with a view to identifying the system which is the most efficient and revealing for their real quality. This approach also takes into account the central role that key intellectual and cultural responsibilities play in the development of modern society, as well as the moral impact of higher education on society as a whole. The authors reach the conclusion that, in order to have real quality in higher education, it is important to introduce a quality management system and to constantly improve it, using as feedback the satisfaction of clients and other interested parties, with the intention of attaining performance and excellence.

Key words: excellence, performance, quality management, quality assurance, quality indicators.

1. Introduction

Motto: *There is always a better way...your challenge is to find it.*

The issue of quality in higher education has been given attention in the academic and legislative environment starting with the Bologna Process. Up to that moment, everyone considered it their duty as a professor to keep up a certain academic standard, which was in fact synonymous with a high quality of the message sent to the students in a manner assumed to be impeccable. It was normal then, as it is now, to present the latest developments in a given domain at the lecture, what you considered to be the most interesting aspects, and to assess whether you have reached your goal by the audience's reactions. It was normal to openly hold a lecture, to ask and be asked questions. However, society has evolved and certainties are needed nowadays instead of assumptions, as far as quality is concerned. The Bologna process has changed higher education not only in terms of structure, but also in terms of the place that quality assurance holds in the activity of a university. Together with the Bologna Process, the Lisbon Strategy has led to the development and consolidation of universities, with a view to instating a quality culture, to providing confidence in educational services, as well as transparency and a continuous enhancement of quality [2, 6].

2. Quality assurance in higher education

The Bucharest Academy of Economic Studies (B.A.E.S.) is and intends to remain the most prestigious institution of tertiary economic and public administration education in Romania and to rank among the leading universities in Europe (part of its mission) due to the content and topics

of its learning processes, its innovation, dynamism, and its involvement, through strategic partnership relations, in the national and international economic environment. By carrying out its education programs, the B.A.E.S. provides the Romanian society in general, the national economy in particular, with economists and public administration specialists. Also, it enables students to continue their studies by Master's, post-graduate and Doctor's programs. The intense research activities within the B.A.E.S. are pointed out by the numerous and considerable competitive research grants, as well as by research reports and syntheses, systems, models, copyright products, program products, modernization and economic efficiency enhancing solutions, representations in academies or local and international organizations. Partnerships with over 50 well-known universities abroad have been established with a view to gaining recognition for the A.E.S. among the prestigious economic institutions worldwide.

A three-cycle structure of education has been yet applied starting with the academic year 2005/2006: *Bachelor's degree* (B.A. in Economics) - provides a large number of students with basic theoretical knowledge in each specialization; the level of skills and competencies required in the labor market shall be ensured, so that graduates of the first cycle can be immediately employed in an executive position, if they so desire; *Master's degree* - ensures narrow specializations, providing advanced knowledge and analytical and synthesizing skills specific to executive positions in every field. In addition, it can also decide to offer MBA or Executive MBA Master-type programs; *Doctor's degree* - aims at educating the scientific élite of economists. Other educational programs organized by B.A.E.S. are: postgraduate studies of specialization and improvement and postgraduate schools of academic studies: MBA Romanian-Canadian Program, INDE-Program Executive MBA and others.

At the European level, quality has always been the center of attention, being regarded as one of the success factors of the Bologna process. Its importance has increased with each meeting of the line ministers (Prague 2001, Berlin 2003, Bergen 2005) [2]. Once the *European Standards and Guidelines for Quality Assurance in Higher Education* appeared, what is referred to as quality in higher education has acquired an ever clearer shape. However, attention was not focused on the entire quality management system, but only on one of its parts: quality assurance, centered on creating confidence that quality demands shall be met. The quality assurance system in higher education refers to the mechanism by means of which the university grants, both to the internal clients (employees, students) and to the external ones, confidence that all the conditions are met to attain the assumed standards. It can be defined as a set of policies, systems and processes directed at the maintenance and enhancement of educational quality, relying on constant assessment and comparison between intended results and obtained results, with a view to identifying sources of dysfunctional activities.

Quality assurance was meant to be achieved at three levels: at a primary, institutional level, raising awareness towards achieving quality, towards a quality-oriented culture and creativity projects; at a national, ideal level, by creating a partnership between higher education institutions, government and agencies, with the intention of developing procedures and requirements to assess conformity; and at a European level, aiming at the universities being attested by European institutions, in order to turn these universities into strong competitors to those in the USA, Japan, Singapore, India and China.

The *European Standards and Guidelines for Quality Assurance in Higher Education* include requirements both for internal and external quality assurance within higher education institutions. In the case of internal quality assurance, formal statements are required about the expected practice in a university, regarding: policy and procedures for quality assurance; approval,

monitoring and periodic review of programs and awards; assessment of students; quality assurance of the teaching staff; learning resources and student support; information systems and public information [5]. The external quality assurance is assessed on the basis of the following standards: use of internal quality assurance procedures; development of external quality assurance processes; criteria for decisions; processes fit for purpose; reporting; follow-up procedures; periodic reviews; system-wide analyses [5].

Concerns about the Romanian education system have naturally been affected by the conceptual and practical turmoil existent both at the European and the international level. In Romania, the legislative/normative framework of assuring the quality of educational services in higher education institutions is provided by Law no. 87/2006 to approve the Emergency Ordinance on assuring the quality of education no. 75/12.07.2005, by Order No. 3928/21.04.2005 of the Ministry of Education and Research on ensuring the quality of educational services in higher education institutions, as well as by the Methodology of External Evaluation, the standards and reference standards of the Romanian Agency for Quality Assurance in Higher Education (ARACIS). At the national level, quality assurance in education refers to the set of policies, processes and actions of public authorities aimed at maintaining and developing quality in education, nationwide.

According to these normative acts, “quality assurance in education is achieved by means of a group of actions aimed at developing the institutional capacity to elaborate, plan and implement education programs; thus, recipients become confident that quality standards are met by the education supplying institution. Quality assurance expresses the capacity of a supplying organization to offer education programs, according to the announced standards. It is promoted in order to lead to the continuous enhancement of education quality” [4]. Among the main objectives of quality assurance are the following: supplying information about the functioning of the education system, about results and possible ways to improve them; taking responsibility for creating conditions favorable to attaining quality; maintaining and improving high academic standards; proving a high quality of academic or professional training programs for all students in a higher education institution; developing an institutional culture of quality and of providing real protection to its education recipient – the student. Therefore, in order to obtain real quality of the educational act, the following aspects are of crucial importance: the objectives of the educational act, the competence level and the curricula; the study environment, the competence of the teaching staff, of the technical auxiliary staff and the efficiency of work practices; the independent assessment of, on the one hand, the didactic and research activity and, on the other hand, the students’ results; a functional education system and sufficient financial resources.

Under Romanian law, as well as in the ARACIS Methodology, the assurance of quality in education refers to the following domains: institutional capacity, educational efficiency and quality management; for each of these, standards and criteria are defined. ARACIS has taken things to the next level by supplying in its methodology, apart from the quality assurance standards compliant to the European ones, a list of performance indicators on the basis of which universities can be assessed. Due to the nature of the criteria, standards and performance indicators, the focus is not only on the fulfillment of a predefined set of quantitative and qualitative conditions, but also on the deliberate, intended and pro-action commitment of the higher education institution to attain certain performances which effective results can demonstrate.

These standards correspond to the domains and criteria of quality assurance in education, while the performance indicators measure the extent to which an activity has been completed by

reference to the standards. The standards are expressed in terms of rules or results and they define the minimal compulsory degree in which an educational activity can be completed (its performance indicators). Unlike these, the reference standards are those standards which define an optimal level where an activity can be completed by an education supplying organization, relying on the good practices existent at the national, European or international level. These can vary from one educational institution to another; thus, there is the possibility that universities may create their own standards, at the highest possible level, competitive nationally and internationally [8]. However, the quality of the educational process cannot be measured solely by calculating quantitative indicators of the type: number of students per professor, the capacity of lecture rooms, of the laboratories, libraries etc. There are a series of specific indicators in this domain, among which: the academic, psychological and pedagogical competence of the teaching staff, the capacity to satisfy the social needs and demand, the moral aspects of a university's activity; student satisfaction; the cultural, ethical and social responsibility of a university; employment and labor conditions offered to staff; academic mobility etc. [1]

In 2007, after an internal benchmarking against all the standards and indicators (a part of these are described below), of the Romanian Agency for Quality Assurance in Higher Education Methodology - ARACIS, B.A.E.S. requested a periodical institutional certification along these lines. Also, the following were elaborated and evaluated: 15 files for periodical certification of the graduation programmes full-time courses, 87 files for accrediting Master programmes; 9 files for accrediting distance education university studies; one file with a view to approving the capacity of A.E.S. as an institute supplying programmes of training the teaching staff and the authorization of functioning of D.P.P.D. (Department for Training the Teaching Staff). All these programs were then externally evaluated by ARACIS and the institutional level we obtained included the epithet: "*high confidence level*".

It is worth mentioning that the Romanian standards, criteria and indicators for quality assurance in higher education are correlated with the Standards and Guidelines for Quality Assurance in the European Higher Education Area, 2005. Some of the standards and performance indicators of quality assurance in Romanian higher education that were taken into account in the development of the internal concordance benchmarking were:

Institutional Capacity

• Institutional, Administrative and Managerial Entities

1. *Mission statement and objectives*: Tradition, vision, mission and objectives are what make a difference in the European Higher Education Area.
2. *Academic integrity*: B.A.E.S. has a University Ethics code that protects the values of academic freedom, university autonomy and ethic integrity. The application and the analysis of the Code are monitored by the Ethics Committee of B.A.E.S.
3. *Public Responsibility*: In B.A.E.S., academic audit is focused on two components: the quality of the education and research process as well as management activities. The results of the audit are published in an annual report. After the analysis, programs to improve quality are drafted.

• Management and Administration

1. *Management system*: B.A.E.S. has a coherent, integrated and transparent academic management that is based on an efficient and effective administration, adapted to its mission and objectives. The management system consists of the rector, 6 vice rectors, a chancellor, a general director and a head secretary. The selection mechanism is democratic, transparent, non discriminatory and does not limit the right of the students to represent and to be represented.

2. *Strategic Management*: B.A.E.S. has annual plans, an institutional strategic plan and a Strategy for the development of B.A.E.S. 2007-2014.

3. *Efficient administration*: B.A.E.S. has an administration that respects the legal provisions and is efficient in the aspect of structure, number and qualifications of the personnel. It has control and continuous development mechanisms represented by the department of Internal Audit and Administration Control. All the projects and reports are elaborated and then reviewed and approved in the B.A.E.S. Senate.

Material Basis

- **Patrimony, facilities and allotted resources:**

B.A.E.S. has a patrimony that contributes effectively to the realization of the set mission and objectives.

1. *Education, research and other activities*: The education and research activities are conducted in classrooms, seminar rooms, laboratories (108 laboratories that ensure education and research in optimum conditions) –each has calculus technique, multimedia systems. The accommodation of the students takes place in 20 student hostels with a capacity of about 5,795 students and 2 buildings for the accommodation of teachers and personnel.

2. *Facilities*: The classrooms are available with teaching, learning and communication equipment that facilitate the activity of the professors and the reception of each student (video projector, computer, projection screen, video conference equipment, TV studio and flipcharts). Furthermore, in some buildings there is access to wireless networks, including appropriate furniture.

3. *Financial resources*: B.A.E.S. is financed by its own financial resources and also by resources coming from 3rd parties. It has a realistic annual budget as well as a 3 year budget. Moreover, there are consistent financial reserves, both of its own (tuition fees, revenues of its departments, sponsorships) and also amounts received from the Romanian Ministry of Education as basic financing.

4. *The grant approval system and other forms of material support for students*: B.A.E.S. has and applies a rulebook about the representation and social activity of students, where the types of grants and the conditions necessary to be fulfilled are described.

Educational Efficiency

Contents of study programs:

- *Principles of admission policy for the offered study programs*: B.A.E.S. has its own recruiting and admission policy that is applied without discrimination. Methodologies for the admission, degree, distance learning, post graduate studies and the offer for the number of positions available are made public with at least 6 months before the admission exam.

- *Admission practices*: admission is based on results obtained in the high school years (20%), school-leaving examination (10%) and multiple choice test (70%).

Scientific research activities: Programming research – long term development strategy; Realization of research-procedures of execution; Capitalization of research- magazines, scientific sessions, symposiums, seminars, conferences.

Quality Management

- Existence and application of rules regarding initiation, approval, monitoring and periodic evaluation of study programs: at the end of the academic period, the committee for evaluating and ensuring quality analyses the satisfaction level of the clients of the university; periodically a revision of the structure of education programs takes place. Furthermore, the Central committee develops an internal evaluation report regarding the quality of educational services;

- Connection between degree and qualifications: the structure of the education, bachelor or doctorate is reviewed periodically based on benchmarking with other universities. The monitoring and periodical review of study programs rely on the feedback from students, master's students or doctoral students.

- Transparent procedures of evaluating the study results for students - Student evaluation - the university has a rigorous and consistent means of evaluating students that is applied regularly;

- Procedures of evaluating the professorial body: 1. Student versus professors: the number of professors has to be adequate to the number of students, so that there is an optimum learning process; the evaluation is realized through a questionnaire that is delivered by a neutral person. The questionnaires are not signed, they are sealed and put into an envelope and then delivered to the head of staff; 2. Peers evaluation: this is achieved through periodic evaluation of the quality of the education personnel; 3. Self evaluation of professors; 4. Evaluation by the B.AES management [3].

3. Excellence in educational services

Before 2005, when the "European Standards and Guidelines for Quality Assurance in Higher Education" was adopted in Bergen, the only reference point in the domain of quality in higher education was considered the ISO 9001 standard. This was generically applied to all quality management systems, regardless of the activities carried out in an organization. This offers general principles and requirements leading to the coordination of activities aimed at orienting and controlling an organization in terms of quality [7]. By implementing a quality management system in a university, its capacity to meet objectives in one domain could be assessed; however, the quality of educational services provided in the higher education institution and its capacity to attain the quality level specific to the academic environment could not be assessed. In order to help education institutions, the ISO IWA 2 standard appeared in 2003: "Quality Management Systems. Guideline for the Application of ISO 9001:2000 in Education" (revised in 2007), adopted as a Romanian standard in 2006. It did not add anything to, did not replace or modify the requirements of ISO 9001: 2000; it was conceived with a view to allowing a clear understanding of the ISO 9001:2000 and ISO 9004:2000 standards' requirements and of the way in which they are implemented in the education area [7].

The reason for adopting this international agreement relies on the fact that education curricula and syllabuses provide subjects to be taught, their short description, such as the assessment method; however, they supply no information about the extent to which they meet the recipients' needs and expectations, in case there is any dysfunctional activity in the educational processes. The principles of the quality management system depend on the domain of educational services (not only in higher education), to which other four specific principles are added, all facilitating success: creating learner value, focusing on social value, agility and autonomy. The quality management system in education must be understood by also taking into account the curriculum, the learning processes system, the organizational structure, the responsibilities, processes and resources that ensure the quality of all activities carried out in education, not only those strictly connected to the teaching act.

However, given the fact that the quality management system is wider than the quality assurance system, the relation between the two being that of whole – part, the requirements specific to the first, described in the applicable standard, will exceed those of the second. The following processes (indicators to be calculated, filed documents and instruments to use) can serve as examples of such specific requirements: identifying preventive action, providing security, safety

and civil protection services, deciding which measurements will be of value to monitor, measurement of variables related to learners, teaching and support staff, performance outcomes from the quality management system, costs analysis related to the achievement of quality objectives, financially focused methodologies to ensure that the expenditures are justified in relation to the resulting benefits, employee survey and suggestion schemes etc. [7]. All these provisions, additional to the requirements of a quality assurance system are natural, if we think that IWA 2 was conceived to allow a clear understanding of ISO 9004, which supplies guidelines with a view to taking into account both the effectiveness and the efficiency of a quality management system and, consequently, the potential for enhancing an organization's performances, paving the way towards excellence models.

Although both in European regulations and in national ones, a quality culture is mentioned, all the standards leading to a quality assurance strategy are far from illustrating what quality culture is really about. Quality culture refers to tasks, standards and responsibilities of individuals, units and processes, and to psychological aspects: understanding, flexibility, participation, hopes and emotions [6]. Quality culture is imposed by the exigency level of excellence awards. The Baldrige National Quality Program – Education Criteria for Performance Excellence falls under the category of excellence methods applicable to education institutions. The evaluation framework includes 7 categories: Leadership; Strategic Planning; Customer Focus; Measurement, Analysis, and Knowledge Management; Workforce Focus; Process Management and Results. This award is based on TQM philosophy and evaluates the whole university and its associated activities (environment, relationships and challenges) from a system perspective. It promotes awareness of performance excellence as an increasingly important element in competitiveness and sharing information about successful performance strategies and the benefits derived from using these strategies [9]. It helps stimulate educational organizations improve the quality of their activity and it acts as a driving force for a national movement on quality improvement.

Another excellence model which can be used to compare and assess the activity of a university one belongs to, is the one managed by the European Foundation for Quality Management – EFQM; this also lies at the basis of the J.M. Juran Romanian Prize for Quality. The evaluation framework also includes 7 criteria, out of which the first 5 are considered enablers, while the others, results of the organization [10]. Their assessment takes place in different ways. Thus, the element taken into account when assessing enablers is the approach, which has to be well documented; its processes have to be well defined, in accordance with the requirements of the interested parties; it has to be implemented and carried out in a structured, well-planned and accurate manner. The effectiveness of the approach has to be proved by regular measurements, whose results have to be used in order to identify the best practices and enhancement opportunities etc. The assessment of the results is carried out with a view to: the positive tendencies and the continuity, if it exists, in attaining performances; the targets have to be adequate, they have to be met, while the results have to be close to those of the leading organizations; the obtained results have to be an effect of the approach, they have to reflect relevant domains etc.

As can be seen, on the basis of these models, an educational organization is assessed much more rigorously, and the results of the assessments show indeed the tendency towards all the meanings of quality. We have to show that, when we speak about quality, we have to prove how we do it, how we know we are doing well and how we improve things.

At the end of the year 2008, after an internal benchmarking against the Romanian National Quality Award – Juran National Award criteria (containing the similar criteria with those of the European Quality Award –EQA: Leadership, Policy and strategy, People, Partnership and Resources, Processes, Customer Results, People Results, Society Results and Key Performance Results) the A.E.S. was externally evaluated and obtained two awards: Quality Award for Education and Excellence Award for Continuous Learning, Improving and Innovation.

4. Conclusions:

There is more and more talk about a quality culture. It presupposes the acquisition of a certain approach to quality, rather than of a system; it presupposes the focus should be on the student; the student has to be considered not a product or a client, but a partner. Among other things, quality culture implies the periodic reassessment of the university's mission, values and vision, the personal example set by leaders, interaction with stakeholders, risk management, acknowledgement of the employees' efforts, taking the "best in class" as a role model, etc. A strong quality culture no longer needs a quality assurance system; it relies on mutual trust among all partners in the educational act; it is no longer implemented; it is built step by step, action by action, until it becomes reality. Taking into account the complexity of socio-economic life and the dynamic nature of quality (defined in the academic environment through its opposition to non-quality more than through its own description, reflecting various cultural, political, national, regional or global socio-economic outlooks), we believe that universities in Romania need to establish their own value system; also, their target should go beyond meeting certain imposed criteria; they ought to compare themselves with standards of excellence awards requirements. Attaining excellence in the entire activity of a university is the only factor which can place it among the first, at an international level, implicitly leading to acknowledgement of the merits of both its professors and its students.

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AGENȚIA ROMÂNĂ
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INTERNATIONAL EVALUATION IN HEI

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Abstract

Now the issues of the quality evaluation and quality assurance are becoming more and more vital and necessary for universities. This paper will analyze the advantages and contribution which can be made for and in the HEI by the international evaluation. There will be described the methods and the procedure itself of the international evaluation of the e-learning program. E-learning or electronic learning is nowadays one of the most active developing spheres of education. As it is quite new there not so much standards to be present which describe how the e-learning program should be created in order to be of quality. Special needs for this experience the classical universities which are quite new with e-learning but try to implement it widely. This paper is especially devoted to the classical universities which have the e-learning programs.

Key words: e-learning, standard, quality assurance, international evaluation.

1. Introduction

Signing of the Bologna declaration in the year 2003 made Russia one of the countries where all the unified European principles of education and quality assurance are to be implemented. The State Management Bodies started with the change the education system from 5-year to 4-year one. Not all the educational programs will be changed. For Russia it is a very difficult question. It was from my point of view one of the prerequisites, but not the only one, for creation in the year 2005 Agency for Higher Education Quality Assurance and Career Development (AKKORK). Its task is to find a balance in the stakeholders interest, create procedures and criteria, which can reflect the interests of employers, the State starting from the content of the education programs, didactical units, ending with management issues, effective management technologies and the economic stability of the University (that is traditionally called conditions for the education program realization). Now Agency is uniting a range of the civil society institutions, accumulating the approaches from the world practice. AKKORK have many national and international partners. For instance in Russia it collaborates with the Associations of Universities, Rectors Councils, Russian Academy of Education (well-known scientific research body, with AKKORK has the joint accreditation of the pedagogy education programs). At the international arena AKKORK is a full member of such well known QA networks as International Network for Quality Assurance in Higher Education (INQAAHE), Asia-Pacific Quality Network (APQN), European Foundation for Quality in E-learning (EFQUEL), and associate member of the European Association for Quality Assurance in Higher Education (ENQA). Also together with EFQUEL AKKORK is realizing on the territory of Russia the program of accreditation named University Quality in E-learning (UNIQUE). It is used for the Universities which are using e-learning in their educational programs.

E-learning or electronic learning is nowadays one of the most active developing spheres of education. The confirmation for this could be the International Conference Moscow Education Online, which for the third time was held in 2009 in the President Hotel (Moscow, Russia). The participants of the conference are the representatives of the above stated organizations and the IT companies staff from Europe and CIS countries. This conference is held in Moscow and this facilitates the participation of the persons from the RF regions in it. The participation gives them the opportunity to get acquainted with the technological innovations, new projects, practical usage of new and existing technologies and the results of the researches which exist on the e-learning market. In the plenary sessions and parallel discussions took part the also the representatives of the education management bodies, what makes possible the constructive discussion on problems existing in the e-learning.

Today e-learning becomes one of the priority activity lines of the organizations in the sphere of education. This determines the fact that the educational institutions and training companies are becoming more and more active users of the IT-consulting services.

On the e-learning market there exist the following types of organizations offering the learning with the usage of information – communication technologies. (e-learning):

- higher educational institutions;
- training companies, offering courses on certain themes ;
- companies, which develop courses for education of their own staff in the e-learning environment.

Electronic learning represents itself from our point of view not the set of defined technological solutions for educational processes but the new form of the educational process which is formed with the usage of Hi-Tech technologies in education. For instance, when professor is teaching the course on management he should possess not only the technologies he uses in teaching but also he should know the teaching methodic based these technologies[1].

2. UNIQUE

UNIQUE is the first EFQUEL program aimed at Western Europe countries. The goal of this program is to help the reforms in the European Higher Education Area (EHEA) by means of creating the quality assurance systems for the e-learning universities, and the main task is to create the European accreditation system for the universities which use e-learning instruments in their educational activity. Russia needs to enter in this process. For the time being only one Russian university – Moscow University of Industry and Finance – which as experiment undergone the accreditation according to the UNIQUE program received the European Quality Mark but we are planning to disseminate this experience on all Russian universities.

In terms of e-learning quality standards EFQUEL offers different indices which correspond to all the components of education process. First of all is evaluated the educational context. It includes the e-learning development strategy, the openness of the university to the public and its innovation policy.

Apart from this are evaluated the educational resources which has the university, namely the level of students' preparation, qualification characteristics of the teaching staff and the material and technical facilities of the university.

Then the university education process is evaluated. It includes: educational services quality, the level of intellectual property protection and the existence and quality of the education and advanced training programs for teaching and administrative staff.

3. Benefits of the UNIQUE

UNIQUE is the first Europe wide quality certification supporting classical universities to achieve excellence in using ICT for innovation in learning. The certification provides benchmarks for the higher education arena to:

- enhance the implementation speed of the Bologna reforms in the area of technology-enhanced learning and focuses on innovation;
- Incorporating existing good practices and valid quality strategies, UNIQUE presents a broader institutional approach and focuses beyond eLearning to validate universities' innovation efforts.

The label builds on broadest stakeholder involvement with a view to involve the whole higher education governance community, students, professors & lecturers, administration and universities' management.

The UNIQUE process is structured in six distinct stages and offers a European wide validated approach to review and certification. The UNIQUE quality label provides a certification as a result and ensures continuous quality improvement based on peer-learning, review and participation in a European quality community [4].

For Russian Universities it is the way they can not only check the status of their e-learning activities, but also change the activities of their university inside and outside according to the European standards. The university leadership also observe with the help of this program the perception of the university staff and students of the university activity.

4. ISO Standard 19796-1

One of the conditions of the successful integration of the Russian educational institutional in to the international economics is their reorganization according to the international quality standards ISO 9000. New series of the standards ISO 9000 : 2000 helps not only solve the problem of optimal organization of the educational institutions management more effective but also stimulates the process of the constant perfections which guarantee the constant implementation of the improvements in the educational institution management process.

In the frames of the ISO technical committee 461 was created the technical subcommittee 36. Later in the frames of the technical subcommittee 36 which originally focused its activity on the ICT technologies, were created several working groups which entirely were devoted to standardization in the e-learning. Several years ago in 2003 was created the 5th working group. its activity focuses on the issues of quality and quality assurance in the e-learning.

Technical subcommittee 36 has developed the standard 19796-1, which was adopted in 2005. The standard represents the basic scheme for description of the approaches to quality in the organization. It consists of two parts:

- Scheme-description of the approaches to quality;
- Process model, used as a basic classification.

Apart from this it is necessary to say that the work did not finish with the adoption of this standard. Today are developed different standards related to content, technologies, teaching staff, technologies of interrelation between professor and student, organization of this interrelation procedures, systems of academic and functional management for organization which use e-learning.

We consider the ISO Standard to be one of the basis for structuring the e-learning activity in the university and the e-learning activity in the country as a whole. It helps to structure in a concrete way not only the quality assurance of e-learning but also quality assurance as a whole. We also think that this standard will help HEI very much to understand what is done and what needs to be done in the sphere of quality assurance by it.

4. Conclusion

The university needs to provide certain assurances to the future and existing students, to the employers, to the state, thus to all the stakeholders which exist in the e-learning market. Such assurances can be checked through the international evaluation programs as UNIQUE. Also the universities can observe through these programs how in reality its activity is perceived by the staff and students. We can say that the international evaluation is a prerequisite for the HEI in order to develop successfully and be competitive on the education services market.

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UNIVERSITY TRANSFORMATION: DIFFERENCES IN PERCEPTIONS AMONG UNIVERSITY MANAGEMENT

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Abstract

The results of the paper exhibit the main actions initiated by university management towards the transformation of the institution. These are grouped and analysed based on "Climate" that facilitates the transformation, the "Discipline" within the institution that would enable coherent and incremental improvements and the "Communication" required improving University "Performances". There are considerable differences among various managerial levels that must be integrated and harmonized in order to complete a successful transformation. In most cases, those with no managerial positions reported a greater spread of responses and a slightly more pessimistic view as compared with those with administrative positions.

Key words: university transformation, university management, hierarchy

1. Introduction

"Gh. Asachi" Technical University of Iași initiated an exploratory research of the leaders of Romanian Universities during the transformations due to the Bologna Process that overlapped with the unprecedented crisis of World Economy. The paper exhibits preliminary results regarding university leaders:

1. Identification of the actions made by university management from Romania to transform their institutions
2. Employee perceptions on the frequency of such actions towards transformation
3. Analysis of the differences in perception among different levels of university management

2. Transformational leader

Transformational leadership concept is described and analysed in the leadership literature (Bartram and Casimir 2007, Gregory et.al 2004, Krishnan 2004 and Sidani 2007) and it should initiate change leading to improvement of quality education (Deselnicu and Rusu 2008, Rusu 2008).

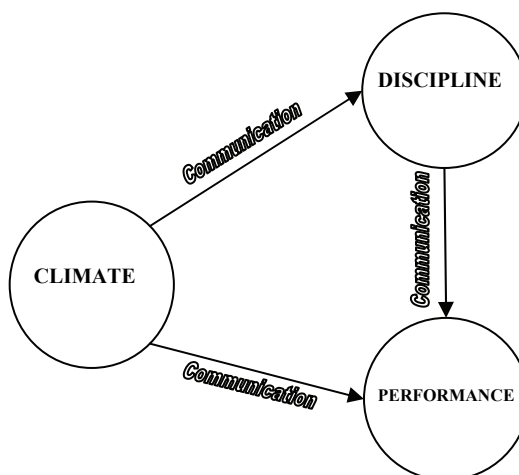
Brombley and Kirshner (2007) cite Brass and Avolio (1994) that proposes for key dimensions of Transformational Leadership concept: Idealized influence, Inspirational motivation, Intellectual stimulation and Individualized consideration, briefly described in table 1.

Table 1. Key dimensions of transformational Leadership

| | |
|--|--|
| Idealized influence <i>Behaviour that determines</i> <ul style="list-style-type: none"> • Followers admiration • Respect • Trust in the leader • Ethical and moral behaviour | Inspirational motivation <i>Behaviour that determines</i> <ul style="list-style-type: none"> • Sense and challenge in work • Existence of clear expectations • Determination of commitment to organizational goals • Team spirit stimulated through outward enthusiasm and optimism for the future of the organization |
| TRANSFORMATIONAL LEADER | |
| Intellectual stimulation <ul style="list-style-type: none"> • Leaders seek out ideas and creative solutions • Leaders encourage new approaches to for performing tasks | Individualized consideration <ul style="list-style-type: none"> • Leaders who listen attentively and pay special attention to the followers' achievements and their specific needs for development • Excellent communication abilities |

2. Methodology

The questionnaire had been developed based on literature review, interviews with colleagues, members of staff, and personal experience. We were particularly interested in this part of the research to identify the actions made by university managers from Romanian Universities towards the transformation of their institutions. Preliminary investigation analysed staff perceptions regarding transformational leaders on key factors that influence University performance. Qualitative analysis of interviews resulted in 17 items that reflected Climate, Discipline, Performance and Communication within the university.

**Figure 1.** Respondent distribution according to job title

Climate involved communication among units instilled by management, blended with: constructive competition, trust, merit recognition, openness for suggestions, ethical behaviour and actions towards reducing corruption. Discipline involved through personal examples and imposing and applying rules and procedures and Performance linked with Communication that would lead the transformation process (see figure 1.).

Respondents were invited to appreciate the frequency that university management use the 17 items in order to train / involve / motivate the personnel towards university transformation.

The questionnaire uses a 5-point Likert scale where 1 stands for “Very rare” and 5 for “Very frequent”. It had been pretested, piloted, and send through e-mail to members of staff and researchers from 22 Romanian Universities. Out of 500 questionnaires sent, 209 correctly filled and useful questionnaires had been returned and analysed. Data analysis was made using SPSS.

3. Sample description

The differences among respondent’s perceptions are exhibited based on their job title; age and position within the university (see figures 2, 3 and 4 for these distributions of the respondents from the sample). Nearly half of the respondents are full professors, and the sample includes staff from all the job titles, including researchers (see figure 2). About 30 persons form the sample are very young (25 to 34 – see figure 3). Whilst the questionnaire include vice deans, deans, vice rectors and rectors, most of the respondents do not have any administrative position (about 75%) which reflect the realities from any University (see figure 4).

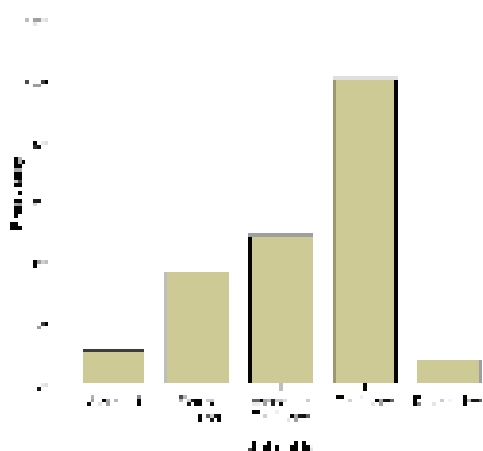


Figure 2. Respondent distribution according to job title

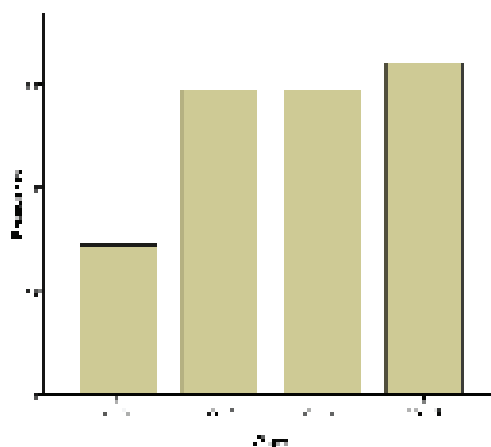


Figure 3. Respondent distribution according to age

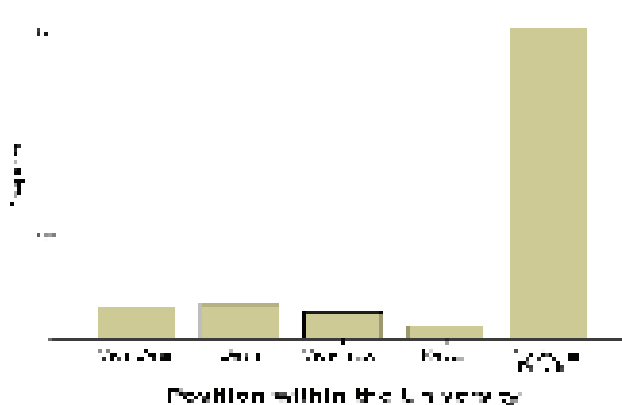


Figure 4. Respondent distribution according to the position within University

4. Data analysis

Figure 4 exhibits a comprehensive view of employee's perceptions regarding the frequencies of the actions made by university managers toward transformation of their institutions. Most of the respondents indicated an "average" frequency of such actions. The action with the lowest reported frequency refers to "actions towards the improvement of top management skills in management". At the other end, the most frequently invoked action refers to the "imposing of rules and procedures" and "concern towards achieving high performance" (see figure 4).

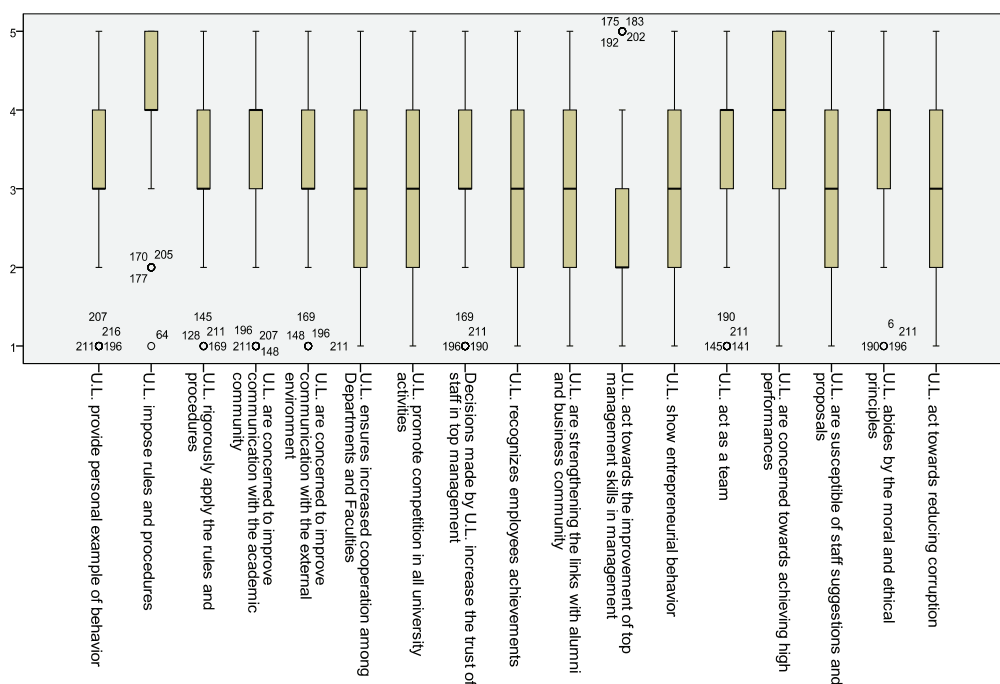


Figure 4. Respondent answers regarding the frequency of actions and transformation abilities of university managers

During the interviews and preliminary data analysis revealed that there might be significant differences in the perceptions of various levels of management. First, those with no managerial positions reported a greater spread of responses and a slightly more pessimistic view as compared with the rest of respondents (see figure 5). Second, whilst no statistical test was computed, a visual analysis of figure 5 revealed an unusual trend. We believed that Deans and Vice Deans would have similar attitudes reflecting the Faculty position and the Rectors and Vice Rectors would also exhibit similar attitudes reflecting the University's position.

Vice Deans and Vice Rectors reported less frequent actions towards corruption reduction as compared with Deans and Rectors (see median and response distribution from the box plot). Similar trend exhibits the susceptibility of staff suggestions and proposals, and promotion of competition in all university activities (see figure 5). Significant differences among Rectors and Vice Rectors also occurs between respect for moral and ethical principles, recognition for employee achievements, trust in top management and cooperation among Departments and Faculties. Such behaviour may occur due to the "Public position" of the Rectors and Deans that have to exhibit a more positive image of the University as compared with the rest of respondents.

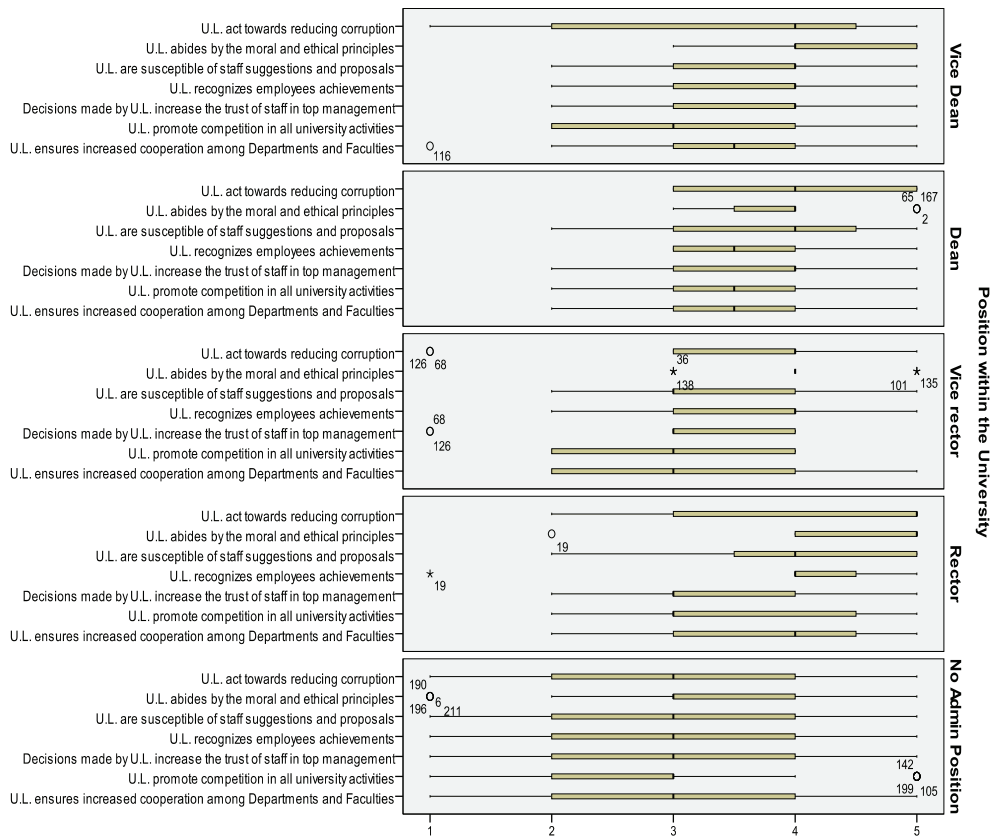


Figure 5. Distribution of responses among different hierarchical positions regarding the actions transforming the university climate

Figure 6 exhibits a comprehensive view of the respondent's perception regarding the actions transforming the communication within the university. Data is structured according to the hierarchical position within the University.

The best perception (as exhibited by the position of the quartiles and median) varies across the hierarchical positions. Whilst for Vice Deans the main concern is to improve communication with external environment, the Deans and Rectors aim to improve communication with the academic community (see figure 6).

There exist differences among the perceptions expressed between different managerial positions, but not as significant as compared with the actions towards improving the climate. The Vice Deans break such pattern for communication with external environment, 50 percent of respondents reporting high and very high frequencies (see figure 6). Such behaviour might be due to sustained efforts made by the Faculties towards improving the links with the external environment in order to attract students.

Rectors and Deans interests and actions increase from alumni and business to external environment and academic community. Those with no administrative position reported a greater spread of responses and a slightly more pessimistic view as compared with the rest of respondents.

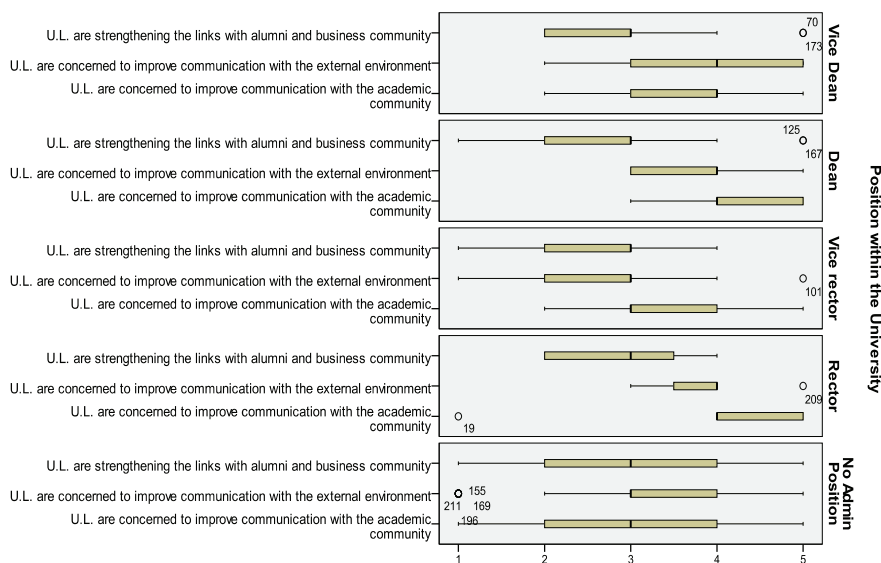


Figure 6. Distribution of responses among different hierarchical positions regarding the actions transforming Communication within the university

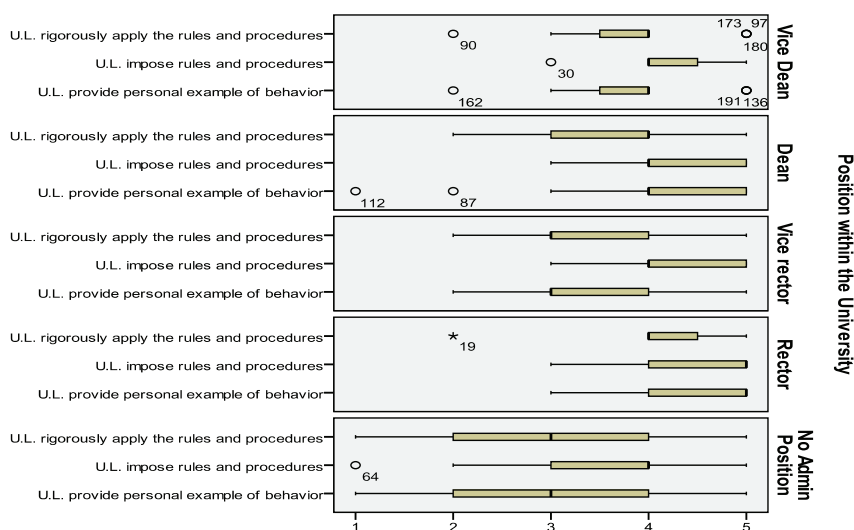


Figure 7. Distribution of responses among different hierarchical positions regarding the actions transforming the discipline within the university

Figure 7 exhibits a comprehensive view of the respondent's perception regarding the transformation of discipline within the University, structured according to the hierarchical position within the University. The first major difference is between those without any administrative position that reported consistently lower frequencies of actions towards the transformation of discipline and the rest of respondents.

The highest frequencies were reported by the Vice Deans for imposing rules and procedures and by Rectors for rigorous application of rules and procedures.

Vice Rectors reported lower frequencies compared with Vice Rectors, but the Vice Deans reported higher frequencies compared with the Deans.

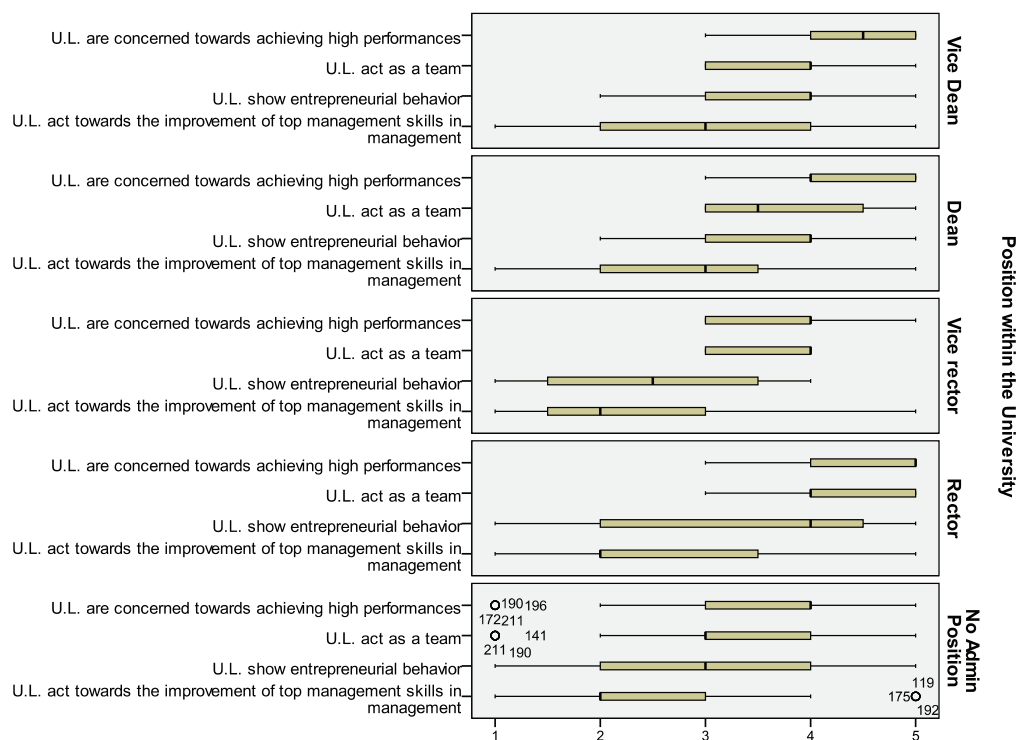


Figure 8. Distribution of responses among different hierarchical positions regarding the actions transforming University's performances

Figure 8 exhibits a comprehensive view of the respondent's perception regarding the transformation of university performances within the University, structured according to the hierarchical position within the University. At faculty level, the most frequent actions are those towards achieving high performance and act as a team. Maybe these are due to the teams that seek to develop their faculties on both scientific research and teaching and campus and student life and opportunities. Such actions would make the faculties better perceived by the students and potential candidates. The actions towards the improvement of top management skills in management received consistently the lowest frequency across all university positions, especially by those with no administrative function and Rectors.

5. Results and conclusions

The results of the paper exhibit the main actions initiated by university management towards the transformation of the institution. These are grouped and analysed based on "Climate" that facilitates the transformation, the "Discipline" within the institution that would enable coherent and incremental improvements and the "Communication" required improving University "Performances".

Whilst most of the respondents reported an "Average frequency" it is interesting to highlight some important differences among the perceptions expressed by respondents on different hierarchical levels (including those with no managerial position).

In most cases, those with no managerial positions reported a greater spread of responses and a slightly more pessimistic view as compared with those with administrative positions. Such behaviour may occur due to the "Public position" of the Rectors and Deans that have to exhibit a more positive image of the University as compared with the rest of respondents. Those with no administrative function will have a tendency to express a more critical view (corresponding or not to the reality) taking into account the natural tendency of man to grumble. As it was expected, at University level, Rectors and Vice-rectors are primarily concerned with the development of University image based on both academic activities and its integration within the changes of the external environment. On Faculty level (Deans and Vice Deans) focus primarily on opening up their faculty, seeking visibility and prestige that in turn would attract better students which will become better graduates sought by the employers which in turn will generate a reinforcing positive loop.

The top management must further investigate such differences and could use the results to assess and initiate specific actions to harmonise and support the transformation process of the university. Successful change should receive the support of all members of staff, including those with no administrative positions that must share the University's vision and fully support university management in the transformational journey, especially during the unprecedented crisis that we pass through.

All these actions must base on effective and efficient communication that performance must be improved based on disciplined and sustained effort made by all staff.

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QUALITY IMPROVEMENT IN ROMANIAN HIGHER EDUCATION: THREE WAVES FOR THE FUTURE

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Abstract

In the context of the new European and global realities which mark our contemporary societies, quality as a fundamental propeller factor and as a synthetic indicator is essential to assure competitiveness to the all social organizations and institutions. Quality exposes itself as an inevitable issue for all educational reforms all around the world. Because there is no quality generally speaking, the operational definition for teaching and educational quality has on its basement different educational paradigms and theories upon the efficiency in education. The scientific literature on the field strength three global reform waves which impose different systems on the management of educational quality. Even on the general basis are good intentions on the Romanian educational reforms on the insurance and evaluation of educational quality are not enough. Because of that, the actors and the structures involved in the process feel themselves frustrated and this is not only in Romania but in more other countries. Our article brings on the light the experience on the field of educational quality of the Asia-Pacific Region which promoted initiatives who failed in front of the needs and challenges of the globalization. And that because on this region the decision makers had has limitative conceptions upon the role of the quality and educational institutions. From this experience it arise the new Triplization Paradigme in Education (globalization, regionalization and individualization) imposed by Cheng (2005). This paradigm can generate new initiatives that are capable to insure the quality of education for the future. Assuming the option for a better understanding the quality culture concept in a dynamic and progressive meaning, we want to research the implications of this new paradigm on quality management in a Romanian university.

Key words: education quality, quality management, future quality assurance.

1. Introduction

The increase of complexity in the political, economic and social fields that accompanies globalization gradually produces a higher need for knowledge and implicitly stresses the development of competences at the individual and institutional levels, as suggested by the very concept of a *knowledge society*. The development of management, as a form of order and knowledge applied in order to influence social and economic reality, which is especially obvious in the approaches of organizational management quality, represents a way to integrate knowledge into products and services, thus increasing their value. The recognition of the impact that knowledge has within organizations and the re-appreciation of organizational management are obvious in the generation of a new concept – that of *knowledge management* and in its new applications. As Lopez Ruperez (2003) argued, the purpose of this new type of management is ordering and improving all the processes by which an organization, regardless of its mission, generates, accumulates, distributes, transforms, communicates or administers knowledge [1].

From this point of view educational institutions too are organizations whose fundamental value derives from what they know and from what they do.

At the same time, the science-technology-innovation nexus is currently considered to be the engine of development, the bridge that appears to secure a more certain and prosperous future for nations. Through the Lisbon Strategy, the European Union is aiming to become the most dynamic and competitive economy based on knowledge, an ambitious goal for which it is vital to implement a vast programme of modernization of the social security system as well as of educational systems. As stated in the documents of the European Commission [2], the issue of quality in education and professional training has become fundamental for the competitiveness of the European Union and for the preservation of its cultural model.

Actions within the field of education attempt to answer a few fundamental challenges that configure the context in which responsible authorities in education currently operate worldwide. In this respect, one must refer to increased social inclusion, knowledge, to de-centralization and increased resources [3]. Today, higher education operates within a competitive global environment, thus increasing the pressure for the improvement of an institution's own results and for increasing its attractiveness.

Specialised literature records a variety of opinions and models concerning optimal ways for quality management within higher education institutions. In Becket and Brookes' (2008) study they show institutional practices, as they appear in comparative works or as case studies, which highlight a dependency on limited economic models and the limits of application of such models in the educational environment [4].

This paper draws attention to the experience of higher education in the Asia-Pacific region from the perspective of quality management models and their effects, many of them unsatisfactory vis-a-vis market requirements, especially those of students. The purpose of this study is to highlight the efforts carried out by these institutions in order to develop a quality management model that is more sensitive in relation to the complexity of the educational environment. Cheng's conceptualization (2005) referring to the quality insuring reforms offers useful historic and comparative perspectives for Romanian higher education which is undertaking great efforts in this respect.

2. The context of quality assurance in higher education

In the context of global and regional transformations, the first challenge education must face is the production of knowledge. Educational systems must have the ability to restructure themselves in accordance to changes in the global labour market; they must also generate a society based on permanent learning. Consequently, due to the tight connection between the knowledge society and education, globalization has transformed the social system into one that is more sensitive to the errors of the educational system, whence follows the need to promote the culture of zero defects and total quality.

The management of quality in higher educational institutions has, however, proven itself to be a very difficult task. Specialized literature speaks of two main reasons [4], [5], [6], [7]. First, because there is no such thing as quality in general, the operational definition of quality of education differs depending upon the perspectives of concerned parties. Secondly, the difficulty arises from the complexity of the learning process itself: there is no strict causal connection

between the quality of the pedagogical process and the quality of student performance. This explains why the measurement and management of quality continue to be controversial, especially when mere economic references are used above substantive educational criteria. Emphasising the mere economic utility of knowledge leads also to a narrow student mentality that regards education itself as mere economic utility.

Experts also highlight a trend in which the technical, practical value of higher education is increasingly considered to be equivalent to the results of applied research in science and technology, at the expense of the humanities, social sciences and arts. As Rui Yang (2003) points out, the growing interest shown by the business community for university research should be regarded with more caution rather than as an opportunity, since in numerous cases in which the offers of business institutions – from the points of view of contents and quality – are heavily dependent upon industrial criteria [8]. On the other hand, the need to rethink the symbiosis between academic learning and the imperatives of the labour market is constantly being ignored on the basis of certain views according to which the partnership between universities and industry represents the key to economic success in the 21st Century. Thus narrow economic pragmatism has become a principle of university management that seems to endanger the academic ethos.

3. Types of reform and quality assurance models

Currently there are efforts to reform education in all the regions of the world. A comparative analysis of such efforts made by educational institutions in the Asia-Pacific area published by Cheng (2005) identifies various theories and paradigms of education quality and efficiency that have generated different approaches, various strategies, policies and programmes dedicated to the transformation of educational institutions and systems [5].

The reforms accomplished in the 70s, mainly through top-down government initiatives, have focused mainly upon issues of internal quality and the efficiency of education. In this perspective, the main target of efforts has been represented by the development of the teacher's and student's performance, as a central method to obtain results matching certain identified standards and measures.

Approaching the issue of educational reform from the perspective of relations between education and society, of expectations and public exigencies in relation to the results achieved by the education institutions, reforms carried out in the 90s have stressed education quality in terms of the efficiency of the interface between school, community and the exigencies of the labour market.

In each of these successive phases of attempts to improve education and learning, the issues of education quality have been specifically treated and approached. Thus, during the first stage, that of ensuring the internal quality of education, debates and actions dedicated to quality have focused on the efforts to increase the efficiency of the teaching processes, learning and improvement of the internal school environment. The quality of education in this case was seen mainly as achievement of planned goals, measured as student performance. Starting from this conception of the efficiency of learning and training, two different approaches have been adopted in ensuring the quality or efficiency of an educational environment.

The first one has been called the structural approach of quality components whose aim is to improve the quality of the main components of a quality structure, among which:

- improvement of the teacher's competence, as a key factor of the internal quality of education, in areas or fields of competence such as: linguistic abilities, pedagogical knowledge, knowledge of scientific disciplines, use of information technologies in the teaching and formation processes etc.
- improvement of the internal school environment;
- improvement of the teaching, learning, evaluation processes;
- improvement of school management etc. all aiming to achieve the educational goals planned for each component of learning at the highest standards;

Such an approach has certain objective limitations, besides certain undoubted values. It does not take into consideration the relations between the components of the efficiency of educational processes. The improvement of one component does not automatically secure better results in the others.

The second approach – referred to as the relational approach to quality – focuses on improving the quality of relations between the components of the quality system structure. As an example, from this perspective we consider that securing a coherent and positive relation between the teacher's performance, the characteristics of the class environment and the curriculum may increase the quality of the students' learning experience. This is because in such a context the teacher may adapt his/her teaching competences to the characteristics of the study formations to the purpose of maximizing the opportunities of learning for various students.

This approach has the advantage that it may simultaneously ensure both the quality of the separate components of the teaching-learning processes and relations between them. The successful application of such an approach necessarily implies, however, a significant deepening of the knowledge of the content of such relations, without which its contribution to increasing efficiency and raising the quality of education is not possible. Moreover, due to the fact that as a whole quality factors are directly but also indirectly linked in the various stages of the learning processes, only assuring the quality of relations between all factors may lead to obtaining total internal quality of education. Under such conditions, implementation and management of the internal quality of education may be ensured on the basis of using adequate models:

- a. The goal and specification model, that presupposes the existence of accepted goals, duration and normative goals, as well as specifications, indicators and standards for the institutions or educational systems that must be accomplished and to which they must conform. Typical examples of quality in this model are indicators regarding academic accomplishments of students, attendance measures, measures of class participation, and exam failure rates, or repeated years, the development of personality, the percentage of graduates admitted to higher education institutions, professional qualifications of the teaching staff etc.
- b. The process model, that starts from the premise that the nature and quality of educational processes essentially determine the quality of school results and the degree of achievement of the planned goals. Consequently, the quality of education is mainly defined by the normal and healthy character of the internal educational processes of the unit, both those of learning and teaching and managerial ones. Their quality is measured by indicators of management quality (quality of decisions, leadership, resource distribution etc.) quality of teaching (efficiency, methods and techniques used etc.) as well as learning (attitude towards learning, active participation in educational activities etc.).

- c. The model of problem absence, that assumes that the absence of problems, disturbances, faults, weaknesses, difficulties and dysfunctions within an educational unit, is equivalent with a high quality of education that such an unit offers to its beneficiaries.

In this case, quality assurance is strongly reliant upon institutional monitoring and measures aimed at avoiding certain problems and deficiencies, both in structure, functionality, internal and external operating environments, as well as the identification of strategies for the continuous improvement of the internal educational activity as a whole.

During the second period of reforms and ensuring the quality of the interface between education and society, multiple quality models have been proposed, among which:

- a. The input-resource model, which starts from the premise according to which the availability and quality of resources required for education represents the basic condition of the achievement of goals and quality of educational services in the short term, education being perceived as a natural result of ensuring resources for educational institutions.
- b. The satisfaction model, based on the satisfaction of the strategic constituents of an educational institution, in which the quality of education mainly refers to the extent to which their performance may satisfy the needs and expectations of the strongest factors involved in sustaining school, public authorities, leadership committees, administrators, teaching staff, parents, students etc.
- c. The legitimacy model, which mainly attempts to ensure the legitimacy of the position and distribution of educational institutions within social communities, under the conditions of the continuous increase of exigencies, „challenges” and competitiveness within the current educational environment;
- d. The organizational learning model, which presumes that educational organizations must be able to respond to the exigencies of a changing social environment, a solution in which the quality of education represents the dynamic concept, involving the continuous development and improvement of members, processes, practices, organization of structures, management and results of an educational institutions, on the basis of awareness of external change and necessities, monitoring of internal processes, evaluation of programmes, strategic management etc.
- e. The total quality management model, that defines the quality of education by the character of a set of elements of the input, processes and output of the educational institution, offering services that fully satisfy both the internal constitutive elements and external strategic ones, answering their explicit or implicit expectations.

All these measures may offer a large field of concepts and approaches with regard to ensuring the quality of the interface between education and society, able to answer to the various needs of the beneficiaries and supporters of education within social communities.

Currently the results of these reforms have already become obvious, there is talking about their efficiency, shaping a conclusion that the effects cannot fully respond in a satisfying manner to the challenges and requirements generated by the deep and accelerated transformations of society and social life, the processes of globalization and development of computer technology.

Within this context, at the beginning of the 21st century a new wave of educational reforms appeared in order to achieve an agreement between the goals, content, practice and management of education with a new paradigm of learning and teaching, founding a new

conception of quality and efficiency – that of ensuring quality for the future of education (Cheng, 2000) defined as a connection between education and the future needs of individuals and communities in order to face the challenges of the new millennium. In his theoretical articulation, Cheng has in mind, on the one hand, reporting to the new roles of school and on the other hand the consistency and coherence of aspects of globalization and localization, without forgetting though about the requirement of individualization of education [9].

4. Cheng's paradigm concerning the quality of education for the future

Cheng (2005) appreciates that the relevance of education for the future is one of the critical elements in approaching the quality of education. Nonetheless, this imperative cannot be reached without changing the traditional paradigm of ensuring the quality of education (in relation to entries, processes or results, situation in which the quality of education is not different from educational efficiency), by multiplication of educational perspectives – respectively globalization, localization and individualization, a model which Cheng (2000) calls the paradigm of triplization [9].

Globalization refers to the circulation, adaptation and development of values, technological knowledge and norms of behaviour in countries and societies from different parts of the world. The phenomena and characteristics associated to globalization include an increase in the global information network (Internet, global electronic communication and transports), in global interdependency, including that between technological, economic, political, social aspects and education, international alliances and competitions, international exchanges and collaborations, global community, interculturality and the use of standards of international level. The main implications of globalization in the field of education should include the maximization of the global relevance of the support of intellectual resources and initiatives in schooling, teaching and learning. A few examples in this sense are learning from webpages and the Internet, international visiting or exchange programmes, international partnerships in teaching and learning at the group, class or individual level, interactions by videoconference between countries, communities, institutions and individuals, as well as the new curricular contents for technological, economic, social, political, cultural and globalized learning.

Localization refers to the circulation, adaptation and development of common values, knowledge and norms of behaviour within a local context. This perspective may have two significations: the integration of all compatible external values, initiatives and norms in order to satisfy the local needs of the society, community, members and institutions; it may as well mean the development and affirmation of local values by preoccupation, participation and involvement in initiatives and similar actions. The characteristics of localization are the following: the existence of a local communication network, adapting external technological, economic, social, political, cultural and educational initiatives to the specificity of the local community, de-centralization at the community level, development of traditional culture, satisfaction of the needs and expectations of the community, involvement, collaboration and local support, local relevance and legitimacy, but also the preoccupation for the needs, characteristics, norms and ethos of the institution. Therefore, the implications of localization on education are the maximization of its local relevance (answering specific needs but also developing social capital), the support of the community and initiative in management and learning. A few examples for the practice of localization are the involvement of the community in education, undertaking educational responsibility, implementation of the curriculum in relation to the community, development of a new curriculum on the basis of technological, economic, social, political, cultural and learning localization.

The individualization of education refers to the circulation, adaptation and development of values, knowledge, technology and norms of behaviour that correspond to individual needs and characteristics. It is reflected in providing individualized services, stress laid on human and individual potential; promotion of creativity and initiative; encouragement of improvement, autonomy and self-government; preoccupation for special needs. The major implication of individualization in education is represented by the stimulation of motivation, initiative and creativity of students and teachers in the learning process; teaching and learning through individualized educational programmes; designing and using individual methods of learning and progress graphs; encouragement of students and teachers for self-teaching, self-evaluation, improvement; the satisfaction of special individual needs; the development of contextualized multiple intelligences (CMI).

The consequence of the changes in the educational paradigm is represented by the change of the paradigm of ensuring education quality on the basis of the following co-ordinates [5]:

- How well is education triplization accomplished – respectively, to what extent are the goals, contents, teaching, learning and schooling placed within a global, localized and individualized context;
- To what extent are the students' learning opportunities being maximized by IT networking, CMI for professors and CMI for students; respectively, the essential is no longer to aim at an improvement of the process of satisfaction of the public and supporters of the school, but to what extent and how many opportunities can be created for teaching students and for the development of their CMI;
- To what extent the students' self-teaching is facilitated and sustained as potential for lifelong learning (exceeding the short-term quality and satisfaction of education supporters);
- To what extent do the students develop their ability for the triplization of self-teaching, for maximization of the opportunities for learning and sustaining self-teaching in all respects: from the point of view of globalization, localization and individualization;
- To what extent do the students continuously develop their own CMI (contextualized multiple intelligences - technological, economic, social, political, cultural) and the intelligences that are crucial in order to meet the challenges of the future.

5. Conclusions: the quality waves implication for the Romanian higher education system

Our short review over the waves of reforms on quality assurance in education indicate the fact that in the future there will no be relevance for assurance in education if we don't assume all the contemporary dimensions of education – global, local and individual. That's why we consider the debate over the quality of education for the future is crucial for higher education in Romania in this special moment when the Educational Reform Act is almost ready to be implemented.

The modernization effort of the national educational systems and the sustainable development of the education claim to identify new paradigms, strategies and policies on education. All of them are needed to assure the quality and the efficiency of the structural elements and their functions. In specific case of higher education the challenges that we must respond contain in themselves key words as: flexibility, expansion, elitism, transparency and/or quality.

Generally the higher education institutions are still founded upon economical management model – adopted or adapted – as we mentioned before for the first and second reform waves on quality assurance in education. Those models are limited to perform only to the administrative

and service dimensions but it's failed to have a upper level skill in the higher education process. That's why we faced an increase of dissatisfaction between the beneficiaries and also between the academic community itself. We consider that the triplization paradigm can be a response to this increasing dissatisfaction upon lack of focused education for students, but also to the difficulties on the cultural and economical level of the higher education institutions. The triplization paradigm can assumed as a holistic model in the assurance of quality in education.

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THE POLICY FOR THE INTERNAL QUALITY ASSURANCE IN THE ACTIVITIES OF THE NATIONAL EVALUATION AND ACCREDITATION AGENCY

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Abstract

This research adopts the hypothesis that constructing and conducting various directions of the policy to internal quality assurance by NEAA will result in increase of the effectiveness of its activity. Policy of the internal quality assurance constructed by the Accreditation Council is directed in several directions: system of quality assurance in the activities of NEAA; commission on quality assurance; assure the quality in the activities of the standing committees and external experts; preventing conflict of interests; harmonisation of NEAA's criteria and procedures to the European standards; publicity and accountability of the accreditation process. The above presented analysis proves the hypothesis that constructing and conducting various directions of the policy to internal quality assurance by NEAA will result in several outcomes, connected with the increase of the effectiveness of its activity: emerging and affirming a quality culture of the NEAA; encouraging and developing mechanisms for assurance quality in the Bulgarian HEI; NEAA will establish its position as an equal member of ENQA u EQAR; NEAA will be better prepared for the new challenges facing higher education in Bulgaria.

Key words: policy quality, quality assurance.

1. Introduction

In the last several years, higher education in Bulgaria has been developing under the conditions of the postindustrial "knowledge economy." The new social trends of globalization, virtualization, and accessibility of higher education are trailed with the life-long learning as educational paradigm. Under international and cross-national competition, higher-education institutions in Bulgaria focus on improvement of the intellectual product and services offered to their students. As a result of the above mentioned trends, the government and the society is expecting an increasing accountability and improvement by the educational institutions. On the other hand, amidst such rigorous changes it is expected that the academic autonomy is observed and preserved.

The National Agency for Evaluation and Accreditation (NEAA) is the main and independent institution, which conducts an external evaluation and accreditation of the higher-education institutions in Bulgaria.

The mission of the Agency is to contribute to the quality enhancement of Higher Education through cyclical institutional and programme evaluation and accreditation in Bulgaria, through the evaluation of projects for opening new HEIs and their basic units, as well as through post-accreditation monitoring and control, while ensuring the independence and transparency of the procedures and the high competence of all Bulgarian and foreign experts participating in them.

This research adopts the hypothesis that constructing and conducting various directions of the policy to internal quality assurance by NEAA will increase the effectiveness of its activity.

2. Definition and principles of the Policy of the internal quality assurance in the activities of the NEAA

The term policy (often used in plural as policies) contains also a narrow meaning reflecting a specific plan, a way of conduct and main principles of action by which an organization will adhere when pursuing an endeavor. Hence, “policy is used to identify specific strategic programs for the development of an organization. Such policy, executed in a particular organization is identified as micro-policy. According to it, the power of individuals and groups is used strategically in the organization to achieve certain goals.” [1]

On the other side, a policy for internal insurance of quality can be defined as a specific micro-policy of the respective institution, which is connected to a determined behavior and main principles of action.

A policy for internal assurance of quality can be defined as a specific micro-policy of an institution. This policy is related to the chosen course of action and key actions aimed at quality assurance processes and procedures within the organization.

The Policy of internal quality assurance in the activities of the NEAA is constructed by the Accreditation Council and its Chairman, considering the opinion of all structural units of the Agency.

The Policy of internal quality assurance in the activities of the NEAA be worked out in conformity with the national legislation and the activity by NEAA to pave the way for implementing “Standards and Guidelines for Quality Assurance in the European Higher Education Area”, drafted by ENQA as an adequate internal peer review system for quality assurance and/or accreditation agencies and bodies, considering the national traditions in the higher education area”. [3]

Policy principles for internal quality assurance:

- Objectivity;
- Transparency;
- accountability for its own activity.

3. Analysis of the main directions of the internal Policy of the quality assurance in the activities of the NEAA

Policy of the internal quality assurance constructed by the Accreditation Council is directed in several directions

3.1. System of quality assurance in the activities of NEAA

The Accreditation Council adopts a “System of quality assurance in the activities of NEAA”. The System of quality assurance in the activities of the NEAA includes standards, directives, policies, procedures and guidelines, assuring the quality of procedures on external evaluation and accreditation and postaccreditation monitoring and control, carried out by the Agency. By means of the system, NEAA harmonizes the external quality assurance standards to its own standards for good quality activities, thus ensuring reliability and validity of its evaluation and accreditation activities. The System includes the European standards and guidelines of ENQA and renders an account of the national experience and traditions in the higher education. The policy and procedures ensuing from it have an official statute; they have been described and published and are easily accessed by the public.

The system consists of four subsystems:

1. NORMATIVE SUBSYSTEM

- Legislative Acts (HEA etc)
- Subordinate normative acts (SCNEAA)
- Evaluation and Accreditation criteria and procedures
- Other documents and resolutions of NEAA, related to the evaluation and accreditation procedures

2. SUBSYSTEM STANDARDS, POLICIES, PROCEDURES, DOCUMENTS

- Harmonisation of NEAA's criteria and procedures to the European standards and guidelines of higher education
- Policies for: internal quality assurance; partnership with Bulgarian and international public authorities, associated with the higher education; publicity and accountability; preventing conflict of interests.
- Procedures for: quality assurance at "the input", "during the process" and at " the output"; collection of feedback information and procedures

3. SUBSYSTEM MANAGEMENT

- Management bodies and structures established by them:
- Specialized Administrations
- General Administration
- Human Resources
- Information technologies
- Management documentation

4. SUBSYSTEM FACILITIES PROVISION

- Long-term tangible assets
- Short-term tangible assets
- Financial status
- Financial recourses
- Financial policy [3]

The system supports the interaction between the subsystems within its own structure, as well as the interaction of NEAA with the structures from the outer environment, which carry out activities associated with quality assurance in the higher education (Commission of education and Science to the National Assembly, Council of Ministers , Ministry of Education and Science, Council of the Higher Schools' Rectors, Higher Education Institutions).

The efficiency of the "System of quality assurance in the activities of NEAA" is discussed, analyzed and assessed on regular terms in order to render an account of the improvements accomplished. The recourse needs of NEAA are also reported, as well as their long-term planning in order to achieve its goals and meet the demands of the parties concerned. The drafting, implementing and functioning of the "System of quality assurance in the activities of NEAA" is within the competence of the Secretary General of NEAA [4].

Positive features of The system:

- By assuring the quality in its activities NEAA has a direct impact on and stimulates the higher education institutions to optimize their own activities
- Through its established and functioning quality assurance system NEAA legalizes its decisions on the extent of acknowledging the right of a higher education institution to provide higher education in the education and qualification degrees

- System is institutionalized. This means that its subsystems cover structures, documentation legalization; human resources, information and finance provision

3.2. Commission on quality assurance of NEAA

Commission on quality assurance (CQA) is an auxiliary organization with the Accreditation Council, which monitors, maintains and improve the quality of the Agency's work. The Commission is established by the Accreditation Council of NEAA in 2008. In the same year, the Accreditation Council approves "Regulations on the work of the Commission on quality assurance." The Commission consists of:

- Chair, member of the Accreditation Council, elected by the Council
- Representatives of the Accreditation Council
- One representative from each standing committees representing a higher-education field, nominated by the standing committees
- Three representatives of the universities, nominated by the Council of the Higher Schools' Rectors.
- Two representatives of the students and doctoral students, nominated by the National Union of Students
- Two representatives nominated by the Employers' Organizations
- One representative of the Ministry of Education, nominated by the Minister of Education and Science.
- Two representatives of the Higher Ed unions

The main responsibilities of the Commission are as follows:

- Analysis of the NEAA activities to ensure quality and discuss the Agency's drafts.
- Periodical review of the practical application of the "System of quality assurance in the activities of the NEAA."
- Analysis of the collected external and internal recommendations for improvement of the quality in NEAA activities through the mechanisms for feedback (surveys, expert opinions)
- Periodical review of the activities by the standing committees, observe the procedures for assessment, accreditation and post-accreditation monitoring and control.
- Periodical review of the necessity to update the regulations of the NEAA

The Commission prepares an annual plan. In their report the Accreditation Council regarding the forgoing analysis and findings, the Commission:

- Brings up specific proposals for improving the quality in NEAA activities.
- Brings up proposals to the Accreditation Council on the need to update the regulations of the NEAA
- If necessary, brings up proposals about best practices' meetings and discussion meetings regarding the quality of evaluation and accreditation as conducted by NEAA

All of the above turns the Commission on quality assurance into one of the main mechanisms for internal insurance for quality activity of the Agency. Some of the positive aspects of the Commission are:

- Broad participation by representatives of all stakeholders concerns with quality performance of NEAA (students, employers, university presidents and unions)
- External expert assessment of the permanent committee's performance.
- Second opinion and feedback in case there is new documentation and new activities of the Agency
- Constant feedback with the representatives of the institutions and organizations connected with higher education.

3.3. Assure the quality in the activities of the standing committees and external experts

In order to assure the quality in the activities of the standing committees when nominating their chairmen and members, the Accreditation Council considers the personal qualities of each member, paying special attention to:

- "their individual academic experience and prestige as lecturers and scientists;
- their individual experience in management of higher education institutions and their basic units;
- awareness of the normative documents, regulating the activities of higher education institutions (scientific organizations) and accreditation activity;
- their personal experience and participation in internal and external quality assurance procedures of higher education institutions ;
- their personal international contacts and participation in international projects".[3]

In order to assure the quality in the activities of the external experts the Accreditation Council pays special attention to equal positioning of external expert coming from different higher schools. Their nomination is supported by a set of rules, accepted by the Accreditation Council.

NEAA pursues a consequent policy for attracting students in the evaluation and accreditation procedures. The selection of students-experts and members of standing committees is carried out along with the National Union of Students, the higher education institutions. Student participating in expert teams and standing committees have the status of full members.

3.4. "A peer statute"

"A peer statute" – an element of the system for internal communication and information in the evaluation process. In order to ensure faster internal communication and timely information about the evaluation and accreditation procedures between the Accreditation Council, the standing committees by areas of higher education , the expert teams and the evaluated institutions, as well identical and consequent implementation of the criteria system of NEAA:

- The Accreditation Council assigns to its members a peer review on the activities of the standing committees by areas of higher education and the standing committee on post-accreditation monitoring and control;
- The standing committees by areas of higher education assign to a member of their teams a peer review on the procedure.

3.5. Preventing conflict of interests

The issue of preventing conflict of interests in the activities of the different structures of NEAA has been considered in detail in the Code of Ethics of NEAA. In the light of this code the evaluation activities of the bodies and structures aforesaid are carried out in an academic partnership with the evaluated institution but autonomously and independently from it. There is a wealth of technical rules aimed at guaranteeing that experts have no vested interest in the HEI or programme/project they evaluate. Art.3 of the Code of Ethics of the Agency establishes that "the external quality assurance is carried out on the grounds of values such as legality, impartiality and conscientiousness, independence, objectivity and honesty, competence, transparency, responsibility, confidentiality and communication"[2]. To prevent a conflict of interests with the HEIs and following NEAA's Statute, the members of the expert teams must not be representatives of the evaluated institutions, and must not teach or have taught in them or in their branches in the 18 months preceding the initiation of the accreditation or evaluation procedure.

The quality assurance system's resistance in terms of arousing a conflict of interests has been guaranteed by the Code of Ethics of NEAA, activities of Commission of ethics as well as by the organizational principles, followed by NEAA:

- independence of NEAA's evaluation activities from the government and bodies with political influence;
- responsibility sharing between various levels of decision making in the accreditation process;
- participation of all concerned parties in the internal quality assurance of the Agency;
- preventing a conflict of interest when nominating, electing, appointing, defining a term of office, replacement and dismissal of the Accreditation Council, Standing committees and Expert teams' members, leading to their independence;
- preventing conflict of interests due to "incompatibility of positions" at selection of the Accreditation Council Standing committees, and Expert teams' members;
- control on the implementation through effective external and internal feedback

3.6. Harmonisation of NEAA's criteria and procedures to the European standards and guidelines for higher education

NEAA pursues a consistent actions for harmonising its standards, and the procedures elaborated by the agency, to "Standards and Guidelines for Quality Assurance in the European Higher Education Area". By implementing these standards NEAA aims at rendering its activities of evaluating the quality of Bulgarian higher education and its own activity as well, compatible to the principal standards and guidelines, adopted by the agencies-members of ENQA.

NEAA implements "European Standards and Guidelines for External Quality Assurance in the Higher Education Institutions "in order to evaluate:

- The efficiency of the procedures for internal quality assurance in the higher education institutions, as a departure point for external quality assurance in the higher education institutions.
- The efficiency of NEAA's policy for adopting the methodology, criteria and procedures involved for external quality assurance of the higher education, correlated to the specifics of the procedures evaluating institutions and programmes in different fields of the higher education and science.
- The guidelines and stages of preparing an impartial report.
- The formulation of the accreditation resolutions and recommendations – a reliable basis for subsequent decisions on actions to be undertaken by the evaluated institutions.
- The cyclic recurrence of the procedures for external quality assurance of the higher education.
- The reliability and validity of the annual reports on the activities of NEAA as an instrument of periodic description and an analysis of the common conclusions about the activity for external quality assurance of the higher education.

NEAA has worked out appropriate procedures and as adopted a number of documents, thus accomplishing a high level of armonisation of its activities for external quality assurance of the higher education to the European standards and guidelines of ENQA.

Activities undertaken by the National Evaluation and Accreditation Agency are regulated by the Bulgarian Higher Education Act. The core functions of the Agency are evaluation, accreditation and control of the quality of Higher Education. NEAA performs:

- Evaluation of projects for: opening or transferring a higher education institution; "majors" for the regulated professions or professional fields.

- Institutional accreditation
- Programme accreditation of: professional fields, “majors” in regulated professions, scientific majors.
- Post-accreditation monitoring and control.
- In separate procedures adopted approach is composed of four steps
- A self-evaluation report by the institution based on a handbook of criteria or standards
- External evaluation based on a site visit by the team of external experts
- Preparation of a final evaluation report by the corresponding Standing Committee
- Decision-making by the Accreditation Council or by the Standing Committee depending on the type of procedure

Our set of criteria is based on the idea of equal weight of the main institutional activities:

- Teaching;
- Research;
- Management.

Meanwhile, implementing constructively the principles set forth in the European standards and guidelines for quality assurance, NEAA has elaborated its own “good practices”, which have been positively evaluated by ENQA and have drawn the attention of a number of foreign agencies. A good example of this is the progress of NEAA in involving students in the procedures, as well as the informative and summarizing reports when carrying out accreditation of professional fields which are in fact new mechanisms in NEAA’s activity for publicity and transparency of external quality assurance of higher education.

2.7. Publicity and accountability of the accreditation process

Activities for publicity and accountability of NEAA is in charge of the Accreditation Council and its Chairman. NEAA’s responsibilities for informing the parties concerned are stipulated in the HEA, inclusive of:

- The Chairman on behalf of the Accreditation Council notifies the Minister of Education and Science, as well as the higher education institutions of the assessment and accreditations ;
- The Chairman of the Agency notifies the Minister of Education and Science and the higher education institution of the Accreditation Council’s decision on accreditation revocation of higher education institutions;
- In compliance with Statute of Activities of NEAA the Chairman of the Agency proposes in writing to the Prime Minister a dismissal of a member of the Accreditation Council after a decision made by the Council and notifies him of the necessity of appointing a new member.

Pursuing the declared and adopted principles of its consistent policy for achieving impartiality, transparency and accountability for its own activity and the outcomes resulting from it, the Agency has brought its documentation, related to the evaluation and accreditation procedures, to the knowledge of the public in:

- Information Bulletin of NEAA;
- Web page of NEAA <http://www.neaa.government.bg>
- NEAA is required to provide an annual report to the competent state authorities about administrative and financial issues

In order to collect and present most objective information for the need of the parties concerned, NEAA:

- Presents the Agency at national and international forums;
- Organizes seminars , discussion and workshops for opinion sharing;
- Organizes press conferences and other media events.
- The Accreditation Council introduced the so called “Informative and Summarizing Reports” as new mechanisms in the activities of NEAA for publicity and transparency of the external quality assurance of higher education and in particular the outcomes of professional fields accreditation.
- In conformity to “European Standards and Guidelines for external quality assurance agencies” the Accreditation Council has made a decision to submit the agency to a
- Compulsory cyclical review within every five years.

4. Conclusion

Findings and Discussion

The above presented analysis proves the hypothesis that constructing and conducting various directions of the policy to internal quality assurance by NEAA will result in several outcomes, connected with the increase of the effectiveness of its activity:

1. Emerging and affirming a quality culture of the Bulgarian agency for evaluation and accreditation (three essential components: human resources, organizational structure and normative framework).
2. Encouraging and developing mechanisms for assurance quality in the Bulgarian higher education institutions – fostering participation, organization of meetings, fostering internal systems for quality insurance of separate higher-education institutions in the process of integral accreditation.
3. NEAA will establish its position as an equal member of European Association for Quality Assurance in Higher Education (ENQA) и European Quality Assurance Register for Higher Education (EQAR)
4. NEAA will be better prepared for the new challenges facing higher education in Bulgaria; exchange of the accreditation model (possible acceptance of the integration model and completion of new criteria and assessment factors); evaluation of transnational and cross borders education in NEI; evaluation of the ability of universities to innovation; problem of quantitative indicators and qualitative assessments of the external evaluation process; effective accomplishment of the functions connected to the new “Law for development of the academic staff” (maintenance of the National list for Jury members and arbiters on procedures regarding doctoral defenses; the activities of the Arbitrary jury)

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AGENȚIA ROMÂNĂ
DE ASIGURARE A
CALITĂȚII ÎN
ÎNVĂȚĂMÂNTUL SUPERIOR

THE BOLOGNA GRADUATES' INTEGRATION INTO THE LABOUR MARKET AND THE NECESSITY OF AN EFFICIENT AND COMPETITIVE ACADEMIC MANAGEMENT

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Abstract

A fundamental contribution of the Bologna Reform to European higher education is the focus on finalities of the educational process. The main aim of higher education is giving knowledge and forming professional competencies to the students for their integration into the labour market. In Romania, the link of higher education and scientific research with the labour market encounters important difficulties: the persistence of the old educational models, the isolation of the educational process in mainly theoretical approaches, far from reality, inefficient nowadays, the resistance to the real change, the superficial implementation of the Bologna reform, the precarious status of practice in curricula, the weak and unconvincing cooperation between universities and employers, the employers' lack of confidence in the Bologna graduates. These difficulties generate problems in the graduates' integration into the labour market, a random process today, under the authority of chance, not of specialization. In the orientation of the academic process towards the labour market, in the growth of the graduates' employability, an efficient and competitive academic management plays a crucial role. By the curricular reform, by collaboration programmes and partnerships with employers, the link of academic education and scientific research with the labour market can become an institutional and systemic reality in the very spirit of the Bologna Process.

Key-words: reform, inefficiency, practice, integration, management.

1. Introduction

The direct relations of higher education and scientific research with the economic environment, the graduates' professional integrations into the labour market represent a priority of the reform policies within the Bologna Process. In Romania, this relation is still undermined by a lot of key factors, implying the university management, the employers' suspicious or negative attitude towards the graduates' insertion, the absent or precarious institutional partnerships and collaboration programmes, the insufficient interest and opening to the link between the academic area and the economic environment on one side or another, problems related to the governmental policies, to the legislative framework, which do not offer a comprehensive space for the development of this fundamental link. Without the relation between higher education and the labour market, referring to the very finality of the educational process, the reform cannot achieve its aims.

The topic is therefore of towering importance. Nevertheless, it is not enough approached in Romanian higher education system, in the academic area (with some remarkable exceptions), in order to become a national priority of the reformation process. The present study aims at establishing the main causes of the situation, and at proposing some solutions for rehabilitating it in the spirit of European evolutions.

2. The orientation of higher education towards the economic environment and the graduates' integration into the labour market

2.1. The graduates' employability – a priority at European level

In **Trends 2010**, a EUA report making a complete radiography of the Bologna reform implementation within the *European Higher Education Area* (launched in March 2010, Vienna), **the link between the academic education and the labour market, assessed from the graduates' employability perspective**, is a major topic of the document.

The Report underlines that employability is a major concern at all levels and a special challenge at the **first cycle of studies** (bachelor). The most important difficulties refer to the bachelor graduates. At the same time, the second cycle (master) is seen with confidence by both students and employers. The master remains the basic qualification for the integration into the labour market. Only 15% of universities (11% in *Trends V*) consider the first cycle as training proper for employment, while a larger number of higher education institutions show a greater acceptance degree (45% in *Trends 2010*, compared to 47% in *Trends V*). In some countries, institutions, academics and students have no confidence in the first Bologna cycle value and expect the employers not to accept the bachelor graduates.

The Document concludes that, at the entrance into the labour market, the acceptance of the first cycle is problematic, especially in the countries in which the first cycle of studies used to be, traditionally, very long, where the actual *bachelor* represents a *cultural shock* for the system.

2.2. The Romanian higher education and the link with the labour market

The problems confronting the European higher education systems in implementing the Bologna Reform are available with the Romanian educational system too. Beside these, the Romanian higher education know a series of specific difficulties in the reformation and modernization process, resulted from the shock of the encounter between the academic education classic paradigm and the new model advanced by the reform.

2.2.1. The conflict of paradigms: *closed model* vs. *open model*

An important problem is raised by **the difficulty of a real change**, of the educational process reformation in its very substance. In the Romanian higher education system, a conflict is taking place, a dramatic confrontation between two educational models: the traditional and the new one. The classic model is made of such elements as: the professor's central place and role in education, his supreme authority position, the "magister dixit" philosophy, focus on *inputs*, and less on *outputs*, on knowledge, not outcomes, the isolation of the educational process in a theoretical and abstract horizon, far from existence, reality and practice. In this paradigm, still active in the Romanian higher education, the students are not involved in interactive approaches of learning, are not attracted in the knowledge process by the stimulation of their creativity and innovative intelligence. The finality of academic education in this approach is **information accumulation, the stress on quantity**, not education and training developed according to the quality and efficiency criteria. This model does not cultivate skills and competencies at students, necessary for their integration into the labour market, being isolated from practice, without significant addressability to the economic environment. Opposed to this *closed model* is the *Bologna paradigm of education*, promoting education centred on students and focused on outcomes, quality and excellence in education and scientific research, competitiveness and pragmatism, skills, competencies and qualifications for students and graduates, a close link between the educational process and the

economic environment, the graduates' integration into the labour market. It is an *open model* tending to reform the academic education and scientific research in their philosophy, quality, finality, efficiency and social addressability.

2.2.2. The Bologna Reform in the Romanian higher education, under the risk of experiment

A **major difficulty** regards the **Bologna reform implementation** in universities and higher education institutions in Romania. At present, the Romanian higher education system knows an *ambiguous and incomplete reform*, using the Bologna elements more in their form than in their spirit. The Bologna Process must be implemented not only at the administrative level, concerning the study structure, but also in its very philosophy, which is promoting a new vision, new strategies, approaches, contents and finalities.

An essential problem of the reform as applied in Romania is the **lack of synchronization between the academic cycles and the educational process content**. Romanian universities redesigned the study structure according to the Bologna three cycles pattern, but many of them have not achieved the **curricular reform** at each cycle level, have not revised the contents and the finalities of the educational process.

The **new structure of university studies on the Bologna three cycles pattern** has also generated problems in the reform implementation. The *bachelor* concentrates the contents of the previous university model (with a longer duration) in the first cycle, without a critic and pragmatic selection and reformation of subjects and topics. The competencies the graduates should acquire after the first cycle are not clearly defined. This makes the bachelor experience seem insufficient and inefficient for a solid training, and for the graduates' qualification. The orientation of the educational process to the economic environment and labour market is a precarious, if not inexistent, one. The second cycle, the master, is approached, by many higher education institutions, as a simple prolongation of the bachelor cycle, and not a specializing academic experience. The doctoral studies are seen as insufficient in the three years Bologna pattern as compared to the traditional one, much longer (around seven years). There is not a coherent development of the educational process and of scientific research within the three cycles. Their clear definition and logical articulation in the direction of competencies and qualifications for the labour market still remain important challenges to the system.

The fact that the **higher education is not research-based**, according to the Bologna philosophy, is another difficulty of the reform in the Romanian education system. It leads to the isolation of the academic education from the scientific evolutions, to the undermining of the epistemological progress, and to the gap between education and reality.

An essential problem of the Romanian higher education system is **the weak, if not absent, relation between the educational process and the economic environment**. The Romanian higher education is not training graduates for acquiring skills, competencies and qualifications for professional integration, but only specialists in theoretical areas. It has no direct addressability to the labour market yet, when the link of academic education and scientific research with the economic environment is a priority of the Bologna reform. Such a relation requests common interests and agreements between higher education institutions and the economic environment. Higher education cannot integrate into the labour market without the employers' active involvement, and also without a institutionally regulated system, with clear responsibilities both for the education institutions and for employers.

2.3. The graduates' integration into the labour market – a difficulty of Romanian universities

2.3.1. Higher education – isolated by the economic environment and by the labour market

The graduates' integration into the labour market, especially at the first cycle level, is a *difficult process* in today's Romania. The difficulty of employment has complex causes, implying universities, the state, public and private institutions. The higher education in Romania is still isolated by the labour market. The *split* afflicts the systemic coherence of the academic education, breaks the unity and the logics of the whole evolution from premises to finalities. Paradoxically, it happens inside the Bologna reform, which focuses on the development of skills and competencies at students, on the link of higher education with the economic environment, on addressability to the labour market.

The "guilt" must not be looked for only inside the higher education system, but also in the governing system, which has not created the key factors for the harmonization and enhancement of the institutional relations between education and practice.

2.3.2. The integration into the labour market – a random process

The higher education graduates, especially of the first cycle, do not integrate into the labour market through a coherent process of professional insertion. The integration takes place *randomly, under chance and hazard*, many times in other professions, different from their speciality area, irrespective of the competencies acquired (or not) during the studies.

The situation is ameliorated with the second cycle, since the master studies are usually associated with superior skills and competencies developed by the graduates for their qualification and insertion into the labour market. Still, the master in many higher education institutions and different speciality areas do not always offer the competencies, abilities and qualifications expected by the labour market. Nevertheless, the master degree represents an extra chance for the graduates' integration in a profession, according to their training and specialization. The employers' acceptance degree toward the master graduates is higher than in the bachelor case. However, neither the second cycle offers the employment guarantee, as long as insertion into the labour market remains a *personal problem* and is not governed by a **system of principles and rules within the framework of institutional partnerships and collaborations**, between universities and companies, firms, corporations, holdings, organizations etc.

With the third Bologna cycle, the doctoral studies, things are different regarding the insertion into the labour market. The competencies and qualifications developed by the doctoral school graduation are a solid support for the career progress.

2.3.3. The academic programmes and the failure of the link with the labour market

The starting point of the problems generated at the university and departments' management levels is that curricula do not respond to the society and economic environment challenges and necessities, being separated from reality. The study programmes are not flexible, do not integrate subjects and topics requested by the labour market, by the rapid evolutions in the economic environment.

Despite the efforts made so far in the reform area, the quality of education is still a problem and a concern of Romanian higher education. The system has not succeeded yet in achieving a *reform of quality* and a *culture of quality* at institutional level, to be quantified by outcomes,

performances and, especially, by skills and competencies for the professional integration. In Romanian universities, the teaching and learning process stresses, almost exclusively, on knowledge, not on skills and competencies. Having knowledge, but no competencies, the graduate has poor chances to get integrated into the labour market in a job from the speciality area.

Another problem related to the academic management is the fact that universities have not developed yet *coherent policies*, with well-defined strategies and finalities, regarding the *students' practice* and also the *graduates' integration* into the labour market. The practice programmes included in curricula are often *formal, insufficient, irrelevant* and *inefficient*, and the practice conditions do not meet the European standards. Generally speaking, the *partnerships with employers*, the *private scholarships systems*, the *investments in human resources*, the *entrepreneurial programmes* are in an incipient phase, without relevant outcomes. The higher education institutions have not developed yet *competitive counselling and career guidance services* for graduates and for their *insertion* into the labour market. As a general fact, universities have a *slow reaction* to the rapid evolutions of reality, always launching new challenges and needs.

2.3.4. The employers and the graduates' employability

In terms of graduates' employability, employers (firms, companies, corporations, holdings, organizations etc.) show, as a general tendency, skepticism towards the bachelor graduates, and more confidence towards the master graduates. Employers perceive the first cycle of studies as *insufficient* for students to acquire skills, abilities and competencies necessary for the professional qualification and for their insertion into the labour market. This perception often has an objective support: the first cycle graduates' insufficient training, in terms of skills, competencies and qualifications.

One of the major causes of the graduates' employability problem is the *employers' attitude* to the integration into the labour market: **insufficient interest, lack of implication in collaborating with the higher education institutions in the graduates' absorption into the labour environment**. The employers have not developed until now **solid partnerships with universities, recruitment policies for graduates, human resources training programmes by education investments, specialization programmes, financing systems for their future graduates' studies**, as it happens in other countries in Europe and in the world.

There still is an *insufficient collaboration* between the economic environment and the higher education institutions. The cooperation for the graduates' integration into professional careers according to their training and competencies, for building a specialized and qualified labour market remains an unattained objective. Not only the universities, but also the **employers must adjust their vision, policies and strategies in this area**.

3. The necessity of an efficient and competitive academic management

In the reformation process of higher education and scientific research, the **university management** plays a key role at institutional level. An **efficient and competitive academic management** is crucial for the successful implementation of the reform, for the university's European metamorphosis, for building a quality education and a competitive scientific research, for excellence, innovation, creativity and international opening in the education process. Regarding the critical situation of the *defective relation* between academic education and the labour market, the graduates' employability problem, *solutions* for getting out from these

difficulties can be found at the managerial level of the higher education institutions. The measures must be oriented to a common finality: **the graduates', especially the *bachelor graduates*', better insertion into the labour market.**

3.1. A modern managerial vision for the institutional development

At the university management level, the institutional development in the Bologna Reform European spirit requests a *modern vision*, as a foundation of the strategies and measures taken in this respect. In the acute issue of the link between the education process and the labour market and of the graduates' employability, the managerial programme must provide some *fundamental elements*, referring to the *curricular philosophy*, on the one hand, and to the *collaboration with employers*, on the other.

The *first category* of strategies and measures includes: the implementation of the curricular reform at the level of each study programme; the reform of quality in academic education and scientific research; the development of a flexible curriculum, modularized, adapted to the economic environment and society necessities; **the inclusion in the curriculum of the speciality practice**, as a prior importance element; the extension of the optional courses presence in the study programmes; the cultivation of the inter-disciplinary and trans-disciplinary approaches; the stimulation of the students' innovative approaches and creativity; the focus of the educational process on the development of competencies for the first-degree qualifications; **the encouragement of the students' and graduates' entrepreneurial spirit**; the development of lifelong learning programmes, with study modules for new competencies and qualifications, in view of professional conversion; the development of the Didactic Staff Training Department for those interested in achieving didactic careers in the secondary or higher education; the development of counseling and career guidance services for the future graduates; the making of a tracking system of the graduates in the process of their integration into the labour market and, further, in career; the collaboration with the alumni associations in collecting data about the graduates' professional track; the foundation of **two new positions in the management teams** of the university and of the departments (faculties): **the vice-rector and the vice-dean in charge with the link between the academic education and scientific research with the labour market.**

The *second category* of strategies and measures comprises: the foundation and development of collaboration programmes and partnerships with employers (public or private institutions, enterprises, commercial societies, firms, multinational companies, corporations, holdings, non-governmental organizations etc.); the development within these frames of the students' speciality practice; the creation, through such collaborations and partnerships, of a framework of co-involvement of firms and companies in the educational process, for instance by **programmes developed by employers for financing the studies or by private scholarships systems, addressed to the training and qualification of students** as their future employees; **the implication of employers in the curricular policies**, in the curricula making process at different study programmes, according to the skills, competencies and qualifications expected from their future employees. All these should make the object of a future legislative regulation, under the form of a normative act at a law level.

3.1.1. The curricular reform: education in search of quality and efficiency

Most of the measures in the first category are subordinated to an idea translating a high necessity of the Romanian higher education: *the curricular reform*. It is a reform directed to the

achievement of a quality, efficient, pragmatic and competitive education, at national, European and global level. The curricular reform aims, at the same time, at a *reform of quality* in education and research, an objective of prior importance, in fact the most difficult challenge of the process. The reform of quality implies a series of other reforms at all levels: education vision, study programmes, strategies, didactic approaches and means, academic mentality, study conditions. A priority of the curricular reform is represented by the education orientation to life, to the economic environment, to labour market, in a process of vision reformation, of conceptual renewal, with the education emancipation of its purely theoretical and abstract model. Such a revolutionary process is possible with the support of strategy elements as: **student-centred teaching act, the education orientation to well-defined finalities, referring to the achievement of skills and competencies for professional qualifications.** In the process of linking academic education and scientific research with the labour market, it is necessary the achievement of a *flexible curriculum, open* to the needs of society and economic environment, to integrate new subjects and topics, requested by the knowledge society. The fabulous progression of knowledge permanently launches new challenges to higher education, which must adapt itself to the new requests and exigencies of the society and of the globalizing world. That is why education is changing on three coordinates: **conception, content (curricular reform), finalities.** At the third level, finalities, the fundamental objective of academic education is to form, at the future graduates, competencies in view of their qualification and integration into the labour market. From this point of view, the Bologna reform determines a revolution of education, by its orientation to a pragmatic paradigm, of quality, utility and social efficiency – a powerful paradigm, in accordance with the actual requests. In such a context, **the students' practice has a role of highest importance at the curriculum level and in the framework of forming, at students, of a set of skills and competencies for their qualification in the specialization area. The essential revision of the practice status in the academic curricula is therefore a need:** in the recent tradition of the Romanian higher education, the speciality practice has been a secondary experience, without stake and interest, being understood on both sides of the educational process as a **facultative discipline.** The managerial policy of higher education institution must recover and rehabilitate the students' practice as a fundamental experience of the academic formation, contributing to the development of the skills and competencies asked by the professional qualifications. **Practice must become a key experience in the curricular area of the study programmes.** At the same time, it is important that universities create, in cooperation with specialized institutions, programmes for encouraging and training the students' *entrepreneurial spirit.* Such an approach is a pragmatic way to challenge their creativity and innovation capacity in the area of ideas and solutions for developing their own initiatives, according to the skills and competencies achieved by education. A prior importance domain of the modern university and of the educational process, viewed in a holistic manner, from premises to outcomes, is represented by the counseling and career guidance services for students and graduates. Such services are a priority of a competitive and efficient university management and a necessity of the today's university, a pillar of the knowledge-based society. An element of the efficient management is also the achievement, at the universities and departments levels, with the support of the alumni associations too, of **tracking systems regarding the graduates' integration into the labour market,** their career development and professional becoming. Having the accurate image of the learning process outcomes, projected in the labour market reality, the institutions will be able to identify their strong and weak points, will see which are the most successful study programmes in the labour market, revise their contents, in the curricular reconfiguration process, and permanently adapt their study offer, strategies and approaches to the requests of the economic environment and labour market.

3.1.2. The opening of higher education to employers

The second coordinate of managerial action at the universities level, *the collaboration with the employers' environment*, is a challenge of the highest importance for the institution's development and success in the knowledge-based society and economy, in the domains of the graduates' qualification and of the social progress. The challenge refers both to the managers' aptitude to achieve cooperation programmes with employers, make the transfer of knowledge and competencies *extra muros*, develop the link of university with the economic environment and the institutional addressability to the professional areas, and also to the institution's capacity of adapting itself to the labour market requests.

The initiation of cooperation programmes and partnerships with economic societies, firms, enterprises, national and multinational companies representative for the speciality areas promoted by the university study programmes is a measure to support the direct relation between the higher education institution and the economic environment, favourable to the development of a training common framework, which brings together the theoretical and the practical knowledge. By the achievement of this kind of partnerships between universities and employers, it is created a *space for developing the skills and competencies* for the qualifications provided by the first study cycle. Students can directly get in contact with the economic, industrial, administrative etc. environments, in which they will have the opportunity of developing their careers after graduation. Such institutional partnerships form the adequate framework for the development of the students' speciality practice, provided by the curriculum, by which they are training for their future jobs, taking benefit of the employers' activity conditions and infrastructure and also of their specialists' expertise and competency in the specific areas. Cooperation between universities and companies creates, at the same time, the framework for employers to develop financing programmes for the academic training of students, selected according to the skills and competencies criteria, in view of their future integration into the activity developed by employers. It is a way of sponsoring, on contract basis, the future employees' studies and training, an investment in competent and qualified human resources. The private scholarships granted by employers to the best students represent, in their turn, a system of encouraging the quality training, their competition spirit in learning and obtaining competitive results in the educational process in view of the future qualifications. In the same context of the employers' participation in the educational process, through institutional partnerships, universities can involve them in making, adjusting, adapting the curriculum. Such an implication regards the adaptation of the curriculum to the labour market requests and to specific activity areas, for offering students a knowledge and training framework, focused on the development of skills, competencies and qualifications at the quality and performance standards desired by each company. An efficient way for the employers' recruitment policies is the achievement, together with the higher education institutions, of some *data basis* with students and graduates, for the employment selection. Such a data situation is useful both for universities, which, this way, help their graduates integrate into the labour market, and for companies, which have at their disposal authorized information about graduates and can assess and select the future employees in accordance with the qualification, efficiency and performance criteria.

This way, universities open the education process to the economic environment, organize the students' speciality practice in high exigency, expertise and qualification conditions, prepare their future graduates' integration into the labour market even during their study period. At the same time, by creating partnerships with universities, through financial involvement, sponsorship systems and private scholarships addressed to students, through their collaboration at the curricula achievement, employers take part in their future employees' quality academic training, in accordance with the labour market standards and their own aims.

4. Conclusions

In the context discussed above, there appear questions marks about the direction of the Romanian higher education reform, doubts regarding the efficiency of academic education in forming skills, competencies and qualifications for the graduates' integration into the labour market. The suspicions also refer to the system capacity of producing performance and competitive outcomes. The fundamental critical issue is if the reform of Romanian higher education, as it is being developed, can attain the Bologna Process goals: qualified and competitive graduates, integrated into the labour market. As the present study demonstrates, solutions do exist for the rehabilitation of this critical situation. They imply a comprehensive and European legislative and administrative framework for the higher education development, a modern and efficient managerial act in the higher education institutions, a change in the employers' attitude to the cooperation with the academic area, strong partnerships between universities and companies.

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AGENȚIA ROMÂNĂ
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AIRCRAFT HIGHER EDUCATION: CHALLENGES AND PROSPECTS

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Abstract

The Romanian aeronautics research set off while the great academies of the world believed that "the problem of flight with a device that weighs more than air can not be resolved and there is only a dream and he did successfully. In terms of aviation higher educational institutions, education is based more on teaching and learning and less or not at all on the research. There weren't made any investments in research, not even in the present days and no support for young aviation enthusiasts is offered. Prospects are, as before, very good. We have, however, the same old dilemma: how to fund research and aviation industry? Does it follow another period of decline? Do we continue the series of missed opportunities? Or accept what the European papers say, that we should try a new road at the long-term sustainable development, the recovery of existing capacity and develop new science and technological progress, the elimination of the standard of living gap with the West, the which supports and accepts resignation of hundreds of years? Europe says that there where is the aviation industry, there is sustainable development. In this paper we try to present the need for funding research in the aviation industry even in the context of the global economic crisis.

Key words: Aircraft higher education, aviation industry, sustainable development, global economic crisis.

1. Introduction

The aeronautics sector faces significant challenges in the twenty-first century. Romania has always had competence in the field of aviation and has a definite place both in history and especially, in this European aviation industry, while other eastern countries like Poland, Czech Republic and Hungary make efforts to find a place. The Romanian aeronautics research set off while the great academies of the world believed that "the problem of flight with a device that weighs more than air can not be resolved and there is only a dream and he did successfully. Years after the fall of 1989 meant a further reduction of the Romanian aviation industry imposed by the disappearance of traditional markets and the difficulties of transition to the new economic system.

The Romanian science schools were formed in the late XIXth century. Also then have defined the main directions of modern development of our art. In the same century, was founded The Romanian Academy, University of Iasi and Bucharest, as the first institution of higher education named as "School of Pont and roads, mines and architecture". However, technical and scientific preoccupations are very old on and noteworthy achievements were recorded, representing a rich tradition in our country.

A domain in which the inventive spirit of man must necessarily be doubled with heroism was and remained the same of flight, from the legendary Daedal and Icar to the crews of today's cosmic

modules. The Romanian ingenuity, spirit of sacrifice have come from so-called "prehistory" of the aircraft to its highest level of today's cosmonautic. There were very hard times for the inventors in this area. At the beginning of the XXth century, the simply purchase of a jet engine was a difficult problem, both financial and technical as it required a special fabrication, because in those days the series assembly lines were inexistent. Vuia had to go to Paris benefit the technical conditions of one of the most developed countries where technical, to be able to fly some a few tens of meters into the air, with a device conceived by himself, but his step up, first in the world (1906), conducted by its own means has a special significance.

Among the great pioneers of aviation inventors include some romanian, first Vuia, Vlaicu and Coanda. Between 1900 and 1910, Vuia's aviation achievements were the big break trough.. The first flight of an aircraft heavier than air, with onboard handling system, and the first aircraft powered by jet engine are due to them romanian creations. It can be argued, rightly, that "Our Air Force was born along with the world's one."

Our people gave to aeronautics lots of talented inventors. Contribution, if not of all of them, at least of some, to whose originality, was for that era obvious, it is worth getting out of anonymity because they were busy perfecting fly machines and their projects have been unjustly forgotten . Even though most could not be accomplished due to harsh conditions in which worked their makers, some of them present even so a great interest, because are based on ideas wich technical evolution has confirmed them. The third figures that represent the crowning of romanian aeronautical creations are: Aurel Vlaicu, Traian Vuia and Henri Coanda. They have wrote glorious page in the history of romanian aeronautics, bringing a first grade contribution to the development of air navigation.

The scientists, the engineers, inventors are contributing to continuous improvement of flight technique. "The Romanian people," said academician E. Carafoli, "are among the first people who participated in this wonderful manifestation of human genius that had to lead in only half of a century, to a stunning development of air navigation."

2. Research in aviation: reality and prospects

This beautiful story is the beginning of Romanian aviation, from which we like to get a mention from time to time. But there is another story, woven with the first one, and in conjunction with the question "Why is not investing in Romanian research aircraft?". The story of failures, missed project, the waste of opportunities and people. In 1901 Traian Vuia start to work in Lugoj, at the draft of his first flight. Due to financial shortcomings, after repeated failed attempts to obtain funds from both Bucharest and Paris, Traian Vuia fails to build the aircraft until 1906, three years after the first recorded history of human flight brothers Wilbur and Orville Wright. What would have happened if Vuia would find the necessary funding in 1901? We will never know. How do we know how it would be no written history of Romania if the Coanda air-built rocket for the Romanian Army in 1905 had been developed and realized its true potential. Or hydroplane was designed by John Paula developments in 1911, abandoned for lack of funds? And the sad story continues: in 1910, prototype Vlaicu I successfully participate in the general military maneuvers, Romania was, at that time, the second country in the world using this weapon. Aurel Vlaicu but fails to persuade the Romanian Government to begin construction of its own aircrafts series and Army aircraft will be equipped with French aircrafts. In Sighisoara, in 1917, Oberth realize the project of a military draft rocket powered with liquid fuel. Army is not interested. The student of Professor Oberth, Werner Von Braun, is the father of American Apollo space program. In Brasov, in 1928, Professor Carafoli design IAR CV 11. Construct a copy of IAR CV11, the

company's financial resources are directed towards the purchase of foreign licenses. Efforts continue with the research team Brasov IAR models 12-16 and again 20-27, but the company and the Romanian Government decide to continue production under license of foreign models. The very famous IAR 80 is designed and constructed in constant time and credit crisis and significant gaps in terms of research infrastructure. More recently, during the communist period, IAR 99 Falcon design was systematically delayed and banned because of forbiddenness of imports and lack of resources.

The years after the Revolution from december 1989 meant a further reduction of the Romanian aviation industry imposed by the disappearance of traditional markets and the difficulties of transition to the new economic system. Factories in Bucharest, Brasov, Craiova, Bacau close or restrict their activity, and the opening of the romanian borders makes, many of Romanian aviation specialists to migrate.

Where are we today? Miraculous, perhaps Romanian aviation and refused to disappear this time too. It survived the transition IAR Brasov, Craiova aircraft, Aerostar Bacau, Bucharest Turbomecanica and Aerofina. They opened modernization programs and training school aircraft IAR 99 Hawk, the IAR 330 Puma "SOCAT", and MiG 21 Lancer (110 upgraded appliances).

In aviation research, there are also reasons for optimism. In Bucharest, there are currently three research institutes of aviation, two governmental, the National Research - Development and turbo COMOTI and National Institute for Aerospace Research "Elie Carafoli" (Incas) and one private, Calculation and Testing Institute for Aero Structures - Astronautics STRAERO all three, came from the old INCREST, founded by Henri Coanda. The three research institutes active in analysis and testing aircraft structures and materials, flight control systems analysis and design and development of testing facilities (STRAERO) of general aerodynamics, flight dynamics and systems, space structures, strength of materials aviation and aerospace propulsion systems (INCAS), respectively aviation turbine engines, energy and energy efficiency and environmental protection and greening. Among the most important achievements of the Romanian research institutes of aviation in recent years can be mentioned the development of aircraft IAR 93, IAR 95, IAR 99, IAR 823, IAR 827 (STRAERO), AG 6, and - T and ECO 100 (INCAS) and modernization IAR 330 and 300 and MiG 21 aircraft VYROBU.

One of the big problems of the Romanian research, often claimed by scientists as the main cause of poor results of Romanian research is inadequate funding from government, research and development infrastructure exceeded (by current standards facilities gap is 5 to 10 years) ; non-adaptation to competitive market conditions, the reduction and increasing average age of researchers. Another major problem is still the weak link between research and economy and relatively low capacity to exploit research results. Economic interest and involvement in research and development and innovation are low; in 2003 funds raised from businesses to co-finance such projects represent only 35% of the total budget of the National Plan for Research, Development and Innovation (NPRDI). [1]

With the launch of Framework Programme 7, the European Union has paid to European researchers millions of euro, virtually eliminating the deficiency for Romania to the budget created by lack of money. In practice, funding still remains a problem for many Romanian researchers, and that's because I have not yet proven ability to attract funds.

Another branch of analysis is dedicated to the analysis of the competitiveness. The robustness of the national system of higher education could be viewed as a global indicator for the ability to sustain its position in a global knowledge economy [3].

3. Education for research in military higher institutions

The three key pillars of the knowledge society: education-research-innovation are key factors for competitiveness and cooperation in global socio-economic development [4].

Training human resources for the new society / knowledge economy requires an integrative vision for the entire life cycle of adapting means and methods specific steps in close correlation with the evolution of science and culture, knowledge in general. Orientation to the educational system and vocational skills and build capacity to accumulate knowledge to solve problems, develop innovation and creativity to stimulate curiosity and desire to explore is a necessity in a globalized education and research.

Education for research, scientific research and innovation are essential requirements for a competitive university in the context of globalization. The key role in training highly qualified human resources, by contributing to knowledge development through creative and innovative capacity promoted key pillars universities are in knowledge-based society. The scientific research in universities in close correlation with the formative process performance can, and should, contribute to knowledge production. The capitalization in the process of innovation and transfer in the socio-economic outcomes.

A specific feature of universities is a transdisciplinary research, frontier research which must be given special attention in the context of the explosion of knowledge and their recovery. Skills for inter-and transdisciplinary research, for research in multidisciplinary teams is another dimension to the work undertaken by universities.

In the context of integration into the European education and research, universities are called upon to assume responsibility for specific tasks to produce new knowledge, training highly qualified human resources competitive at European level by harnessing knowledge transfer and innovative products in the socio-economic environment. It must move to a qualitatively new stage in the process of education and scientific research that it matches the values system of international education and research. The three universities coordinate complementary activities - education, research and innovation and require a reconsideration of touch with society and adapt their performance according to selected universities and priorities and available resources and objectives .

The social dimension takes on new facets of education and democracy requires people able to learn, to seek and develop new complex subjects in the new knowledge-based society. Meanwhile, in addition to the objectives of increasing public funding, private question, mentioned in the policy research and development and innovation (RDI), an important goal in post-accession period is to increase the impact of research & development and innovation in the economy (orientation results). From this perspective, it is essential to develop / deepen partnership "business environment - universities - research institutes, both in terms of application of research / innovation and access to results.

4. Conclusions

In terms of aviation higher educational institutions education is based more on teaching and learning and less or not at all the research. Achilles heel is lack of assessment of Romanian research, many scientists argue that the vital Romanian research funding but not how to do the assessment results. "Hundreds of thousands of dollars paid in the budgets of collective facilities resulting either broken or the same quality work with the '90s, when research funding was almost non-existent. In this sense, especially for true revival of the research system in Romania is desirable efficiency audit of spending" [5].

An objective and fair assessment of the situation of higher education in accordance with the reality of Romania in the European context, one can only be a collective complex of several fields, where a decisive role it should have experts from Ministry of Education and academics with experience. University funding is a major integrated into a building complex which includes, inter alia, national education policies, sectoral policies developed and implemented by the Ministry of Education, its relationship with social partners represented by unions, civil society and specific policies proposed by the Advisory Councils.

The results of research and technological development is scientifically innovative solutions will be subject to patents in accordance with national legislation on intellectual property protection and respect of copyright.

Invested, there was never invested, and not even now invests in research and neither offers support for young aviation enthusiasts. Prospects are, as before, very good. We are, however, the same old dilemma: how to fund research and aviation industry? Follows another period of decline? Continued the missed opportunities? Or accept what they say European papers, we try a new road at the long-term sustainable development, the recovery of existing capacity and develop new science and technological progress, the elimination of the standard of living gap with the West, the they support and accept the resignation of hundreds of years? Europe says that where there is the aviation industry, is sustainable.

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AGENȚIA ROMÂNĂ
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SEMANTIC WEB-BASED E-LEARNING SYSTEM

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Abstract

The paper presents the possibility of implementing an e-learning system using Semantic Web technologies. It uses XML-based languages to tag resources with metadata and for knowledge representation. The research work in design and development of e-learning tools has grown considerable in the last decade varying from simple web applications to virtual classrooms and distance learning systems. The e-learning system is based on RDF data model, SKOS language and OWL ontology language for knowledge representation. We try to provide precise semantic in a machine-understandable way for data to be processed, share and reused. Related research studies will be discussed in the paper. The approach used in the research was a deductive one, starting from a general idea of a semantic-knowledge representation of data on Internet to a concrete study case to implement the Semantic Web concept on an e-learning environment where the content is semantically annotated. The proposed model provides a semantic annotation of content and relationships between concepts in a structured way for a better search. It represents a platform where we can implement an e-learning application. We intend to use a combination of RDF, SKOS and OWL languages, because we consider that SKOS language can bring advantages being much simple to use than OWL, yet powerful enough to annotate web content/concepts and relations between concepts than RDF.

Key words: Semantic Web, E-learning, XML, SKOS.

1. Introduction

Semantic Web technologies are widely used in e-learning because they meet the most important e-learning requirements: quickness and just-in-time learning [4]. Semantic web brings the possibility to enrich resources with well defined meaning improving search content on internet.

According to [6] the important aspects regarding Semantic Web utility to e-learning systems are: users can make semantic searches for desired online documents; users search for material suited to their needs; the Semantic Web allows annotation of knowledge for human and machine-readable form.

Many research works had studied the implications of Web-base applications in the learning process. There are three basic levels in e-learning applications [7]: the Web character of the program, the pedagogical background and the personalized management of the learning material. They defined a web-based program that contains a Web server, HTTP communication protocol, a browser in which data offered by users act on the system's status and cause changes, and a set of rules and mechanisms that are used to select learning materials based on the student's characteristics or the teaching model or scope.

A group of researchers from the Qatar University has developed a semantic web-based e-learning system [5] that offers the ability to annotate, share and discuss the e-learning content, together with additional resources such as lecture notes, course description, documents, useful links, and quizzes for evaluation of student's knowledge.

Having as example the e-learning applications implemented at Qatar University, we try to provide a model for an e-learning system in which the learning knowledge is structured using semantic web languages for an adaptive and intelligent system.

2. E-learning and Semantic Web

The most important advantage of using Semantic Web technology in e-learning systems is the capability of representing the huge quantity of data in a machine interpretable form so the learning material distributed on the web is structured and tagged upon an agreed vocabulary enabling semantic queries for topic of interest. Computers only present the hypermedia information, they do not understand or reason about it unless it is represented in such way that computers can parse the text and process the data. The semantic querying also enables the semantic navigation which expands the knowledge accessibility. The Semantic Web enables the use of distributed knowledge provided in various forms, enabled by semantically annotation of content. Distributed nature of the Semantic Web enables continuous improvement of learning materials [2]. The Web content became machine readable only if Web resources contain semantic markup from a defined vocabulary. Semantic markup persists with the document or the page published on the Web, and is saved as part of the file representing the document/page [5]. The markup also presumes that a concept defined and describe by a specific semantic markup is a member of a class, has properties, and is associated with other defined concepts. The components of the e-learning system can be described using metadata – data about data. This metadata can be attached to each software component of the e-learning system in order to store several important characteristics [3].

To associate metadata we used the eXtensible Markup Language that provides interoperability between applications or components that use machine-readable information on the Web.

3. E-learning System based on Semantic Web

In this section we describe a proposed e-learning system based on the Semantic Web technology. Our proposed e-learning system intends to provide registration for students and teachers, online courses, different announcements, evaluation tests and semantic search to find associated resources of the topic requested. A simple scenario of how the system should work is the following: the student registers on the site and then has access to the online documents posted by the professors. Once he gets an account with specific rights he can query about a course from a list of learning resources.

First, we must describe the resources about their content with associated metadata through Resource Description Framework statements. Metadata represents the formal representation of knowledge on specific domain of study such as computer science, pedagogy, literature, etc. To represent the contextual knowledge we use the Simple Knowledge Organization System statements combined with the Web Ontology Language. Representation refers to semantic encoding knowledge within the application, the e-learning website. This is done by associating metadata with the courses on the site and association relations between them – it models concepts, properties and relations between these concepts. It will automatically generate a SKOS document about the name, description, field of study

which includes a course. How to generate such SKOS insertion can be achieved by the PHP scripting language. Using all these types of semantic web languages insertions we can represent in standardized way knowledge about domains of study, teachers and students profile with their knowledge bases and evolution in time, and rules regarding authorization for accounts. A semantic language pyramid for the proposed system based on the markup language pyramid described initially by Alesso P.H and Smith C.F. [1] in 2004 is represented in Figure1, having on top the upper level syntactic languages OWL and SKOS used to markup the knowledge within the e-learning system.

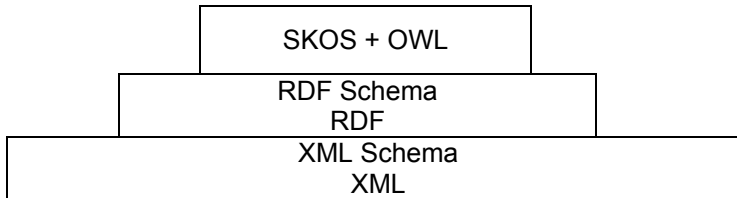


Figure1. The pyramid of Semantic Web languages used in proposed e-learning system

An example of a SKOS document automatically generated, that associates metadata related to the on-line courses accessed by a student, is shown below:

```

<? xml version="1.0" encoding="utf-8"?>
<rdf:RDF
xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
xmlns:skos="http://www.w3.org/2004/02/skos/core#"
xmlns:e = "http://www.e-learningExample.ro#" <!-- designating the namespace of
XML syntactic constructions to express the metadata associated with each course -->
<skos:Concept rdf:about="http://www. e-learningExample.ro /WebSemantic">
<skos:prefLabel> Semantic Web course </skos:prefLabel>
<e:description> The course presents the Semantic Web "vision" and describe the
Semantic Web technologies. </e:description>
<e:category> WEB Technologies </e:category>
<e:credits> 6 </e:credits>
<skos:narrower>
<skos:Collection>
<skos:member rdf:resource=" http://www. e-learningExample.ro /XML"/>
</skos:Collection>
</skos:narrower>
</skos:Concept>
<skos:Concept rdf:about="http://www. e-learningExample.ro /XML">
<skos:prefLabel> eXtensible Markup Language </skos:prefLabel>
<e:description> This course introduces XML syntax, XML schema languages, and
how to query XML databases. </e:description>
<e:category> WEB Technologies </e:category>
<e:credits> 6 </e:credits>
<skos:narrower>
<skos:Collection>
<skos:member rdf:resource http://www. e-learningExample.ro /WebSemantic "/>
</skos:Collection>
</skos:narrower>
</skos:Concept>
<skos:Concept rdf:about=" http://www. e-learningExample.ro /Pedagogy">
<skos:prefLabel> Pedagogy</skos:prefLabel>

```

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<e:description> This course is designed for teachers to learn and discover a
range of flexible opportunities for practicing working in
education.</e:description>
<e:category> Teaching Training </e:category>
<e:credits> 5 </e:credits>
<skos:narrower>
<skos:Collection>
<skos:member rdf:resource=" http://www. e-learningExample.ro /DidacticCourse"/>
<skos:member rdf:resource=" http://www. e-learningExample.ro /Pshigology"/>
</skos:Collection>
</skos:narrower>
</skos:Concept>

```

In the example above we modeled three courses (concepts) with description about their content and association with other courses. For every concept we mentioned the collection of related topics so if we made a semantic search after a specified topic the result will be the searched course (with the specified name) and all the related courses.

4. Conclusions

Semantic Web technologies represents the best method to exchange information in a distributed system because they are interpreted both by man and by machine, are capable of self - validation, are easily converted and adapted to change. The proposed model presents the possibility to use RDF, SKOS and OWL languages to describe relationships between e-learning system's components through metadata.

The main contribution of the new proposed e-learning system is to provide semantic association between concepts/related information about a concept and a well defined hierarchical structure for learning resources. Further direction of research it is implementation of the proposed e-learning system to demonstrate its effectiveness.

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AGENȚIA ROMÂNĂ
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ÎNVĂȚĂMÂNTUL SUPERIOR

REINTEGRATION OF ROMANIAN SCIENTISTS FROM ABROAD FOR HIGHER EDUCATION IMPROVEMENT IN ROMANIA. CASE REPORT: AUREL VLAICU UNIVERSITY OF ARAD

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Abstract

The decision of Romanian scientists to emigrate is mostly guided by the better opportunities for professional development abroad. The potential, international experience and reputation acquired abroad by these scientists may be a key resource for higher education progress in our country. By an appropriate reintegration of them in the system, Romania may retrieve the original investment made in their education and greatly benefit from their elevated expertise. The present case report is related to an experiment of Romanian scientist reintegration, successfully conducted at Aurel Vlaicu University of Arad. In the last four years, six researchers who have spent up to ten years abroad in renowned universities or research institutes affiliated to universities from Western Europe, USA and Canada were reintegrated in the Romanian higher education system at Aurel Vlaicu University of Arad. Their accomplishments in top research and education increased considerably the national and international visibility of the university and demonstrated that, when handled properly, migration of specialists is beneficial to the higher education system of our country.

Key words: emigration; reintegration; visibility; professional development.

1. Introduction

The growing power of knowledge, in our modern, knowledge-based society, leads to an elevated need of all countries for highly skilled specialists able to access, understand and use knowledge for technological and economic development.

The international mobility of labor is not a new phenomenon; people have always moved to other countries, and historically, the diffusion of technologies has owed much to human mobility.

More recently, as economic activity has become extensively globalized, the movement of people has intensified. Alongside the sustained growth in the internationalization of research and development, mobility of human resources in science and technology has become a central aspect of globalization.

Migration of talents [1, 2] plays an important role in shaping skilled labor forces throughout the EU area. Various factors contribute to the flows of human resources in science and technology. From our point of view, in Romania, the main factors contributing to the “brain drain” are the legislation (norms, regulations), limited research funding and technology, the unappealing wages and social services.

Emigration of skilled specialists, such as researchers and scientists, can be beneficial for creating and spreading knowledge in their country of origin. In particular, emigration possibilities may encourage the development of skills. In addition, when highly educated individuals move to larger

economies they can be beneficial for the sending country by producing “better” knowledge than they could at home, accumulating human capital faster and improving their productivity, thereby increasing the potential return flows of knowledge. This can increase the global stock of knowledge.

“Brain circulation” can stimulate knowledge transfer to sending countries [3]. This aspect implies however, the return of skilled migrants to their home country after a period abroad, or a pattern of temporary and circular migration between home and abroad. Professionals disseminate the knowledge they acquired to their home country [4-6] and maintain networks, thereby facilitating a continuous knowledge exchange in the benefit of their homeland.

To make the most of brain circulation, the home country needs to possess sufficient absorptive capacity so that the returning talents to be able to re-enter local labor markets at a level that is appropriate for their skills and expertise [5].

Consequently, knowledge flows associated with the emigration of researchers and scientists can provide benefits to sending countries as well. If handled properly, the mobility of researchers is not necessarily a zero-sum game in which receiving countries gain while sending countries always lose. The present study highlights this aspect in a real sense, through an experiment carried out at Aurel Vlaicu University of Arad.

2. Results and discussion

2.1 The four steps of academic reintegration

Within 2006-2009 period, six young (33-37 years of age) scientists who have spent from seven to ten years abroad, defined and refined their professional paths and careers through doctoral and postdoctoral studies and taught as lecturers or professors in renowned universities from Western Europe, USA and Canada were reintegrated in the Romanian higher education system at Aurel Vlaicu University of Arad.

The stages of their reintegration were the following:

- i) At first, the scientists were reintegrated on research or teaching positions that were equivalent to those they held at the universities from abroad;
- ii) Further, they were provided conditions to perform in research and education at the level they did abroad, prior to their return home;
- iii) In the third stage the six scientists were constantly encouraged and supported by all means to apply for research grants, constitute and lead their own and independent research groups;
- iv) Finally, the scientists were supported to promote on academic track as soon as their accomplishments fulfilled the national criteria for advancement in career.

Following these steps, in this short time, three of these scientists became full professors before the age of 40 and three are on positions of associate professors, with highest chances of promotion on the full professor position, as soon as the situation at the national level will be favorable in this regard.

2.2 The “pay back” at the institutional level

The gain at the institutional level is synthetically illustrated in the charts presented in Figures 1-3.

From Figure 1 it appears obvious that while in 2004 the research at Aurel Vlaicu University of Arad relied on a single research grant, in 2008 34 national and international grants supported the research. On this basis, the same year, the university was awarded a Prize for Research by the National Council of Scientific Research in Higher Education (CNCSIS).

Additionally, it is noteworthy to mention that although no national grant competitions were launched in 2009, 26 research grants supported the research at Aurel Vlaicu University in 2009 and 27 (international and FP7 including) in 2010.

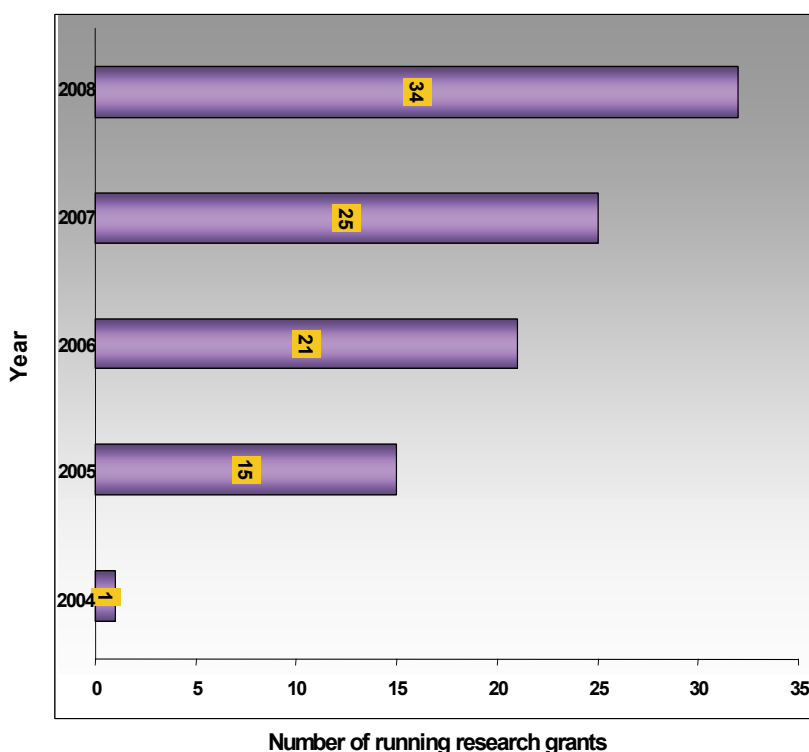


Figure 1. Evolution of the number of research grants at Aurel Vlaicu University of Arad within 2004-2008 period

Most of these research grants were achieved and entirely carried out by the research groups of the six scientists reintegrated and are related to the following areas of research: biochemistry, biomedicine, biotechnologies, physics and biophysics, textile industry, economy and literature.

As observable in Figure 2, a spectacular evolution had also the number of research papers published in ISI-cited journals and proceedings.

Starting 2007-2008 the number of articles published in ISI-indexed journals and proceedings increased significantly. As compared to the reference year, 2006, when with 16 articles the university was placed on the 13th position of the Ad-Astra ranking, the number of articles published in ISI-ranked journals doubled in 2008, and it almost tripled in 2009.

Most of these papers, belonging to the research groups led by the reintegrated scientists, were published in prestigious international journals of high impact factors and already collected a remarkable number of citations and some of them several important international prizes.

The evolution of the communications at international scientific meetings, congresses or conferences is presented in Figure 3.

Since 2007, most of these presentations were given by the reintegrated scientists as either contributed oral communications or invited plenary/keynote lectures at conferences or meetings held abroad in the following countries: USA, Canada, Germany, France, UK, Austria, Portugal, Belgium, Italy, Sweden, Norway, Poland, Netherlands, Croatia, Hungary, Russia, Ukraine and Israel.

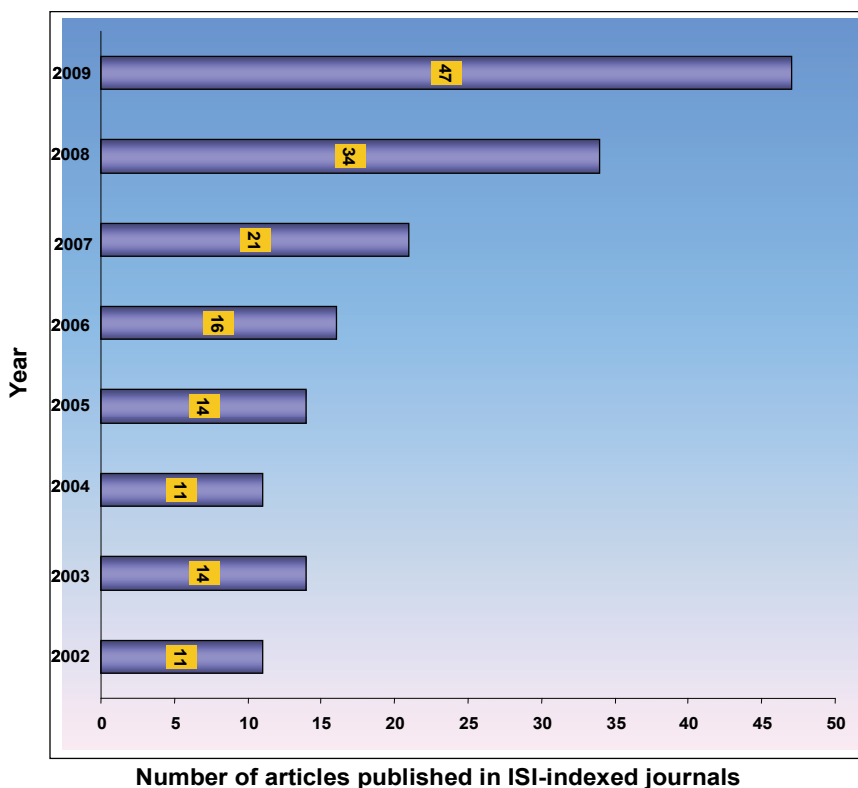


Figure 2. Evolution of the number of articles published in ISI-indexed journals under the affiliation of Aurel Vlaicu University of Arad within 2002-2009 period

At the same time, through their international expertise, reputation and networks, the six reintegrated scientists contributed an essential progress to the internationalization of the education, teaching staff and research at the university through:

- i) Facilitating research and education stays abroad to the students of the university;
- ii) Enhancing academic mobility to and from their former universities from abroad as well as to and from universities from abroad they collaborate for many years with;
- iii) Establishment of novel international cooperation projects with their former universities from abroad or universities and research institutes they collaborate with.

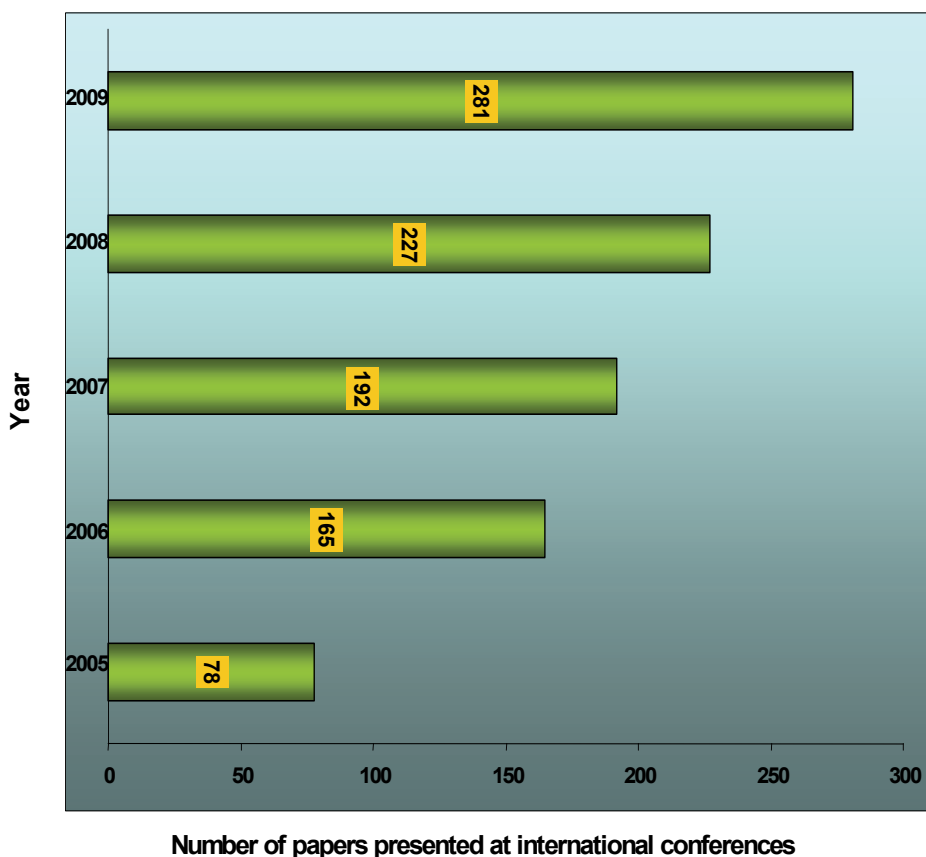


Figure 3. Evolution of the number of papers presented at international conferences under the affiliation of Aurel Vlaicu University of Arad within 2005-2009 period

3. Conclusion

Within 2006-2009, at Aurel Vlaicu University of Arad, six Romanian scientists who have carried out a long-term continuous research stay abroad could be successfully reintegrated in the Romanian higher education system, which essentially contributed to the increase of university accomplishments and its national and international visibility. The results of this experiment substantiate once more that attraction of Romanian scientists from abroad is one of the solutions leading to the improvement and development of higher education system in Romania.

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AGENȚIA ROMÂNĂ
DE ASIGURARE A
CALITĂȚII ÎN
ÎNVĂȚĂMÂNTUL SUPERIOR

QUALITY IN EDUCATION ACHIEVED WITH MULTIMEDIA ASSETS

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Abstract

Students grown up in a computer environment have different expectations towards higher education than the ones offered currently. Although information is now easy to access, in lack of an appropriate filter, seems that the difficulty of the learning and teaching processes increase. Lecturers play a key role in the transformation of illusive knowledge into a thorough one. They assume the role of a guide who can safely navigate the students through the multitude of information. By involving multimedia assets into this task, lecturers may create a friendly, familiar environment for their students. As the study emphasizes, the preparation of a multimedia asset became a hard task, because the lecturer shall be familiar not only with the subject and the technical issues but with the preparedness and comprehension skills of the audience also. A quality multimedia asset requires the co-operation of a communication and IT professional and, above all, a change of approach of the academic management. As long as didactic activities, including the preparation of assets, are not rewarded properly, multimedia opportunities will not be sufficiently exploited. Accordingly, this aspect will deepen the gap between higher education and everyday life.

Keywords: higher education, teaching technology, multimedia products, teacher responsibility, quality management.

1. Introductory notes

Higher education of the 21st century faces important technical challenges. On one hand, the rapid evolution of the science and technology creates a daily growing, nearly incomprehensible amount of scientific product development, on the other hand, ensures an easy access to information. We may say that not the lack of information but its quantity and, quite often, its dubious quality represents the greatest challenge. Beside the rapid progress, the volume and unrestricted availability of scientific discoveries we shall take into account that students have limited abilities and that the time spent on training is limited as well. Higher education, now as always, ensures a higher level of qualification and a better chance of realisation on personal and social level [1].

An important area of the research focusing on adult training tries to define “how problems related to quantitative issues concerning growth may be combined with issues related to quality, like the efficiency of teaching and learning through the new instruments” [2]. Classical higher education methods don’t meet the expectations of the new generation grown up on computers. The increasing mass character of education faces lecturers with a growing challenge, as the life experience, knowledge and capacities of many of those involved are lower than expected. That

is why, especially in this area, so many questions arise for which the appropriate response should come from the collective leadership of the institutions involved. Some examples [2]:

What role does the lecture play in the process of knowledge acquiring of students?

How can students with a lower level of knowledge persuaded to synchronize with the others and encouraged to learn continuously during the academic year in order to assure a thorough knowledge?

What kind of methods foster the individual activity of students beside the participation at seminars, projects, laboratories and practical activities?

What role should various evaluation methods play in the process of competencies assessing?

How can be turned the evaluation into an objective process?

How shall be the practical training of students organised to make them able to solve the required tasks in their future career?

How the tools of information technology support the knowledge acquisition? Where and how shall they be used?

2. Discussion

2.1. Assets, be taken into account?

It is well known that the teaching process, in addition to symbols, numbers, letters, signs, etc. uses educational tools since ancient times. They were used to support the understanding process and to make the teaching process more spectaculars. Their development produced various assets and an entire industry was born to diversified and produce them. The spread of science education and the emergence of schools focusing on science attributed a growing importance to the development of the illustrative material and didactic assets were gaining an increasing importance. This process continued to develop with introduction of professional education focusing on practical training by assuring corresponding conditions for the expectations of a future workplace. Changing the curricula was now remaining just a few steps behind, and the classical tandem of lecture–seminar was expanded with laboratory practice, as a subject. At college and university level the practical training of the 21st century implies the existence of pilot and industrial scale plants, and last but not least, the existence of production units where the research and education may serve complementary the development of professional skills.

The development of technology served education from another point of view as well. As is known, the radio was the first instrument related to which many scientists had great hopes. Many imagined that the radio would become an education asset to transmit knowledge to students. Another great hope represented the appearance of the motion picture. Many specialists imagined future institutions as giant cinemas. Edison considered that books would disappear from education due to motion picture. ("The motion picture is destined to revolutionize our educational system and in a few years it will supplant...the use of textbooks" [3]). It is true that the films became part of the assets, but for some reason they did not meet entirely this expectation.

The emergence of video images revived the hopes put into the role of image and sound. Unfortunately, it could not solve the difficult process of teaching and the result is not proportionate with the high level of investment. It is true that there are fields where these assets are essential, but few would argue that the video changed education on a very high level. It is interesting that while TV became a dominant factor of everyday life and is the only or, in many cases, the main source of information, in higher education it has not lived up to the expectations [4]. The great desire of distance education, namely, to hold a lecture for hundreds of students situated in different locations is technically feasible now and interactivity is ensured as well, but did not have the foretold overwhelming success.

Nowadays, in the era of information technology and of the internet another device –the computer– regarded with high hope. Computers combine image, sound, sight and experience, reduce or eliminate distances. Information is supplied at the time of birth, and allows interactivity for all users. Skeptics consider that all we achieved in the last 20 years by applying multimedia assets can be characterized by a massive increase of costs in the field of education [3,4], while optimists think that it could serve as a model in formulating educational technology for the future. We may, however, recognize that this new instrument somewhat undermines the traditional higher education model based on the classical trio of lecture–seminar/practical activity–examination [1,5]. Assets and methods varied over time but our main objectives and tasks remained unchanged: we shall „assist students to prepare for an active, successful career” [2].

2.2. Where does multimedia, an asset of acquiring knowledge and skills, fit into this lengthy process?

”Different experiments show that people remember approximately 20% of the information received verbally, about 30% of the information visually, and more or less 50% by synchronously combination of them. They remember 80% of the information if they hear and see it and carry out an activity related to it” [6]. This demonstrates that **multimedia may be useful** for knowledge acquisition, **when the student is motivated, has the ability to receive and the knowledge is presented in a manner that facilitates its accumulation.**

As for the lengthy and arduous process of knowledge acquisition, a difficult task lies with the lecturer, because as Boda and Benediktsson [7] states, students have to be persuaded to use a considerable part of their available resources (time, physical and mental energy, textbooks and assets, etc.) for learning. The question is: how?

In very simple terms the acquisition of knowledge and skills implies several steps (see fig.1):

- definition, description of the concept/concepts,
- understanding the concept/concepts,
- recording the concept/concepts and learning to apply it,
- assessment and analysis of the level of comprehension,
- comparison of the results,
- evaluation and feedback.

While description is made by presentation, explanation and quite frequently, by illustration understanding supposes a certain amount of previous knowledge and life experience related with the new concept. That is still not enough: *thinking* is necessary as well.

In accordance to Boda and Benediktson [7] the most important task of the lecturer is *to arise the interest* or, in other term, to **motivate**, which beside cognitive elements such as

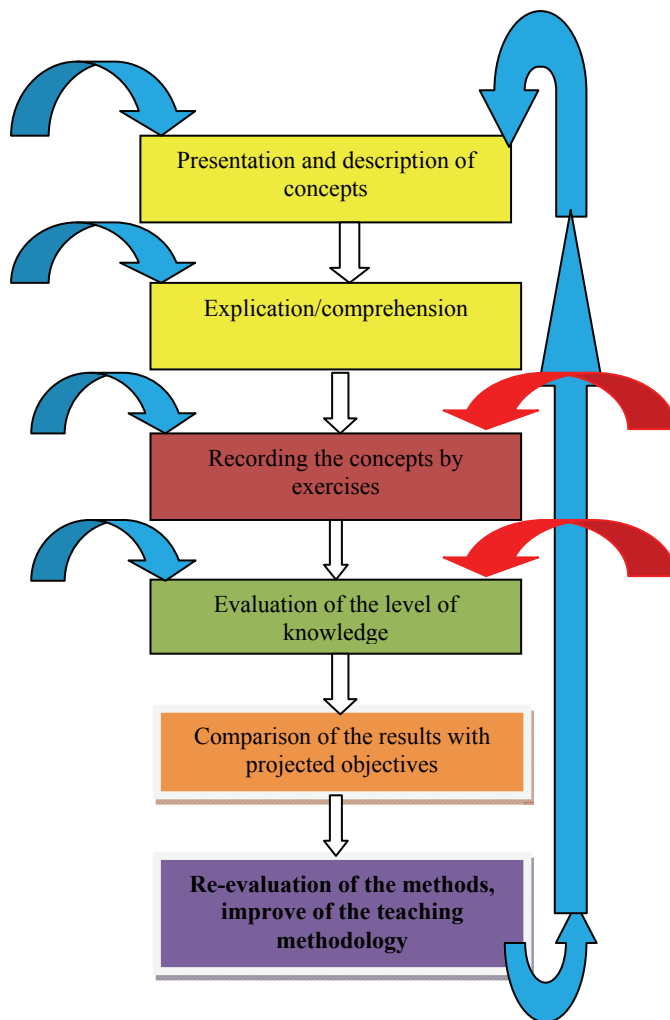


Figure 1. Scheme of the learning process

- functionality of the curriculum (*content*, relevance, its factual character, etc.),
- usefulness of the curriculum (e.g. easy to acquire and understand, clear and didactical structure, east to follow language, etc.),
- reliability of the material (provides algorithms for solving typical issues),
- effectiveness of the curriculum (in most cases the acquired problems solving skills lead to rapid and effective solutions),
- the maintainable character of the curriculum (the acquired knowledge is durable and renewable, and this can be achieved by offering an appropriate theoretical foundation),
- portability of the curriculum (the acquired knowledge can be implemented in various fields).

The lecturer should implies affective issues like:

- „future security (a secure job, a living),
- pleasant, friendly atmosphere,
- encourage learning within the community,
- students shall be motivated to be proud of choosing the institution, a „competitive advantage” should be given to them (trough they may become better trained and more successful than others, may have a career, etc.).

In the *description of the concept*, in arising motivation and transferring knowledge teachers play the key role. They have many opportunities in presenting and describing the concept and linking them to an already existing knowledge. Suitable assets, be it digital, can play a major role in explaining a phenomenon and linking it to other knowledge, in arising interest and maintaining the level of attention.

Assets have a major role in *the understanding of concepts or phenomena*. Moving, animated images or those portraying the reality have a huge impact, not to mention the personal experience acquired during various activities. The more writing, images and audio assets implied the more effective communication is, both between teacher and student and between students. Efficiency is ensured by well designed assets. The quality design of such an asset implies the participation of a third party: the information professional who, by applying the appropriate principles of the field in question, creates an asset ensuring the proper transfer of knowledge.

The *recording of the concept* and learning to apply it implies the use of multimedia as well. Let us only think of the acquisition of manual dexterity and reflex movements where, from the point of view of costs, it is more effective to imply multimedia systems than do it „live”. Multimedia assets are implemented in various fields implying repetition and practice, for instance in language practicing, design, mathematical modeling and optimization.

The *assessment of knowledge* and evaluation of the acquired knowledge may also imply different multimedia assets. The explanation is simple: computerized evaluation is faster, the number of students that can be evaluated at the same time is higher and the evaluation may even be customized for a certain person or level of knowledge. Unfortunately, in some cases skills and capacities cannot be evaluated correctly and competencies cannot always be assessed well. Therefore, curtains studies propose that testing shall only be employed as a filter, to assess the minimum level of knowledge, and evaluation shall continue orally, although this is much more subjective than the written evaluation.

As seen on the figure, multimedia assets may be implemented in various units of the teaching–learning process, not only by the teacher (blue arrow) but by the student as well (red arrow). The attainment of objectives requires the implementation of bidirectional communication. The more intensive the information flow in both directions, the more effective is the recalculation, and are the benefic changes in the method, i.e. in the tool.

2.3. Multimedia assets in higher education

Although the implementation of multimedia assets in higher education is below the level of expectations and opportunities [4,6], there are many areas where they have already penetrated. Some of the used versions [3,6,8-10] are:

- **Presentation:** providing information, verbal and written expression, combination of images and texts, preparation and analysis of figures and charts, etc.,

- **Active knowledge acquisition and application**, construction of knowledge in a customisable, interactive, computer learning environment,
- **Simulation**, virtual lab: real educational devices combined with computer-assisted experimentation, measurement, process modelling, etc.,
- **Project preparation**: individual or (large or small) group activity,
- Deployment of the latest information and communication technologies (ICT) during study tours and outdoor training in order to ensure the **mobility** of the students and teachers [11],
- **Online examination**: customised exercises, practising options, immediate, diagnostic evaluation.

However, the employment of multimedia has pitfalls as well. One of the most frequent negative effects is the so-called *illusory knowledge*. When information reaches the student on different ways, it often gives the impression that he already owns it, and repetition and practice is neglected. "As without education and continuous learning the employment of visual media is only a superficial phenomenon" [10], illusory knowledge often leads to inaccurate self-assessment. The other drawback lied on the side of students. Based on Edison's remark according to which "There is no tool which man has not tried in order to avoid the pain of thinking!", students spend more (both time and money) on mobile technologies that they would spend on the acquisition of knowledge. Thus, the institutions of higher education became a free market of digital information, a market that comprehends every aspect of individual activity, from the simple homework to the level of degree thesis. This situation is quite similar to the radar and anti-radar problem.

These aspects can, but shall not have such a negative impact to prevent multimedia assets and devices to find their place in higher education. Choosing the appropriate asset is a decision taken in a multivariable system, as we shall take into account:

- the characteristics of the taught discipline,
- the instructor's ability,
- the abilities of the students and
- last but not least, the existing conditions, such as the built environment, digital and audio-visual equipment.

The qualitative leap forward in the acquirement of knowledge and skills is represented by a multimedia asset tailored to take account of the lecturer and student population and the characteristics of the site respectively. Designing such an instrument is not an easy task. Perhaps this is the explanation for its narrow spread. We may count on a real progress only if the management of the institution would evaluate didactical activities on a proper level. Until the annual evaluation of lecturers does not focus properly on this task, there is little hope for a quantum leap, which may become a cornerstone of quality.

Regardless of the number of the employed tools, the teacher must not create the impression that knowledge acquisition does not require work, and the asset itself shall emphasize the importance of individual work as well.

The proposals based on more than twenty years of experience encourage fellow professionals [1,2,10-13]:

- Multimedia programs shall enhance visualisation,
- A higher level may be achieved by built-in pictures, figures and digital moving pictures,
- Multimedia assets shall allow every type of *enlargement* or upgrade,

- Educational multimedia documents should be as *linear* as possible and hyperlinks shall enhance understanding. With such a structure students will be able to follow the teacher and easier understand the logic of the discussed matter,
- Computers represent the living space of multimedia, but the optimal solution would be the combination of electronic media with printed books, in a synchronised form.
- We shall always keep in mind the advices of communication professionals during the preparation of multimedia assets. As we always prepare it for different audience, it would be too optimistic to think that we can develop a universal asset suitable for everyone.

By comparison, the overall value of student results obtained with or without multimedia assessment, may establish the efficiency of this teaching system both in knowledge acquisition and competency growth.

4. Conclusions

Multimedia assets may be and are used in many different fields of higher education. Their limited use in higher education has several reasons, ranging from the conservative approach to the methodological shortcomings in the quality assessment of the teaching staff.

Multimedia assets may contribute to the motivation of students and may help us to maintain curiosity, attention and communicate the information efficiently.

The creation of an efficient multimedia tool depends very much on the personality, knowledge and methodological skills of the lecturer, and requires communication skills as well, because it is important to imply multi-channel, written, visual and audio communication means.

Multimedia may be the solution for the participation in higher education in many fields, not to mention adult training and life-long learning. In such situations the established curricula may be customized, distributed and evaluated with the help of multimedia.

Multimedia assets, no matter how efficient, cannot replace the lecturer, they are only teaching aid or courseware.

The appropriate multimedia asset is the result of a painstaking work. Institutional management should pay particular attention to its preparation and it should value more in the evaluation of didactical activity. The preparation of lecture notes and textbooks were given priority so far, but from now on there should be an emphasis on the preparation of quality courseware and its customizing to the needs of the students.

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PERFORMANCE, ASSESSMENT AND QUALITY IN HIGHER EDUCATION

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Abstract

Performance, Assessment and Quality in Higher Education counts among its aims to design the problem of the relationship between the quality of the educational process in the Romanian higher education system and the assessment of educational programs and student performance. Practically everybody in the academic community gets assessed and assesses somebody else. The improvement of educational practices (including assessment strategies) determines a different quality for the learning outcomes. Quality assurance in higher education also implies developing analytical procedures and instruments for measurement of educational programs and student performance. This paper will suggest a few instruments to be used in designing curriculum and evaluation (standards, descriptors) and instruments for the assessment of educational activities¹.

Key words: keyword accreditation, Bologna Process, engineering Bachelor and Master programmes, Qualification Frameworks, quality assurance.

1. Conceptual clarifications

For teachers in the higher education system, evaluation runs on a continual basis. Practically everybody in the academic community gets assessed and assesses somebody else. Quality assurance in higher education implies developing analytical procedures and instruments for measurement of educational programs and student performance. The outcomes of different educational programs are affected by various educational practices and the improvement of the latter (including assessment strategies) determines a different quality for the learning outcomes.

This paper will present a few instruments to be used in designing curriculum and evaluation (standards, descriptors) and few instruments for the assessment of educational activities.

It is important that faculty and staff agree on the meaning of terms that will be used in assessing courses and programs. Promoting clear definitions of terms and initiating a dialogue on a few problems related to the common understanding and practice of academic assessment will contribute to a better understanding of the mechanisms of evaluation in higher education and of the way these may lead to the promotion of better quality assessment practices and institutional management. [1]

¹ The instruments have been created in the pedagogical seminar. The following students participated: Dinca Corina, Roescu Andra, Troncota Miruna, Velicu Cristina.

This paper aims to present a part of a more ample research regarding evaluation management (the evaluation of educational programs by the managerial team, made up of the department and the faculty's council) and quality assurance (the evaluation of student performance, producing and piloting content descriptors for certain subjects), accompanying the selection of theoretical considerations on evaluation with a few instruments produced within the faculty.

How is evaluation carried out in the Romanian higher education system? What are the instruments used by teachers? How much do students understand of the act of evaluation? What is the impact of evaluation on learning?

These questions (and others like them) are answered in different ways in various Romanian universities. More often than not, however, each teacher assesses as they think fit, and students (usually) understand the assessment criteria for each subject after the evaluation period has ended.

We will now present a few definitions of the concept of assessment. The Latin root *assidere* means to sit beside. In an educational context, assessment is the process of observing learning; describing, collecting, recording, and interpreting information about a student's learning. Assessment is an episode in the learning process; part of reflection and understanding of progress. Traditionally, student assessments are used to determine placement, promotion, graduation, or retention. In the context of quality assurance assessment it is important to determine the effectiveness of academic programs, the effectiveness of changes in the teaching-learning process. [2]

The definition from the Tuning manual is also useful in researching and practicing evaluation:

The total range, of written, oral and practical tests, as well as projects and portfolios used to decide on students' progress in the course unit or module. These measures may be mainly used by the students to assess their own progress (formative assessment) or by the university to judge whether the course unit or module has been completed satisfactorily against the learning outcomes of the unit or module (summative assessment). [3]

Theorists in this field [4] distinguish between the *assessment of learning*, which is under the influence of negative *backwash*, and *assessment for learning*, which is formative and measures progress. Accepting these definitions, we will implicitly work with the distinction between formative evaluation (which is preferable) and summative evaluation. Formative evaluation implies that the assessment is conducted during a course/program with the purpose of providing feedback that can be used to modify, shape, and improve the given course / program. [5]

Assessment is an ongoing process aimed at understanding and improving student learning. Learning is the focus and ultimate goal of the learner-centred paradigm. Because of this, assessment plays a key role in shifting to a learner-centred approach. When we assess our students' learning, we force the questions, "What have our students learned and how well have they learned it?" "How successful have we been at what we are trying to accomplish?" Because of this focus on learning, assessment in higher education is sometimes referred to as outcomes assessment or student outcomes assessment. [6]

Some authors insist on the idea that it involves making our expectations explicit and public; setting appropriate criteria and standards for learning quality; systematically gathering, analyzing, and interpreting evidence to determine how well performance matches those expectations and standards, and using the resulting information to document, explain and improve performance.

2. The evaluation of educational programs. Instruments to be used

The evaluation of the educational programs is a complex activity including the analysis of the curriculum and of the strategies and learning activities. An important role in the effectiveness of each educational program is played by the faculty team working in each subject area. These aspects are not analyzed in the Romanian higher education system even if each time that an evaluation takes place, all educational actors recognize that the professors' educational strategies are very important. Taking into account the necessity of a supportive culture of teaching within a faculty, we plan to develop and to experiment a few evaluative strategies:

- we intend to apply to the team of professors the same questionnaire we apply to students for evaluating the program;
- we will plan a program of collegial participation to selective educational activities conducting the observation with special instruments like the one presented in Table 1, and we will ask the assisted professor to evaluate his work using the same instrument.
- the representatives of the department or the faculty board will participate in the educational activities using a different instrument (see Table 2) and encouraging the reflective activities and constructive discussions.

Table 1. Collegial observation chart for seminars

| I. Observations regarding the professor's attitude | | | | |
|--|---------------------------|---------------------------|-----------------------|------------------|
| 1. The professor's behaviour | Adequate | Partly adequate | Inadequate | |
| 2. The professor has an attitude that is | Positive towards learning | Negative towards learning | | |
| 3. Gestures and mimic | Help learning | Do not help learning | | |
| 4. The professor's dynamics | Sits at the desk | Stands | Walks around the room | All of the above |
| II. Observations regarding didactic aspects | | | | |
| 1. The seminar's objectives | Are announced | Are not announced | | |
| 2. Evaluation criteria | Are announced | Are not announced | | |
| 3. The seminar's theme | Is specified | Is not specified | | |
| 4. Builds activities to deepen and fastening the concepts taught during lectures | Yes | No | | |
| If yes: | | | | |
| 4.1 The activities are adequate for the theme | To a great extent | To a small extent | At all | |
| 4.2 The activities are adequate | To a great extent | To a small extent | At all | |

| | | | | |
|---|-----------|-------------------|-------------------|--------|
| 5. The seminar is carried out on the basis of: | | | | |
| 5.1 Debate | Yes | No | | |
| 5.2 Student presentations | Yes | No | | |
| 5.3 Simulations | Yes | No | | |
| 5.4 Group work | Yes | No | | |
| 5.5 Other methods | | | | |
| 6. Alternates teaching methods | Yes | No | | |
| 7. Uses methods adequate to the group | | | | |
| 8. Clearly presents the requirements for each activity | Yes | Partly | No | |
| 9. Uses auxiliary materials | Yes | No | | |
| If yes, which ones (texts, articles, PowerPoint presentations, etc.) | | | | |
| 10. Values individual activities | Yes | No | | |
| 11. Offers reflection themes that will guide the reading and discussion around the bibliography | Yes | No | | |
| III. The relationship with students and mode of interaction | | | | |
| 1. Adapts to the group's needs | Very well | Quite well | Well | Badly |
| 2. Interacts with students during the seminar | Yes | Partly | No | |
| 3. Actively involves all students during the seminar | Yes | No | | |
| 4. Encourages student interventions | Yes | No | | |
| 5. Manages to create a debate | Yes | No | | |
| 6. Takes students' suggestions into consideration | Yes | No | | |
| 7. Offers feedback | Yes | No | | |
| 8. Manages to attract students' attention | Totally | To a great extent | To a small extent | At all |
| IV. Observations regarding evaluation | | | | |
| 1. Evaluation criteria are the ones announced | Totally | To a great extent | To a small extent | At all |
| 2. Evaluation criteria and grading are adequate for the seminar | Totally | To a great extent | To a small extent | At all |
| 3. Evaluation is objective | Totally | To a great extent | To a small extent | At all |

| | | | | |
|--|---------|-------------------|-------------------|--------|
| V. Final observations | | | | |
| 1. The seminar's objectives were reached | Totally | To a great extent | To a small extent | At all |
| 2. The techniques for reaching the objectives were efficient | Totally | To a great extent | To a small extent | At all |
| 3. Other observations: | | | | |
| Observed professor: | | | | |
| Professor observing the class: | | | Date: | |

Table 2 Observation chart of the head of department

| | | |
|--|-----|----|
| I. Time management | | |
| 1. The professor sticks to the time allocated to the lecture | Yes | No |
| 2. Time allocation for each element taught is proportional | Yes | No |
| 3. Time allocation is flexible according to students' needs | Yes | No |
| II. Accordance with the curricula | | |
| 1. The objectives match the curriculum | Yes | No |
| 2. The course creates the components required by the curriculum | Yes | No |
| 3. The course forms the attitudes required by the curriculum | Yes | No |
| 4. The contents are appropriate for the creation of the attitudes and competences required by the curriculum | Yes | No |
| III. Bibliography | | |
| 1. The bibliography corresponds to the objectives | Yes | No |
| 2. The reading of the bibliography is guided by the professor through: | | |
| 2.1 Offering reflection topics | Yes | No |
| 2.2 Discussing the bibliography on the basis of themes agreed upon | Yes | No |
| IV. Updating the course | | |
| 1. The information given is up to date | Yes | No |
| 2. The bibliography includes references to the latest theories and trends in the field | Yes | No |
| 3. The attitudes and competences created are the ones required by the work market | Yes | No |
| V. Didactic aspects | | |
| 1. The didactic methods used are modern, reflecting the latest trends | Yes | No |
| 2. The methods are varied | Yes | No |
| 3. The methods are adapted to students' needs | Yes | No |
| 4. The teaching/learning/evaluation activities are focused on competences | Yes | No |
| 5. The teaching methods are adequate for the course | Yes | No |

| | | |
|---|-----|-------|
| VI. Trans and cross-curricular aspects | | |
| 1. The information transmitted is correlated with previous courses | Yes | No |
| 2. The information transmitted is correlated with the other subjects | Yes | No |
| 3. The recommended bibliography takes into account students' prior knowledge | Yes | No |
| 4. The attitudes and competences created take into account the attitudes and competences created by other courses | Yes | No |
| VII. Other observations | | |
| Observed professor: | | |
| Head of department: | | Date: |

Using these methods and instruments could have the following advantages and outcomes:

- a. enabling the faculty to analyze the teaching strategies, thus ensuring more evidence and substance for debate;
- b. encouraging reflective activities for the faculty participating in the educational program;
- c. contributing to a long-term evolution of a culture of the quality of the educational act, of collegial coaching activities and an improvement of teaching and learning activities in higher education.

The psychological effect that the use of these instruments can have on teachers is relevant as well. The participation in the educational activities by an unknown person can be stressful if their purpose is not clear for the teacher. Using a known observation instrument could have a positive influence on a teacher's concentration capacities, thus stimulating didactic creativity.

3. The evaluation of students' learning

The observations and discussions that have been carried out over the past three years and that refer to the evaluation of students' performances within our faculty have shown the following:

- when assessing the competences of their students, professors are not concerned with the validity (the degree to which you are measuring what you are supposed to, the accuracy of your measurement) and reliability (the degree to which an instrument measures the same way each time it is used under the same conditions with the same subjects) of their assessments;
- in most cases, professors do not apply any assessment theory to their evaluation work;
- it is generally agreed that students should be informed about the conditions of their evaluation.

We have paid attention to the evaluation of students' performances not only because evaluation triggers strong affective reactions among them, especially when it is not well understood, but also because we wanted to observe the effects of the backwash effect it determined. Backwash is a term that describes the effect testing has on teaching. Assessment should be supportive of good teaching and have a corrective influence on bad teaching. Backwash can be positive (when students study and learn those things which professors intend them to study and learn) and negative (when the influence of evaluation on learning is the diminishing of the quality of learning).

How can we organise the evaluation of students' knowledge so that the influence it has on the act of learning be a positive one? What is to be done for the quality of the assessment

activities to increase? One element that was proved to be missing from the act of evaluation is the standards of content. Each curriculum is built starting from the general competences that are intended to be developed. The profile of graduates is designed for each specialization. The correlation between the general profile, a specific subject and the evaluation is difficult to be highlighted without content standards/descriptors. We have built such content standards/descriptors for 7 subjects during the research carried out within our faculty, and we will apply them during the next academic year. (One such example is given in Table 3) Their application involves discussing them with students and, in time, associating them with some models of tasks and examples of performances [7].

Table 3 Content standard/descriptors for “History of social and political thought”

| | | | | | |
|--|--|---------------------------------|-----------|------------------------------|----------------|
| Name of the subject | History of social and political thought | | | | |
| Year of study | 1 | Semester * | 2 | Type of final evaluation (S) | |
| Subject's regime (Ob-obligatory, As-associated, Op-optional) | | | Ob | Number of credits | 5 |
| Total curriculum hours | 42 | Total hours of individual study | 83 | Total hours by semester | 28 + 14 |
| Professor | | | | | |
| Grade | Content standard/descriptors | | | | |
| 5 | a. To associate each author studied (Nicollo Machiavelli, Thomas Hobbes, John Locke, Jean Jacques Rousseau, Montesquieu, Edmund Burke, Thomas Paine, Alexis de Tocqueville, Emanuel Joseph Sieyes, Karl Marx, Friedrich Engels) with an idea or key concept of their work. b. To offer a brief argument for the choice of a key concept from the following concepts studied: key elements of each representative conception of the formula for political organisation – the typology and structure of the forms of government, alongside the criteria and arguments on which these are based, the foundations of political power – sources of legitimacy, governing models suggested in the history of political thought, the distribution and sources of political power, the relationship between political power and the social world. c. To be able to identify the chronology of the authors studied. | | | | |
| 6 | a. To exemplify, according to the given model, the relationship between the political sacred and the religious sacred. b. To identify the secondary and tertiary concepts of each author in a studied text. c. To enumerate 2 characteristics of the traditional and the modern systems of political organisation with the help of a studied author. | | | | |
| 7 | a. To compare the theories of 2-3 authors according to a given criterion. b. To identify the value of a studied concept (contractualism, divine legitimacy, laic legitimacy, historical determinism) for the understanding of a political phenomenon (the French revolution, the revolution of 1848 etc.) | | | | |
| 8 | a. To interpret a political phenomenon according to a given model, by using central, secondary and tertiary concepts of a studied theory. b. To explain the method used by each author in the theoretical construction of politics in a previously studied text. | | | | |

| | |
|----|---|
| 9 | a. To exemplify the evolution of the main political ideas: contractualism, the genesis of the modern state, divine and laic legitimacy, democracy, class and historical determinism. b. To explain the method used by each author in the theoretical construction of politics in a new text. |
| 10 | a. To explain and apply a multiparadigm analysis on the interpretation of a current political phenomenon. b. To use in the argumentation adequate contents from the ones studied for the understanding of a contemporary phenomenon. |

The use of these modes and instruments could have different advantages and outcomes for students and the faculty:

- a. the use of content standards/descriptors is important for students because:
 - each student will have a clear image of the final performance required by each discipline;
 - the evaluation will be made through reference to a well-defined model that is known by students, and not to the performances of the group to be evaluated; this means that students will not compare themselves to their colleagues, but the nature of the quality of performances will be defined by standards of performance, thus limiting the scope for subjectivity and making possible a correct self evaluation;
 - the evaluation will give students a criterion for their preparations, helping them understand what they need to do, which are the skills/competences they still have to work on.
- b. The use of content standards/descriptors is important both for the faculty and for the processes of quality assurance because:
 - evaluation is more correct than before, as the level of subjectivity is diminished;
 - evaluation is more credible for the institution, as well as for the community;
 - it could lead to a detailed planning of a learning activity who will have as result the improvement of grades by remaking the activities that had not been properly finalised;
 - educational programs could be improved by correlating students' results with the evaluation the students make of those programs.

4. Conclusions

Although this paper has only presented a part of a more ample research, several conclusions can still be drawn as to the relationship between assessment (with the two meanings it was given here, namely the evaluation of educational programs and of students' performance) and quality assurance. We will present a few of them, without repeating the ones that have been formulated before.

- a. **Quality is not synonymous with standards.** Using standards refers to fair, conservative and measurable performance targets, but universities' approaches to quality may include also the processes of dealing with the consequences of applying standards, of learning from experience and of improving systems. This means that quality is not synonymous with standards. At the same time, we cannot speak about

quality without standards, which is why formulating some standards/descriptors is one of the first steps a faculty must make to ensure quality.

- b. **The increase of the positive backwash effect.** Using adequate instruments for evaluation activities can influence learning processes through the manifestation of a tendency for the formal curriculum and the evaluated curriculum to overlap, thus determining the manifestation of a positive backwash effect and limiting or excluding the negative backwash effects.
- c. **Changing the evaluation system for higher education in Romania.** In the process of analyzing assessment in higher education, we have revealed that the evaluation system is closer to primary school evaluation (where it is operated with 5 marks), as only 6 grades are actually used in higher education. Evaluation in high school is made with grades from 1 to 10 (which gives more possibilities for nuances than in higher education, where 1, 2, 3, and 4 have the same value). Maybe it is time to change the evaluation scale in higher education (using a system of 20 points as in France or of 30 as in Italy).
- d. **Quality assurance, TQM, TOI.** We have started to think in terms of quality assurance, but not yet in terms of Total Quality Management (TQM) and Total Quality Improvement (TQI). TQM is focused on becoming more productive-reducing costs and improving quality [8]. TQM is a system of continuous improvement employing participative management and centred on customers' needs. Key components of TQM are employee involvement and training, problem solving teams, long-term goals and thinking, and recognition that the system, not people, produces inefficiencies. TQM should be seen as a process, not a program. It should be integrated into ongoing operations, and the focus should be on how an organization can better accomplish its goals and objectives. The TQI approach is applied to an individual course and reviews its key elements, customer focus, student involvement, and continual improvement. TQM and TQI are processes to be thought by the faculty even we cannot say that the mechanisms and the general process of quality assurance have been implemented.
- e. **Benchmark statement.** Activity-based benchmarking is considered a methodology in which a selected number of activities (typical or representative) are analyzed and compared with similar activities in other selected institutions. Assessment is one of these activities and thus it must be carried out in such a manner as to make the comparison not only possible, but also relevant from a quality assurance perspective. Subject benchmark refers to professional standards, describes what we expect of a graduate in terms of the abilities and skills needed in order to develop understanding and competence in the subject. So we cannot practice benchmarking without improving our assessment activities.

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