

Benchmarking for quality improvement: The e-learning maturity model



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The E-Learning Maturity Model provides a quality improvement framework by which institutions can experience a discontinuity of perception that can drive change. This poster conveys the key concepts of the eMM and illustrates how the capability analysis can go beyond benchmarking and provide a framework for supporting change and improving the quality of e-learning experienced by students and staff.

Keywords: benchmarking, quality, change

Benchmarking as a driver for change

The need for organisations to be responsive to change has been recognised for many years and is a staple of the business restructuring and re-engineering gurus and their endless books. Universities seem to have ignored much of this, safe and secure in their roles as researchers and teachers. University restructuring has tended to be an unpleasant necessity forced upon us by changing student interests in particular disciplines or wider economic trends, and our responses have been limited to the barest minimum needed. The resistance to change is not unexpected. Rogers (2003) discussed the challenge of getting African tribes to use clean water from a tap rather than polluted stream water. The change was resisted until women of high status in the tribe adopted it - until then excuses such as "it tastes wrong" were used or clean water was used in special cases such as washing for prayer. Changing university education to reflect the opportunities provided by technology seems very similar. The high status universities are secure in their highly evolved and comfortable niches, while less successful ones look on and try to emulate them. Where technology is used, it's kept for special cases such as distance or open provision, and there is a vast complacency around the effectiveness of traditional face to face teaching.

Benchmarking can potentially provide a means for an institution to experience a discontinuity of perception that can drive change. The problem is that not all benchmarking activities will challenge the perceptions of an institution (or the management of that institution). The term has grown to encompass a wide variety of potential outcomes being defined variously as

- a tool to identify, establish, and achieve standards of excellence;
- a structured process of continually searching for the best methods, practices, and processes;
- the practice of measuring your performance against world-class organisations;
- an ongoing investigation and learning experience ensuring that best practices are uncovered, adapted, and implemented;
- a disciplined method of establishing performance goals and quality improvement projects based on industry best practices;
- a searching out and emulating of the best practices of a process that can fuel the motivation of everyone involved, often producing breakthrough results;
- a positive approach to the process of finding and adapting the best practices to improve organisational performance;
- a continuous process of measuring products, services, and practices against the company's toughest competitors or those companies renowned as industry leaders;
- learning how leading companies achieve their performance levels and then adapting them to fit your organisation;
- a research project on a core business practice;
- a partnership where both parties should expect to gain from the information sharing;

This covers a lot of ground and no one benchmarking approach is going to do it all with any reasonable investment of resources. Experience with successful benchmarking projects in a number of contexts is clear that effective benchmarking requires a significant investment of resources including the time of senior managers. Consequently there is the temptation to pre-select the areas that are focused upon - to pick the areas that management "knows" they need to consider. This has the benefit of reducing the costs of benchmarking but at the risk of predetermining the outcomes and losing the chance that something new might be learnt. Another temptation is to use readily available metrics to benchmark the institution. The Australian VET benchmarking exercise (ANTA 2005) illustrates this with over 400 institutions having their e-learning measured. The problem is, in what way does knowing the percentage of courses using some form of e-learning help those involved in institutional leadership make better decisions? It's not enough to have absolute numbers, they need a context that illustrates whether they are indicative of a problem or not. Our lack of knowledge of causal relationships means that it's impossible to say if these metrics are a result of effective e-learning, a contributor to its success or imminent failure, or simply meaningless but easy to measure.

The e-learning maturity model

The E-Learning Maturity Model (eMM, Marshall and Mitchell 2007) provides a quality improvement framework by which institutions can assess and compare their capability to sustainably develop, deploy and support e-learning. The eMM is based on the Capability Maturity Model (CMM, Paulk et al., 1993) and SPICE (Software Process Improvement and Capability dEtermination, El Emam et al., 1998; SPICE, 2002). The underlying idea is that the ability of an institution to be effective in a particular area of work is dependent on their capability to engage in high quality processes that are reproducible and able to be sustained and built upon. The characteristics of an institution that enable high quality processes are to some extent able to be separated from the details that will vary depending on particular circumstances. This separation means that an e-learning capability analysis can be done independently of the technologies selected and pedagogies applied, thus allowing for a meaningful comparison across the sector.

Maturity models like the eMM have been shown to assist organisations that want answers to questions like:

- Is the organisation successful at learning from past mistakes?
- Is it clear that the organisation is spending limited resources effectively?
- Does everyone agree which problems within the organisation are the highest priorities?
- Does the organisation have a clear picture of how it will improve its processes?

The eMM was designed as a tool for change with these questions in mind. Our poster will convey the key concepts of the eMM and illustrate how the capability analysis can go beyond benchmarking and provide a framework for supporting change and improving the quality of e-learning experienced by students and staff.

References

- ANTA (2005). *National e-learning indicators*.
http://e-learningindicators.flexiblelearning.net.au/pdf/national_elearningindicators.pdf
- El Emam, K. Drouin, J-N. and Melo, W. (1998). *SPICE: The Theory and Practice of Software Process Improvement and Capability Determination*, California: IEEE Computer Society.
- Marshall, S.J. & Mitchell, G. (2007). *Benchmarking International E-learning Capability with the E-Learning Maturity Model*. In Proceedings of EDUCAUSE in Australasia 2007, 29 April - 2 May 2007, Melbourne. http://www.caudit.edu.au/educauseaustralasia07/authors_papers/Marshall-103.pdf
- Paulk, M., Curtis, B. et al. (1993). *Capability Maturity Model, Version 1.1*. *IEEE Software* 10(4), 18-27.
- Rogers, E. (2003). *The diffusion of innovations* (5th Edition). New York: Free Press.
- SPICE Software Process Assessment version 1.00: <http://www-sqi.cit.gu.edu/spice/> Accessed 18 Dec 2002.

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