

# Management of the Quality of Teaching at Universities – a Course for Teachers at the Technical University of Kosice developed within the Operational Programme “Education”

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**Abstract**— The aim of this contribution is to provide the basic information concerning the course “Management of the Quality of Teaching at Universities”. This course was prepared within the framework of the operational programme Education „Package of Innovative Elements for the Transformation of Education at TUKE” (code ITMS 26110230018). In recent weeks we finished the implementation of the pilot course that was focused to the development of professional skills of teachers and to the enhancement of quality education at TUKE (Technical University of Kosice).

**Keywords**— modern educational process, program of quality teaching, teacher – the manager of the quality teaching, system of management of quality teaching, e-learning.

## I. INTRODUCTION

University teacher is faced in practice to new questions that closely relate to the problems of university teaching; they are as follows:

- *How to acquire and to keep sustainable growth of quality university teacher?*
- *How to achieve effective and attractive lectures, labs and seminars?*
- *How to motivate students to study?*
- *How to involve students into learning?*
- *How to grade students fairly?*
- *How to achieve students' satisfaction with teaching?*

The quality of teaching can be analyzed from three aspects:

- quality of the educational system,
- quality of the university,
- quality of teaching

The most important area in the university's system of quality is the teaching process (process of knowledge acquisition, pedagogy and training). In other words the process of teacher's teaching and student's learning. The so far, classical process of education where the quantity dominates over the quality is indefensible in the long term and it is necessary to reform it. Quality of teaching

is characterized as the optimal fulfillment of the requirements (educational needs and expectations related to teaching) of the interested parties. This is the level of their satisfaction with teaching.

Management of the quality of teaching is a coordinated activity of the teacher aimed to control quality teaching in order to achieve the goals of teaching. Therefore teacher is the manager of the quality teaching.

## II. MODERN TEACHING PROCESS

is based on:

- system of teaching with the management of the quality of human-creative teaching,
- principles that focus on students' cognitive, psychomotoric and social-affective features,
- constructive strategy of teaching solutions of problems, project-based and cooperative teaching,
- e-learning methods and tools,
- the development of key professional and expert competencies,
- motivation to support life-long learning.

The idea of the launching the course devoted to the Management of quality teaching stem from the fact that university teachers are expected to be successful in research and at the same time to deliver quality education for the next generations. Moreover, teaching is less preferred area of the professional career of university teachers.

The pilot course utilized experiences of experts affiliated with the Department of Engineering pedagogy at TUKE and their colleagues. The course was prepared and lead by university experts involved in the quality of education - prof. Ivan Turek, doc. Sándor Albert, doc. Michal Blaško.

Within the project “Package of Innovative Elements for the Transformation of Education at TUKE” the Department of Engineering pedagogy granted the activity

2.1: Project for the development of professional career of teachers at TUKE that is specialized on the enhancement of the quality of teaching.

The goal of the activity was to prepare and implement a pilot course for the management of the quality of teaching for university teachers with the proposed structure of the course' lectures. This goal required preparation of teaching materials *Manažérstvo kvality výučby na vysokých školách* (autori I. Turek, S. Albert, M. Blaško, A. Zeľová).

### III. THE MISSION OF THE MANAGEMENT OF THE QUALITY OF THE TEACHING AT UNIVERSITIES

is to satisfy the educational needs, students' expectations and professional needs of teachers in teaching.

Teacher declares her/his competency by knowledge creation and by definition of the quality criteria of her/his teaching. This boosts the confidence of the general public into the teachers' community and also the self-confidence of the teacher. By keeping up the study-discipline and study-interest through the application of appropriate educational programs, teacher stimulates students' internal motivation, educational needs, develops their skills of self-reflection and develops their own creativity.

The provision of quality education ensures full development of their personality in life-long education and supports their own self-realization in the personal and professional life.

### IV. THE GENERAL AIM OF THE MANAGEMENT OF THE QUALITY OF TEACHING

is to bring teaching near to the needs of the interested partners and to optimize teaching processes from the economic aspects too. The goals have to be measured and assessed.

### V. THE MISSION AND GOAL OF THE COURSE

The course devoted to the management of the quality teaching at TUKE has to motivate university teachers to team-work and to create such a pedagogical climate that supports satisfaction of students, enhances the successfulness of the university study and develops key professional competencies for the life-long education.

Course' graduates have to:

- understand the relevancy of the management of the quality teaching, comprehend, critically evaluate, deliberately and creatively apply them in praxis (first of all on lectures, labs and exams),
- create her/his own quality teaching program with defined mission and goals, supported by the application of suitable teaching strategies and assessment mechanisms.

### VI. THE GOAL OF THE COURSE

is to support the following university teachers' activities:

- creation of own quality teaching program based on the didactical analysis of the materials and acceptance of partners' requirements,
- motivation of students to approach learning in systematic and complex way,
- development of students' creativity and their learning styles by the application of constructive strategies, e-learning, project and cooperative teaching,
- counseling activities of students,
- systematic self-evaluation of activities related to teaching,
- continuous and sustainable enhancement of their professional study by research activities and publication of the achieved results.

### VII. CONTENTS OF THE COURSE' TOPICS

The course consisted of lectures and labs that were focused towards key problems of the quality education, presentation of university teachers' experiences and discussions. A the course' content is characterized with the following key elements:

#### ➤ **Quality and abstractions related to the quality management.**

The history of the quality management. Dominant personalities of the quality management and their contribution. Models of the quality management.

#### ➤ **Quality of education.**

Quality of the university education. International organizations and journals devoted to the management of the quality of university education. Evaluation of the quality of universities in the world, in Europe and in Slovakia. Research of the quality education at universities.

#### ➤ **Quality of the university and quality of the education.**

Internal evaluation of the quality of the university and quality of the education. Mission, goals, values, vision and strategic planning at the university. Evaluation of the quality of the university, education, teacher, student. Status of the quality of education at the TUKE.

#### ➤ **Methods**

utilized at the management of the quality of the university in education: observation, questionnaire method, discussion, brainstorming, benchmarking, SWOT analysis.

#### ➤ **Preparation of the teaching program**

The possibilities of the innovation of the quality of lectures, labs, seminars and exams.

➤ **Learning skills and learning styles of students**

➤ **The system of the management of the quality of education**

mission and goals, principles, indicators, characteristics of the quality indicators.

The pilot course began on June 2011 and finished on September 2012. Participants were divided into four groups, every group consisted of approximately 20 university teachers and academic officials across all faculties of TUKE.

VIII. CONDITIONS FOR OBTAINING CERTIFICATION ABOUT FINISHING THE COURSE

The course ran approximately one term with 25 hours in total (5 meetings per 5 hours).

Besides the **creation of the teaching program**, by applying the quality management approach, every participant had the possibility to select and implement some of the following offered projects; for example:

- Evaluation of the teaching by students. The participant proposed or modified for her/his own situation a given questionnaire for the evaluation of the teaching unit or a teaching process within a given time interval. Students had to fill in the questionnaire and teacher evaluated it.
- Implementation and evaluation of the PDCA cycle. Participant proposed small innovation in her/his teaching processes, implemented in practice and evaluated.

66 participants of the course (in 4 groups) passed the final exams. The Rector of the TUKE awarded the successful participants by certification at the ceremonial assembly.

Every participant of the course regularly evaluated the course through questionnaires. They evaluated the single modules and the whole course too. All 66 participants expressed their overall as far as extraordinary satisfaction in the final evaluation of the course "Management of the quality of teaching at universities".

Almost unambiguously all participants stated that experiences gained in the course will be very useful for their teaching career. 93% of participants agreed or very agreed with the inclusion of the course into the study programs that are devoted for university teachers at TUKE.

Participants appreciated the attractiveness of the course' topics, the professionalism of lecturers, their enthusiasms, ability attract attention, computer-based presentations, communication, the possibility to discuss problems of the university education, but also pleasant social atmosphere of lectures.

The course generated also observations and notes that will be analyzed and embedded into the system of the management of university teaching.

IX. E-LEARNING AND THE MANAGEMENT OF QUALITY TEACHING.

Quality education is also the priority of the e-learning. Recent technological expansion in education has to be accompanied by the expansion of the appropriate pedagogical approaches. E-learning provides modern tools that intensify visualization of learning materials, help with structuring, allows keeping the individual's pace at whatever place and time-span. E-learning enhances also the internal motivation of the student for study. In this way e-learning considerably supports the quality management that is based on creativity and self-evaluation.

One aspect of the quality teaching is the principle of keeping the sustainable development of students' learning effectivity. In spite of the fact that e-learning is considered as a supplement to the classic teaching, it has potential to contribute to the quality teaching and learning.

Quality management of teaching, as coordinated teacher's activity, has to demonstrate its usefulness in the pedagogical process. The goal is to support the positive aspects of e-learning methods and to avoid negative impacts that could worsen the professional competencies of students. It is necessary to evaluate the results without bias, their advisability in e-learning programs and their complex role from quality management aspects.

X. THE RELATION OF THE QUALITY COURSE TO THE PEDAGOGICAL EDUCATION OF UNIVERSITY TEACHERS.

The quality management of university teaching is the most topical innovation of the university teachers' profession, her/his pedagogical education, acquired also in supplementary pedagogical study, in engineering pedagogy.

With the initiation of the appropriate conditions for university teachers and supporting their professional career, we can enhance the teaching quality, which the most important university process (first of all in lectures, labs, seminars and exams).

Finishing up the course could motivate teachers, for example, they can be awarded in the recommendations for the habilitation process.

Study of the management of the quality teaching enables a deeper involvement in engineering pedagogy that is oriented towards encouragement and integral development of students' personality.

Systems of the management of quality teaching are efficient only if they enhance the quality teaching in groups and first of all the self-education of students.

The course of the management of quality teaching at TUKE is unique in Slovakia. The increased interest of teachers for this course documents its necessity and importance in practice. We will prepare further programs

at TUKE that will utilize the gained experiences from the pilot course.

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