A Model for Considering the Financial Sustainability of Learning and Teaching Programs Concepts and Challenges

AAIR 2011
David De Bellis
Institutionalising a University Teaching and Learning Activity Planning Model

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Context - International Drivers
(OECD, 2008)

- expansion
- diversification
- differential funding

- globalisation
- new governance structures
- focus on accountability & performance
Context - National Drivers
Transforming Aust HES (2009)

- new base funding & indexation
- student centred funding
- TEQSA
- AQF
- productivity improvements
Context - Institutional Drivers

Flinders

ba - integrated load modelling
Operating Environment

- Massification of Higher Ed
- Managerialism
- Increasing (global) competitiveness
- Heightened accountability and scrutiny of performance
- Drive for efficiency and productivity improvements (costs)
- Sustainability
Problem for T&L Planners

• Lack “mature” and “easy” analytical tools
• Trouble calculating, understanding, & managing ed value, revenue & costs
• Cant easily report retrospective info or perform prospective scenario planning
• No ability to optimise resource allocation
• Reluctant to consider alternative delivery models
Problem for T&L Planners

• Cant model at all levels
  Unit of Study
  Discipline/Subject /Department ...
  Institution

• Approaches lack consistency

• Concerned about degradation in standards, learning quality

• Sustainability/viability of programs at risk
Ideal Solution

• Secure and consistent web based business analytics environment
• Retrospective reporting and prospective planning functionality at relevant levels
• Optimise resource allocation and consider and account for alternative delivery models
• Monitor and assure quality
• Maximise productivity and sustainability
But...

How to successfully operationalise such a solution?
Ideal Solution Elements

Technique
- output rule
- ed value models
- revenue models
- abc models
- prospective
- stochastic

Technology
- tools & infrastructure
- dw/ba solutions
- mis
- training
- capacity

Climate
- context
- culture
- management
- change
- pedagogy
- t&l quality

inspiring achievement
Culture

• The (strange) academy (Mayhew, 1971)
• Use of power (Hardy, 1991)
• Change Leadership and Management (Julius, Baldridge, and Pfeffer, 1999; McCaffery, 2004)
• Changing Role for Deans (de Boer & Goedegebuure, 2009)
Change Leadership


• Integrity, teamwork, focus, conflict resolution, institutional history, strategic committees, understand systems, persistence, reflection.

• Identification problem, vision, IMPLEMENT!
Pedagogy Redesign NCAT

• The National Centre for Academic Transformation (NCAT)
• Virtual Organisation (US)
• Headed by Dr Carol Twigg
• Redesign learning environments
• Use of technology
• Improved learning outcomes
• Reduced cost
Pedagogy Redesign NCAT Models

- Supplemental - lectures
- Replacement - class contact reduced
- Emporium - class contact eliminated
- Online - web based wholly external
- Buffet - learning is individualised
Pedagogy Redesign NCAT
Findings

• PoC 30 projects/institutions 1999-2004
• Increased learning (25/30↑, 5≡)
• Increased completion rates (19/24)
• All reduced costs (20% - 70%, avg 37%)
• Improved student attitudes to subject matter
• Increased staff & student satisfaction
not-for-profit output determining rule

marginal value \( (mv) \) + marginal revenue \( (mr) \) = marginal cost \( (mc) \)
Not-For-Profit Output Determining Rule

- \( mv + mr = mc \)

- In theory academic programs will maximise the overall value of instruction by teaching at the (output) point where \( mv \) plus \( mr \) equals \( mc \) subject to the constraint that total revenue (\( tr \)) equals total cost (\( tc \))

- Close down point if and only if \( tr = tc = 0 \)
Ed Value Models

• Quantification in dollar terms most problematic of all components
• Could be derived thru some conversion based on quality and relevance characteristics. eg - student opinion, employability, progress, retention, policy imperatives, demand
• Not necessarily an essential ingredient
Revenue Models

• Measuring and reporting actual revenue generated by teaching and learning activity has its challenges

eg - different funding groups (CS v FP)
- discounting, internal scholarships
Revenue Models

- Projection load/revenue models are stochastic (uncertain)
- Institutional research needed to improve and measure accuracy
- Commencing revenue prediction models based on application characteristics, continuing on existing cohort characteristics
Cost Models

• ABC Models

• Students (products), undertake learning activities like classes, preparation and other out-of-class actions

• Activities consume teaching staff and other resources which have a cost.

• Resources are costed and related to the students by subject enrolments (the driver).
Cost Models

• Only costing methodology that offers significant management and planning advantages to institutions (Ismail, 2010).
Technology

• Platform is required to deliver tools
• DW/BA Solutions
• Strategy and Governance
• Infrastructure
• Development
• Training
• Resources & Capacity
Rough Program of Work

- Refine costing and revenue models (2011)
- Apply to proof of concept discipline area (early 2012)
- Expand to other discipline areas (early 2012)
- Port to BA environment (mid-late 2012)
- Integrate as formal BA ILS (mid 2013)
Acknowledgements

• Bill Massy
• LH Martin Institute
• Luke Rowett (Senior Information Analyst, Flinders)
How Do I Feel About Leading This Project?

• A bit like Gimli the Dwarf from Lord of the Rings

• [http://www.youtube.com/watch?v=bIiUlPrZf8k&feature=related](http://www.youtube.com/watch?v=bIiUlPrZf8k&feature=related)