Designing Assessment to Assure Student Learning and Successfully Closing the Loop

Romy Lawson & Don Bacon
# Wollongong at a Glance

<table>
<thead>
<tr>
<th>Category</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campuses</td>
<td>9</td>
</tr>
<tr>
<td>Total student enrolment</td>
<td>30,038</td>
</tr>
<tr>
<td>International students</td>
<td>11,631</td>
</tr>
<tr>
<td>Students in Australia</td>
<td>25,500</td>
</tr>
<tr>
<td>Nationalities at UOW</td>
<td>134</td>
</tr>
<tr>
<td>Employees</td>
<td>2,353</td>
</tr>
<tr>
<td>Percentage of students</td>
<td>94.6%</td>
</tr>
<tr>
<td>Indicated they would recommend</td>
<td>94.6%</td>
</tr>
<tr>
<td>UOW</td>
<td>476</td>
</tr>
<tr>
<td>Research strengths</td>
<td>11</td>
</tr>
<tr>
<td>Academic and research</td>
<td>213</td>
</tr>
<tr>
<td>Collaborations globally</td>
<td>213</td>
</tr>
<tr>
<td>Research &amp; commercialisation</td>
<td>476</td>
</tr>
<tr>
<td>Income</td>
<td>$431m</td>
</tr>
<tr>
<td>Alumni</td>
<td>112,302</td>
</tr>
<tr>
<td>Average daily temperature</td>
<td>22°C (71.6°F)</td>
</tr>
<tr>
<td>Average summer temperature</td>
<td>27°C (80.6°F)</td>
</tr>
<tr>
<td>Population of Illawarra area</td>
<td>292,500</td>
</tr>
<tr>
<td>Distance to Sydney Opera House</td>
<td>85km (53 miles)</td>
</tr>
</tbody>
</table>
Hunters & Gatherers: Strategies for Curriculum Mapping and Data Collection for Assurance of Learning

assuringlearning.com
How do we assure learning?

- Write CLOS
- Map CLOS
- Collect Evidence
- Use Evidence
- Benchmark
2013 Business Accreditation Standards

Standard 8

- The school uses well-documented, systematic processes for determining and revising degree program learning goals; designing, delivering, and improving degree program curricula to achieve learning goals; and demonstrating that degree program learning goals have been met.

[CURRICULA MANAGEMENT AND ASSURANCE OF LEARNING]
How do we assure learning?

- Determine and revise degree program learning goals
- Collect evidence
- Use evidence
- Map CLOS
- Write CLOS

Improving degree program curricula to achieve learning goals

Demonstrating that degree program learning goals have been met.
Basis for Judgment

- Learning goals/curricula derive from and are consonant with the school's mission, expected outcomes, and strategies.

- Learning goals and curricula reflect currency of knowledge. The peer review team expects to see evidence of curricula improvement based on new knowledge.

- Curricula management facilitates interactions and engagement to support development and management of both curricula and the learning process.

- Learning goals and curricula reflect expectations of stakeholders.

- Learning goals are achieved. Systematic processes support assurance of learning and produce a portfolio of evidence demonstrating achievement of learning goals. These processes also produce a portfolio of documented improvements based on collected evidence.

- Evidence of recent curricula development, review, or revision demonstrates the effectiveness of curricula/program management.
How do we assure learning?

Curricula management facilitates interactions and engagement to support development and management of both curricula and the learning process.

Evidence of recent curricula development, review, or revision demonstrates effectiveness of curricula management.

Learning goals/curricula derive from and are consonant with the school's mission, expected outcomes, and strategies.

Learning goals and curricula reflect currency of knowledge. Seeing evidence of curricula improvement based on new knowledge.

Learning goals are achieved. Systematic processes support assurance of learning and produce a portfolio of evidence demonstrating achievement of learning goals.
How do we assure learning?

- Write CLOS
- Map CLOS
- Design Curriculum
- Engage Students
- Facilitate Learning
- Assess Learning
- Collect Evidence
- Use Evidence
- Benchmark
- Review Practice
The magic words . . .

- **Holistic** – a whole of course approach was important to ensure students' progress in a way that ensures CLOs can be introduced and then further developed before they are assured on completion of their award.
- **Integrated** – in order for CLOs to be valued by academic teaching staff and students they had to be embedded into the curriculum, and linked to assessment.
- **Collaborative** – the process had to be developed in conjunction with the academic teaching staff in an inclusive rather than top down approach, so that staff engaged with, and recognised the importance of the process.
- **Maintainable** – any process that is implemented has to be sustainable to ensure it is not reliant on individuals or resources – streamlined.
Curriculum design for assuring learning in business education – leading the way

2013 OLT National Teaching Fellow

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New South Wales
What are we trying to achieve when we teach?

I've taught Snoopy to whistle

I can't hear him whistle

I said that I'd taught him, not that he'd learned
FOR A FAIR SELECTION
EVERYBODY HAS TO TAKE
THE SAME EXAM: PLEASE
CLIMB THAT TREE
Designing learning

- What should the students be able to do/know?

- Learning Outcomes
- Learning Activities
- Evaluation
- Assessment
Designing learning

- Learning Outcomes
- Learning Activities
- Evaluation
- Assessment

• How will you/students know if they can do it?
Whole of Course Approach
Whole of Course Approach
Whole of Course Process – How?

- Writing Course Learning Outcomes
- Understanding Criteria and Standards needed to achieve the CLOs (whole of course rubrics)
- Designing Authentic Scaffolded Assessment of CLOS
- Teaching CLOs with Effective Feedback/Feedforward Mechanisms
- Leading the Process – Facilitating Change
Streamlined Approach

External – Govt, Prof Bodies

Internal – University GA

Degree Level – CLO
Streamlined Approach

CLO → SLO → Assessment
Streamlined Approach

CLO

Assessment
Streamlined Approach

CLO + SLO → Assessment (Context/Level)
Step 1 – Design Authentic Assessment

- Select a CLO
  - How would students demonstrate the competence in industry/profession/real life?
  - Where would it take place?
  - How would you judge if it was good?
- Translate this into an **authentic** assessment tasks
<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>STANDARD</th>
<th>BELOW EXPECTATIONS</th>
<th>MEETS EXPECTATIONS</th>
<th>EXCEEDS EXPECTATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstration of inter-relationships between differing business related disciplines</td>
<td>Z</td>
<td>Limited demonstration of integration between disciplines.</td>
<td>Sound demonstration of integration between disciplines.</td>
<td>Comprehensive demonstration of integration between disciplines.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>e.g. identification or description only.</td>
<td>e.g. examination, explanation, interpretation, application or analysis of</td>
<td>e.g. detailed examination, insightful analysis or interpretation, synthesis,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>interrelationships.</td>
<td>extrapolation, evaluation and/or recommendations.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>e.g. Only one perspective drawn on to demonstrate concepts.</td>
<td>e.g. 2-3 perspectives drawn on to demonstrate concepts.</td>
<td>e.g. Relevant and innovative application drawn from multiple / global perspectives.</td>
</tr>
</tbody>
</table>
CLO1 Demonstrate essential knowledge necessary for a career in business related professions

<table>
<thead>
<tr>
<th>A</th>
<th>Appreciation of essential concepts necessary for a career in business and related professions.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1: Foundation</td>
<td>Year 2: Intermediate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B</th>
<th>Critical analysis and evaluation of essential concepts.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrates some critical analysis/evaluation of essential concepts. e.g. Reference to concepts through definition or description only.</td>
<td>Demonstrates sound critical analysis / evaluation of essential concepts. e.g. analysis demonstrated through explanation, discussion, investigation, application, interpretation of concepts.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C</th>
<th>Consideration of the economic, social and cultural environments within which international businesses operate.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrates some consideration of the economic, social and cultural aspects of international business context.</td>
<td>Demonstrates sound consideration of international economic, social and cultural differences between cultures and how these differences impact ways that business operates.</td>
</tr>
<tr>
<td>K1 Demonstrate essential knowledge necessary for a career in business related professions</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td></td>
</tr>
<tr>
<td><strong>Year 1: Foundation</strong></td>
<td><strong>Year 2: Intermediate</strong></td>
</tr>
<tr>
<td><strong>B Critical analysis and evaluation of essential concepts.</strong></td>
<td>Demonstrates some critical analysis/evaluation of essential concepts. e.g. Reference to concepts through definition or description only.</td>
</tr>
<tr>
<td><strong>C Consideration of the economic, social and cultural environments within which international businesses operate.</strong></td>
<td>Demonstrates some consideration of the economic, social and cultural aspects of international business context.</td>
</tr>
<tr>
<td></td>
<td>Below F</td>
</tr>
<tr>
<td>----------------------</td>
<td>---------</td>
</tr>
<tr>
<td>CLO</td>
<td></td>
</tr>
<tr>
<td>CLO</td>
<td></td>
</tr>
<tr>
<td>CLO</td>
<td></td>
</tr>
<tr>
<td>CLO1</td>
<td>Describes essential concepts of business</td>
</tr>
<tr>
<td>CLO1</td>
<td>Demonstrates some consideration of the economic, social and cultural aspects of international business context.</td>
</tr>
</tbody>
</table>
CLO 1
8 – Synthesize complex conflict and related theories and standards for professional practice in CMR.
9 – Evaluate complex conflict and related theories and standards for professional practice in CMR.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Grad Cert Fail</th>
<th>Grad Cert Pass MCMR Fail</th>
<th>Grad Cert Exceeds MCMR Pass</th>
<th>MCMR Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1(a) Understands the theories and standards for the purpose of applying them in practice</td>
<td>Does not identify key concepts of theories/standards and/or does not explain their relevance to practice.</td>
<td>Explain the key concepts of complex theories/standards in the field and their relevance to practice.</td>
<td>Comprehensively explains complex theories/standards in the field and their relevance to practice.</td>
<td>Comprehensively explains and critically analyses complex theories/standards in the field and their relevance to practice.</td>
</tr>
<tr>
<td>1(b) Demonstrate interrelationships between complex conflict and related theories and standards</td>
<td>Does not draw any links between theories and/or standards.</td>
<td>Explain the relationships between key concepts of complex conflict and related theories and standards</td>
<td>Comprehensively explains the relationships between complex conflict and related theories and standards.</td>
<td>Comprehensively explains and critically analyses the relationships between complex conflict and related theories and standards.</td>
</tr>
<tr>
<td>1(c) Draw conclusions</td>
<td>Conclusions not logically linked to theories and standards.</td>
<td>Draws logical conclusions from theories and/or standards.</td>
<td>Draws and explains logical conclusions from theories and/or standards.</td>
<td>Draws and critically justifies conclusions from theories and/or standards.</td>
</tr>
<tr>
<td>1(d) Apply theory/standards to practice.</td>
<td>Incomplete application of theories/standards to practice.</td>
<td>Applies theory/standards to practice, utilising the main elements of the theory/standards</td>
<td>Effectively applies theory/standards to practice utilising relevant elements of the theory/standards.</td>
<td>Produces a comprehensive application of theory/standards to practice utilising relevant elements of the theory or shows innovation in application.</td>
</tr>
</tbody>
</table>
Step 3 – Scaffold Assessment throughout Curriculum

- Now look at this collection of assessment tasks and ask
  - How can you build throughout the course (increase complexity)? This is **scaffolded** assessment

<table>
<thead>
<tr>
<th>CLO</th>
<th>Assessment 1</th>
<th>Assessment 2</th>
<th>Assessment 3</th>
<th>Assessment 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Memo to manager</td>
<td>Letter to client</td>
<td>Executive Summary</td>
<td>Full report</td>
</tr>
<tr>
<td>Written</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Case study (one issue)</td>
<td>Case study (multiple issues)</td>
<td>Current News Analysis</td>
<td>Real Wicked Problem</td>
</tr>
<tr>
<td>Ethics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Step 4 – Map to embed into the curriculum

<table>
<thead>
<tr>
<th>Assessment Task</th>
<th>Task</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLO 1 – Assess 1</td>
<td>Memo to manager</td>
<td>HR 101</td>
</tr>
<tr>
<td>CLO 1 – Assess 2</td>
<td>Letter to client</td>
<td>Mgt 201</td>
</tr>
<tr>
<td>etc</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Hi achiever in 1st yr subject

- 1st year student achieved at 2nd year level. This version allows markers to grade using a 100% scale but still reveal to the student that their work is really at a 2nd year level. Obviously their mark on this criteria would be constrained to 100% for this actual task.

Hi achiever in 2nd yr subject

- 2nd year student achieved at 3rd year level. This version allows markers to grade using a 100% scale but still reveal to the student that their work is really at a 3rd year level. Obviously their mark on this criteria would be constrained to 100% for this actual task.

Poor achiever in 3rd yr subject

- 3rd year student achieved at 1st year level. This version allows markers to grade using a 100% scale but still reveal to the student that their work is really at a 1st year level. Obviously their mark on this criteria would be constrained to 0% for this actual task.
Sadler (2012) discusses commonly used options in assuring achievement including:
- overall results,
- external examiner systems,
- threshold standards and
- standardised testing,
but stresses problems with each of these methods unless a
- moderation and calibration process is included.
Calibration

Calibrating and grading to the standard

Pre-F2F
- Assess
- Enter
- Compare
- Consensus
- Agree

F2F

Post-F2F
- Apply
  - to assignment if student
  - to marking if faculty

Freeman, Hancock et al
Assessment – How do we make judgements?

- Yorke (2008) has also raised concern about adopting overall percentages as the indicator of quality.
- What does a percentage or grade point average or degree classification actually tell us;
  - which capabilities were actually assessed
  - at what level;
  - how grading was decided.
Assessment – How do we make judgements?

- BOTTOM UP
  - With final percentage marks, students tend to gather evidence of achievement in a 'bottom up' way, collecting marks and grades during a course, until they have sufficient to graduate.
  - Problematic because in reaching the conciseness of an overall grade a loss of detail is inevitable, which prompts the need for supplementary material.

- TOP DOWN
  - Asking students to question ‘How have you satisfied, through your work, the learning outcomes stated?’
  - Allows for a mixture of evidence including, qualitative assessments of performance in naturalistic settings (such as work placements), and claims of achievements that may not be formally assessable by the higher education institution but can nevertheless be supported by evidence.
Whole of Course ePortfolios

- Yorke (2008) proposed that evidence can (some might say 'should') be created by students.
- Creating ePortfolios is said to enable students to enhance their learning by giving them a better understanding of their skills and attributes, as well as where and how they need to improve to meet academic and career goals (Yancey, 1999).
Conditions (11) under which Assessment Supports Student Learning

Gibbs & Simpson, 2004

- Assessment tasks capture sufficient student time and effort
- The assessment tasks distribute student effort evenly across time and topics
- The tasks engage students in productive learning activity
- Assessment communicates clear and high expectations to students
- Feedback is sufficient, frequent and adequately detailed

Assessment for Learning rather than Assessment of Learning
Conditions (11) under which Assessment Supports Student Learning

Gibbs & Simpson, 2004

- Feedback is provided quickly enough to be useful
- Feedback focuses on learning rather than marks
- Feedback is linked to the purpose of the assignment and to criteria
- Feedback is understandable by students
- Feedback is received by students and attended to
- Feedback is acted upon by students to improve their work or learning

http://www.open.ac.uk/fast/pdfs/aeq.pdf
Checklist for units/subjects/modules

This checklist is for those involved with units/subjects/modules (considered at the level of the assessment task)

- How does the task develop students' capacity to assess
  - their own work?
  - the work of others?
- Does the task encourage students to work productively with others (as distinct from collude with them)?
- How does the task develop students’ ability to think critically and make judgements about their work?
- What are likely students responses to the task? How can the task be framed to avoid inappropriate responses?
- Has feedback about earlier versions of the task been used to revise it?
- Is the task realistic or 'authentic' and linked to course learning outcomes as well as longer term learning aims?
- Does the task encourage students to position themselves as active learners?
- Is the task a learning activity in its own right and not just a compliance requirement?
- What particular capacities does the task help build in students?
- Have students had sufficient practice in some of the key areas being assessed (eg. through activities that are not formally assessed) for it to be a realistic task for them?
- Will the task focus students’ attention on productive learning activities and lead them away from 'cramming' and plagiarism?
- Is feedback used to help students calibrate their own judgements about their work
- Is feedback from both peers and staff used, and are tasks scheduled so that students are able to utilize comments from others to improve their work?
- How will the assessment task have a longer-term effect on students beyond the immediate period of assessment?
Checklist for Courses

The following checklist is an example of the sorts of questions that might be considered by those involved in Courses and courses:

- Does the overall balance of assessment activities across tasks fairly reflect the balance of learning outcomes for the Course/course?
- Are assessment activities in alignment with learning outcomes and teaching and learning activities and do they together promote a virtuous cycle of achievement? Is such alignment visible to students?
- Do learning outcomes incorporate features such as building capacity for learning beyond the course, development of students’ capacity to make judgements about their own work and that of others?
- Do the assessment tasks within a course/unit adequately reflect the main learning outcomes? Do they contribute to the overall graduate attributes of the Course?
- Are all assessment tasks judged according to standards made specific to the task rather than generic standards?
- Are marks given and recorded in no finer detail than is appropriate for the accuracy of grading of the task (eg. it is not possible to reliably mark essays and reports to percentage accuracy)?
- Are assessments across units coordinated to (a) avoid repetition of type of task, (b) avoid overloading students at particular times, and (c) ensure appropriate coverage of learning outcomes?
- Are all staff aware of the assessment tasks required of students in other units/courses across the Course and within the semester?
- Is assessment normally discussed in all course, Course and assessment meetings primarily in terms of impact on learning, and secondarily in terms of fairness, consistency, etc.?
- Is timing of feedback relative to opportunities for students to utilise feedback considered regularly?
- Do course and Course teams regularly consider information about students’ responses to assessment as part of quality assurance deliberations?
- Is the overall assessment in a course or Course such that it can be plausibly concluded that it will build the capacities of students to continue their own learning and assessment after graduation?
“Students can escape bad teaching: they can’t avoid bad assessment”

“Assessment methods and requirements probably have a greater influence on how and what students learn than any other single factor”