E-LEARNING BENCHMARKING: METHODOLOGIES AND TOOLS REVIEW

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About the research study

• DL@Web Tempus project:
  • Activity 1.3: E-Learning Benchmarks: review on benchmarking methodologies and quality monitoring tools

• Type:
  • Methodology

• Available online at:
  • http://www.dlweb.kg.ac.rs/content.php?news=13rep
Goals of research study

- Review of most significant EU and international benchmarking approaches, models, and tools developed so far.
- Identification of key features that can help higher education institutions to create and implement benchmarking model of e-learning.
- Special attention on analysis current EU benchmarking initiatives:
  - **E-xcellence+** project conducted by European Association of Distance Teaching Universities (EADTU) in collaboration with European Association for Quality Assurance in Higher Education (ENQA)
  - **SEVAQ+** project conducted by European distance Education Network (EDEN), ENQA and partner universities.
Concept of Benchmarking

• The concept of benchmarking has its origins in the management and business context.
  – “…a process for improving performance by constantly identifying, understanding and adapting best practices and processes followed inside and outside the company and implementing the results.” (Xerox Corporation)

• Benchmarking has developed into an essential tool for organizations.

• It is internationally respected, not just in businesses, organisations and management, where the concept came from, but also now HE.
Types of benchmarking

• There are three primary types of benchmarking that are in use today. These are:

  • **process benchmarking**
    – focuses on the day-to-day operations (lower levels processes) of the organization

  • **performance benchmarking**
    – focuses on assessing competitive positions through comparing the products and services of other competitors

  • **strategic benchmarking**
    – focuses on what strategies the organizations are using to make them successful. Focuses on how organisations compete
Other types of benchmarking

- **Competitive benchmarking**
  - measuring the performance, products, and services of an organization against its direct or indirect competitors in its own industry.
  - most difficult type of benchmarking to practice
  - goal is to focus on direct competitors and not the industry as a whole

- **Cooperative benchmarking**
  - organizations invite “best in class” organizations (not direct competitors) to meet with their benchmarking team to share knowledge
  - relatively easy to practice
  - information flows one way. From the "best in class" organization to the benchmarking organizations.
Other types of benchmarking

• **Collaborative benchmarking**
  – information is shared between groups of organisation.
  – data sharing results do not focus on the process but only the end result, while benchmarking focuses on the processes of the organizations
  – information flows many ways

• **Internal benchmarking**
  – identify the best in house practices in the organization and disseminate these practices throughout the organization
  – allows managers in the organization to be more knowledgeable about the organization as a whole
Benchmarking in HE

• Nowadays, benchmarking has become a more commonly used method for quality assurance and enhancement in HE.

• It deals with identifying gaps and making changes, but also with improvement and successful implementation of new procedures and schemes.

• Although the literature on benchmarking in HE is overwhelming, research and evidence on the value and impact of benchmarking is still missing.
Benchmarking context

• The benefits of benchmarking were expressed by the European Center for Strategic Management of Universities (ESMU) in 10 statements:
  • self-assess institution,
  • better understand the process,
  • measure and compare,
  • discover new ideas,
  • obtain data to support decision-making,
  • set targets for improvement,
  • strengthen institutional identity,
  • enhance reputation,
  • respond to national performance indicators and benchmarks
  • set new standards for the sector
Types of benchmarking in HE

- Report on benchmarking in UK universities describes various types of benchmarking
  - **Implicit** (by-product of information gathering) or **explicit** (deliberate and systematic)
  - Conducted as an **independent** (without partners) or a **collaborative** (partnership) exercise
  - **Internal** (confined to a single organisation), or **external** (involves other similar or dissimilar organisations)
  - **Vertical** (focused on the whole process) or **horizontal** (part of a process as it manifests itself across different functional unit)
  - Focused on **inputs, process** or **outputs** (or a combination of these)
  - Based on **quantitative** (metric data) and / or **qualitative** (bureaucratic information)
Benchmarking e-learning in HE

• Benchmarking is a rather new phenomenon in HE regarding e-learning.

• Quality assurance, quality indicators, benchmarks and critical success factors for e-learning have neither been taken seriously nor incorporated into regular quality assurance procedures in HE.

• The concept of quality in e-learning has not been embedded in learning and quality contexts.
Research

• A wide range of literature was surveyed.
• Google search on “benchmarking AND e-learning” showed:
  – there is a considerable amount of literature on benchmarking in universities but it is mostly oriented on quality approaches and traditional educational settings
  – It was surprising how little was focussed on developing benchmarking tools!
Research

• We have decided to start our research by analyzing benchmarking projects chronologically - from 1990s until today.

• Using literature sources and our experience in e-learning management, a **table** was drawn up for comparative analyses regarding various characteristics and approaches of the most noticeable EU and worldwide benchmarking projects.
## Benchmarking projects

<table>
<thead>
<tr>
<th>Past</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>• BENVIC</td>
<td>• ESMU</td>
</tr>
<tr>
<td>• CHIRON</td>
<td>• Benchmarking in European Higher Education</td>
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<tr>
<td>• ELTI</td>
<td>• ECIU</td>
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<tr>
<td>• ACODE</td>
<td>• E-XCELLANCE+</td>
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<tr>
<td>• MASSIVE</td>
<td>• SEVAQ+</td>
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<tr>
<td>• MIT90</td>
<td></td>
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<tr>
<td>• PICK&amp;MIX</td>
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<td>• OBHE</td>
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<td>• OpenECB</td>
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<td>• eMM</td>
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</tbody>
</table>
Table for comparative analyses of benchmark projects

• For each benchmarking project we have analyzed:
  – General characteristic:
    • time period, main goals, No. of benchmark areas (criteria), total No. of indicators
  – Type
    • Implicit/explicit, independent/collaborative, Internal or external, vertical/ horizontal, quantitative or qualitative, focused on inputs, process, outputs or combination of these
  – Scoring system
  – Tools
<table>
<thead>
<tr>
<th>No.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name (ABBREVIATION)</strong></td>
<td>MIT90s</td>
<td>OBHE</td>
<td>BENVIC</td>
<td>ELTI</td>
<td>CHIRON</td>
</tr>
<tr>
<td>Initiative (Project)</td>
<td>University of Strathclyde</td>
<td>Observatory on Borderless Higher Education</td>
<td>Open University of Catalonia</td>
<td>Developed under the JISC project. Leonardo da Vinci Programme coordinated by ESCOM</td>
<td>-</td>
</tr>
<tr>
<td>Main characteristics</td>
<td>Strategic framework for managing IT Business transformation levels</td>
<td>Methodology where a group of institutions get together and jointly agree relevant areas of interest and in a later phase, look for good practices.</td>
<td>Educational approach to evaluation of “virtual campuses” experiences throughout Europe. General framework for benchmarking of open and flexible learning programmes.</td>
<td>A learning technology audit designed to collect information that is useful to the institution about the 12 key factors in learning technology development.</td>
<td>-</td>
</tr>
</tbody>
</table>

| No. of Benchmark areas (criteria) | cross-correlation with other frameworks | 8 | 8 | 4 | 11 |
| Total No. of indicators | variable | variable No. of statements | 102 | Up to ten indicators are agreed for 12 key institutional factors (around 120) | 216 |

<p>| Scoring system | 1-5 (Levels 1 and 2 evolutionary levels; 3, 4, and 5 revolutionary levels) | Statements of Good practices | 0-2 scale (0 Not implemented at all; 1 Partially implemented; 2 Fully implemented) | 1-5 (1 Not true; 2 Emergent, 3 Partly true, 4 Largely true, 5 True) | Statements of Good practices |
| Tools | none | none | Questionnaire for positioning virtual campus List of indicators | ELTI workshop pack which contains the Audit Tools, the Audit Notes and the Facilitator’s Guide | none |</p>
<table>
<thead>
<tr>
<th>No.</th>
<th>ACODE</th>
<th>MASSIVE</th>
<th>PICK &amp; MIX</th>
<th>eMM</th>
<th>Open EGB</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Australasian Council on Open, Distance and e-Learning</td>
<td>University of Granada</td>
<td>Methodology developed by prof. Paul Bacsich</td>
<td>trialled in the Higher Education Academy Benchmarking Pilot, by the University of Manchester</td>
<td>InWent – Capacity Building International, Germany and EFQUEL</td>
</tr>
<tr>
<td>8</td>
<td>discrete benchmarks that can be used alone or in combination with others</td>
<td>MASSIVE project was aimed at designing a model of mutual support services for EU traditional universities to successfully implement the virtual component of teaching. Within the MASSIVE project, a peer review model/service was designed and tested.</td>
<td>Pick &amp; Mix does not impose methodological restrictions and has incorporated (and will continue to incorporate, in line with need) criteria from other methodologies of quality, best practice, adoption and benchmarking.</td>
<td>E-Learning Maturity Model (eMM) provides a means by which institutions can assess and compare their capability to sustainably develop, deploy and support e-learning.</td>
<td>Accreditation and quality improvement scheme for e-Learning programmes, and institutions in international Capacity Building</td>
</tr>
<tr>
<td>9</td>
<td>8</td>
<td>Six relevant service areas</td>
<td>Defined by total number of criteria (core plus supplementary plus local) that an HEI should consider.</td>
<td>5 process areas, 34 processes</td>
<td>7</td>
</tr>
<tr>
<td>10</td>
<td>74</td>
<td>Criteria have been identified for each service area to identify good practices for peer review</td>
<td>53, 20 – core, 5 supplementary (optional)</td>
<td>each process with 5 dimensions and variable no. of practices (around 1000)</td>
<td>52</td>
</tr>
<tr>
<td>Scoring system</td>
<td>1-5 (level 5 indicates best practices)</td>
<td>Inconclusive</td>
<td>1-5 scale (level 1 is always sector-minimum and level 5 is reachable sector best practice)</td>
<td>Fully Adequate; Largely Adequate; Partially Adequate; Not Adequate; Not Assessed</td>
<td>0-3 (not met, partly met, met adequately, met excellently)</td>
</tr>
<tr>
<td>Tools</td>
<td>Toolkit (Phase 2)</td>
<td>Methodology report</td>
<td>Pick &amp; Mix version 2.6 beta 3 workbook (Excel)</td>
<td>eMM 2.3 Assessment workbook (Excel)</td>
<td>Toolset (Excel)</td>
</tr>
</tbody>
</table>
What we have found from the past?

- Benchmarking initiatives have been launched by a national body, by one or a group of institutions or by an independent body.
- These have usually only involved a small number of institutions on a voluntary basis.
- Initiatives have adopted a mixture of quantitative, qualitative and processes-oriented approaches (depending on experience and the purposes).
- Only a few of them (Pik&Mix, eMM, OpenECB) have developed benchmarking tools in the form of Excell worksheets.
- Outputs of past benchmarking projects are valuable source of information for all HE institutions for planning benchmarking.
Current EU benchmarking initiatives in HE

• European Centre for Strategic Management of Universities – ESMU (2000)
  – focuses on management processes such as internal quality assurance, student services, e-learning strategies, and research management.
  – Quantitative indicators are gathered but questionnaires focus on qualitative data gathering related to management processes.

• Benchmarking in European Higher Education (2004)
  – project funded by the EU commission to improve benchmarking in HE. It supports HEIs and policy makers to better realise the Lisbon goals and the Bologna Process.
  – Online tool with examples, handbook with a review of the literature and a step by step approach to benchmarking, report of extensive desk research carried out on benchmarking in HE, guidelines for good practices for effective benchmarking, platform to promote exchange and good practices for benchmarking in HE.
Current EU benchmarking initiatives in HE

  – benchmarking exercises use a mixture of quantitative and qualitative methods and peer reviews
  – focuses on developing administrative processes to support fully their mission of being innovative universities

• E-xcellance+ (2004)
  – E-xcellence is a web-based instrument focusing on e-Learning in HE.
  – It is a quality benchmarking assessment tool that covers the pedagogical, organisational and technical frameworks with special attention on accessibility, flexibility and interactivity.
Current EU benchmarking initiatives in HE

• E-xcellance+ (2004)
  - The basis of the E-xcellence benchmarking process is to use an instrument (QuisckScan Tool) that is built on dialogue.
  - E-xcellence manual contains the benchmark statements (total 6), along with the criteria and indicators: Strategic Management, Curriculum Design, Course Design, Course Delivery, Staff Support and Student Support.
  - 50 excellence benchmarks (33 of them considered as threshold) directly related to e-Learning specific quality criteria
  - Scoring system uses qualitative metrics as a measure of appropriateness: Not Adequate; Partially Adequate; Largely Adequate or Fully Adequate.
  - Can be used for self assessment, with the possibility for internal and external exercise.
Current EU benchmarking initiatives in HE

• **Self- Evaluation of Quality in eLearning - SEVAQ +**
  
  – SEVAQ+ is designed to be used by a range of learning organisations to evaluate the quality of any teaching and learning supported by technology, whether it concerns totally online distance courses or blended learning.

  – SEVAQ+ follows a logical structure inspired by the EFQM (European Foundation for Quality Management) quality framework.

• The **EFQM Excellence Model** is a non-prescriptive framework for organisational management systems, promoted by EFQM and designed for helping organisations in their drive towards being more competitive. The Model is regularly reviewed and refined: the last update was published in 2010
Current EU benchmarking initiatives in HE

• Self-Evaluation of Quality in eLearning - SEVAQ +
  – SEVAQ+ is designed to be used by a range of learning organisations to evaluate the quality of any teaching and learning supported by technology, whether it concerns totally online distance courses or blended learning.
  – SEVAQ+ follows a logical structure inspired by the EFQM (European Foundation for Quality Management) quality framework.
  – To design an online questionnaire, one can choose which Criteria and Sub criteria to focus on criteria that are organised within an overall framework of Resources, Processes and Results.
  – The SEVAQ+ tool then proposes a series of statements
Conclusions

Benchmarking process

Illustration inspired by the benchmarking process described by Camp, 1989.
Conclusions

The DL building blocks typically covered by benchmarking

- institution policy and governance
- information technology infrastructure to support learning and teaching
- support for the use of technologies for learning and teaching
- planning and quality improvement related to technologies for learning and teaching
- pedagogical issues

- professional/staff development
- target audience orientation
- management and leadership of DL
- resources for learning and value for money
- quality of the content
- media design
- information about & organization of the programme
- programme/course design
- learning services
Conclusions

• Benchmarking is very much a process designed to enhance quality, to identify gaps and to bring about the implementation of changes.

• Benchmarking initiatives are often conducted as self-evaluations, including systematic data and gathering information from predefined benchmarks, as well as formulating roadmaps.

• The goal of benchmarking is to formulate, together with other colleagues, strengths and challenges for the purpose of improvement.
Conclusions

• Participating in a benchmarking process can potentially lead to change in the area being investigated.
  – In addition, an increased awareness, both individual and collective, of the organisation itself occurs as a result of participation, which can be considered as a direct and substantial value

• Benefit might well come as a result of the application of a specific tool (and its specific criteria) rather than from benchmarking as a strategy.
Conclusions

• Critical factors of benchmarking process
  – dissemination of results within the benchmarking network and beyond the group
  – finance
  – data collection takes a large amount of time
  – need for adequate human resources
  – defining indicators

• both types of indicators, quantitative and qualitative, seem to be necessary, as most issues are best compared by using a mix of quantitative and qualitative methods.
Conclusions

• It is possible to combine issues from several approaches and tailor them to fit the needs of a specific HE institution.

• It is also possible to use tailored versions of tools developed for use within a specific approach/methodology, such as QuickScan and SEVAQ+.

• *If any benchmarking is done, it should be effective and efficient, producing well-structured, transparent, and comparable information (qualitative/quantitative) with the view to identify good practices and to apply measures which would enhance the credibility and the visibility of the benchmarking exercise.*
Thank you!

http://www.dlweb.kg.ac.rs