

For implementation of an evidence-based and scholarly Comprehensive Course Review process leading to increased student satisfaction

Overview

Curriculum 2010 (C2010), Curtin's University-wide curriculum renewal initiative, aimed to ensure the quality of courses (programs) through **Comprehensive Course Review (CCR)**. The C2010 team designed, developed and implemented an evidence-based, scholarly approach to systematic and systemic course review focussed on student achievement of graduate attributes and employability. This has resulted in students reporting increased levels of satisfaction with all aspects of their learning experiences and greater student engagement and motivation as shown in the **eVALUate Unit Survey** (Curtin's online feedback system) since C2010 began in 2007 (see Figure 1). Through the team's leadership, scholarly approach, consultation and streamlined processes, CCR is now embedded at Curtin and has been the impetus for significant cultural change, improving staff engagement and practice in teaching and learning (T&L). That change is centred on moving beyond individual perspectives on discrete units to a centrally-supported course approach engaging all teaching staff involved in the course, as attested to by stakeholders such as Deans (T&L):

XX as Head of School [has] achieved so much . . . with the assistance of the C2010 team ... an excellent set of units for their majors which will all work together optimising quality with economies of scale has been achieved. This highlights the success of C2010 and the huge transformational change the curriculum reform process has enabled (Dean T&L, Humanities).

Criterion 2: Development of curricula, resources and services that reflect a command of the field

Curtin's CCR is a scholarly and evidence-based service innovation which reflects a command of the field in Australian Higher Education and internationally. It takes as its premise, to paraphrase Ramsden, that 'the aim of teaching is to make student [achievement of graduate attributes and employability] possible' (Ramsden, 2003). During C2010, Curtin's **Graduate attributes** were confirmed as the heart of the reviewed curriculum (see Figure 2): they are (1) contextualised, embedded and assessed in the curriculum, using the **Curriculum Map**; (2) self-assessed by students using the **iPortfolio**; and (3) the source of items which gather perceptions of graduates, employers and teaching teams of the relative importance of each attribute, and new graduates' achievement of those attributes as reported in the **Needs Analysis**. This focus on Graduate Attributes and employability as key learning outcomes is paramount in quality teaching and learning in Australian higher education and beyond (Barrie, Hughes, & Smith, 2009; Hager & Holland, 2006; Yorke, 2004). The C2010 team developed two tools to support the process of CCR with course teams:

1. Curriculum Map (CCMap): The C2010 team devised and implemented a mapping tool and process in 2007: Version 1 focused on how and where Graduate Attributes were contextualised, embedded and assessed. Version 2 provides six Course Analyses which display charts for quick visual analysis by busy teaching staff: (1) Emphasis of graduate attributes and level of thinking across the course, see Figure 3; (2) Assessment tasks (type, timing, weighting, purpose, assessor, work-integrated learning); (3) Learning experiences (type, duration, frequency, and predominant student activity); (4) Learning resources (type, frequency of use and cost); (5) engagement with triple-i curriculum themes such as industry readiness, internationalisation, intercultural and Indigenisation, and interdisciplinarity; and (6) Career Development Learning. The CCMap is available to other

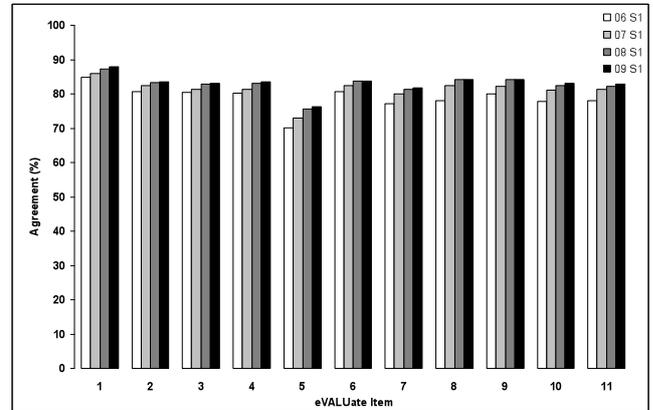


Figure 1 Aggregated percentage agreement for the unit survey at the University level for Semester 1 over four years

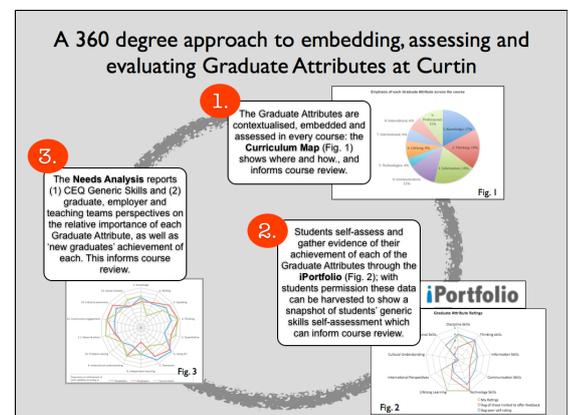


Figure 2 Curtin's 360-degree approach to graduate attribute achievement

universities through an ALTC Teaching Fellowship, *Benchmarking partnerships for graduate employability* (Oliver, 2009). To date, representatives from eight Australian universities are trialling the CCMaP.

2. Needs Analysis: C2010 created the Needs Analysis in 2007, and it continues to develop. It includes a range of national and institutional indicators and provides analysis of quantitative and qualitative evidence (analysed using CEQuery and SPSS Text Analysis for Surveys [Oliver et al 2007]) to assist a course team to reflect on (1) How might this course curriculum change and why? and (2) How can course strengths be maintained, and issues addressed? The Needs Analysis provides a 360-degree overview of course performance, see Figure 4. It seeks to capture the voices of

key stakeholders: current and recent students (enrolments, retention, pass rates, evaluation of units), recent graduates (course experience feedback, employment and further study, and views on their work-readiness), employers of recent graduates (views on the work-readiness of graduates), and the relative success of other providers (benchmarking). The findings are synthesised into overall recommendations for course improvement. The C2010 team's command of the field in designing and implementing CCR is demonstrated by staff feedback:

I have just accessed the curriculum map . . . documents and they are amazing. I can't thank you enough. Just right for our three-day workshop. Many thanks for the reviews and in such a timely fashion (Head of School).

I would like to thank you for your goodwill, support and patience. We can now move forward step by step into the future and give it a best chance by working closely together. It has not only good potential in itself but also brings good sense of belonging and working together, a bridge between our two departments. I can't thank the C2010 team enough for their help and guidance for such a long period of discussing and changing things... (Head of Department).

The pedagogical underpinnings of CCR are grounded in the scholarship of the aligned curriculum: carefully designed assessment tasks allow students to demonstrate achievement of clearly communicated learning outcomes (Biggs, 2003a, 2003b).

Criterion 5: Service innovations that have influenced and enhanced learning and teaching

The C2010 team's scholarly yet practical approach has ensured a high level of success and uptake of CCR by:

- ensuring the processes are based on best practice and research (comprehensive review of literature in higher education pedagogy and graduate employability);
- working in collaborative partnerships to achieve a university-wide outcome, particularly by: working with consultative committees; supporting, negotiating with, and capacity-building of teaching staff on the sound pedagogical basis for CCR and its evidence-based approach; working with Curtin's T&L leadership team (Senior Executive, Heads of Schools, Deans of T&L) to ensure CCR engages teaching staff to deliver expectations; ensuring CCR integrates with the University's external and internal data gathering and reporting systems; using project resources to ensure teaching staff have easy access to documentation; consulting with experts within and beyond the University to ensure authentic practice; and working with central operational areas such as University Strategy and Planning, Alumni and Curtin IT Services;
- promoting CCR within the University (through presentations, publications, posters, emails, workshops and Curtin websites) and to the wider community through scholarly fora;
- developing comprehensive resources for improving practice associated with CCR, including guidelines for unit and course coordinators;

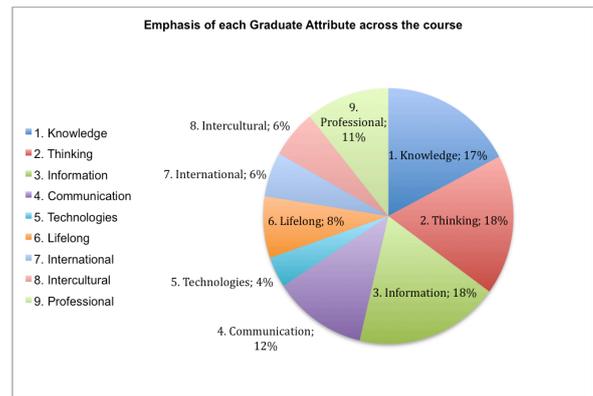


Figure 3 CCMaP shows visual analyses such as Emphasis of Graduate Attributes across the course

C2010 Comprehensive Course Review Needs Analysis	
Bachelor of Agribusiness 303423	
Course Indicator Table	
Bachelor of Agribusiness (Aquatic Resources) 303422	
Bachelor of Agribusiness (Equine Management) 303209	
Bachelor of Agribusiness (Viticulture) 307519	
Bachelor of Agribusiness (Horticulture) 303432	
Bachelor of Agribusiness (Management or Marketing) 303450	
Bachelor of Agribusiness (Farm Management) 303437	
Index	
Purpose and Design of the Needs Analysis	2
Key terms and acronyms	4
Executive Summary	5
Recommendations	6
Appendix 1 Course Review Data	7
Bachelor of Agribusiness	7
Course Demand	7
Course Activity	7
Bachelor of Agribusiness	9
Course Teaching and Learning – Student Performance	14
Course Teaching and Learning – Graduate Course Experience	16
Graduate Destination	17
Appendix 2 Feedback from current students	18
eVALUate Unit Survey Quantitative Analysis – Bachelor of Agribusiness	18
eVALUate Unit Survey Qualitative Analysis	19
Appendix 3 Feedback from recent graduates	22
eVALUate Graduate Survey Quantitative Analysis	22
eVALUate Graduate Survey Qualitative Analysis	24
Close analysis of Graduate Information through recent CEQ and QDS results	25
Appendix 4 Feedback from employers and industry	30
Appendix 5 Benchmarking with other Australian universities	31
Appendix 6 Course Structure Bachelor of Agribusiness	32
Appendix 7 Explanation of the Course Review Data tables	39

Figure 4 The Needs Analysis captures 360-degree stakeholder voices about course performance

- engaging and working closely with teaching staff to: use CCR tools to reflect on the student experience and implement strategies to improve student learning; improve the alignment of the unit within the course curriculum; and improve learning experiences and assessments within units;
- providing staff with professional development in teaching and learning in a highly contextualised manner based on the areas needing improvement within the course and tailored to meet the needs of the course teaching team, as well as individual staff;
- ensuring CCR is sustainable by enshrining it in University policy on CCR, embedding tools, practices and resources into ongoing university-wide systems.

The C2010 team's approach was recognised by AUQA in 2009:

The Panel notes that Curriculum 2010 is having a major impact across Curtin. The objectives of C2010 are clear and well articulated, and are well-known and understood across the University (including among Curtin staff at partner institutions). C2010 has already produced some intended results and has a competent project team to support the faculties (AUQA Cycle 2 Report January 2009)

Two specific course examples (Medical Imaging and Pharmacy, see Figure 5) show the impact of CCR: **eVALUate** results for each course show significant improvement well in excess of aggregated University results. Staff within these course teams have implemented new curricula as a consequence of CCR and continue to enhance improvements.

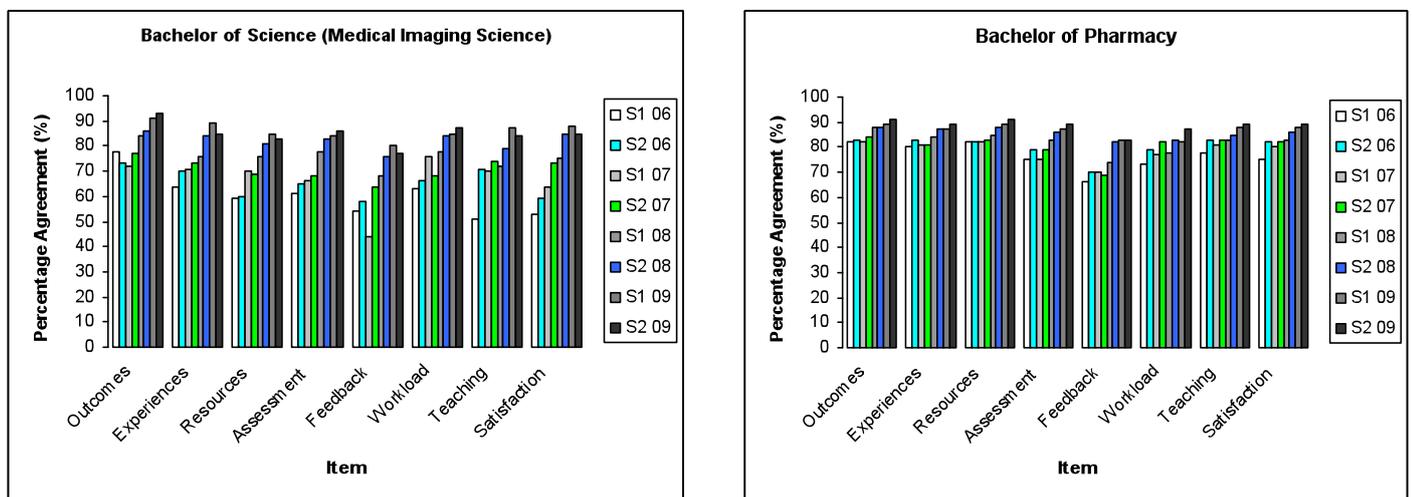


Figure 5. Aggregated percentage agreement in **eVALUate** Unit Survey for BSc (Medical Imaging Science) and B Pharmacy for Semester 1 and 2 over four years (2006—before C2010—to 2009)

The impact of the C2010 process on Medical Imaging Science is highlighted by the Head of Department:

I have been reviewing the final document from C2010 as we have our final stage accreditation session late August. You are well aware of the situation I came into in March 2007 regarding the BSc (MIS), and I can't say how important the support from you and others in the OTL have been in us being at the stage today where I feel we have in place a high quality program that I feel proud to present to the accreditation team (Head of Medical Imaging Science).

Final Statement

CCR has influenced students' overall academic experience of higher education because it focuses on learning, it shows that student feedback is valued, and ensures that every course team member has access to rigorous business intelligence (the Curriculum Map and the Needs Analysis) upon which to make improvements. This level of success and uptake of CCR, and the resulting cultural changes, have been achieved through outstanding coordination, management and leadership by the C2010 team. The impact within and beyond Curtin includes

- The University has committed ongoing funding to ensure the tools and processes of CCR initiated through C2010 are maintained; the C2010 team was recognised with a Curtin Excellence in Teaching Award in 2009;
- The leadership and change management processes related to CCR have been disseminated in peer-reviewed scholarly publications and at a national symposium (Den Hollander, Oliver, & Jones, 2007; Ferns, McMahon, & Yorke, 2009; Jones & Oliver, 2008; Oliver, 2008; Oliver & Ferns, 2009; Oliver,

Jones, Ferns, & Tucker, 2007; Oliver, Jones, Tucker, & Ferns, 2007; Oliver & Whelan, 2010); A peer-reviewed paper on Graduate Employability as a Standard of Success in Teaching and Learning was awarded Best Presentation at a national conference (Oliver, 2008);

- The eVALUate Graduate and Employer Surveys were the basis for a successful application for an ALTC Competitive Grant—*Building course team capacity to enhance graduate employability* (\$220,000);
- The CCR tools are the basis for a successful application for an ALTC Fellowship—*Facilitating national benchmarking of student achievement of graduate attributes and employability skills as a tool to improve student satisfaction and course learning outcomes* (\$100,000) (Oliver, 2009);
- Curtin's AUQA report (2009) included commendations for CCR (the embedding and assessing of graduate attributes in units and courses);
- Curtin's CCR was cited as good practice in a national publication in 2007 (Precision Consulting, 2007);
- The team has received requests for permission to adopt its tools from other universities within and beyond Australia eg eight universities are trialling Curtin's curriculum mapping tool); University of Johannesburg (to adopt Curtin's curriculum mapping tool, needs analysis tool).
- The team leader has been invited to present on CCR in other universities. Examples include *Graduate employability as a standard of success in teaching and learning*, Invited Presentation, Edith Cowan University, February 2009; *Curriculum reform, graduate attributes and evaluating teaching and learning*, University of Southern Queensland Visiting Scholar Programme 2007, 2010).

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