Principles for Whole of Program Curriculum Design to Develop and Assure Student Learning Outcomes

Romy Lawson

University of Wollongong
What I’ve learnt from my fellowship!

Romy Lawson

University of Wollongong
So why are you here?
Hunters & Gatherers: Strategies for Curriculum Mapping and Data Collection for Assurance of Learning

assuringlearning.com
How do we assure learning?

- Write PLOS
- Map PLOS
- Collect Evidence
- Use Evidence
- Benchmark
How do we assure learning?

- COLLABORATION
- Benchmark
- Write PLOS
- Map PLOS
- Use Evidence
- Collect Evidence
- SUSTAINABLE
- HOLISTIC
- INTEGRATED
How do we assure learning?

1. Write PLOS
2. Map PLOS
3. Design Curriculum
4. Engage Students
5. Facilitate Learning
6. Assess Learning
7. Collect Evidence
8. Use Evidence
9. Benchmark
10. Review Practice
Curriculum design for assuring learning in business education - leading the way

2013 OLT National Teaching Fellow

Associate Professor Romy Lawson

romy@uow.edu.au

University of Wollongong
New South Wales
Whole of Program Approach
Whole of Program Approach

Critical Thinking

Ethical Awareness

[Diagram showing a flow of checks from Critical Thinking to Ethical Awareness]
Whole of Program Process – How?

• Writing program Learning Outcomes
• Understanding Criteria and Standards needed to achieve the PLOs (whole of program rubrics)
• Designing Authentic Scaffolded Assessment of PLOS
• Teaching PLOs with Effective Feedback/Feedforward Mechanisms
• Leading the Process – Facilitating Change
Designing learning

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

Learning Outcomes
Learning Activities
Evaluation
Assessment
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
Step 1

Have you got the right PLOs?
PLO - Considerations

• National (International)
FOR A FAIR SELECTION EVERYBODY HAS TO TAKE THE SAME EXAM: PLEASE CLIMB THAT TREE
PLO - Considerations

• National (International)
  – Professional Bodies eg CPA

• Institutional/Faculty
  – University requirements (point of distinction) – GA Themes

• Program
  – Context
  – Level
What does a graduate look like?

The Six Thinking Hats (de Bastardised Bono)

The White Hat
What do you think a graduate should look like.

The Red Hat
What do students want to achieve.

The Black Hat
What does industry/the profession want from graduates.

The Yellow Hat
What do regulatory bodies want your program to achieve.

The Green Hat
Who are you marketing the program at.

The Blue Hat
What does your institution want a graduate to look like?

Does your program achieve all this?
Whole of Program Design Tool

• Login
Streamlined Approach

External – Govt (AQA), Prof Bodies

Internal - University GA/Themes

Degree Level - PLO
Streamlined Approach

- PLO
- Paper LO
- Assessment
Streamlined Approach
Streamlined Approach

PLO + Paper LO → Assessment (Context/Level)
Designing learning

- Learning Outcomes
- Learning Activities
- Evaluation
- Assessment

• How will you/students know if they can do it?
Step 2

Creating PLO Rubrics
## Assessment Task

<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. e.g. identification or description only.</td>
<td>Sound demonstration of integration between disciplines. e.g. examination, explanation, interpretation, application or analysis of interrelationships.</td>
<td>Comprehensive demonstration of integration between disciplines. e.g. detailed examination, insightful analysis or interpretation, synthesis, extrapolation, evaluation and/or recommendations.</td>
</tr>
<tr>
<td>Application of critical understandings of theoretical concepts underpinning perspectives in industry based scenarios.</td>
<td>No / little application of critical understandings demonstrated. e.g. Only one perspective drawn on to demonstrate concepts.</td>
<td>Application of critical understandings demonstrated. e.g. 2-3 perspectives drawn on to demonstrate concepts.</td>
<td>Convincing application of critical understandings demonstrated. e.g. Relevant and innovative application drawn from multiple / global perspectives.</td>
<td></td>
</tr>
</tbody>
</table>
**Whole of Program Rubric**

<table>
<thead>
<tr>
<th>PLO1 Demonstrate essential knowledge necessary for a career in business related professions</th>
<th>Year 1: Foundation</th>
<th>Year 2: Intermediate</th>
<th>Year 3: Competent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B</strong> Critical analysis and evaluation of essential concepts.</td>
<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>
<td>Demonstrates thoughtful critical analysis and evaluation of essential concepts. e.g. involvement of reflection, judgment, problem-solving, synthesis, assessment, prediction.</td>
</tr>
<tr>
<td><strong>C</strong> Consideration of the economic, social and cultural environments within which international businesses operate.</td>
<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>
<td>Demonstrates high level understanding of international economic, social and cultural environmental issues in an international business situation. e.g. accurate explanation of relevant actions and prediction of responses.</td>
</tr>
<tr>
<td><strong>K1 Demonstrate essential knowledge necessary for a career in business related professions</strong></td>
<td><strong>Year 1: Foundation</strong></td>
<td><strong>Year 2: Intermediate</strong></td>
<td><strong>Year 3: Competent</strong></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>B</strong> Critical analysis and evaluation of essential concepts.</td>
<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>
<td>Demonstrates thoughtful critical analysis and evaluation of essential concepts. e.g. involvement of reflection, judgment, problem-solving, synthesis, assessment, prediction.</td>
</tr>
<tr>
<td><strong>C</strong> Consideration of the economic, social and cultural environments within which international businesses operate.</td>
<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>
<td>Demonstrates high level understanding of international economic, social and cultural environmental issues in an international business situation. e.g. accurate explanation of relevant actions and prediction of responses.</td>
</tr>
<tr>
<td></td>
<td>Below F</td>
<td>Meets P</td>
<td>Meets C</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>Paper LO</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Paper LO</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Paper LO</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PLO1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describes essential concepts of business</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PLO1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates some consideration of the economic, social and cultural aspects of international business context.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PLO1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates sound consideration of international economic, social and cultural differences between cultures and how these differences impact ways that business operates</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PLO 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>
Rubric Links

Whole of Program Design Tool

• Login
Step 3

Designing Authentic Assessment
Designing a PLO Assessment

• Select a PLO
• Brainstorm
  – How would students demonstrate the competence in industry/profession/real life?
• Translate this brainstorm into authentic assessment tasks
Step 4

Scaffolding Assessment
Scaffolding Assessment

• Now look at this collection assessment tasks and ask
  – How can you build throughout the program (increase complexity) eg from level 8 (grad cert) to level 9 (MBA)? This is scaffolded assessment
  – Example critical analysis may start with a simpler issue with just a couple of perspectives and build to a more complex dilemma with a multitude of perspectives and no real solution (a wicked problem)
## Scaffold Assessment throughout Curriculum

<table>
<thead>
<tr>
<th>PLO</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>
Whole of Program Design Tool

- [Login](#)
Step 5

Mapping into the Curriculum
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>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Map in which subjects these assessments could be embedded

<table>
<thead>
<tr>
<th>Assessment Task</th>
<th>Task</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLO 1 – Assess 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLO 1 – Assess 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>etc</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Whole of Program Design Tool

- [Login]
Step 6

Engaging Students
Hi achiever in 1\textsuperscript{st} 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 2\textsuperscript{nd} 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 3\textsuperscript{rd} 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.
Step 7

Calibration
Assessment –
How do we make judgements?

• 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
Step 8

Evidence
Whole of Program 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).
BBus Course Learning Outcomes

BBUS: Course Learning Outcomes:
JCU graduates are committed to lifelong learning, intellectual development and to displaying exemplary personal, professional and ethical standards. They have an understanding of First Nations peoples, reconciliation, diversity and sustainability (in its broadest sense). They also have a sense of their place in the Tropics and are charged with professional, community and environmental responsibility. They exhibit a willingness to lead and to contribute to the intellectual, cultural and social challenges of regional, national and international communities.

In the context of a JCU graduate on successful completion of the Bachelor of Business graduates will be able to:

Knowledge:
K1 Demonstrate essential knowledge necessary for a career in business related professions
K2 Synthesise underlying principles and concepts for making business decisions
K3 Critically analyse the core professional obligations, values and operations of organisations including sustainability

Skills:
S1 Critically evaluate data &amp; resources in the context of relevant academic literature
S2 Apply critical thinking to address issues in business
S3 Convey information clearly and fluently, in high quality written form appropriate for their audience
S4 Demonstrate effective oral presentation skills for academic and professional audiences
S5 Demonstrate the ability to work collaboratively.

Application
PebblePad

Mapping of Course Learning Outcomes

This page gives you a guide to see which skills and knowledge you will be developing in which subject as you progress through your degree. Below are rough guides to which CLOs are developed in each major (but these are subject to change as the degree progresses. For accurate details please check which CLOs are included in your subject guide/outline.

Core Map

Accounting

Economics Major

Marketing Major
S1 Rubric

S1 Critically evaluate data & resources in the context of relevant academic literature

Locate and select
Year 1: Foundation
Select relevant information/data to enable a basic analysis

Year 2: Intermediate
Selects data and resources that are appropriate in number and considered for their relevance, usefulness, currency, credibility.

Year 3: Competent
Demonstrates informed location / selection of relevant data and resources.
E.g. optimum number of selected data and resources, based on recognition of their relative worth: usefulness; currency; credibility. E.g. identification of primary sources (of a theory).

Analysis of relevant data and resources
Year 1: Foundation
Demonstrates basic analysis of evidence using basic analytical techniques.

Year 2: Intermediate
Analyses evidence using appropriate analytical techniques to reveal important patterns, differences or similarities.

Year 3: Competent
Demonstrates application of appropriate analytical techniques to relevant criteria; questioning, logic; identification of hierarchy and levels. E.g. use of logical reasoning, synthesis of information. E.g. application of analytical techniques to a given problem.
Resources

• Website:
  – http://assuringlearning.com/
  – Curriculum Design