



Benchmarks for the Use of Technology in Learning and Teaching in Universities

Benchmarks have been developed for the use of technology in learning and teaching (e-learning), to support continuous quality improvement in universities. They have been developed for use by the organisational areas responsible for the provision of leadership and services in this area. The approach reflects an enterprise perspective, integrating the key issue of pedagogy with institutional dimensions such as planning, staff development and infrastructure provision.

Each benchmark area is discrete; for example, staff support for the use of technology in learning and teaching, and can be used alone or in combination with others. Benchmarks can be used for self assessment purposes (in one or several areas), or as part of a collaborative benchmarking exercise. Because benchmarks might be used individually there is some duplication across the benchmarking topics. It is expected that any benchmarking exercise would take place over a period of years and in any given year no more than two-three would be addressed, the areas selected reflecting institutional priorities for quality improvement.

The benchmarks were developed as part of an ACODE funded project, initiated by Christine Goodacre and Angela Bridgland, that developed a Toolkit for benchmark development, benchmarks, and guidance for self assessment and partnering for quality improvement purposes. This Toolkit can be used to develop additional benchmarks or to customise those described in this document for institutional purposes.

The benchmarks cover eight separate topic areas. Each includes a Scoping Statement, a Good Practice Statement and a summary list of the General Performance Indicators (GPIs). Institutions can customise the benchmarks by replacing or adding to these Local Performance Indicators (LPIs).

Each General Performance Indicator then comprises Performance Measures. Each measure is rated on a 5 point scale (where level 5 indicates good practice). Typically there are five statements that represent progress toward good practice (as represented by an indicator), with some represented as a matrix. Service areas/ or units within universities can complete a self-assessment of current practice using these indicators, noting that it is not necessary to aspire to best practice on all.

BENCHMARK AREAS	GENERAL PERFORMANCE INDICATORS
<p>Benchmark 1: Institution policy and governance for technology supported learning and teaching</p>	<ol style="list-style-type: none"> 1. Institution strategic and operational plans recognise and support the use of technologies to facilitate learning and teaching. 2. Specific plans relating to the use of learning and teaching technologies are aligned with the institution's strategic and operational plans. 3. Planning for learning and teaching technologies is aligned with the budget process ie funds are allocated to progress priorities. 4. Institution policies specify the use of technologies to support learning and teaching covering all aspects and stakeholder perspectives. 5. Policies are well disseminated and applied. 6. The institution has established governance mechanisms for learning and teaching with technologies that include representation from key stakeholders. 7. Clear management structures identify responsibilities and authority. 8. Decisions regarding new technology adoption are made within current policy frameworks.
<p>Benchmark 2: Planning for, and quality improvement of the integration of technologies for learning and teaching</p>	<ol style="list-style-type: none"> 1. Institution wide processes for quality assurance are in place and in use to integrate technologies in learning and teaching. 2. Institution and Faculty plans are aligned with institution policy for the use of technology in learning and teaching. 3. Operationalisation is planned and evaluated. 4. Planning and quality improvement is resourced. 5. Collaboration for integrating technology in learning and teaching occurs across key functional areas. 6. Evaluation cycles are in place to measure key performance indicators for all key stakeholders. 7. Outcomes are reported to all levels of the institution. 8. Evaluation feedback is integrated in planning for continuous improvement purposes.
<p>Benchmark 3: Information technology infrastructure to support learning and teaching</p>	<ol style="list-style-type: none"> 1. Evaluation processes are in place to generate data to support decision making. 2. Evaluation processes are comprehensive. 3. Responsibilities and processes for maintenance and administration are effective and efficient. 4. Responsibilities and processes for support and training are effective and efficient. 5. Project management processes are in place, responsibilities defined and processes applied. 6. Resources are allocated for maintenance and upgrades of existing equipment. 7. Implementation is well planned. 8. Implementation is resourced. 9. Professional development occurs for staff managing infrastructure (including new and emerging technologies).

<p>Benchmark 4: Pedagogical application of information and communication technology</p>	<p><i>Aligned</i></p> <ol style="list-style-type: none"> 1. Pedagogical applications are grounded in the context of the institution's learning and teaching strategy. 2. The intent of pedagogical applications of ICT is readily available to all teaching and teaching support staff. <p><i>Informed</i></p> <ol style="list-style-type: none"> 3. Pedagogical application is based on sound educational research and good practice. 4. Guidelines (including compliance with legal requirements, accessibility, and learning designs) for the pedagogical application of ICT are readily available to all teaching and teaching support staff and in use. 5. Examples of good practice are available and in use. <p><i>Supported</i></p> <ol style="list-style-type: none"> 6. Communities of practice exist for communicating and promoting the innovative use of pedagogical applications in learning and teaching. 7. Professional development covering e-learning pedagogy is available for all teaching staff and used. 8. Tools for the pedagogical application of ICT are available for all teaching staff and in use. <p><i>Deployed</i></p> <ol style="list-style-type: none"> 9. Resources are allocated for developing e-learning projects. 10. The pedagogical application of ICT is sustainable. <p><i>Evaluated</i></p> <ol style="list-style-type: none"> 11. Deployment of pedagogical applications of ICT is evaluated at the unit of study level including students' learning outcomes. 12. Overall, pedagogical application of ICT is evaluated. 13. Evaluation of feedback is integrated in planning for continuous improvement of pedagogical application.
<p>Benchmark 5: Professional/staff development for the effective use of technologies for learning and teaching</p>	<ol style="list-style-type: none"> 1. All of the institution's obligations to learning and teaching technologies are clearly communicated in its strategies, policies and practices. 2. Processes are in place and in use to identify staff development needs for the institution's strategic development. 3. Processes are in place and in use to identify individual staff development needs. 4. Educational and technical expertise is available to develop and support quality programs and resources which address staff needs, including those with special needs. 5. Staff development programs are coordinated with other service units. 6. Staff development is resourced. 7. Professional/staff development programs can be delivered flexibly and address differing skill levels. 8. Evaluation of feedback is integrated in planning for continuous improvement of professionals/staff development processes.

<p>Benchmark 6: Staff support for the use of technologies for learning and teaching</p>	<ol style="list-style-type: none"> 1. Technical and/or educational support is aligned with the current and emerging technologies for learning and teaching in use at the institution. 2. Support needs are identified for individuals, work groups and the institution. 3. Support services for staff are evaluated for materials, procedures and systems. 4. Coordination occurs between areas providing staff support services. 5. Support provided is available, accessible and used by staff. 6. Support services are adequately resourced. 7. Support services are promoted to staff. 8. New technologies are analysed for staff support implications. 9. Evaluation of feedback is integrated in planning for continuous improvement purposes.
<p>Benchmark 7: Student training for the effective use of technologies for learning</p>	<ol style="list-style-type: none"> 1. Student training is aligned with the use of technologies and teaching approaches in use at the institution. 2. Student training is resourced. 3. Processes are in place to determine student needs and maintain alignment with those needs. 4. Processes are in place to evaluate student satisfaction with their training. 5. Coordination occurs between areas providing student training. 6. Student training is delivered flexibly and tailored to address differing needs. 7. Student training promotes an ethical approach to the use of technologies for learning. 8. Materials used in student training and student support are complementary. 9. Evaluation of feedback is integrated in planning for continuous improvement purposes.
<p>Benchmark 8: Student support for the use of technologies for learning</p>	<ol style="list-style-type: none"> 1. The provision of support for students is integrated with current and emerging technologies for learning that are in use at the institution. 2. Support services are resourced. 3. Support services are promoted to the student body. 4. Support is available and accessible to students and used. 5. Support services for students are evaluated – for materials, procedures and systems. 6. Coordination occurs between areas providing student support. 7. Processes are in place to determine the ongoing support needs of students. 8. Evaluation of feedback is integrated in planning for continuous improvement purposes. 9. New learning technology initiatives are analysed for student support implications. 10. Materials used in student training and student support are complementary.

**For more details on the ACODE
Benchmark Project
visit: www.acode.edu.au**

Acknowledgements:

Christine Goodacre	University of Tasmania
Nicholas D'Alessandro	University of Tasmania
Angela Bridgland	The University of Melbourne
Patrick Blanchard	The University of Melbourne
Denise Kirkpatrick	La Trobe University
Alan Smith	The University of Southern Queensland
Neil Carrington	Queensland University of Technology
Alan Holzl	University of Queensland
David Green	Flinders University
Jim McGovern	RMIT University
Jim Millar	Edith Cowan University
Rob Phillips	Murdoch University
Gordon Suddaby	Massey University

