

Maturity Level of the Quality Assurance Evaluation Procedures in Higher Education – A qualitative research

Manolis Chalaris, Phd Student
Department of Information
and Communication Systems,
University of the Aegean
P.O. Box 83200, Samos,
Greece
manoschalaris@yahoo.gr

Dr. Ioannis Chalaris
Department of
Informatics, TEI of
Athens
P.O. Box 12210
Aigaleo, Athens
ixalaris@teiath.gr

Dr. Stefanos Gritzalis
Department of Information and
Communication Systems,
University of the Aegean
P.O. Box 83200, Samos,
Greece
sgritz@aegean.gr

Dr. Cleo Sgouropoulou
Department of
Informatics, TEI of
Athens
P.O. Box 12210
Aigaleo, Athens
csgouro@teiath.gr

ABSTRACT

The establishment of mature operational procedures to support the educational process and the attempt to standardize and certificate these procedures is a very arduous and a demanding task that requires ensuring conditions in several levels of government. At the same time, according to the latest requirements of HQAA (Hellenic Quality Assurance & Accreditation Agency) regarding the certification of study programs and the gradual establishment of quality assurance mechanisms, it is a necessity for all educational institutions to establish such operational procedures. Standardization of procedures and effective change management are the critical issues.

In this work we measured the maturity level of the current evaluation processes in an advanced academic department of a HEI (Higher Education Institute) as well as of the new procedures proposed by HQAA for the Certification of Curricula and of the establishment of a Quality Assurance System (QAS).

Based on the results of our research it is possible to draw conclusions about the feasibility of implementing the new required procedures and the degree of difficulty of their application and exploitation. At the same time, an assessment of the level of process maturity in the academic department is possible, using Capability Maturity Models. At the end of this work we present a road map for the development of a QAS for a HEI.

KEYWORDS

Quality Assurance Evaluation Procedures, Maturity Models, Higher Education Institutes, Quality Management Systems, qualitative research

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1 INTRODUCTION

The need for the existence of a mechanism which will calculate reliably the level of service provided by an educational institution

is the main objective of all assessment bodies. HEI have installed their evaluation mechanisms through QAU (Quality Assurance Unit), and many of them are currently in a transition phase in which these mechanisms should be set in function. The supervisory authority HQAA, requires the establishment not only of educational, research and administrative work evaluation procedures but even the gradually design and development of quality assurance system of operation of each supreme institution.

Maturity models were originally created in the 1980s to optimize the quality of software development processes [1]. A Maturity Model provides a framework of steps and success factors which help an organization to realize in which maturity stage his operational processes are and thus to enable a structured and defined approach to analyse the initial state on which weaknesses can be designated and steps for improvement can be shown [2].

For the purpose of our case the People CMM [3] model is considered suitable, which focuses on an organization's work environment, staffing, intercom and coordination of executives' activities etc. Focusing on such aspects creates a culture of satisfying the executives and exploitation their abilities.

Related work in using methodologies based on Maturity Models in Higher Education area is not much to be found. Nevertheless, there are some investigations that deal with the application of maturity models in education. In the research work of Duarte Duarte and Paula Ventura Martins [4] there is an attempt to propose an extension of a process improvement model (CMMI or BPMM) for a HEI. White et al. [5] launched the discussion about the applicability of CMMI to Information Systems Curriculum in the United States. Neuhauser [6] presented a maturity model for online course design aiming to provide a tool to plan and evaluate these courses, based on a set of best practices, while Thompson [7] proposed a Learning Process Maturity Model (LPMM), based on CMM, to help students identify strengths and weaknesses in their learning activities and select the most appropriate strategies for learning.

2 QUALITATIVE ASSESSMENT OF EVALUATIONS PROCEDURES

HQAA has established an internal evaluation model for all Academic Units, formulated in 7 areas/objectives that correspond to all aspects of functioning of HEI. For each area, a list of criteria/questions is to be answered either quantitatively or

qualitatively by the Internal Evaluation Groups (IEG) of each Academic Unit and then to prepare the annual internal evaluation report. The same model is additionally applied for the Certification of Study Programs as well as for the creation and establishment of a Quality Assurance System (QAS).

What we have done in our work was to complete the HQAA model with the following: For each query, we identified what type of answer is expected, and if it is quantitative or not, we set the allowed values for quantitative and qualitative sizes and if the answer is ultimately to be given with some free text. But the most important we have done, was to find out if there are evaluation processes that guides the IEG to fulfill every question and whether these processes has been established and formalized.

Our present work has focused on the qualitative assessment of these procedures, because no one has ever dealt with this issue and nothing has been published in the Greek academy area before. We have decided to conduct a qualitative study to identify the maturity of these processes using some process maturity criteria. In order to be credible, the answers to the questions of satisfaction of the criteria we set up, we have responded to the most experienced professors of the Technological Educational Institute of Athens who have been involved in evaluation procedures and are either executives or members of the IEG.

For all processes concerning the internal evaluation of each academic unit of HEIs, the certification of programs of study offered by the academic units and the QAS of the Institute, we used eight (8) criteria in order to realize the qualitative assessment. These criteria are: Clear description of procedures in steps followed for their implementation, General wording Processes in steps partially implemented, Procedures in general terms without specialization in steps, Support from the information system, Demanding Requirements not fulfilled today, Specify procedures under the existing culture of the Department, Assessment of complexity of Procedures and Assessment of maturity level processes.

Based on the results of the qualitative research, several problematic issues of the evaluation system revealed and that lead us to take concrete actions to address them. Analytically:

For the procedures with a clear description of steps followed for their implementation (about 30% of the total), there is no need to improve anything, just if it is desirable to speed up their flow by upgrading the supporting software used. For the procedures characterized by a general description (about 40% of the total), there is need to concrete their flow and implementing directives should be described. For procedures that do not exist (about 30% of the total), all levels of administration of the HEI must act, in order to give guidelines for the development of new homogenized procedures that will be incorporated into the internal regulation of operation of the QAU of the Institute.

Where procedures are not supported by Information Systems, improvement can be occurred with the use of specialized software. Where procedures are considered to be complex or very complex, we should invest in finding a way to simplify them. Where procedures demand requirements that are not fulfilled, we first investigate the reasons for not meeting these requirements, and then

QAU introduces arrangements to facilitate their flow. Where procedures are not mature, there is a need to raise awareness among the stakeholders and to clarify the objectives pursued and, of course, to take appropriate informational and educational actions.

For all the above, it is crucial to have a consultation phase with representatives of all stakeholders involved in the internal evaluation and to secure their consensus in the final decisions and thus to make it possible and viable to develop an effective QMS.

Taking into account the above, one must finalize all the gray procedures identified and create any other necessary missing ones, so that it is possible gradually to move from level 1 to maturity level 2 and at that time it is meaningful not only the existence but also the utilization of a QAS.

In previous works such as [8], we tried to model and monitor all aspects of an academic strategy using the Balanced Scorecard Methodology. With application area the TEI of Athens, we designed a prototype of an Information System for Quality Assurance in a HEI. In this work, we propose the following road map of actions, capturing what has been achieved so far and what needs to be launched in the near future for the development of a Quality Assurance System (QAS) for a HEI.

1. Creation of Infrastructure (QAU Project & Road Map)
2. Exploitation & Infrastructure Expansion and Definition of Academic Strategy
3. Defining Organizational and Functional Structure
4. Development of a QAS

3 CONCLUSION

From the results of the qualitative study we can obtain instructions for the improvement of the current processes as well as the possibility of establishing new ones. It would be a great achievement to fulfill all the conditions for the creation of conditions of satisfaction of the criteria for level 2 international standards. It would be the best for the organization and operation of most functional government units.

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