The role of Key Performance Indicators in Higher Education Quality Enhancement

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The purpose of Education
A European Vision: The Bologna Process
The European Higher Education Area
Quality an Elusive Concept
Quality is in the eye of the stakeholder
Stakeholders in HE
Quality Assurance and Quality Enhancement
Self Assessment and External Assessment
Why Measure and What to Measure?
Key Performance Indicators
From Strategic Vision to KPIs
Culture Change
Change Management
Recommendations
Seeking synergy for Sustainability
Conclusion
Campuses, Regional Offices and Partnerships

- Campuses in
  - London
  - Dubai
  - Mauritius
  - Malta (2013)

- 18 regional offices across the world

- 100 partner universities in the EU and 40 non-EU

- Extensive links and partnerships with industry at local, regional, national and international levels
Campuses, Regional Offices and Partnerships

- Campuses in
  - London
  - Dubai
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- 18 regional offices across the world
- 100 partner universities in the EU and 40 non-EU
- Extensive links and partnerships with industry at local, regional, national and international levels
Large and diverse student body and staff

- 40,000 students worldwide (from over 100 countries)
- 22% of our students come from overseas (non EU)
- 10% of our students come from the European Union
- Staff from 50 countries
Middlesex Schools and WBL

- Our Schools are aligned to industry and professional sectors, each with close links to business and practice.
  - School of Art and Design
  - Business School
  - School of Health and Education
  - School of Law
  - School of Media and Performing Arts
  - School of Science and Technology
  - Institute for Work Based Learning
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The purpose of Education

The goal of university education is to help build a fairer, more just society, says Steven Schwartz (Vice-Chancellor, Brunel University)

Twenty-eight years ago, the US educator had this to say about the conflicting views of higher education:

"The outsiders want the students trained for their first job out of university, and the academics inside the system want the student educated for 50 years of self-fulfilment. The trouble is that the students want both. The ancient collision between each student's short-term and long-term goals, between 'training' and 'education', between 'vocational' and 'general', between honing the mind and nourishing the soul, divides the professional educators, divides the outside critics and supporters, and divides the students, too."

(Harlan Cleveland, 1993)

Source: Times Higher 2003
The meaning and nature of education

The act or process of educating or being educated.

The knowledge or skill obtained or developed by a learning process.

A programme of instruction of a specified kind or level
"In the decade up to 2020 European higher education has a vital contribution to make in realising a Europe of knowledge that is highly creative and innovative... Europe can only succeed in this endeavour if it maximises the talents and capacities of all its citizens and fully engages in lifelong learning as well as in widening participation in higher education."

Ministers responsible for Higher Education in the countries participating in the Bologna Process, Leuven/Louvain-la-Neuve Communiqué, April 2009

{http://www.ond.vlaanderen.be/hogeronderwijs/bologna/}
Quality is a complex and elusive concept

• It is mostly noticed by its absence

• It is difficult to quantify/to measure

• No scale or instrument available – so we need to measure something else ....
What is Quality?

The transcendental perspective deals with the metaphysical aspect of quality;
The user perspective is concerned with the appropriateness of the product for a given context of use;
The manufacturing perspective represents quality as conformance to requirements;
The product perspective implies that quality can be evaluated by measuring the inherent characteristics of the product;
The value-based perspective of quality recognises that the different perspectives of quality may have a different importance, or value, to various stakeholders.

(Kitchenham and Pfleeger)
HE Stakeholders

- The student?
- Their family?
- The educators?
- The University?
- Europe?
- Society at large?
Quality Enhancement

A (Act)  P (Plan)
C (Check) D (Do)
PCDA and Standards
Internal Quality Mechanisms

• Dedicated unit/committee (s)
  • At University level (e.g. Centre for Quality Enhancement)
  • At School/Faculty level
  • At department level
  • At programme Level
  • At module level

• Annual Monitoring (problems, best practice)

• Self Assessment
Representation

- Students
- Lecturers
- Technicians, librarians, teaching assistants
- Services
- Senior Management
Self Assessment
An on-going process

What are we trying to do? **Purpose**
What are we doing? **Reason**
How are we doing it? **Method**
Why is this the best way to do it? **Optimisation**
How do we know it works? **Effectiveness**
How can we improve? **Enhancement**
Why Measure and What to Measure?

• Why?
  – To understand
  – To monitor
  – To manage
  – To improve

• What?
  – Applicants
  – Student numbers
  – Staff – Student Ratio

..........................
Key Performance Indicators
What to measure?

Objective: Perspective Student Success: Recruit, retain, graduate the best students:

Student Recruitment Metrics:
Number of enquiries, applications, acceptances, conversions, rejections etc
Number of conversions
Graduate Employment within x months

Retention Metrics and Graduate Student Metrics

Research Profile: Number of Publications
Number of citations
Ranking of journals
Impact (industrial,, Academic)

Staff satisfaction: Retention, promotion

..........................
“When you can measure what you are speaking about, and express it in numbers, you know something about it, when you cannot express it in numbers, your knowledge is of a meager and unsatisfactory kind; it may be the beginning of knowledge, but you have scarcely, in your thoughts advanced to the stage of science.”

Lord Kelvin [1824 -1907]

Example: Improve the retention rate (vague)

Target to improve retention rate by 20% in 2 years (precise and measurable)
An Example

Priorities, Objectives & Key Performance Indicators

Priorities
- Enhance the quality of academic provision
- Improving student satisfaction
- Income growth across all areas
- Improved productivity

Objectives
- Develop our teaching portfolio to include a stronger emphasis on science & technology
- Enhance the learning and working environment
- Build productive partnerships
- Improve marketing effectiveness
- Continuous improvement in business processes
- Implement research, enterprise and endowment strategies

KPIs
1. QA Audit ratings
2. Proportion of 1st & 2(i)
3. RAE outcomes
4. Student survey ratings
5. Retention
6. Student employment
7. Market share
8. Research income
9. Business income
10. Endowment income
11. Teaching income
12. Contribution to overheads
13. % Spend on staff
14. Property costs per student FTE
15. Financial surplus
From Corporate Plan to Tangible Actions
Diagram of Forecasted Results of Education Quality in 2010-2011 years

1. Adequacy of academic plans to the requirements of state educational standards
2. Percent of lecturers with scientific degree (candidate and doctor of sciences)
3. Average age of the academic staff
4. The number of published scientific articles per academic staff
5. The number of published teaching materials per academic staff
6. Trainings of academic staff
7. Percent of supported teaching materials and literature
8. Percent of courses supported by electronic teaching materials
9. Percent of computers connected to Internet
10. Number of students per computer used in educational process
11. Teaching (classroom) space per student
12. Adequacy of laboratory equipment to the requirements of subject programs
13. Technology-enabled classrooms
14. Practical placement availability
15. Adequacy of practical placement work to the requirements of state educational standards
16. Scientific school traditions
17. Participation in the University's research projects
18. Scientific grants
19. Research topics financed from state budget
20. Students average learning achievements
21. Percent of published articles by student
22. Postgraduate and Master's students participation in the University's research projects
23. Adequacy of alumni knowledge and skills to the requirements of employers
Μια οπτικοποιημένη, Ποιοτική και Ποσοτική Σύγκριση (Μια πραγματική μελέτη περίπτωσης – Ένα Πανεπιστήμιο της Αρμενίας)


Μέχρι πότε;
Από ποιόν (ρόλοι και ευθύνες;)
Πώς;

(Images of diagrams are also present.)
What needs to be changed?

- KPIs reveal
  - Strengths
  - Weaknesses

KPIs help us decide what needs to be changed

And first of all the Quality Culture often needs to change
Culture is the integrated pattern of human behaviour in a corporation, which includes the way employees think, speak and act. It affects individual behaviour by imposing guidelines and expectations for the members of the organisation, and it links geographically dispersed organisational groups and guides them towards a common vision.
Ellison describes quality management and improvement systems: “they are all aiming to achieve the same objective. This objective is a well run organisation following repeatable processes within which the employees contribute positively by following the processes and suggesting improvements.”

Management demonstrate commitment to improvement by following defined processes, supporting project teams in difficult times and providing the resources for analysis of process effectiveness and subsequent improvement.
Organisational maturity
CMM (by SEI –Carnegie-Mellon)
Types of organisational change

<table>
<thead>
<tr>
<th>Quick Fix</th>
<th>Transformation or Radical Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tinkering</td>
<td>Incremental or Evolutionary Change</td>
</tr>
</tbody>
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(Source: Managing Change by Philip Sadler, 1996)
For successful Change Management – ask and answer the following?

**Why** change? For quality and performance improvements

- Involve all stakeholders (**who**)
- Identify Strengths and Weaknesses (**what**)
- Plan: short term, medium term, long term (**when**)
- Decide on roles and responsibilities (**who, what, where**)
- Decide on methods and tools (**how**
Recommendations

Develop and maintain a quality management system which ensures that the university is able to operate in a reliable, ethical, efficient and quality-oriented way, taking the needs of students and other stakeholders into consideration.

Base University activities and management on continuous assessment and enhancement, and fulfil their mission in ways that promote the well-being of the staff and students.
Τα Πρότυπα Διατηρούν και Βελτιώνουν τη Ποιότητα
Seeking synergy for Sustainability

Effective Communication

Economy

Environment

Society

Sustainability

(adapted from Bob Willard, 2010)
Conclusions

Education and the education process, HEI institutions and their operation are very complex and difficult to manage.

The contribution of HEIs to a country and to society at large are far reaching, often intangible yet when quality is compromised it is blatant for all to see.

When matters get too complex (and they do) it is always advisable to go back to first principles. Ask the right questions to obtain the right answers.
"I Keep Six Honest Serving Men ..."

I KEEP six honest serving-men
(They taught me all I knew);
Their names are What and Why and When
And How and Where and Who.
I send them over land and sea,
I send them east and west;
But after they have worked for me,
I give them all a rest.
Απόσπασμα από ένα ποίημα του Rudyard Kipling

Κρατώ εξί έντιμους υπηρέτες…

Κρατώ εξί έντιμους υπηρέτες
(Ότι γνώριζα μου το δίδαξαν αυτοί).
Τα ονόματα τους είναι Τι, Πότε, Πως
Που και Ποιος και Γιατί

Τους έστειλα σε γη και θάλασσες,
Τους έστειλα σ’ ανατολή και δύση
Αλλά μόλις εργάστηκαν για εμένα,
έδωσα σε όλους τους τη ξεκούραση.

Μετάφραση από http://www.kipling.org.uk/poems_serving.htm
Thank you

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