

Building on what works: towards a library assessment capability maturity model

Abstract

Purpose

This paper outlines progress toward a library assessment capability maturity model (LACMM) within the context of an activity based benchmarking project across an international network of libraries. The network is developing a shared response to the question: “if we enable and support the academic endeavour how do we measure our effectiveness?”

Approach

To frame the development of a LACMM, technology enhanced learning benchmarks have been introduced. Surveys have been used to assess processes used for representative activities and programmes that support wider institutional strategic imperatives in key areas; namely the library and student experience, and library support for teaching and learning.

Findings

Sustained engagement by the stakeholders has enabled a process for mapping these activities to a LACMM to emerge. A broader set of auxiliary activities have extended the shared development of the project, in particular, through face to face contact across the network. This contact has resulted in an increased commitment to sharing more detail about individual formative and summative assessment activities. Adapted methodologies allowed each of the libraries to commit resources addressing competing priorities and variant academic calendars.

Research or practical implications

Comparison of institutions possessing similar characteristics has enabled the network to identify details of assessment capability. This increased understanding of relative performance has implications across the network where accountability and evidence of demonstrated value is increasingly demanded. Quality assurance processes are being strengthened as best practice assessment activities are identified, and through highlighting areas for further investigation.

Originality and value of the proposal

Developing a LACMM drawing from the activities of an international network of academic libraries is unique. This model can support libraries as they increasingly seek approaches to demonstrate value and provide evidence of successful outcomes.

Introduction

This paper outlines progress towards a library assessment capability maturity model (LACMM) within the context of an activity based benchmarking project across an international network of Universities, the Matariki Network.

The Matariki Network (<http://www.matarikinetwork.com/>) is an international collaborative venture that has been established to enable member universities to enhance diversity and to share ideas,

experiences and expertise. Each member of the Network is a leading university demonstrating international best practice in research and education based on established academic traditions. The Network includes: Dartmouth College, Durham University, Queen's University, the University of Otago, Tübingen University, the University of Western Australia, and Uppsala University.

The Matariki Network provides the platform for the Libraries to share in the development of a series of common international performance measures which will provide each of the universities with a benchmark for reviewing and comparing library performance in areas of specific interest.

Benchmarking is the process of identifying best practices and learning from others. Whereas, activity based benchmarking is a methodology in which a selected number of activities, which are either typical or representative of the range of services an institution provides, are analysed and compared with similar activities in other selected institutions (Schofield, 2000).

This paper demonstrates that work on measuring the effectiveness of activities is allowing for the testing of the application of a maturity model for quality improvement of library assessment practices.

Background

In 2011 the seven libraries within the Matariki Network agreed to participate in an activity based benchmarking project. The aim of this project is to address the question, "if we enable and support the academic endeavour, how do we measure our effectiveness?" The project involves comparison between the libraries of a number of services and activities that are representative of overall library service provision. Rather than measuring and comparing traditional processes, the focus is on activities that support wider institutional strategic imperatives. This project will enable a better understanding of process in an environment where there is an increasing need to demonstrative value and provide evidence of successful outcomes (Amos & Hart 2012, Hart & Amos 2014).

Thus far the libraries have engaged in two survey exercises. With a focus on support for teaching and learning, the first survey concentrated on activities and practice for programs that support the transition of first year students to university life. The second survey focused on the library and the student experience; in particular projects in the provision of library space that support students' experiences.

As the benchmarking project has progressed, the libraries have agreed to share in the development of a LACMM. Through responding to survey questions and comparing activities between libraries, details of assessment capability and a pathway for improving assessment are being identified. This process is contributing to developing a shared response to determine how we measure our effectiveness.

What do we mean by assessment?

In her discussion of maturity models, Wilson (2015) assures us that "Librarians love assessment" (p. 260). Across the library sector, particularly across academic libraries, issues of assessment, evaluation, measurement, performance, impact and value receive increasing resourcing. This assessment is done in an effort to communicate value and improve performance. However, there is debate regarding what is meant by the term 'assessment'. Hernon and Dugan (2009) argue for a

distinction between ‘assessment’ and ‘evaluation’. This is made within the context of higher education, where historically care has been taken to differentiate between assessing learners and evaluating things or objects (Hodnett, 2001 as cited in ACRL (n.d.)). In contrast, Hufford (2013) concedes that among librarians the use of each term is ambiguous, and their use has changed over time. For the purposes of this project the terms ‘assessment’ and ‘evaluation’ are used interchangeably. This usage has been adopted so that the project and its’ outcomes will have wider application beyond just the ‘Anglo American’ academic library context.

Why a library assessment capability maturity model?

The journey towards library assessment thus far is well documented (Heath, 2011; Hufford, 2013; Town & Stein, 2015). Signposts, ‘how to’ manuals, and examples of practice are readily available (Wright & White, 2007; Oakleaf, 2010). A range of comprehensive books have been published (Brophy, 2006; Heron, Dugan & Nitecki, 2011; Matthews, 2007, 2015). The tools to measure our effectiveness are continually evolving (Randall, 1932; Orr, 1973; Association of Research Libraries, 2012; Counting Opinions, (n.d.)). Significant investment is being made to strengthen librarians’ assessment practices, for example through the ACRL program Assessment in Action: academic libraries and student success (Hinchliffe & Malenfant, 2013). Work has been undertaken to identify factors important to effective library assessment (Hiller, Kyrillidou & Self, 2008) as well as to identify factors influencing an assessment culture (Farkas, Hinchloff & Houk, 2015). Heath (2011) noted that *“recent years have seen a collaborative culture of assessment reach its full maturity”* (p. 14).

So, what then does it mean to have reached full maturity? In moving past a standard dictionary definition of maturity as *“the state of being complete, perfect or ready”* (p. 145), Maier, Moultrie & Clarkson (2012) define maturity in the context of organisational capability as *“the degree to which a process is institutionalised and effective”* (p. 146). So, if we have reached full maturity in the context of our assessment capability, we are left with a number of questions: How do we measure our effectiveness? How do we assess our assessment? How could we frame our assessment to identify an improvement path? And what should a mature approach to library assessment look like?

The Matariki Libraries have agreed that the development of a LACMM within the context of the Benchmarking project has relevance to these questions about assessment maturity. This decision was reinforced by the successful application of the Capability Maturity Model (CMM) framework (Paulk, Curtis, Chrissis, & Weber, 1993) by Wilson & Town (2006). Through addressing similar questions in relation to the culture of quality, Wilson (2015) developed a comprehensive Quality Maturity Model and Quality Culture Assessment Instrument for libraries (<http://www.qualitymaturitymodel.org.uk/>).

A CMM has five levels, as illustrated in Figure 1. Each level represents a measure of the effectiveness of any specific process or program, from ad-hoc processes through to mature and continuously improving processes. It provides criteria and characteristics that need to be fulfilled in order to reach a particular maturity level (Becker, Knackstedt & Pöppelbuß, 2009).

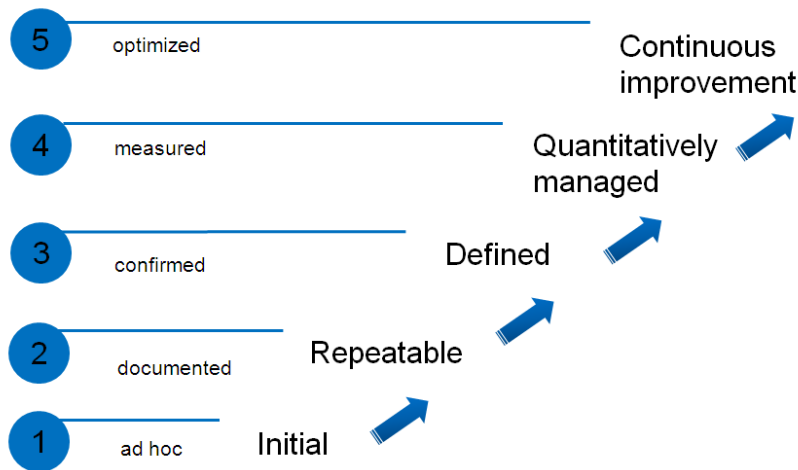


Figure 1. Capability Maturity Model

The Process

The project development has been shared by all the Matariki Network libraries, and progress has been made by building on what works. The process has been flexible to address issues as they have arisen. There has been the ability to make changes to the project timetable in deploying and completing the surveys. This has enabled each library to contribute resources to the project; in particular to address competing priorities and variant academic calendars. Time has been taken to identify terms and definitions so as to develop a shared language which has facilitated communication and on-going progress. Survey questions have been amended to add clarity, and adaptations made to extend what can be learnt from each library. An online collaborative workspace has been set up to permit libraries to contribute to the project as resources allow. The workspace has provided a place to share documents and resources and has provided continuity and a record of progress as personnel changes have occurred in some of the libraries.

As the project has progressed other activities across the Network have been developed. In particular the Matariki Humanities Colloquia (<https://matariki-colloquia.otago.ac.nz/>) have extended the benchmarking project. The Colloquia were created to allow Humanities faculty to share resources, expertise and experiences. Library senior managers contribute to the Colloquia with specific topics that address library support for the humanities in the digital age. The Colloquia are scheduled annually. To date two have taken place, with a third arranged for October this year.

The Colloquia have also allowed for face to face meetings of library representatives to consider the activity benchmarking project. These meetings have extended the shared development of the project and allowed for exchanging more information on what it is we do to improve our assessment processes. During the first Colloquium, the concept of a CMM in the context of how we measure our effectiveness was shared and discussed. This discussion resulted in the survey questions being adapted to build an understanding about assessment processes used across each library. This adaptation included seeking more detail about individual formative and summative assessment activities. For example, questions sought details on the processes used to gather data that informed the development of the project being reported on. Further questions sought details on the

performance measures used to evaluate the success of this project and on plans for the ongoing evaluation of the effectiveness of project outcomes.

The meeting at the second Colloquium provided the opportunity to introduce work undertaken by other staff at the University of Otago. This separate project utilised the Australasian Council on Online, Distance and e-Learning (ACODE) benchmarking tool which focuses on technology enhanced learning. Since being introduced in 2004, the ACODE benchmarking tool has been rigorously applied and revised (McNaught, Lam, & Kwok, 2012; & Sankey, 2014). It currently includes eight benchmarks with each containing a series of criteria based performance indicators using a 1-5 scale of capability. The tool comprises a two phased application where it is applied in a self-assessment process, and then used to develop a team response within or between institutions (Sankey, 2014). Sharing details of the Otago ACODE project validated the direction the project is taking. It also allowed the Matariki Libraries to conceptualise what a LACMM may look like, and how it may be utilised for continuous improvement.

Within the field of designing maturity models the process for developing a model draws from the guidelines for design science outlined by Hevner, March, Park, & Ram (2004). Work in this area has recently been reviewed, limitations have been identified and best practice approaches suggested (Maier, Moultrie & Clarkson, 2011; & Wendler, 2012). Having assessed the design process of maturity models Becker, Knackstedt & Pöppelbuß (2009) provide a procedures model for developing maturity models which further refines the guidelines. This procedures model provides a useful framework for considering the construction of a LACMM. It provides a clear flow of activities and decision making junctures, emphasising an iterative and reflective approach.

So far in the development of a LACMM, the need for the model has been identified. Details of what the model might look like have been articulated. A process for collecting examples of practice has been built on the first stages of the activity benchmarking project. The next phase in the process will involve comparisons of existing maturity models and consideration of the required criteria and characteristics for each particular maturity level. The upcoming meeting of libraries at the next Matariki Humanities Colloquium in October 2015 will provide the opportunity to begin this phase.

The next steps

The obvious model to review for comparison is the Quality Maturity Model (QMM). However, it needs to be acknowledged that the QMM was developed with the lens of the wider issue of 'quality'. In the QMM 40 elements, grouped into eight facets, of a culture of quality were identified. Assessment is, of course, a significant part of quality, although obviously not the only consideration.

A review of the QMM has identified that the facets of the QMM do not provide a direct alignment to a LACMM. However, there are elements of the QMM that may have relevance to a LACMM. These elements include processes such as: progress monitoring, performance measurement, gathering feedback, collation of feedback, respond to feedback, and act on feedback. The suitability of these components along with descriptions of what each level of capability looks like will be discussed at further Network library meetings.

To provide further guidance in determining the characteristics of a LACMM, work on assessing assessment will be considered at these meetings. Bakkalbasi, Sundre & Fulcher (2012) offer a

framework that may aid this discussion. In providing a toolkit to evaluate the quality and rigor of library assessment plans they draw on the elements of the assessment cycle. Their application identifies four phases of the assessment process: 1. Establishing assessment objectives, 2. Selecting and designing methodologies and collecting data, 3. Analysing and interpreting data, and 4. Using results. Focusing only on these elements should reduce the complexity of the design and simplify the development of the LACMM.

Consideration of the suitability and the application of these elements in the construction of the LACMM will only be part of a wider discussion. Through sustained engagement in the project, a process for mapping activities to a LACMM is emerging. The meeting in October will provide an opportunity for each library to share what has been learned. To further strengthen quality assurance process, each library will share what they have learnt by comparing their own progress for activities that support wider strategic imperatives. Reflection on the level of maturity capability will be an important part of the process.

Conclusion

Through building on what works for the Matariki Libraries and their activity benchmarking project a process for constructing a LACMM is progressing. By drawing from the activities of this international network of academic libraries the LACMM will provide opportunities for library communities to evaluate their assessment activities. Continuously improving assessment practices is of major importance to libraries as they seek approaches to demonstrate value and provide evidence of successful outcomes.

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