

# Quality Assurance Unit of Kavala Institute of Technology (MODIP)

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*Abstract:*-There are three levels of institutionalized education in Greece: primary, secondary and tertiary education. Higher education is divided in accordance with the Bologna Declaration in three cycles. The three cycles are the bachelor, the MSc and PhD qualifications. In Greece, higher education is offered by the Universities and Institutes of Technology. Higher education is very essential for active participation in the knowledge societies which in turn accelerates economic growth. Quality education is a prerequisite to gain access to knowledge which guarantees economic development. This makes the condition of higher education in Greece a very critical issue. The Quality Insurance Unit of the Kavala Institute of Technology (MODIP) was created for the improvement of education. The purpose of this paper is to present MODIP and its integrated information system and services provided through it, both for students and faculty through the prism of higher education. Its innovation lies in the fact that for the first time ever in higher education in Greece, an information system that will gather all this information is implemented.

*Key-words:* - higher education, information systems, assurance.

## 1. Introduction

“Quality” is a much-debated term. To some it is like “beauty” that lies in the eye of the beholder [1]. Those who believe in this are “relativists”, whereas those who believe quality can be specific attributes that can be identified, they are objectivists”. The word quality comes from the Latin word *qualis* meaning “what kind of”. With a variety of meaning and connotations, it has been referred to as a “slippery concept” [2]. To illustrate the slippery and elusive nature of quality and the confusion associated with it many authors [3], [4], [5] have referred to the highly cited word of Pirsig [6].

According to the requirements of the European Union, every tertiary institute should have its own quality assurance system. The quality assurance system controls two main parameters, quality education and quality of services offered to students.

The main objective is to support the proposed procedures on the basis of existing regulations on the development of a national system of assessment, quality assurance and documentation of Higher Education, for monitoring the progress and achievement of objectives in the context of social accountability.

Quality assurance functions independently in terms of academic units and Institutes through their academic Credits, and aims at continuous improvement of the produced project. [7]

Through the quality assurance system and its procedures any Institute declares its concept, and

mission, and records the way they use them to succeed, develop and evaluate the resources required to do so.

This highlights the quality of teaching, research and administrative operations, assists decision-making from its internal organs and the external environment for measures to improve on this level and thus substantiate its right to equal participation in national, European and global academic affairs.

The results of the procedures of the quality assurance system are multiple:

- In making decisions independently from their own academic units,
- In deciding independently on Institute level, and
- In decision-making to request government assistance to academic units and institutes to the extent that the need is documented through the process of quality assurance.

## 2. Principles of MODIP and quality assurance criteria.

According to the ENQA and the decision of the Council of Education Ministers of the EU (Berlin communiqué) the basic principles that should guide the quality assurance procedures are:

- The high sense of responsibility of academic institutes, towards students / learners and society in general, to provide high quality higher education

- The fundamental importance of institutional autonomy, always inextricably bound up with the great responsibility that autonomy implies
- The need to establish an effective target-driven external quality assurance process that will not fall disproportionately on the institutes evaluated.

The results of quality assurance processes are measured on four sets of criteria:

- (a) Teaching,
- (b) Research Project
- (c) Program of Studies, and
- (d) Other Services. Each group of criteria includes sub-indices.

General quality assurance is a systematic approach through which each academic unit and the Institute as a whole has the ability to monitor and improve their academic activities on a continuous basis. [8]

The quality assurance system consists of three separate processes:

1. The annual assessment and recording of the work of Academic Units (Internal Annual Reports)
2. Periodic review every four years and evaluation of the work of academic units (internal evaluation or self-evaluation), and finally
3. Taken together, the findings of internal evaluation and an additional objective view from independent experts from outside the academic unit (External Evaluation).

The project is implemented as follows: first comes the design, then the data is collected and the analysis and control are done, and finally the evaluation of results follows last. Figure 1.

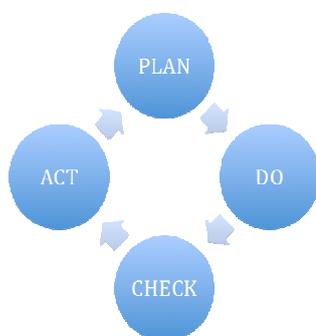


Figure 1. Process flowchart.

The work of MODIP of the Kavala Institute of Technology in particular is mainly focused on:

- The promotion and dissemination of information to the Institute on trends, perspectives and practices of Quality Assurance.
- Planning systems and quality assurance processes, monitoring, coordination and support of the credit rating of the Institute.
- The decoding of evaluation results and preparation of plans and proposals to the collective bodies of the Institute in connection with actions to improve the quality of educational work and other services.
- Maintaining a database with details of annual reports of aggregate data and other data from the Evaluation Departments / Programs / Services of the Institute.
- The study and presentation of the level of services offered to students at the institute (library, Network Services, Liaison Office, Office of European Programs, Sports Venues, Student Welfare, etc.)
- The surveys on the quality of studies and services of the institute, including alumni, employers, organizations etc.
- The diffusion of information and techniques / practices related to the improvement of service quality of educational work and other services of the Institute, by any means.

### 3. The Information System of MODIP

An Integrated Information System which stores and manages data gathered at Academic Departments and at the Institute regarding Quality Assurance in Higher Education has been developed, which:

- Leads to the development of an intuitive and functional way to access and use all data held in the framework of the assessment (Figure 2).
- Creates a central point for information and awareness of the educational community and the public on issues related to the assessment at Institute and Academic Unit level.
- Creates a dynamic and evolving tool for bidirectional communication with the public but also with all stakeholders (students, teaching and administrative staff, etc. (HQAA-Hellenic Quality Assurance and Accreditation Agency).

Moreover:

- Adopts innovative practices and content completeness.
- The sense of interaction, as well the reliability and safety of the data provided.
- The functional design of the site access to data in the system, the aesthetic and presentation of information and physical structure, completeness, reliability and continuous updating of content
- Access to the system and services from users from all academic units of the Institute.
- Creating an effective system of collecting and managing content in the needs of MODIP and all of the Institute.

Academic Units and the Institute are invited to gather and process a significant volume of data (student questionnaires, ratings, reports, courses, personal, information publications, research activity, financial and other information) at the CRC. These data mostly are partly available to individual information systems of the Institute, for example in secretary offices or in financial services, in liaison office etc.

For example, the system supports:

- Collecting, editing and management of information resources related to the project.
- The dynamic version of these resources on the Internet, updating and continuous updating of content to keep it topical, adopting a content management system. The aim is to offer the opportunity for flexible use and application of information and knowledge through tools and methods of storage and recovery.
- Communication with all stakeholders and the public. Particular emphasis will be placed on its communicative nature so that the information system provides interactive communication channels.
- The ability to monitor and automate management of all internal and communication processes with all stakeholders.

Implementation of information system also includes:

- Installing the system in a Data Center, ensuring optimum service quality.
- Help Desk that provides user support and the proper functioning of the system throughout the project.

- Training of those involved in operating the system.

Implementation of above project includes the following four actions:

- Study on the design and implementation of the information system. Determination of the management of digital information to be provided, the environment to be used, and the functions to be offered in various categories of users. Collection and processing of the necessary equipment to implement the IT system, based on the requirements and functional specifications determined during design.
- Implementation of the information system using open source development and integrated information environment.
- Installation, configuration and startup of the computer system. Control tests, pilot operation and evaluation of pilot operation. User training. The user support services are expected to contribute significantly both to knowledge and skills regarding the use and management of applications and services developed.
- Services provided in support of operation. The services cover the period of productive operation of this project. Apart from the services of technical support operation and maintenance of the system this includes knowledge transfer, user support, and general information services.



Figure 2. MODIP Website.

(<http://modip.teikav.edu.gr/modip>)

The entire system is designed to support operation in Greek, but part of the informational portal is

supporting bilingual mode, with Greek as their main language content and English as a secondary, for a selected portion of the content.

The information system takes account of the Greek Information Framework on e-Government Services and Interoperability Standards (e-gif) which has been prepared by the Ministry of Internal Affairs - General Secretariat for Public Administration and Electronic Governance.

It respects the principle of "design for all" terms and conditions by integrating ICT accessibility for persons with disabilities, based on internationally recognized standards, W3C accessibility guidelines and specifically the Web Content Accessibility Guidelines (WAI / WCAG). The architecture model is client-server (figure 3).

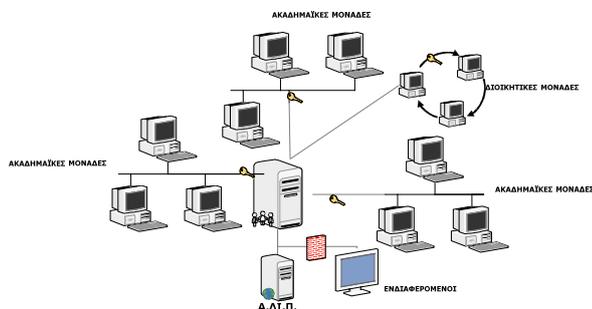


Figure 3. System Architecture.

The general approach is that every Euro (€) invested in the operation of MODIP aims to address the needs that have to be covered in order that the results of supported actions are:

- The proper planning of all necessary actions and activities of the overall MODIP program from the Institute.
- Developing an Integrated Information System and Portal by purchasing the necessary equipment and software. Figure 4.
- To provide improved services to students.
- Develop student database indices, OP, curriculum, administration services, care services etc [9].
- The studies on the progress so far in the evaluation of academic units.
- The development of quality culture in all structures of the Institute.
- Ongoing internal and external evaluation of the Act that will be implemented by the Kavala Institute of Technology.
- The administrative, scientific and technical support of the operation.
- Strengthening and publicity - visibility of the project.



Figure 4. Integrated Information System of MODIP

## 4. Conclusion

The universities are designed for quality - scientific training and the supply of high-level knowledge to young people that will constitute the workforce and spurring development of society. In addition, however, institutes are required to form responsible citizens with high education, cultivation, culture, democratic, humanitarian, social and political consciousness.

As a result, strategic tasks that have to be performed cannot be confirmed or monitored for the quality and quantity of work produced.

Moreover, since the university is a key component for economic and spiritual development of society it should be controlled by society, about whether it is doing its work and whether it achieves its objectives.

Consequently, aiding the evaluation of higher education through the Act of MODIP can help to:

1. Improve the quality of work produced in higher education and thus the fulfillment of social and developmental role
2. Create a rational system of social accountability that manages resources to strengthen the autonomy of institutes

Through the results of the project, the opportunity is given to students, teaching staff, administrative staff and the public to utilize largely the result of developing a quality assurance system in an HEI. In addition to any modern society, the assessment

should function as a tool for solving problems and optimizing performance in each area.

Through the organization's work MO.DI.P highlight weaknesses in the system and suggest ways to optimize the process. The objective is an objective depiction of reality, to identify barriers to achieving the objectives, so as to promote the effective planning and problem solving.

Additionally, these systems contribute directly to improving procedures for collecting quality indicators and assessments and by extension the quality of education in raising awareness of all involved and making evidence-based conclusions.

The use of ICT and the Internet are necessary to implement cooperation activities, dissemination and distribution of the results of the Assessment of Academic Units and through the proposed project systems and application support network services will be installed with goals:

- The direct service and improvement of the process of collecting student questionnaires, census courses, OP, curricula and other items at Academic Departments and the Institute.

- Develop a uniform reporting systems relating to the CRC Institute, through the implementation of systems.
- To draw conclusions on the state processes of the Institute.
- The development of cooperation with the HQAA and other institutes on matters relating to the quality of education.
- The immediate briefing on educational processes and outcomes.

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