



Increasing learning outcomes in Higher Education through the adoption of Total Quality Management Principles

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Meeting the Challenge of the BOLOGNA PROCESS in the department of Informatics ATEI-Thessaloniki, Greece

- ❑ A pilot project sponsored by the European Programme **EPEAEK II** (Operational Programme "Education and Primary Vocational Training") programme was carried out **2005-2006**
- ❑ Aims of the project was the creation of a system for:
 - Curriculum Assessment
 - **Quality Assurance**
- ❑ Final report submitted July 2006



Some representative publications

- **Siakas Kerstin, Gevorgyan Rita, Georgiadou Elli (2010): *The Education Quality Enhancement Strategy Implementation at the State Engineering University of Armenia***, in J. Uhomoibhi, M. Ross and G. Staples (eds). *e-Learning and Social Responsibility, Proceedings of the 15th International Conference on Software Process Improvement - Research into Education and Training, (INSPIRE 2010)*, 29 – 31 March at British Computer Society, London, UK, pp. 141-151
- **Georgiadou Elli, Siakas Kerstin (2008). *Towards a Workable Framework for Internal Quality Assurance in Higher Education***, *International Quality Assurance: Experience, Problems, trends*, Yerevan State University, Armenia, 23-24 September, Proceedings, pp. 60-67
- **Merdinyan Gayane, Siakas Kerstin (2008). *Strategic Management for Improving The Educational System of Armenia***, *International Quality Assurance: Experience, Problems, trends*, Yerevan State University, Armenia, 23-24 September, 2008, Proceedings, pp.128-135
- **Siakas Kerstin (2007). *The Design of a Quality Assurance System in Higher Education –Selecting Key Performance Indicators***, *Global Integration of Graduate Programmes IV (GIGP) International Conference*, 17th - 20th October 2007, Split, Croatia, pp. 68-75



Outline

- ❑ Total Quality Management (How, Why)
- ❑ The Bologna Process Re-visited
 - 2nd cycle, Stakeholders
- ❑ Learning outcomes – Tuning Methodology
 - Programme Level (What, Who, Why)
 - Module Level (What, Who, When, Why)



Global Knowledge Society

Building the Global Knowledge Society requires:

- Systemic and Institutional Change in HE
- Culture Change
 - Diversity
 - Knowledge sharing
 - Comparability
 - Transferability
 - Autonomy



Total Quality Management

(How)

We assume that there is an **acceptance** at least at high level (eager or reluctant) to work towards European and (ultimately) global integration and harmonisation.

Commitment to Quality from Senior Management is imperative if procedures, tools, and databases are to be developed, supported and financed (Who)



The right team for successful implementation

- For successful implementation, the right team, work-group and task force must be appointed and supported (**Who**)
- **People in the Quality groups** (process improvement team, process review team, knowledge improvement team, knowledge transfer team, quality assurance team (also undertaking audits)) are required to be **highly mature and capable in terms of understanding Quality** so that they can champion quality, plan and execute the plan successfully (**How**)



Roles and responsibilities (who, what)

- ❑ The **roles and responsibilities** of each team and of the individuals in each team must be **unambiguous**
- ❑ It is these teams that will raise the motivation, basic knowledge, understanding, and maturity for each and every member of the organisation
- ❑ For this purpose, **organisation-wide training** should be arranged



How / Why?

- ❑ The **experienced trainer** should impart training in order to minimise resistance and to motivate staff to embrace quality initiatives
- ❑ This will ensure that, people in the organisation are on the **same wavelength** when they are dealing with Quality
- ❑ **Training, group discussions, sharing of knowledge** are essential to bring the change.
- ❑ Also **motivation, exchange of ideas, and quality awareness** are the cornerstones of a quality culture and critical to 'institutionalise' the change



Culture change requires Knowledge Management (KM) and knowledge sharing

- The development and adoption of a new QA system will inevitably bring **changes to the organisational structure and changes to the processes**. Knowledge Management has its origin in a number of related business improvement areas, such as Total Quality Management (TQM) and Human Resource Management (HRM) (Metaxiotis et al., 2005)
- TQM is a management philosophy and a methodology that enables an organisation to focus on employee participation through **empowerment, teamwork, leadership and recognition of each employee's contribution** for achieving the goal of the organisation and **maximising customer satisfaction** (Deming, 1986)



Knowledge-based global economy (Why)

The new knowledge-based global economy places great importance on **creation, use and distribution of information and knowledge**

Organisations (and that includes HE institutions) are focusing on **maintaining and enhancing their knowledge capital in order to be innovative and competitive**



Learn, Adapt and Change

- The **ability of organisations to learn, adapt and change** becomes a core competency for their survival and successful organisations are those that create new knowledge, disseminate it throughout the organisation and **swiftly embody it into new products and services**



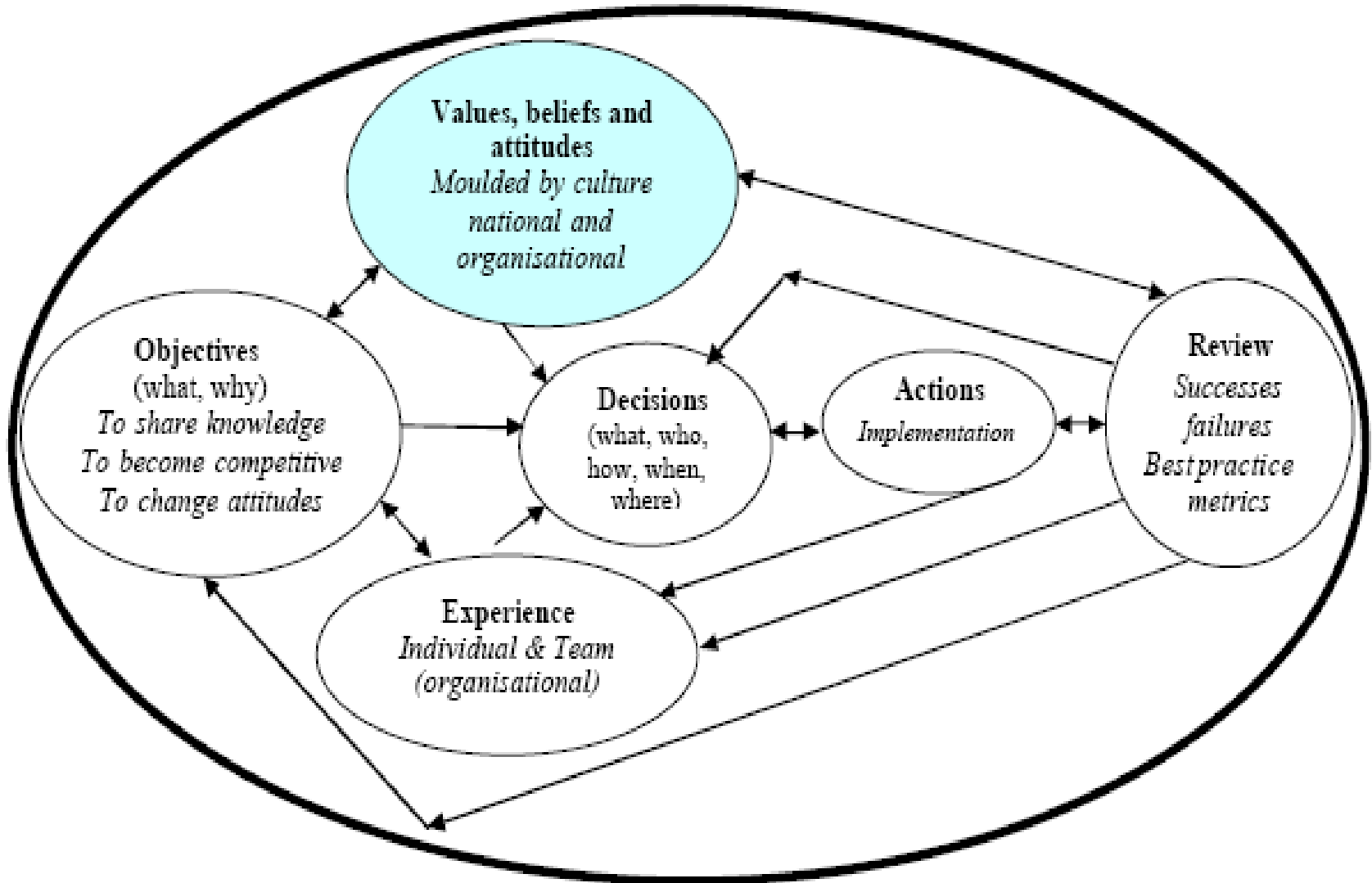
Harnessing and sharing knowledge

The European Higher Education mission embodied by initiatives such as that of Bologna translates into the primary objectives of KM through

- **the identification and leveraging of the collective knowledge** not only in individual HE institutions but also throughout the European Union and further afield.



Continuous Improvement through TQM





Tuning Methodology

- ❑ Achievement of learning outcomes and competences
- ❑ General tendencies in higher education:
 - Shift of paradigm: moving from a staff oriented approach to a student centred approach
 - Less specialised academic education in the first cycle
 - More flexibility in first and second cycle programmes

What should a student know, understand and be able to do in order to be employable?



The Tuning Methodology objectives

- ❑ To implement the Bologna - Prague - Berlin process at university level
- ❑ To find ways to implement the two cycles
- ❑ To identify common reference points from discipline and university perspectives
- ❑ To develop professional profiles and comparable and compatible learning outcomes
- ❑ To facilitate employability by promoting transparency in educational structures (easily readable and comparable degrees)
- ❑ To develop a common language which is understood
- ❑ by all stakeholders (Higher education sector, employers, professional bodies)



Programme Level Outcomes

- ❑ Generic, transferable skills
 - e.g. Managing time, working in groups,

- ❑ Core knowledge
 - Right level, complexity, amount

- ❑ Level of Achievement (2nd level in the case of MSc)
 - Bloom's taxonomy: reflection, justification, discourse



Module Level Learning Outcomes

- Subject/topic specific knowledge and skills
- Competencies
- Employability



Assessment

- Strategy (underpinning theory and its application)
- Instruments
- Group and individual problem solving
- Skills and competencies



Conclusion

Integrating TQM principles and the Tuning Methodology will result in:

- Continuous improvement
- Harmonisation
- Knowledge sharing and collaboration
- Culture change
- EHEA integration
- Competitiveness
- Mobility, employability



Thank you!

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