

# The ACODE Benchmarks for Technology Enhanced Learning

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The ACODE Benchmarks were developed to assist higher education institutions in their practice of delivering a quality technology enhanced learning (TEL) experience for their students and staff (recognising that some institutions refer to their practice with terms such as e-learning, online or flexible learning, blended, etc.). The original ACODE benchmarks were developed as part of an ACODE funded project in 2007. In 2014 the Benchmarks underwent a major review to ensure they are now both current and forward looking. These revised benchmarks were then applied by 24 institutions in the first ACODE Inter-institutional Benchmarking Summit held in Sydney.

As part of ACODE's ongoing commitment to both this tool and the sector, it ran a second major Inter-Institutional Benchmarking Summit in June of 2016 in Canberra, again using the Benchmarks (<http://www.acode.edu.au/mod/resource/view.php?id=193>). A total of 27 universities from Australia, New Zealand, the Pacific, South Africa and the United Kingdom attended and engaged in a richly collaborative workshop that explored their individual capabilities across the ACODE benchmarks, working to identify shared issues, potential solutions and opportunities for ongoing improvements in the use of technology to enhance student outcomes and organisational systems.

## Introduction

Internationally universities are subject to a relentless tide of measurements aimed at ensuring they are held accountable for public funds and delivering the level of education represented by their qualifications. The processes of defining quality and collecting information on the qualities of education culminate in the actions that are taken in response to that activity. Importantly, a key distinction is made in the literature between quality assurance and quality improvement. Assurance activities are intended to ensure that errors do not occur by identifying non-complying processes or outcomes. Once a failure is identified it can be rectified by repairing or discarding the non-compliant products, and fixing the broken processes responsible. Examples of useful quality assurance activities include the recent interventions into New Zealand providers misrepresenting the learning activities being undertaken by students and awarding qualifications that do not reflect the students' learning and capabilities (Deane, 2015). Here there is a clear failure and the systems are certainly acting in the public good.

Many of these instruments, such as the New Zealand Tertiary Education Commission (TEC) Educational Performance Indicators (TEC, 2016), are measures of system throughput and capacity, similar to those used in manufacturing and production to assess efficiency. Others, such as the recently introduced Australian Higher Education Standards (Commonwealth of Australia, 2015) are designed to enforce a particular model of education through imposition of detailed process requirements associated with the design, delivery, moderation and improvement of courses and programmes.

The TEC Educational Performance Indicators also act as tools of quality assurance at the organisational level. The problem with this approach is that the measures are fundamentally disconnected from the educational goals of the tertiary education system, in that they measure activity at such a generic level they lose all sense of the value being generated for individual students. Unsurprisingly, this is not a new problem as it was noted by Ronald Barnett (1992) in his critique of such approaches in the UK more than twenty years ago, when he wrote:

Performance indicators are not, therefore, just measures which those on the outside of the academic world use to judge institutions. They also become the means by which institutions organize and direct themselves, and direct their own performance. And the intrinsic character of performance indicators is such that they will tend to divert institution's attention away from their essential purposes, values and continuing processes. (p. 89)

The Australian standards avoid the problem of proxy measurements by specifically describing key activities that need to occur and measuring these directly. The intention is that Australian higher education is funded to do specific things in specific ways and those are what is measured. The problem with this system is the maintenance of the ranges of measures and systems such that they can evolve to meet the changing needs of

the country, students and institutions. As the Productivity Commission in New Zealand has noted, the risk is that detailed accountability systems create an environment that is unable to sustain the necessary level of innovation needed in a dynamic world:

The Commission finds that the tertiary education system is not well-placed to respond to uncertain future trends and the demands of more diverse learners. The system is not good at trying and adopting new ways of delivering education, and does not have the features that will allow it to respond flexibly to the changing needs of New Zealand and New Zealanders. The system does a good job of supporting and protecting providers that are considered important, but it is not student-centred. Nor does it reach out, as much as it could, to extend the benefits of education to groups that have traditionally missed out on tertiary education.

This is largely due to the high degree of central control that stifles the ability of providers to innovate. Nobody set out to design a tertiary education system characterised by inertia. But over time central government has responded to fiscal pressure, political risks, and quality concerns by layering increasingly prescriptive funding rules and regulatory requirements on providers. These have the cumulative effect of tying the system down. (New Zealand Productivity Commission, 2016, p. 2).

The ACODE Benchmark process and tools are designed to avoid these issues and provide a means by which individual institutions can work collaboratively to improve their educational activities (Sankey et al., 2014). The rest of the paper explains the model of quality improvement that underpins the Benchmarks and reports on the progress that is being achieved in their use internationally.

## Benchmarking Approaches

Listed below in Table 1 are the major tools and frameworks currently being used internationally to engage with quality in technology enhanced learning (TEL). They fall into two major types, theory-based quality frameworks and pseudo-standards or heuristics. A major issue in the field is validation of the quality tools and frameworks. Inglis (2008) has observed that the validation methods in use include:

- reviewing the research literature related to effectiveness in online learning;
- seeking input from an expert panel;
- undertaking empirical research;
- undertaking survey research;
- conducting pilot projects; and
- drawing on case studies.

In most cases there is very little evidence of any of the tools having extensive validation through the use of empirical evidence such as correlation studies or longitudinal case studies. Notable exceptions are both the eMM (eLearning Maturity Model) and the ACODE Benchmarks.

A small number of tools have an explicit theoretical foundation that provides a testable argument in support of their validity and which frames the model in which they should be used. The two theoretical models are that of collaborative benchmarking (Camp, 1989) and organizational maturity (Paulk et al., 1993). Along with Total Quality Management (TQM), these are the major approaches used by organizations in the systematic engagement with quality.

The vast majority of tools in this space depend on ‘face validity,’ drawing on an expert assessment of the literature and on the judgment of key organizational stakeholders and researchers to define lists of heuristics. These are typically presented as lists of questions or statements with either a focus on self-reflection (i.e. the e-Learning Guidelines) or on auditing (i.e. Quality Matters, or QM).

Accreditation frameworks (for example SREB, 2006) provide additional confidence in that they are associated with expert bodies, but this does not specifically ensure validity. A significant weakness is there are no unambiguously successful models of TEL that have been generalized to other contexts, and that the research literature in the TEL space is considered itself weak and lacking in empirical evidence. It can be argued that dependence on expert reviews merely ensures consistency rather than necessarily driving improvement, particularly when improvements may require levels of disruption to incumbent models.

If the focus is on specific courses, then the eLG (eLearning Guidelines) provide some reflective prompts for individual teachers, but they will need access to experienced support staff if they want to act on their insights. The Quality Matters (QM) tool provides a more structured framework for improving courses

delivered online. The tool requires a license but provides a mechanism for lifting staff knowledge of TEL as they train to use the tool and review courses using it.

The three European frameworks, UNIQUe (University Quality Exchange), E-xcellence (from the European Association of Distance Teaching Universities) and CEL (Collaborative E-learning), are similar in scope and significance to the formal accreditation activities undertaken by organizations such as AACSB (The Association to Advance Collegiate Schools of Business) and EQUIS (European Quality Improvement System). The value of the formal processes is both in the self-reflection and in the formal external audit. It is unclear whether the accreditation credentials are currently significant to prospective students and collaborative partners in international markets. The decision to engage with these is a major institutional commitment and requires a substantial investment in TEL as a major proportion of delivery. The need to complete a self-reflective assessment portfolio suggests that institutions considering these expensive tools would be well advised to use some of the freely available tools to explore their TEL systems and capability for a period of time.

There are a number of other quality tools which have been used in the last decade or so but which are not outlined in the table as they show no evidence of being maintained or used currently, or they speak to a narrow aspect of TEL. There are also a large number of checklists provided in the literature which are proposed as potential guides for quality in TEL but which lack any evidence of wider recognition or adoption. Finally there are accreditation frameworks which include aspects of TEL, but which are not listed due to the specificity of their focus on a local context. All of those listed in the table demonstrate application in multiple institutions in more than one country.

Finally, it should be noted that a significant absence in these tools is the learner's voice. The eLG include consideration of learner perspectives but learners are themselves not involved in responding to these questions unless an institution takes the initiative. All of the other tools operate at an institutional or course level where learner issues are addressed by proxies. The three main quality measurement approaches apparent in these tools are described below. These three approaches embody quality in three distinct ways, as a management tool defined by a focus on measureable outcomes; as a process of organisational development; and as a collaborative exploration.

### **Total Quality Management**

Total Quality Management (TQM) arose in the mid-1980s as the first major quality model (Martínez-Lorente, Dewhurst and Dale, 1998). TQM is strongly framed by the management ideas of W. Edward Deming (1982; 1986) and uses a conception of quality defined primarily by customer requirements.

Challenges in application of TQM to higher education include (Rosa and Amaral, 2007):

- Multiple organisational purposes and objectives without clear mechanisms for determining priorities.
- Definition of a mission and identification of the needs and expectations of the customers is challenging given the existence of multiple stakeholders.
- Multiple actors contributing to the achievement of outcomes, notably the need for students to act and be accountable for their own learning.
- Institutional and disciplinary disincentives and barriers for large scale team work, particularly across disciplinary boundaries.
- Poor measures of results, dominated by institutionally assessed quantitative performance measures.
- Weak organisational communication channels and management information systems (typified by the relatively recent adoption of tools such as learning analytics and their limited impact to date).
- Complicated mechanisms of leadership and authority, particularly in the university sub-sector.
- A perceived misalignment between the value systems of TQM (particularly in the forms encountered in mainstream commercial and political discourse) and the strongly value driven culture of education.

Despite its dominance in many commercial contexts, TQM has generally failed to have any substantive impact on education (Harvey, 1995; Cruickshank, 2003; Koch, 2003; Meirovich and Romer, 2006; Houston, 2007). One explanation for this is the reality that the TQM philosophy is expressed in ways that are alien to many educators. The quality culture and values expressed by some TQM advocates, such as an error-free workplace (Deshmukh, 2006), appear inconsistent with the pedagogical models, strong values and culture that typically define educational organizations. An example of this disconnect can be seen in the list of critical success factors for education identified in the TQM literature (Sahu, Shrivastava and Shrivastava, 2013), which vary from the unmeasurable (senior management commitment) to the educationally irrelevant (hygiene in toilets).

Framework/Tool	Description	Change Theory	Validation	References
ACODE Benchmarks for Technology Enhanced Learning	Set of benchmarking statements created and maintained by ACODE. Designed to assist institutions improving the quality of technology enhanced learning. Statements of good practice provided along with a ranking scale. Focus is on a team-based self-assessment. Licensed under Creative Commons.	Collaborative Benchmarking	Face validity supported by expert review. Revised following experience in implementation	Sankey et al. (2014)
EADTU E-xcellence Next	Benchmarking framework operated by the European Association of Distance Teaching Universities (EADTU). Set of quality indicators/benchmarks provided with the intention that these be used to engage in self-assessments which may be referenced by external Quality Assurance schemes. Licensed under Creative Commons.	Collaborative Benchmarking	Face validity supported by expert review. Revised following experience in implementation	Ehlers (2012) EADTU (2012)
EFMD Certification of E-learning (CEL)	Accreditation scheme for e-learning management programmes operated by the European Foundation for Management Development (EFMD). Formalised process including mix of self-assessment and a detailed accreditation audit. Accreditation lasts for three years with an 18 month review.	None.	Face validity supported by expert review.	Ehlers (2012)
EFQUEL UNIQUE Certification	European quality certification operated by the European Foundation for Quality in E-Learning (EFQUEL). Assesses courses, programmes and institutional systems and certifies the institution as a whole. Set of guidelines supplied with supporting questions. Formalised process including mix of self-assessment and a peer review process similar to an accreditation audit. Access restricted to eligible institutions.	None.	Face validity supported by literature review and extensive reviews undertaken by experts and quality assurance bodies.	EFQUEL (2011) Ehlers (2012)
e-Learning Guidelines (eLG)	A guide to designing, implementing and enhancing eLearning. A framework of questions designed to encourage reflection by a range of key stakeholders. No detailed guidance provided on good practice. Licensed under Creative Commons.	None.	Face validity supported by expert review and literature review. Revised following experience in implementation.	Suddaby and Milne (2008)
e-Learning Maturity Model (eMM)	Quality improvement framework incorporating a benchmarking process and extensive knowledgebase. Extensive set of processes broken down into detailed organisational practice statements. Licensed under Creative Commons.	Maturity Model.	Process and practice set revised through three rounds of expert consultation conducted internationally, extensive set of cases and peer-reviewed analyses of the framework.	Marshall (2012a; 2012b) Neal and Marshall (2008)
Taking the Lead	Not a quality framework as such, but rather a tool for identifying the strategic goals for e-learning that can be improved.	None.	Face validity supported by literature review and case studies.	
Quality Matters (QM)	Quality checklist designed to improve the quality of individual online courses through a form of audit process. Checklist items supported by descriptions of good practice and are applied by reviewers following a training programme. Focus is on professional development of staff for online teaching and quality assurance of courses. Not for profit framework requiring a license to use.	None.	Face validity supported by literature review and case studies.	Varonis (2014)

Table 1: e-learning quality and benchmarking tools

Perhaps the most significant barrier to adoption of TQM in education is, however, the intangible nature of any improvement (Harvey, 1995; Venkatramen, 2007). The measures used to define the educational quality of outcomes are complex and contested, and the impact of any improvement can consequently be hard to quantify. Despite these issues, TQM ideas are clearly apparent in the ongoing use of audit models linked to specific performance indicators.

### **Capability Maturity Models**

The maturity model approach to quality improvement posits that organizations, like people, can learn explicitly from experience if systems are created that encourage organizational self-reflection and learning. Progression through the maturity levels reflects the extent to which ideas of organizational learning (Senge, 2006) and continuous improvement are reflected in the organization's systems.

Maturity has been defined (Andersen and Jessen, 2003) "as the quality or state of being mature", having reached a full or maximum state of development. They suggest that organisationally maturity then describes the state where an organisation is perfectly conditioned to achieve its objectives. Clearly, this is aspirational and ultimately unachievable but it can motivate a focus and intention to continuously improve an organisation, which, in itself, is a useful goal supporting the achievement of a wide variety of organisational objectives.

Within education, the e-Learning Maturity Model (eMM, Marshall and Mitchell 2002; Marshall, 2006) is a maturity model inspired framework for quality improvement designed to be used by institutions wanting to get a holistic sense of their institutional capability for e-learning and advice on which areas need particular attention. The capability assessments are undertaken in a way that allows for comparison with other institutions that can help identify areas for collaboration and replication of good practices at both institutional and sector levels. The eMM process and practice set provide a useful checklist of activities that should be undertaken and guidance on how they can be improved, serving as a detailed knowledgebase on e-learning. The eMM assessment also provides a structured mechanism for monitoring progress or development of e-learning capability over time. The eMM complements tools such as the ACODE Benchmarks by providing a detailed holistic overview that can be used to identify priority areas for collaborative improvement (Marshall, Mitchell and Beames, 2009).

### **Collaborative Benchmarking**

Collaborative benchmarking is the structured comparison of a process or organisation with others engaged in similar activities relevant to the domain being measured. Originally, benchmarking was designed by the Xerox corporation to support a combination of research into good practice by others, and the examination of performance within an organisation (Camp, 1989). The collaborative benchmarking process developed in Xerox has, as its model of change, the adoption of exemplar processes by teams of staff from one (or more organizations) learning from peers in other organizations who have implemented excellent processes in an analogous context. The major benefit of this approach is the collaboration experience, which provides a form of professional development and support to the participants.

Benchmarking has now expanded in definition to include many forms of structured comparison, including those where the qualities of good performance are defined separately, based on research such as the ACODE Benchmarks (Brigland and Goodacre, 2005; Sankey et al. 2014). The ACODE Benchmarks provide a process for working collaboratively within an institution's different service groups, and with external partners focusing on specific areas of institutional TEL capability. This process is particularly effective as a mechanism for brainstorming options for improvement, and in building wider awareness and interest in quality improvement within the institution.

### **ACODE Benchmarking**

#### **Summit Process**

The ACODE Benchmarks for TEL are a tool designed to assist institutions in their practice of delivering a quality technology enhanced learning experience for their students and staff. They were developed to assist institutions in their practice of delivering a quality technology enhanced learning experience for their students and staff (recognising that some institutions refer to their practice with terms such as e-learning, online or flexible learning, blended, etc.). The original ACODE benchmarks were developed as part of an ACODE funded project (Brigland and Goodacre, 2005). They were developed collaboratively by representatives of a number of ACODE member universities and at the time were independently reviewed

by Professor Paul Bacsich, a UK consultant specialising in benchmarking and historical aspects of e-learning (Goodacre, Bridgland and Blanchard, 2005). More recently (Sankey, 2014), the Benchmarks have undergone a major review to ensure they are now both current and forward looking.

In the current set there are eight benchmarks (Sankey et al., 2014), each of which can be used as a standalone indicator, or used collectively to provide a whole of institution perspective, or most powerfully, as part of a collaborative activity undertaken with other universities. The Benchmarks cover the following eight topic areas:

1. Institution-wide policy and governance for technology enhanced learning;
2. Planning for institution-wide quality improvement of technology enhanced learning;
3. Information technology systems, services and support for technology enhanced learning;
4. The application of technology enhanced learning services;
5. Staff professional development for the effective use of technology enhanced learning;
6. Staff support for the use of technology enhanced learning;
7. Student training for the effective use of technology enhanced learning;
8. Student support for the use of technology enhanced learning

Each of these benchmarks are described through a series of performance indicators and measures that are used to describe the expected activities using a supplied 5 point scale (Figure 1).

***P5.1. A framework for staff development in technology enhanced learning is part of the institution's learning and teaching strategy.***

<b>1</b>	No staff development and no alignment with strategy
<b>2</b>	Some staff development, but not aligned with strategy
<b>3</b>	Some staff development, partly aligned with strategy
<b>4</b>	Staff development mostly aligned with strategy
<b>5</b>	Extensive staff development, fully aligned with strategy

<b>Overall rating</b>	<b>1</b>		<b>2</b>		<b>3</b>		<b>4</b>		<b>5</b>	
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Figure 1: Example of a performance statement and associated measures (Sankey et al., 2014).

The process of engaging with the benchmarks is flexible but they are intended to be completed collaboratively in order to build the capacity for improvement. Collaborating in their completion within the organisation provides a number of benefits:

- The data is more likely to reflect reality, having been informed by multiple perspectives and experiences;
- Activities which are not shared outside of specialist groups are more likely to be identified;
- Activities which fall across organizational structures or boundaries are more likely to be understood completely;
- The collaboration process creates a potential team of informed staff engaged with the problem and able to contribute to improvement activities;
- Collaboration stimulates critical thinking and creativity, leading to a greater diversity of potential strategies for improvement;
- Collaboration stimulates commitment and encourages the development of distributed leadership capability able to strengthen organizational agility and flexibility.

Experience from the 2014 benchmarking summit (Sankey and Padró, 2016) suggested that an effective process of benchmarking started with the drawing together of a diverse group of staff representing key organisational units contributing to the benchmarks being completed. These staff would then complete individual assessments of the benchmark performance statements, using the supplied measures and providing evidence in support of their judgements. These are then discussed collegially and a consensus judgement of the measurement and initial ideas for improvement identified.

Stemming from the 2014 activity, there were 6 recommendations. Recommendations 5 and 6 were regarding the potential development of an online tool to assist institutions load and collate their data. The first iteration of this tool was subsequently developed by staff at the University of Southern Queensland and is now integrated with the Benchmarking area on the ACode website.

This tool allows institutions to enter data at three levels. Firstly, an individual can load their personal self-assessment data against the benchmarks they are undertaking; secondly, these individual scores are aggregated for an internal review; and finally, there is an area for the institution’s consolidated view of the data. Once the consolidated scores are entered, they are aggregated to appear with the scores from the other participating institutions.

During the benchmarking summit, these scores are displayed and the data (evidence) associated with these scores may also be displayed. Associated with this, there is a reports generating area, where institutions may download a report on the consolidated data.

This tool may also be used to enter baseline profile data from a member institution as an extension activity to the formal benchmarks. This tool was well received by the majority of those who used it on behalf of their institution.

The 2014 benchmarking summit attracted a total of 24 institutions: 15 Australian institutions (14 universities and one private Higher Education provider); 6 New Zealand institutions (5 universities and 1 polytechnic); and 3 other universities (a university from UK, South Africa and the South Pacific) (Sankey and Padró, 2016). The 2016 summit attracted 27 institutions comprising 20 Australian universities, 4 New Zealand universities, and 3 other universities (1 each from the UK, South Africa and the South Pacific). The combined set of data from both summits now includes a total of 35 institutions. The focus of their benchmarking is summarised in Table 1.

Institution	BM 1	BM 2	BM 3	BM 4	BM 5	BM 6	BM 7	BM 8
1				X			X	
2						X		X
3	○	X○			X○	X○		
4	X○			X○				
5			○	○				
6	X			X				
7		X			X			
8	○	○	○	○	○	○	○	○
9	X				X○	X○	○	X○
10		X		X				
11		○	○	○				
12	○	X○	○	X○				
13	○		X	○	X○			
14	○	○	○	○	○	○		
15	X	X	X○	X○				
16	X				X			
17					○	○		○
18					○	○		
19		○	X	○	○			
20	X○	○				X	○	○
21					○	○		
22	X		○	○	X○	○	X	X
23				○	○			
24	X○	X○	X○	X○	X○	○	○	○
25	○	○	○	○	X○	X○	X	X
26	X○		X○		X○			
27			X	X	○	○		
28		○	○		○			
29	○		○					○
30		X		X	○	○		
31			X		X			
32	X		○	X○		X		○
33					X	X	X	X
34	X	○		○	○	X		
35	X○							
<b>Total (2014)</b>	<b>11</b>	<b>8</b>	<b>8</b>	<b>10</b>	<b>12</b>	<b>9</b>	<b>5</b>	<b>6</b>
<b>Total (2016)</b>	<b>12</b>	<b>12</b>	<b>14</b>	<b>16</b>	<b>19</b>	<b>13</b>	<b>6</b>	<b>8</b>
<b>Total</b>	<b>23</b>	<b>20</b>	<b>22</b>	<b>26</b>	<b>31</b>	<b>22</b>	<b>11</b>	<b>14</b>

Table 2: Benchmark areas focused on by participating universities in 2014 and 2016.

The institutions are anonymised to protect the interests of each. The institutional representatives attending the summit were also asked to sign a Code of Conduct document (available from: <http://www.acode.edu.au/course/view.php?id=16>) prior to their participation, as it was deemed that potentially sensitive information would be shared at this activity; information that would need to be held in confidence by the participants.

As can be seen from Table 2, most institutions chose to focus on a subset of the focus areas, with only 4 having covered all of the benchmarks: 2 by complementing the coverage in both summits, 2 by covering all of the benchmarks. Discussion in the summit suggested that the decision regarding coverage reflected a variety of drivers, including the capacity to collect the relevant evidence and make informed assessments (which reflected both the amount time available from key staff as well as internal buy-in from key groups), and the alignment with institutional priorities, ongoing projects and potential for investment in further improvement.

The choice of benchmark shows a particular focus on staff professional development (Benchmark 5) and a noticeable lack of engagement with benchmarks relating to student training and support (Benchmarks 7 and 8). The importance of staff development as an enabler of changing practice was widely recognised, however, the focus on this benchmark also likely reflects the ownership of the benchmarking activity by organisational units with a strong mandate to provide professional development services. The need to similarly support students was widely recognised, but here there was a sense that organisational priorities and resources prevented any substantive engagement beyond the purchase of web based, self-paced, training materials for students.

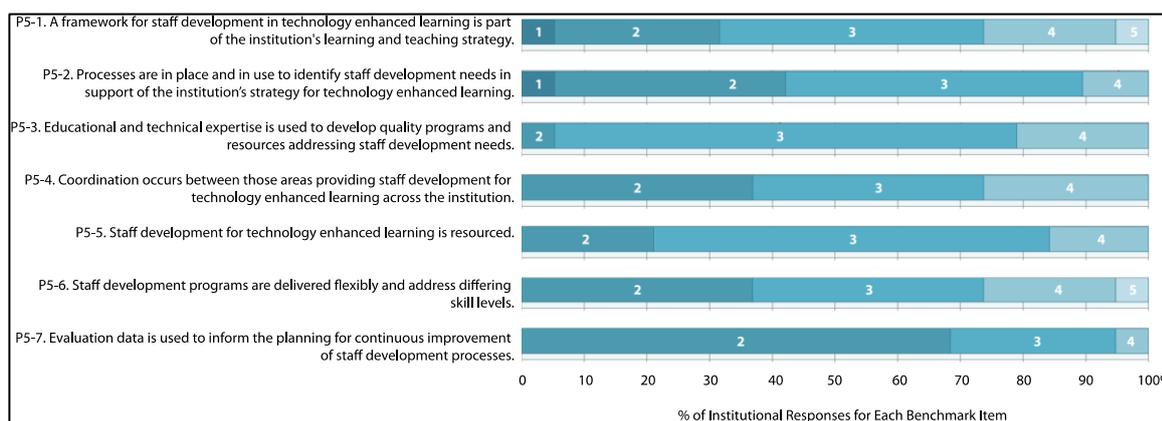


Figure 2: Illustration of the range of results for a single benchmark area

Interestingly, the range of results reported by the participating institutions (Figure 2) suggests that there was no systematic bias either towards areas with strong current practice (represented by a 5) or very weak practice (represented by a 1). Across all of the benchmarks a similar variation was seen in the distribution of assessments, with each institution reporting a mix of results. This variation reflects the complexity of the areas being explored by the benchmarks, consistent with the need to seek solutions that draw on expertise from throughout the organisation as well as externally.

### Summit Evaluation

Of the total 50 participants who attended the 2016 summit, 47 participants completed an online evaluation survey. The survey contained a total of 40 questions; 6 questions related to the participant's institution, 27 questions related to the activities and resources associated with the Summit and their participation in the event, and then 7 open-ended response questions seeking to elicit further direction and feedback for future activities of this nature.

The overall tone of the responses was very positive, with 95.8% of the participants reporting that they found the activity personally very rewarding (Figure 3).

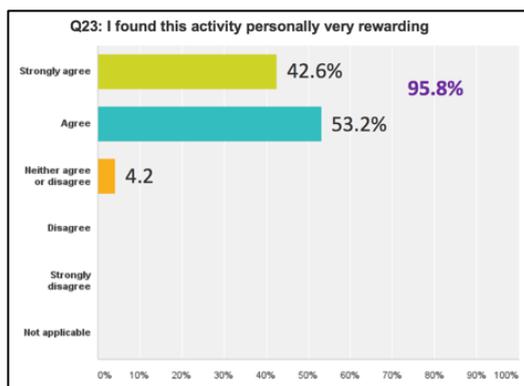


Figure 3: Evaluation responses regarding the value of the benchmarking activity and summit

The collaborative use of the Benchmarks within the participating institutions is an important feature of the underlying quality improvement model and this is clearly happening, based on the responses in Figure 4. Encouragingly, in 2014 the average number of participant per institution was 8, whereas, in 2016 there was on average 15 participants per institution, with some 401 people participating in total amongst the 27 institutions.

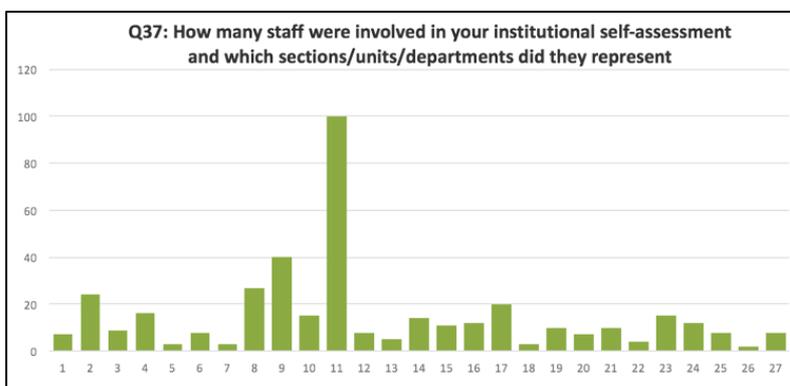


Figure 4: Number of institutional staff involved in benchmarking assessments internally

The external collaboration opportunity provided by the benchmarking summit was also very popular and clearly provided participants with reference points for their own assessments and ideas for possible improvement strategies (Figure 5).

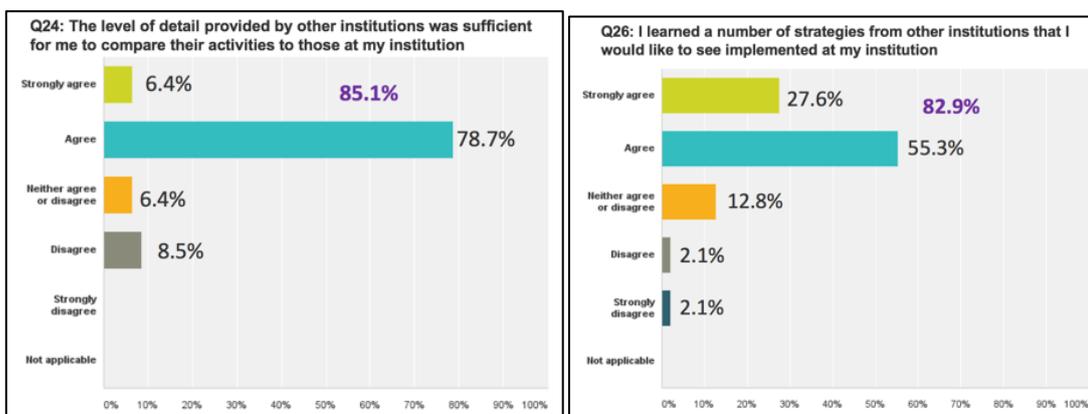


Figure 5: Evaluation responses regarding the value of the benchmarking summit collaboration

The benchmarks were designed to help institutions critically self-assess their capacity in TEL (Figure 6). Q25 clearly demonstrates that this is precisely what they are doing, with 93.6% of respondents agreeing that

they were made to think twice about what their institution was doing in this space. Similarly Q31 provides a clear indication that the benchmarks have prompted some 80.8% of participants to consider some strategic change that could be implemented, based on undertaking this activity.

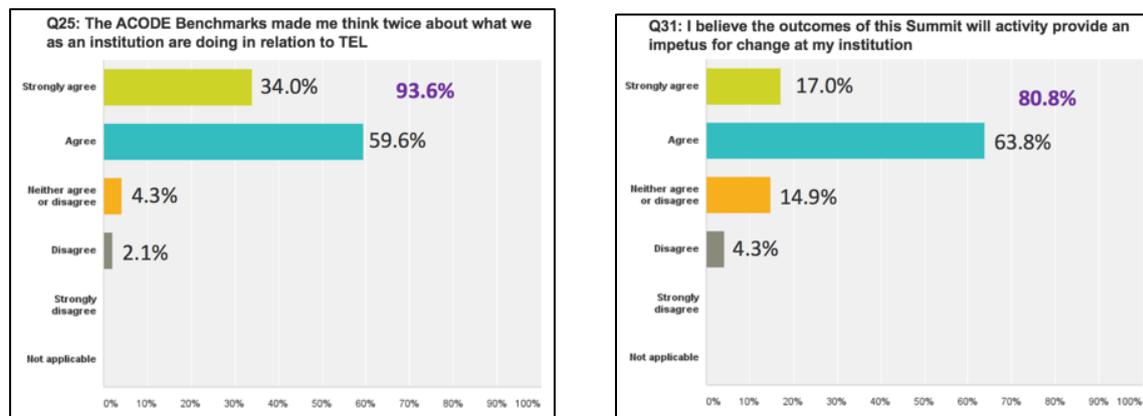


Figure 6: Evaluation responses regarding institutional direction for TEL

## Discussion

Many of the issues we face in our institutions can be remediated simply by taking the time to self-assess against a set of quality indicators, such as those found in the ACODE Benchmarks. There is certainly no shortage of performance instruments offered and used to critique, rank and hold account universities. However, when we then look to further extend our self-reflection, by sharing our current practice with those in similar circumstances, this provides the impetus for a truly dynamic learning activity.

An activity, such as the one experienced in Canberra by the 50 participants representing over 400 colleagues, has again provided the opportunity for many of us to build stronger relationships and ties across the international landscape of higher education. Practically, it has also provided our institutions with some of the wherewithal to meet the unique challenges of building a strong digital future.

If the data presented in the evaluation of the Benchmarking Summit is any indicator, the value of this form of activity, to the institutions involved, and ultimately the sector, is significant. It is clear that the ACODE Benchmarks for Technology Enhanced Learning have provided a unique catalyst to help make this happen. To that end we look forward to the ACODE continuing its commitment to the ongoing use of this tool to help institutions establish the regular use of these Benchmarks as one way of ensuring there is a level of quality in their technology enhanced learning practices.

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