

# Implementation of Quality Management in the Assessment of Higher Education - Case Study in a Private University in Romania

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**Abstract**— At the beginning of the millennium, the higher education passes through a process of adaptation to the current needs of society, a process marked by globalization and unprecedented development of the information technologies. Given by increasing the number of the students and the offer of specializations, the competitive inter-university system development and intensification of the international academic cooperation, it appears logical to implement a type of educational management to increase the services offer, their effectiveness in promoting the performance in the competitive conditions. In this context, the quality is undoubtedly one of the most important requirements of any result of actions taken, and any activity for detecting the problems, to assess the influence and find solutions to solve them is, for any organization, the key of the progress. The *QUALITY* term and the international symbol *Q* can be used in many different circumstances. Thus, it can be spoken by the quality of products, services, life, education, learning, vocational training, etc.

**Index Terms**— decision, information, information system, quality management

## I. INTRODUCTION

The quality of education, which has often been identified with the educational quality and with the assessment results of the learning outcomes based on different criteria, are, today, a complexity of the active events, both in the formal education achieved by schools and in the non-formal education achieved by other cultural institutions and the media that assumes this role with competence and in the informal education which is carried out in the family and in the social and cultural relations, friendship and leisure.

The quality of higher education may be defined as all the characteristics of the education (in which are involved all available resources and environmental factors) and gives the ability to satisfy the current and future needs in knowledge, skills, performance of some individuals, business, society and state.

The quality of higher education means that it corresponds like the process, the system, as a result of multiple needs, objectives and rules. Ensuring the quality in higher education has become a priority both at institutional and at the governmental level. Ensuring the quality has resulted from all the processes activities, procedures, resources and organizational structures that form the quality system, involving the motivation for performance of those involved in this approach.

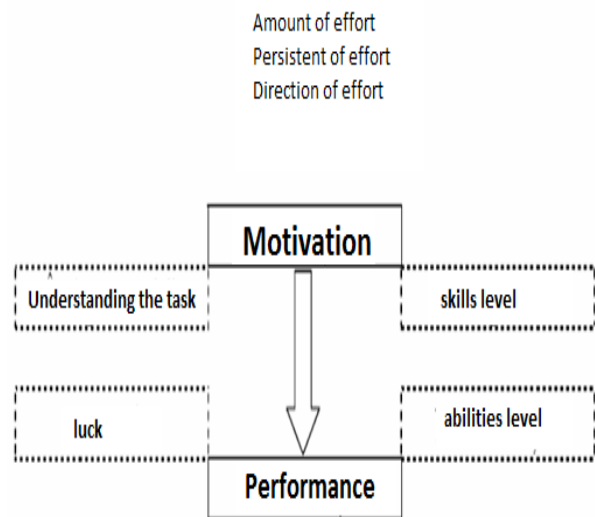


Figure 1. The path from the motivation to performance

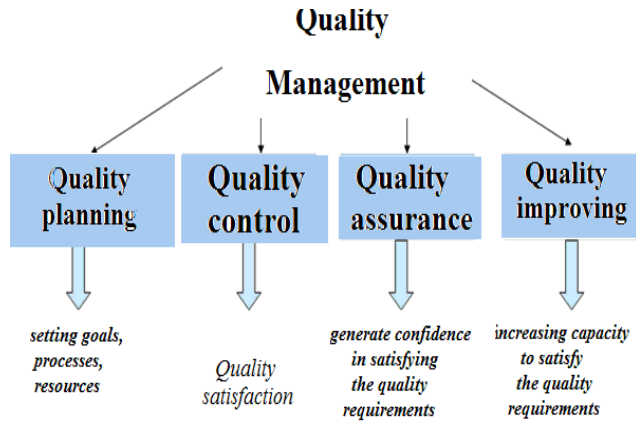
The problem of quality is not just a matter for the higher school competence or other institutions; its solving requires the integrated efforts at all the levels:

- Global;
- National;
- High school;
- Educational institutions in the multitude of influencing factors on the quality.

Quality, assurance the quality, and the quality management are concepts that are central goal of the success-oriented firms, regardless of the activity field, their size and the product produced. In the context of developing the national economies and the global economy it is found the change of the quality concept and the objectives and tasks related to the quality management.

The quality management consists of the coordinated activities to direct and control an organization with regard to quality. Targeting and control include:

- Establishing the quality policy and its objectives;
  - Planning, control, assurance and improvement the quality.
- Developing and implementing of a Quality Management System (QMS) is a strategic decision of an organization's management. This involves a complex set of activities to achieve and implement, but the benefits are many - it generates confidence that products / services are appropriate quality, ensures an increased competitiveness in the competitive market, maximize profits and achieving the excellence.



**Fig 2. Components of the quality management and their roles**

Source: Drăgulănescu, N., Assurance of the education quality in Romania - between necessity, confusion and obstacles

**The purpose of this study** is to present the process of ongoing evaluation of the "Spiru Haret" University students to identify the problems and to find the ways to improve the quality of the process.

## II. DESCRIPTION OF THE ORGANIZATION

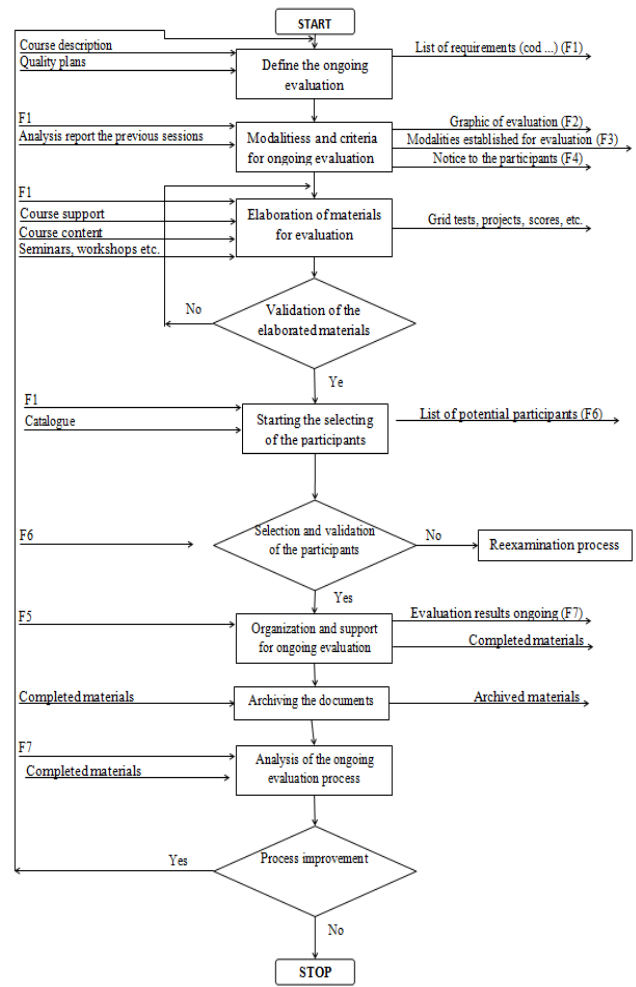
"Spiru Haret" University was established and approved by Law no. 443 of July 5, 2002, published in Romania Official Gazette no. 491 of 9 July 2002, which confirms that Spiru Haret University, accredited, is "a higher education institution, legal person of private law and public utility, part of the national education system."

The efforts undertaken by "Spiru Haret" University to ensure its integration into European and national space of the research have been directed towards designing its own research and development strategies, based on the assessment of the facts, defining the set of strategic objectives and specific of the research and development, elaborating the research and development plan and establish the necessary tools to achieve it.

University conducted various activities to promote the image, to make known the achievements, participated at the important, internal and external events, has partnered, conventions, established the relationship of collaboration in the various fields. Actions, moments, events demonstrate a strong, wide open to the world of the "Spiru Haret" University, a collaboration desire on the multiple levels in the European and international education and research. Also, it represents the prestige expression acquired by our institution, an irrefutable evidence of its mission to promote the values of education, science and Romanian culture in the universal space.

## III. PRESENTATION THE PROCESS OF THE STUDENTS ONGOING EVALUATION

**The process of the student's ongoing evaluation** is an integral part of the educational process that applies specifically to the "Spiru Haret" University and is shown in the diagram below.



**Fig 3. Flow diagram-Process of the ongoing evaluation**

**Table no. 1**

**Identifying sheet of the ongoing evaluation process**

Process Code	Designation process	Purpose process	Responsible for process
EP1	Ongoing evaluation	Assessment of knowledge Feedback Students mobilization	The discipline holder
<b>Entry code</b>	<b>Input in the U process</b>		<b>Target Upi</b>
U1	Number of students for ongoing evaluation		Up1 - 50
U2	Number of validate students that can participate at the ongoing evaluation		Up2 - 45
U3	Number of rooms		Up3 - 1
U4	Number of computers		Up4 - 25
U5	Number of supervisors		Up5 - 2
U6	Support materials quality for evaluation		Up6 - FB/B/ACC
U7	Security support materials for evaluation		Up7 - FB/B/ACC
<b>Risks</b>	<b>Intern</b>	<b>Extern</b>	
R1		Availability students	
R2	Availability rooms		
R3	Availability supervisors		
R4	Security issues		
R5	Failure of the technical equipment		
<b>Output code</b>	<b>Output from the Yi process</b>		<b>Performance indicators Ipi = Yi/Ui</b>
Y1	Number of assessed students		Ip1 = No. of total students / No. of validated students
Y2	Graduation		Ip2 = No. of promoted students / No. of total students
Y3	Percent of graduate from the validated students		Ip1 = No. of promoted students / No. of validated students

Ongoing evaluation of the students interferes with other processes (Fig. 4).

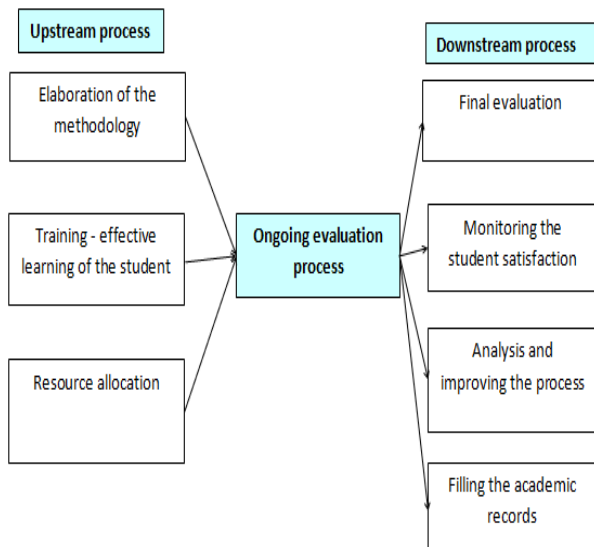


Fig 4. Interfacing scheme with other processes

#### IV. PROBLEM DEFINITION, MISSION AND THE TEAM SELECTION

**PROBLEM:** 35% of students did not pass at least one (1) ongoing evaluation exam.

**MISSION:** Reducing the percentage of the students who failed the ongoing evaluation exams with 15% during the academic year 2012-2013

##### TEAM SELECTION:

- Dean;
- Head of department;
- Responsible for IT
- Registrar;
- Students.

From the analysis of the problem, the team for improvement the quality of ongoing evaluation process of the students identified the causes groups and detailed them until the based cause level (Fig.5-9).

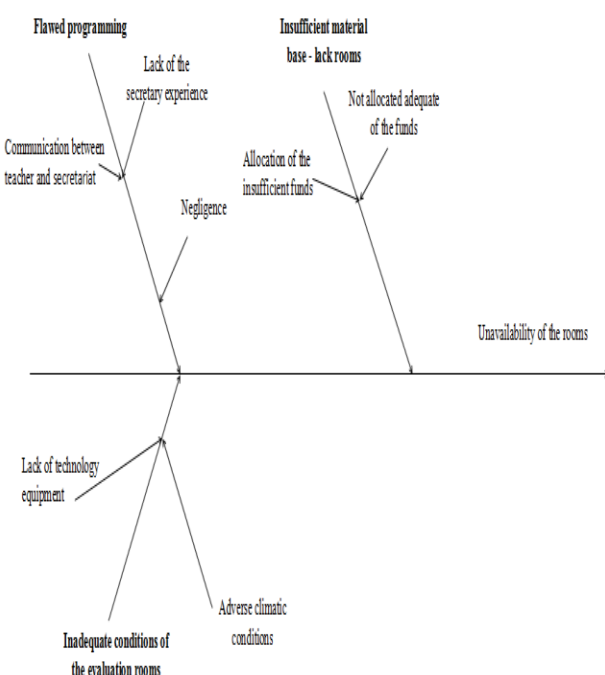


Fig 5. Fishbone Diagram - ROOMS AVAILABLE

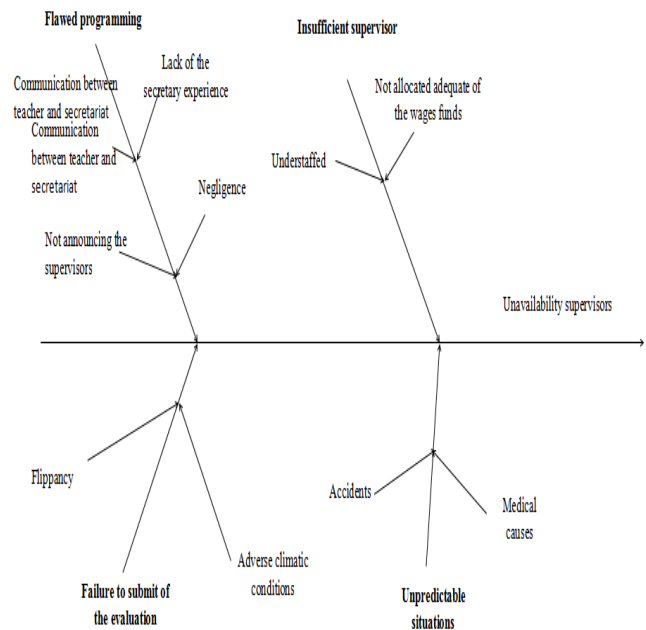


Fig6. Fishbone Diagram - SUPERVISOR AVAILABILITY

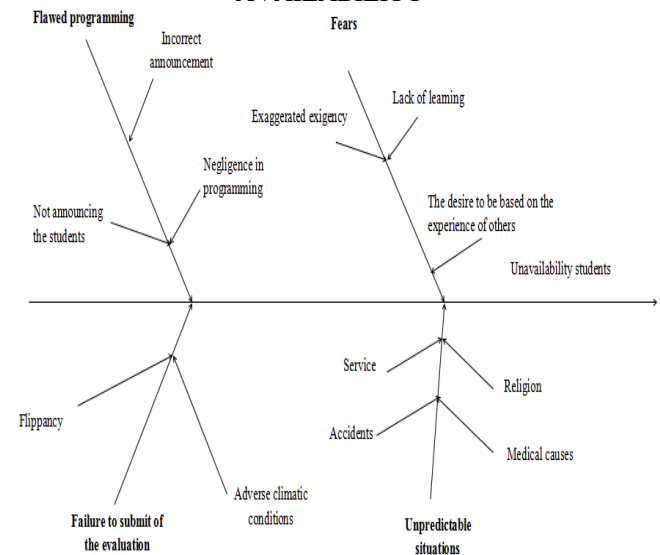


Fig7. Fishbone Diagram - STUDENTS AVAILABILITY

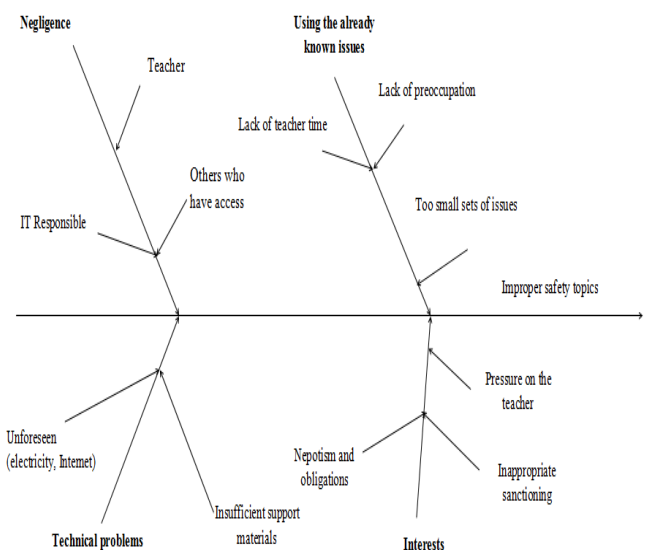
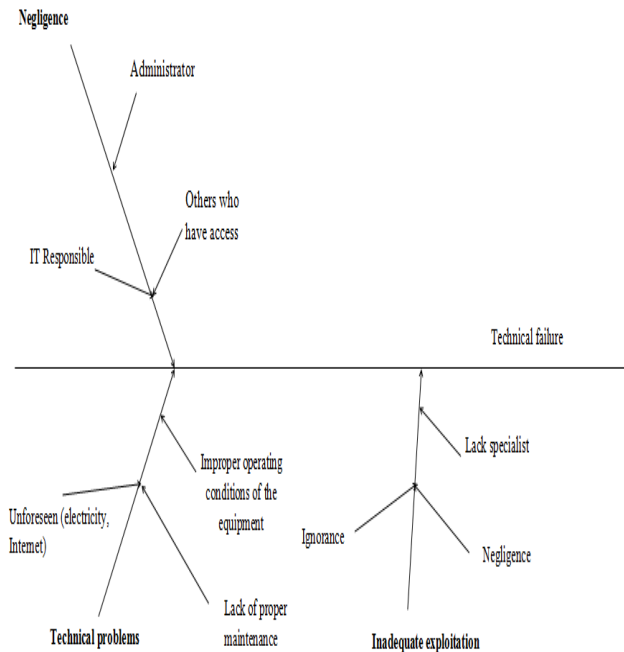


Fig 8. Fishbone Diagram – SECURITY OF THE ISSUES



**Fig 9. Fishbone Diagram – TECHNICAL FAILURE**

## V. IMPROVEMENT

After the establishing the causes has been started to identify the improvement solutions that leading to reduce the number of students that not pass the ongoing evaluation (Table. 2).

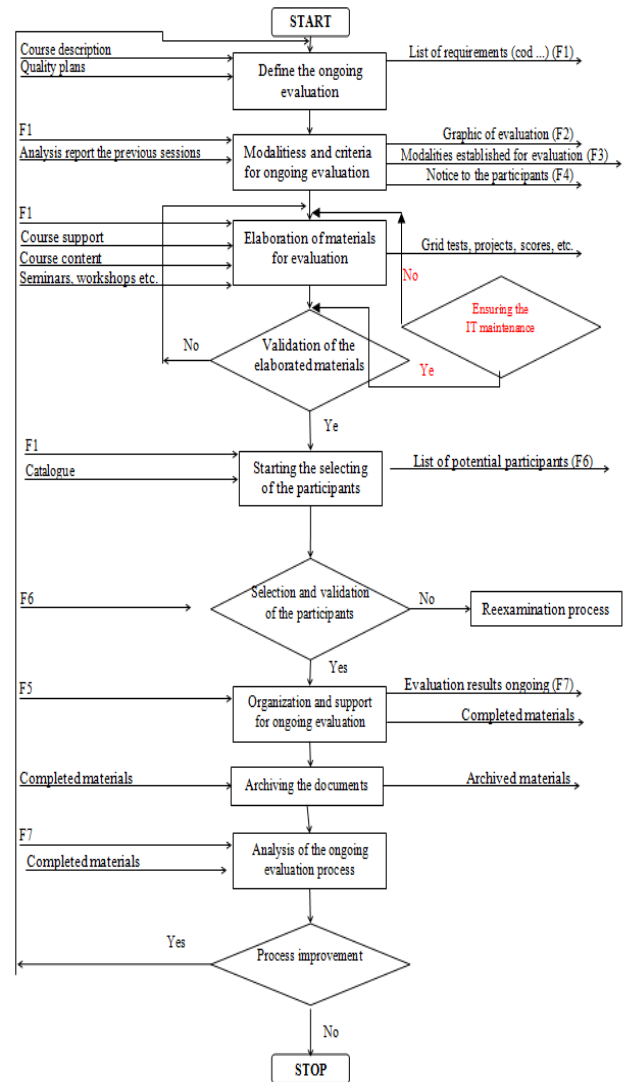
Table no. 2

### Plan for improving the quality of ongoing evaluation process

No.	Description of the problem / non-compliance	Analysis of the case	AC / AP proposed	Term / Manager	Resources	Method of measurement / monitoring
1	Unavailability of the rooms	Flawed programming	AC-analysis of proposals on the allocation of the rooms	3 days before the beginning of the evaluation period along / Registrar	Time	Centralizing of the proposals
		Insufficient material base	AC-Additional space	Permanent	Financial under the contracts	Contract for space
2	Supervisors unavailability	Flawed programming	AP - analysis of proposals on the allocation of the Supervisors	3 days before the beginning of the evaluation period along / Registrar	Time	Centralizing of the proposals
3	Students unavailability	Flawed programming	AC-Consultation the students for planning the evaluation	3 days before the beginning of the evaluation period along / Registrar	Time	Increasing the number of the students participating at the evaluation
4	Security of the issues	Negligence	AC - Awareness responsible	Permanent / Department Director	Time	Minutes
5	Technical failure	Inadequate operation / lack of the IT specialist responsible	AC - Contract collaborative, the system engineer	Periodical / Department manager	Time Financial	Ensuring the maintenance of the equipment

- AC = corrective actions
- AP = preventive actions

**Conclusion and Proposals:** From the cycle of improvement there are identified the opportunities to improve the ongoing evaluation process, one of the issues identified being the lack of specialist to ensure the equipment maintenance, corrective action proposed is the collaboration with a specialist, the needed resources are financial, but the results are measurable. The scheme of the evaluation process after to introduce the ensuring the equipment maintenance is changed as well. (Fig. 10).



**Fig.10. Flow diagram - ongoing evaluation process, after the introduction the ensuring maintenance by a specialist**  
It is resumed the improvement cycle and is identified the new opportunities to improve the ongoing evaluation process.

## VI. CONTROL

It is established in the Quality Management Department a maintenance procedure and multiplication of the obtained results.

## REFERENCES

1. TOFAN C. A., Improving quality and reliability of technological systems by cold pressing aided design and computer simulation, "Alma Mater" House Publishing, ISBN 978-973-632-728-5, Sibiu, 2011
2. TOFAN C.A., Management Information Systems for Computer Aided Design, International Journal of Academic Research in Accounting, Finance and Management Sciences, Vol 1, Issue 1 of IJ-ARAFMS, ISSN: 2225-8329, Pakistan, 2012
3. TOFAN C. A., Training and assessment of students computerized, Economic Tribune, no. 1-2, ISSN 1018-0451, Bucharest, 2003



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