

Benchmarks for the use of technology in learning and teaching in universities

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Introduction

These benchmarks have been developed to support the continuous quality improvement process for organisational areas responsible for the provision of leadership and services in the use of technology for learning and teaching in universities. They have been developed to be used for self assessment 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.

The benchmarks were developed as part of an ACODE funded project that developed a Toolkit for benchmark development, benchmarks, and guidance for self assessment and partnering for quality improvement purposes.

The benchmarks cover eight separate topic areas. Each includes a Scoping Statement, a Good Practice Statement and a summary list of the Performance Indicators.

Each 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.

Benchmark 1: Institution policy and governance for technology supported learning and teaching

Scoping Statement: This applies to institution level planning, policy development and implementation in relation to the application of technologies for learning and teaching. It includes delegation of authority and responsibility for developing, implementing, evaluating and responding to results of policies and strategic and operational/functional plans.

Good Practice Statement

The institution has established, well understood governance mechanisms and policies that guide the selection, implementation, utilisation/deployment, and evaluation of technologies to support learning and teaching.

Performance Indicators

- 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.
- 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.

Performance Measures

- 1. Institution strategic and operational plans recognise and support the use of technologies to facilitate learning and teaching.
 - 1. No current strategic or operational plans
 - 2. Strategic or operational plan but no recognition of use of technologies
 - 3. Strategic or operational plan includes some recognition of use of technologies
 - 4. Strategic and operational plans both have some recognition of use of technologies
 - 5. Strategic and operational plans both have clear recognition of use of technologies

2. Specific plans relating to the use of learning and teaching technologies are aligned with the institution's strategic and operational plans.

Existence	Alignment
1. No specific plans	Not aligned to institution strategic and operational plans
2. Immature plans	Aligned with either institution strategic or operational plans
3. Some specific plans	Aligned with both institution strategic and operational plans
4. Numerous specific plans	Aligned with either institution strategic or operational plans
5. Comprehensive suite of plans	Aligned with both institution strategic and operational plans

3. Planning for learning and teaching technologies is aligned with the budget process.

- 1. No alignment
- 2. Limited alignment
- 3. Moderate alignment
- 4. Considerable alignment
- 5. Complete alignment

4. Institution policies specify the use of technologies to support learning and teaching covering all aspects and stakeholder perspectives.

- 1. No institution policies
- 2. Limited range of policies
- 3. Some policies are comprehensive
- 4. Most policies are comprehensive
- 5. All policies are comprehensive

5. Policies are well disseminated, and applied.

Dissemination	Application
1. No dissemination	Not applied
Poorly disseminated	Limited application
3. Moderate dissemination	Partial application
4. Substantial dissemination	Moderate application
5. Widely disseminated	Full application

6. The institution has established governance mechanisms for learning and teaching with technologies that include representation from key stakeholders.

Governance	Stakeholder representation
1. No governance	None
2. Planning for governance	Limited
3. Immature	Moderate
4. Developing	Substantial
5. Well established and mature	Comprehensive

7. Clear management structures identify responsibilities and authority.

Management structures	Responsibilities and authority identified
No formal management structures	None
2. Limited	Limited
3. Partial but unclear	Moderate
4. Partial and clear	Extensive
5. Comprehensive and clear	Comprehensive

8. Decisions regarding new technology adoption are made within current policy frameworks.

- 1. No reference
- 2. Limited reference
- 3. Moderate reference
- 4. Substantial reference
- 5. Comprehensive reference

Benchmark 2: Planning for, and quality improvement of the integration of technologies for learning and teaching

Scoping Statement: There is a need for institution wide quality assurance processes to ensure the appropriate use of technologies in learning and teaching. This will include planning, operationalisation, evaluation and feedback loops.

Good Practice Statement

Institutions support and encourage the appropriate use of technology in learning and teaching through strategic planning processes at all levels of the institution with a focus on continuous improvement through systematic and regular evaluation of implementation strategies and outcomes. Such evaluation will in turn inform future planning.

Performance Indicators

- 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.

Performance Measures

1. Institution wide processes for quality assurance are in place and in use to integrate technologies in learning and teaching.

Process in place	Usage
None	None
Limited	Occasional/infrequent
Moderate	Moderate
Extensive	Frequent
Comprehensive	Systematic

2. Institution and faculty plans are aligned with institution policy for the use of technology in learning and teaching.

Institution plans	Faculty plans
1. No alignment	No alignment
2. Limited	Limited
3. Moderate	Moderate
4. Considerable	Considerable
5. Optimal	Optimal

3. Operationalisation is planned and evaluated.

Planned	Evaluated
1. None	1. None
2. Limited	2. Limited
3. Moderate	3. Moderate
4. Substantial	4. Substantial
5. Optimal	5. Optimal

4. Planning and quality improvement is resourced.

- 1. No resources
- 2. Inadequate resources
- 3. Moderate resources
- 4. Substantial resources
- 5. Comprehensive resources

5. Collaboration for integrating technology in learning and teaching occurs across key functional areas.

- 1. No collaboration
- 2. Infrequent collaboration
- 3. Occasional collaboration
- 4. Frequent collaboration
- 5. Comprehensive collaboration

6. Evaluation cycles are in place to measure key performance indicators for all key stakeholders.

- 1. No evaluation cycles
- 2. Limited evaluation cycles for some key stakeholders
- 3. Evaluation cycles for some key stakeholders
- 4. Evaluation cycles for all key stakeholders
- 5. Comprehensive evaluation cycles for all key stakeholders

7. Outcomes are reported to all levels of the institution.

- 1. No outcomes are reported
- 2. Some outcomes are reported to some levels
- 3. Outcomes are reported to the majority of levels
- 4. Outcomes are reported to all levels
- 5. Comprehensive outcomes are reported to all levels

8. Evaluation feedback is integrated in planning for continuous improvement purposes.

- 1. No integration
- 2. Limited integration
- 3. Moderate integration
- 4. Extensive integration
- 5. Comprehensive integration

Benchmark 3: Information technology infrastructure to support learning and teaching

Scoping Statement: Information technology (IT) infrastructure describes a range of information and communication technologies that are used to support learning and teaching. This can include the use of: productivity software; learning management systems; library systems; the World Wide Web; mobile technologies. It also includes hardware (computers, telecommunications and ancillary equipment) and networks, both internal (LANS and WANS) and external (eg AARNet) which are used for the purposes of learning and teaching. These technologies support learning on and off campus. The topic can also include audio visual equipment*. Also included is support and training in the use of the technology by students and staff, individually and in groups, both on and off campus, noting that these issues are dealt with in more detail in Benchmarks 5-8.

Decisions about the selection of IT infrastructure for learning should refer to directional/ policy statement(s) about the learning and teaching environment of an institution (for example distance education or blended approaches). Once a technology is selected it is important that an institution has robust and accepted processes for trialling and rolling out a new technology that involves all key stakeholders.

Out of scope

The pedagogical issues relating to the use of infrastructure is the domain of other benchmarks.

Good Practice Statement

Technical infrastructure is aligned with institutional learning goals and the technologies are resourced, support staff are trained and the infrastructure is implemented, maintained, administered and supported efficiently and effectively.

Performance Indicators

- 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).

^{*} In order to keep the exercise manageable, it is recommended that the focus be on either infrastructure that is part of the IP network or not (for example audiovisual infrastructure).

Performance Measures

1. Evaluation processes are in place to generate data to support decision making.

- 1. No evaluation processes
- 2. Some processes generating limited data
- 3. Processes generate some useful decision making data
- 4. Processes generate comprehensive data
- 5. Processes generate regular, timely and comprehensive data

2. Evaluation processes are comprehensive.

- 1. No processes
- 2. Limited processes
- 3. Some integration of complementary processes
- 4. Substantial processes
- 5. Comprehensive, integrated processes

3. Responsibilities and processes for maintenance and administration are effective and efficient.

Responsibilities	Effective and efficient
Nobody identified/allocated	Not at all
2. Ad hoc	Marginally
3. Allocated but unclear	Somewhat
4. Sound practice emerging	Generally
5. Clearly defined	Extremely

4. Responsibilities and processes for support and training are effective and efficient.

Responsibilities	Effective and efficient
Nobody identified/allocated	Not at all
2. Ad hoc	Marginally
3. Allocated but unclear	Somewhat
4. Sound practice emerging	Generally
5. Clearly defined	Extremely

5. Project management processes are in place, responsibilities clearly defined and processes applied.

Processes in place	Responsibilities defined	Processes applied
1. Absent	Absent	Not applied
2. Ad hoc	III-defined	Unevenly applied
3. Limited	Somewhat defined	Limited
4. Extensive	Substantially defined	Generally
5. Comprehensive	Clearly defined	Systematic

6. Resources are allocated for maintenance and upgrades of existing equipment.

Maintenance	Upgrades
1. No resources	No resources
2. Inadequate resourcing	Inadequate resourcing
3. Moderate resourcing	Moderate resourcing
4. Substantial resourcing	Substantial resourcing
5. Comprehensive resourcing	Comprehensive resourcing

7. Implementation is well planned.

- 1. No planning
- 2. Limited planning
- 3. Moderate planning
- 4. Extensive planning
- 5. Comprehensive planning

8. Implementation is resourced.

- 1. No resources
- 2. Inadequate resources
- 3. Moderate resources
- 4. Substantial resources
- 5. Comprehensive resources

9. Professional development occurs for staff managing infrastructure (including new and emerging technologies).

Existing infrastructure	New and emerging technologies
1. Does not occur	Does not occur
2. Occasionally	Occasionally
3. Sometimes	Sometimes
4. Usually	Usually
5. Systematic	Systematic

Benchmark 4: Pedagogical application of information and communication technology

Scoping Statement: This topic addresses the effective application of information and communication technology (ICT) to support institution learning and teaching. It encompasses the underlying rationale and strategic intent, how it is embedded in institution teaching, how it is resourced and how it is evaluated. The pedagogical application of ICT is a developing area that has the potential to impact on every student and staff member, and failure to apply ICT in pedagogically sound ways will reduce the value of infrastructure investment, and may detract from the ability of the institution to meet its teaching and learning goals.

Out of scope

Technological, policy and administrative issues relating to the pedagogical application of ICT are the domain of other benchmarks.

Good Practice Statement

Pedagogical application should be:

- 1. **Aligned** to institution strategy;
- 2. **Informed** by good practice and research;
- 3. Supported adequately;
- 4. **Deployed** and promoted effectively; and
- 5. **Evaluated** from a number of perspectives.

Performance indicators are organised to reflect these aspects of pedagogical application.

Performance Indicators

Aligned

- 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.

Informed

- 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.

Supported

- 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.

Deployed

- 9. Resources are allocated for developing e-learning projects.
- 10. The pedagogical application of ICT is sustainable.

Evaluated

- 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.

Performance Measures

Aligned

- 1. Pedagogical applications are grounded in the context of the institution's learning and teaching strategy.
 - 1. Pedagogical application has no links to institution learning and teaching strategy or no learning and teaching strategy exists
 - 2. Isolated instances of links to institution learning and teaching strategy
 - 3. Some elements are covered by pedagogical applications
 - 4. The majority of elements are covered by pedagogical applications
 - 5. The vast majority of pedagogical applications are the complete realisation of an existing institutional learning and teaching strategy
- 2. The intent of pedagogical applications of ICT is readily available to all teaching and teaching support staff.
 - 1. Pedagogical application has no declared intent or guidelines
 - 2. Few statements of intent exist and are not readily available
 - 3. Incomplete statements of intent are evident and available
 - 4. Some clear statements of intent and guidelines are evident and available.
 - 5. There are many clear statements of intent and guidelines are readily available

Informed

- 3. Pedagogical application is based on sound educational research and good practice.
 - Pedagogical application has no basis in sound educational research or good practice
 - 2. Pedagogical application has a limited base in either sound educational research or good practice
 - 3. Pedagogical application is partially informed by both sound educational research and good practice
 - 4. Pedagogical application is substantially based on either sound educational research or good practice
 - 5. Pedagogical application is comprehensively based on both 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.

Guidelines available	Usage
1. None	None
2. Limited	Occasional/infrequent
3. Some	Moderate
4. Extensive	Frequent
5. Comprehensive	Systematic

5. Examples of good practice are available and in use.

Examples available	Usage
1. None	None
2. Limited	Occasional/infrequent
3. Some	Moderate
4. Extensive	Frequent
5. Comprehensive	Systematic

Supported

- 6. Communities of practice exist for communicating and promoting the innovative use of pedagogical applications in learning and teaching.
 - 1. No communities of practice exist
 - 2. Isolated communities of practice exist in a limited number of disciplines
 - 3. Communities of practice exist but do little to promote innovative use
 - 4. Many communities of practice exist but do little to promote innovative use
 - 5. Communities of practice exist and promote innovative use

7. Professional development covering e-learning pedagogy is available for all teaching staff and used.

Professional development available	Usage
1. None	None
2. Limited	Occasional/infrequent
3. Some	Moderate
4. Extensive	Frequent
5. Comprehensive	Systematic

8. Tools for the pedagogical application of ICT are available for all teaching staff and in use.

Tools available	Usage
None	Not
Limited	Occasional/infrequent
Some	Moderate
Extensive	Frequent
Comprehensive	Systematic

Deployed

- 9. Resources are allocated for developing e-learning projects.
 - 1. No resources
 - 2. Inadequate resources
 - 3. Moderate resources
 - 4. Substantial resources
 - 5. Comprehensive resources
- 10. The pedagogical application of ICT is sustainable.
 - 1. No specific consideration given to sustainability
 - 2. Limited consideration given to sustainability
 - 3. Some pedagogical applications are sustainable
 - 4. Many pedagogical applications are sustainable
 - 5. Sustainability is built in to all pedagogical applications

Evaluated

- 11. Deployment of pedagogical applications of ICT is evaluated at the unit of study level including students' learning outcomes.
 - 1. Not evaluated
 - 2. Limited evaluation
 - 3. Regularly evaluated
 - 4. Extensively evaluated
 - 5. Systematic evaluation
- 12. Overall, pedagogical application of ICT is evaluated.
 - 1. Not evaluated
 - 2. Limited evaluation
 - 3. Regularly evaluated
 - 4. Extensively evaluated
 - 5. Systematic evaluation

13. Evaluation of feedback is integrated in planning for continuous improvement purposes.

- 1. No integration

- Limited integration
 Regular integration
 Extensive integration
- 5. Systematic integration

Benchmark 5: Professional/staff development for the effective use of technologies for learning and teaching

Scoping Statement: The key focus is on developing teaching staff to make effective use of technologies for learning and teaching. Professional and staff development activities encompass individual and group delivery, face-to-face as well as online. Self-directed learning activities/resources are also included.

Some professional development will be designed and delivered to meet the strategic needs of the organisation whilst other activities will be provided to meet the demands of teaching staff as they arise.

Good Practice Statement

Quality learning and teaching is engendered where people are expert, enthusiastic, skilled and well supported and learning experiences are designed to engage the learner, employing multi-modal approaches.

Engagement in project development should not be limited by factors of physical location, equity or technological skills. This means that professional staff development is offered flexibly, accommodates a range of entry points, is evaluated and is informed by the work of related units.

A good practice approach to learning and teaching technologies reflects an understanding of learners' characteristics and needs as required by different discipline contexts, for example, problem-based learning in medicine.

Performance Indicators

- 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.

Performance Measures

1. All of the institution's obligations to learning and teaching technologies are clearly communicated in its strategies, policies and practices.

Obligations covered	Clarity	Communication
1. None	None	None
2. Limited	Minimal	Limited
3. Moderate	Partial	Moderate
4. Extensive	Substantial	Substantial
5. Full	Complete	Full

2. Processes are in place and in use to identify staff development needs for the institution's strategic development.

Process in place	Usage
1. None	None
2. Limited	Occasional/infrequent
3. Moderate	Moderate
4. Extensive	Frequent
5. Comprehensive	Systematic

3. Processes are in place and in use to identify individual staff development needs.

Process in place	Usage
1. None	None
2. Limited	Occasional/infrequent
3. Moderate	Moderate
4. Extensive	Frequent
5. Comprehensive	Systematic

- 4. Educational and technical expertise is available to develop and support quality programs and resources which address staff needs, including those with special needs.
 - 1. No expertise
 - 2. Limited expertise
 - 3. Moderate expertise
 - 4. Considerable expertise
 - 5. Comprehensive expertise

5. Staff development programs are coordinated with other service units.

- 1. No coordination
- 2. Occasional coordination
- 3. Moderate coordination
- 4. Frequent coordination
- 5. Comprehensive coordination

6. Staff development is resourced.

- 1. No resources
- 2. Inadequate resources
- 3. Moderate resources
- 4. Substantial resources
- 5. Comprehensive resources

7. Professional/staff development programs can be delivered flexibly and address differing skill levels.

Flexibility	Tailoring
1. Not at all	Not at all
2. Limited	Limited
3. Moderate	Moderate
4. Substantial	Substantial
5. Full	Full

8. Evaluation of feedback is integrated in planning for continuous improvement of professional/staff development processes.

- 1. No integration
- 2. Limited integration
- 3. Regular integration
- 4. Extensive integration
- 5. Systematic integration

Benchmark 6: Staff support for the use of technologies for learning and teaching

Scoping Statement: This benchmark is restricted to the support of staff for the use of technologies in their teaching. It deals with staff who want to use technologies and/or encounter difficulties while using them, and who need to be able to get ready access to technical or educational assistance.

Technical support is required to deal with problems or needs related to the technological environment, including hardware and software, communications and connections, and performance.

Educational support addresses the needs of staff who want to maximise student learning outcomes.

Out of Scope

This benchmark does not include staff development which forms part of the more formal professional development framework – see Benchmark 5.

Good Practice Statement

Staff are aware of and have access to comprehensive technical and educational support for the use of the technologies in learning and teaching: prior to the implementation of the technology, in formal training sessions, on a just-in-time basis, and for troubleshooting purposes.

Performance Indicators

- 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.

Performance Measures

1. Technical and/or educational support is aligned with the current and emerging technologies for learning and teaching in use at the institution.

Technical	Educational
1. No alignment	No alignment
2. Limited alignment	Limited alignment
3. Moderate alignment	Moderate alignment
4. Considerable alignment	Considerable alignment
5. Full alignment	Full alignment

2. Support needs are identified for individuals, work groups and the institution

Individual	Work group	Institution
1. Not identified	Not identified	Not identified
2. Limited identification	Limited identification	Limited identification
3. Some identification	Some identification	Some identification
4. Regular	Regular identification	Regular identification
identification		
5. Systematic	Systematic	Systematic
identification	identification	identification

3. Support services for staff are evaluated for materials, procedures and systems.

Materials	Procedures	Systems
1. Not evaluated	Not evaluated	Not evaluated
2. Limited evaluation	Limited evaluation	Limited evaluation
3. Regularly evaluated	Regularly evaluated	Regularly evaluated
4. Extensively evaluated	Extensively evaluated	Extensively evaluated
5. Systematic evaluation	Systematic evaluation	Systematic evaluation

4. Coordination occurs between areas providing staff support services.

- 1. No coordination
- 2. Infrequent coordination
- 3. Some coordination
- 4. Frequent coordination
- 5. Comprehensive coordination

5. Support provided is available, accessible and used by staff.

Support available	Support accessible	Usage
1. None	Not at all	Not all
2. Limited	Restricted	Limited
3. Moderate	Working hours	Moderate
4. Considerable	Extended hours	Considerable
5. Comprehensive	24 x 7	Comprehensive

6. Support services are resourced.

- 1. No resources
- 2. Inadequate resources
- 3. Moderate resources
- 4. Substantial resources
- 5. Comprehensive resources

7. Support services are promoted to staff.

- 1. No promotion
- 2. Limited promotion
- 3. Moderate promotion
- 4. Substantial promotion
- 5. Systematic promotion

8. New technologies are analysed for staff support implications.

- 1. No analysis
- 2. Limited analysis
- 3. Partial analysis
- 4. Extensive analysis
- 5. Complete analysis

9. Evaluation of feedback is integrated in planning for continuous improvement purposes.

- 1. No integration
- 2. Limited integration
- 3. Regular integration
- 4. Extensive integration
- 5. Systematic integration

Benchmark 7: Student training for the effective use of technologies for learning

Scoping Statement: "Technologies for learning" describes a range of information and communication technologies that are used to support learning and teaching. These can include the use of: computers and productivity software; learning management systems; library systems; the World Wide Web; mobile technologies. This includes technologies used on and off campus. Aspects of an ethical approach to the use of learning technologies are included.

Student training refers to the applied use of such technologies in a learning context. It can take many forms and be provided by many people, for example through: specific training classes; self-study; or as part of a unit of study. Staff providing the training need appropriate skills which require alignment to the professional/staff development benchmark.

Out of Scope

Student training does not encompass training in other aspects of learning development (i.e. general study skills).

Good Practice Statement

The provision of student training for the effective use of learning and teaching technologies is aligned with the technologies and teaching approaches in use at the institution; is adequately resourced; is coordinated with student support; is flexible; is focused on the needs of students; covers a range of current technologies and reflects good practice in the use of technology.

Performance Indicators

- 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.

Performance Measures

- 1. Student training is aligned with the technologies and teaching approaches in use at the institution.
 - 1. No alignment
 - 2. Limited alignment
 - 3. Moderate alignment
 - 4. Considerable alignment
 - 5. Full alignment

2. Student training is resourced.

- 1. No resources
- 2. Inadequate resources
- 3. Moderate resources
- 4. Substantial resources
- 5. Comprehensive resources

3. Processes are in place to determine student needs and maintain alignment with those needs.

Identification	Alignment
1. None	None
2. Limited	Limited
3. Moderate	Moderate
4. Extensive	Extensive
5. Comprehensive	Comprehensive

4. Processes are in place to evaluate student satisfaction with their training.

- 1. No processes
- 2. Limited processes
- 3. Moderate processes
- 4. Extensive processes
- 5. Comprehensive processes

5. Coordination occurs between areas providing student training.

- 1. No coordination
- 2. Occasional coordination
- 3. Some coordination
- 4. Frequent coordination
- 5. Comprehensive coordination

6. Student training is delivered flexibly and tailored to address differing needs.

Flexibility	Tailoring
1. Not at all	Not at all
2. Limited	Limited
3. Moderate	Moderate
4. Substantial	Substantial
5. Full	Full

7. Student training promotes an ethical approach to the use of technologies for learning.

- 1. No promotion
- 2. Limited promotion
- 3. Moderate promotion
- 4. Substantial promotion
- 5. Systematic promotion

8. Materials used in student training and student support are complementary.

- 1. Not at all complementary
- 2. Partially complementary
- 3. Somewhat complementary
- 4. Generally complementary
- 5. Extensively complementary

9. Evaluation of feedback is integrated in planning for continuous improvement purposes.

- 1. No integration
- 2. Limited integration
- 3. Regular integration
- 4. Extensive integration
- 5. Systematic integration

Benchmark 8: Student support for the use of technologies for learning

Scoping Statement: Support for students in the use of technologies for learning is defined as primarily technical, but the learning context should be considered. Support should be considered in terms of the use of on-campus student computer facilities and the use of technologies from a distance. The term can include the use of: computers and productivity software; learning management systems; library systems; the World Wide Web; and mobile technologies.

Good Practice Statement

Students are aware of and have access to effective and well resourced support for the learning technologies in use at the institution. Student support is responsive to student needs; is coordinated with student training; and is constantly developing in response to changing technology.

Performance Indicators

- 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.

Performance Measures

- 1. The provision of support for students is integrated with current and emerging technologies for learning that are in use at the institution.
 - 1. No integration
 - 2. Limited integration
 - 3. Regular integration
 - 4. Extensive integration
 - 5. Systematic integration

2. Support services are resourced.

- 1. No resources
- 2. Inadequate resources
- 3. Moderate resources
- 4. Substantial resources
- 5. Comprehensive resources

3. Support services are promoted to the student body.

- 1. No promotion
- 2. Limited promotion
- 3. Moderate promotion
- 4. Substantial promotion
- 5. Systematic promotion

4. Support is available and accessible and used by students.

Support available	Support accessible	Usage
1. None	Not at all	Not at all
2. Limited	Restricted	Limited
3. Moderate	Working hours	Moderate
4. Considerable	Extended hours	Considerable
5. Comprehensive	24 x 7	Comprehensive

5. Support services for students are evaluated for materials, procedures and systems.

Support materials	Support procedures	Support systems
1. Not evaluated	Not evaluated	Not evaluated
2. Limited evaluation	Limited evaluation	Limited evaluation
3. Regularly evaluated	Regularly evaluated	Regularly evaluated
4. Extensively	Extensively evaluated	Extensively evaluated
evaluated		
5. Systematic	Systematic evaluation	Systematic evaluation
evaluation		

6. Coordination occurs between areas providing student support.

- 1. No coordination
- 2. Infrequent coordination
- 3. Some coordination
- 4. Frequent coordination
- 5. Comprehensive coordination

7. Processes are in place to determine the ongoing support needs of students.

- 1. No processes
- 2. Limited processes
- 3. Some processes
- 4. Extensive processes
- 5. Comprehensive processes

8. Evaluation of feedback is integrated in planning for continuous improvement purposes.

- 1. No integration
- 2. Limited integration
- 3. Regular integration
- 4. Extensive integration
- 5. Systematic integration

9. New learning technology initiatives are analysed for student support implications.

- 1. No analysis
- 2. Limited analysis
- 3. Partial analysis
- 4. Extensive analysis
- 5. Complete analysis

10. Materials used in student training and student support are complementary.

- 1. Not at all complementary
- 2. Partially complementary
- 3. Somewhat complementary
- 4. Generally complementary
- 5. Extensively complementary

For more details on the ACODE Benchmark Project

visit: www.acode.edu.au

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