Curriculum Change: A University Perspective

By Kaye Cleary and Anthony Williams

Recent interest in the development of quality teaching practice within universities has reflected a change in community expectations of a university education. The emphasis on quality is most often expressed only in terms of teaching. Such a focus in many respects belittles the role of curriculum development in the delivery of quality courses, reducing courses to the sum of the subjects taken by students.

The University of Newcastle is developing a curriculum framework that will initially provide a support mechanism for the development and review of courses. The long-term aim is to develop a vehicle that will support ongoing and longitudinal considerations of the need for informed curriculum decision making.

A locally-developed web site provides support for the curriculum development processes. The primary site is based upon a generic process of curriculum development and review. Alongside the web site, a parallel multifarious system of support is available through the University’s staff development unit. In the presentation, components of the project will be demonstrated, with a report of the impact the inter-related support mechanisms.

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Introduction

Curriculum issues have permeated, with varying levels of opacity, university business since the egalitarian expansion of the higher education sector with the Australian government's abolition of tuition fees and introduction of the Tertiary Assistance Scheme in the mid 1970s. This effectively changed the demographics of the tertiary student body, opening universities, in particular, to many "first-generation" students. Following the post World War 2 expansion, the seventies was the next major influx of students who had not grown up with an expectation of (and schooling for) university education. On the surface, universities were challenged by an increase in student numbers. However, this student body had a diluted sense of clear career aims and generations of expectations of, and familiarity with, this level of education - an influx of students with diverse and transforming expectations.

Initial University reaction was to adhere to standards, placing particular emphasis on assessing the worth of the graduate - concentrating on indicators that standards were being maintained. However, an expansion of professions requiring tertiary-level entry qualifications again challenged the status quo as they struggled to articulate the "tertiary" nature of their discipline while retaining relevance to their professional constituents. These new courses raised curriculum issues both inside the higher education institutions and in the wider community. Alongside the "new professions", multidisciplinary courses were taking root in tertiary education. Meanwhile, those teaching in the more traditional courses were grappling with declining entry-levels and an expanded, more diverse student body. The time was ripe for reflection. The roles and functions of universities were debated through these journeys. Mechanisms for achieving congruence between maintenance of ideal “standards” of the past and reality of the present, were being identified and evaluated.

A foundation for the structure and principles of the curriculum were laid down by the Australian Vice-Chancellor's Committee with the 1992 release of their Guidelines for Quality Assurance in University Course Development and Review. Curriculum issues were highlighted in these Guidelines with the identification of a need to:

- demonstrate that courses are consistent with, and assist in, the achievement of institutional mission and objectives;
- make clear the purpose and objectives of each of the courses offered by each University;
- contribute to monitoring, maintenance and improvement of standards and quality;
- support and enhance student learning;
- demonstrate to interested parties the detailed procedures followed in course development.

At the same time, attention re-focused on the quality of education in terms of outcomes - what the university "delivers" to the community. Moses and Trigwell (1993, viii) in Teaching Quality and Quality of Learning in Professional Courses strongly support the
concept of structuring the sequence of subjects based upon subjects supporting and integrating with each other. Their specific purpose in this recommendation was to address the issue:

…that students have knowledge and skills because these issues were addressed in previous subjects. Some learning in advanced subjects would have been improved if the weaker students had been given more specific guidance. This cascading loss of competence for the weaker students throughout a degree course is not only a problem in the learning of transferable skills but of all knowledge areas and skills…. We strongly recommend that staff are asked, for all their subjects, to think through and document the learning objectives; how the subjects relate to other subjects in the year, strand or major, degree course…

The report *Higher Education: Achieving Quality*, (1992, 35 & 36) also expresses concern that students may be disadvantaged through the lack of subject articulation. Not restricted to this concern the report also identifies the positive outcomes associated with “the setting of clear aims and objectives of courses, subjects and units is the first step to quality teaching and learning”.

The need for careful planning of the students’ time and learning experiences was highlighted again on the other side of the globe with the release of the Dearing Report (1997, 8:18). The need to achieve this quality dictates that courses are well structured providing students with a coherent articulated sequence of learning not just a subject by subject learning experience.

Students were also identifying curriculum-related issues in their evaluations of tertiary education. Ramsden’s (1992) report on the Course Experience Questionnaire found that students who perceived their course as ill-defined or without clear goals and structures viewed their course as less effective than others who did not have that perception. Newcastle’s 1998 student survey revealed a consistency of dissatisfaction with courses that lack organisation and structure through the University’s *Composite Student Questionnaire Report*. The feedback highlighted seepage from curriculum level planning through to the students’ perception of a “quality” university experience.
This table shows the frequency of curriculum-related issues identified as priority 1, 2, 3 or 4 in each Faculty.

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<th>Key</th>
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When asked "What aspects of your course are most in need of improvement?", first year students from six of the nine faculties identified curriculum-related issues in the top two most frequently cited issues of concern. (See accompanying table.) In light of concern about attrition rates after first year, curriculum-related issues must be addressed. As Moses and Trigwell (1993, viii) point to a "cascading loss of competence for weaker students throughout a degree", it is not surprising to see that these concerns remain "significant" in the following years - with six of the nine faculties
Piper (1993, 172 & 173) recommends the application of management quality assurance strategies to curricula to achieve “effectiveness, efficiency and economy”. The procedures outlined by Piper would achieve the outcome of quality curricula development or review but the achievability of this is questioned in the Report, *Achieving Quality* (1993, 37 & 38). The report identifies a lack of knowledge, among academics, relating to teaching issues. The Report proposes that significant professional development systems to be put in place to support staff in activities associated with teaching as:

> Improvements in quality of University Teaching will come not only from the efforts of individual academics, but also (perhaps more predominantly) from enlightened policies of departments/faculties and institutions as a whole.

The issues outlined above identify that there is a real need to support staff in the development of quality curricula both through the development of structures as well as the provision of support of academics undertaking this activity.

**The University of Newcastle Strategy**

The University of Newcastle is a comprehensive, regional university, which had amalgamated with the local college of advanced education. The need for the university to develop a system of ongoing course development and review arose out of the need for the graduates of these courses to meet the demands of the professional world and communities they will enter. The needs for courses to meet these high demands has become increasingly important for a diverse range of reasons, including:

- social change
- technological change
- higher student numbers
- increased student diversity
- decreased funding
- changing work practices

The need to confront these issues is articulated in the University’s “Teaching and Learning Strategic Plan”, which indicates a teaching profile that is responsive to the specific needs of the stakeholders.

In order to ensure that courses respond to the demands of the professions and the community, an efficient and effective course review process was established in 1995, mandating a regular five-year review cycle for all courses. This decision was in recognition of the situation outlined above, and consistent with the AVCC guidelines (1992) that:

- courses are consistent with, and assist in achieving, the institution's mission and objectives;
- the purpose and objectives of courses are clear;
- mechanisms are put in place to monitor, maintain and improve the standard and quality of courses;
Courses support and enhance student learning; demonstrate the detailed procedures followed in course development; defining a course level graduate profile

This lead to the development of institutional structures and a range of protocols to support the development and review of courses. The structures included the formation of a Committee to monitor and make recommendations to University Senate on appropriateness and quality of course proposals. The first Committee to be established was in 1996, to support undergraduate course development - the Curriculum Review Committee (CRC). The task of evaluating all reviews of courses and subjects as well as the development of new subjects became a major task for one committee. To address this problem the Coursework Postgraduate Programs Committee (CPPC) was established a couple of years later, fuelled by the expansion of postgraduate coursework courses.

**Issues Emerging from the New Curriculum Development and Review Process**

At the start of 1998, the CRC recognised some issues arising out of the lack of process definition or structures under which to develop or review courses. The fundamental problem was a lack of shared understanding, across the University, relating to curriculum related issues, processes and components. These issues were traditionally demonstrated through:

- inconsistent use of curriculum-specific terminology
- inconsistency in course documentation
- an inability to respond to feedback from the Committee
- ill-defined course structures
- rarity of course objectives, rather objectives remained at the subject level
- no integration between subjects
- no alignment of subject and course objectives
- no documentation of the relationship between assessment and subject objectives

These issues made the task of the review committees a difficult one to manage. They also restricted the roles of the Committees to merely policing curriculums, rather than demonstrating leadership on curriculum matters. In the longer term, the Committees plan to devolve responsibility for managing subjects to the Faculties, leaving the CRC and CPPC to focus more attention at the course level. For this to be realised, the “black box” image of curriculum documentation and development had to be addressed and unbundled in a supportive, explanatory fashion.

**What was Causing the Confusion?**

On reflection, it is not surprising that staff were having difficulty understanding the concept of a curriculum. Much of the advice about curriculum planning is aimed at educators, or “educators-in-training”. Unlike primary, secondary, and TAFE levels of education, universities place curriculum development in the hands of novices. Moreover, the responsibility for curriculum development, as opposed to subject development,
resides with senior lecturers. Typically staff in this position were recruited at a time when subject expertise was essentially the prime concern, with token regard for educational or teaching background. The University of Newcastle had had a strong cafeteria-style approach to courses, where students selection subjects that interest them, in effect, tailoring their own course. Senior lecturers also have many competing demands for their time as they juggle their burgeoning administrative tasks with a higher research profile, and continued teaching loads.

Skillbeck (1990) posed questions to be considered when advocating a similar devolution of curriculum development to educators from a centralised specialist service. These questions (Skillbeck 1990, p.78) included

- What kind of support, including professional development and access to consultants does a teacher need? What are the implications for curriculum planning with the implementation of the steady and continuing devolution of responsibility once centrally exercised?… How are workforce and community inputs into curriculum planning to be managed at the school / working life interface?

The Learning and Development Program’s Role in Curriculum Development and Documentation.

The University's academic staff development unit, Learning and Development, responded to this situation by initiating a multifarious system of support. This support of Departments is guided by the Program’s objectives in respect to curriculum (see appendix 2 for a fuller listing):

- that the outcome of the course review is a course which is coherent, well-structured, articulated, current and longitudinal.
- to provide a forum for stakeholders’ needs to be presented and considered
- instructional or methodological issues are considered equally with content issues
- providing a mechanism for all parties interested in the review with easy access to information about the review
- facilitate informed decision-making during the review or development process
- align the course with the University’s strategic plan, such as streamlining “subject streams” and offerings.

The Program aims to involve as many Departmental staff as possible in the review process, as acceptance of the final submission to the CRC or CPPC revolves around the course proposal being “owned” by all the Department, particularly at the intermediary level of Faculty endorsement. The support is designed to provide the faculties’ curriculum developers – especially members of the Departmental Course Review Committee - with access to information, expertise and guidance to facilitate the development of consistent curriculum practice. (This grass-roots approach supports the University’s need for quality across its curricula, complementing the organisational Committee structures). Services include:

- developing a primary, University-wide web site outlining a curriculum review and development process.
• design of pro formas as part of the documentation for submission to the Committees.
• stakeholder interviews and surveys.
• support with structuring a [Department-based] Course Review Committee web site
• workshops for Departments about to embark on a course review, with an aim of
  making the whole process transparent, and encourage wider engagement beyond the
  Course Review Committee
• and a facilitator to provide support for, and direct the process of, course review.

Departments can avail themselves of one or all of these [free] services. The most
intensive level of support is the use of a facilitator – a service the Program hopes will
become redundant. (See Williams and Cleary (1999) for a case study of this process of
facilitator support.) As a staff development unit, we aim to develop / empower / inform
staff in most of our interactions with the academic community. We do not see ourselves
as primarily a “university service” – a role for which we do not have the resources, even
if we had the inclination. However, this is the seat of some tensions, as faculty do not
necessarily view curriculum development as a productive use of their time, and the
Consultant / Facilitator could complete some tasks in a vacuum in a number of hours,
compared to two agonising weeks for a novice Course Review Committee.

The Program contributes to the Faculty of Education’s Graduate Certificate in Tertiary
Teaching. Workplace projects, such as curriculum development can be embedded into a
theoretical and evaluative framework, thus contributing “credit points” to an educational
qualification.

Why the Web for the Primary Resource?

The curriculum development web site is essentially an electronic performance support
system (EPSS) as described by Kirkley and Duffy (1997) a "toolkit, providing integrated
resources to help the user meet specific needs". Kirkley and Duffy (1997) claim that the
World Wide Web, as a networked collection of information and resources makes it an
"excellent foundation" for building educational EPSS. The browsers themselves
integrate a range of collaboration and communication tools and the non-linear structure of
the environment allows users to select the area of current interest, with Departments
developing support pages specific to their discipline areas.

In a university, the Web is a particularly appropriate delivery mechanism, it is ubiquitous
in the workplace, as well as providing relative easy access for off-campus staff members.
Furthermore, a web site can transparently unbundle the components of curriculum
development and review, providing illustrative examples as well as structural process. It
becomes an integrated point of reference for course reviews that can be used selectively
by the Course Review Committees.

The Primary Curriculum Web Site – Supporting Curriculum Development and
Review

The web site is essentially phase / process based, supporting the novice Course Review
Committee through the various process that need to be undertaken, documents to be
submitted, and forms to be “signed off” by various University administrators. See figure 1.

Figure 1: Opening screen for the Primary Curriculum Development and Review site.

The web site includes descriptions of how to develop structures that will give the course definition. These are the graduate profile, and the course aims and objectives. Alignment is multi-tiered starting with a matrix illustrating where the course objectives support the graduate profile. Subject objectives are then linked to course objectives. The linking of the curriculum structures extends to the subject assessment, with each assessment item identifying which subject objective/s it is related to. This process strengthens the alignment, sequence and structure of the course, building on the clear definition of what is to be achieved by the course – ie. the graduate profile.

The site also has an instructional dimension, (particularly when coupled with the Graduate Certificate of Tertiary Education), using an experiential learning model. The benefit of connecting theory and practice, while integrating learning with workplace activities provides a powerful motivational dimension.

Information common to all course reviews is linked from this site. Alongside this, an “administrative” Course Review Committee site is developed with each new course review, specific to its meetings, stakeholder evaluations and so forth. The sites complement each other. The primary site remains public, whereas the Course Review Committee sites are not linked to any public page, with only those participating in the review, or invited for comment given the [obscure] URL.

Impact of the Primary Web Site and Other Staff Development Initiatives

This section of the paper is based primarily on informal comments, as the project has been in operation for only six months. The web site is to be reviewed following a year’s trial implementation. However, development of the system and support structures have been informed by a broader context.

Skillbeck (1990, p.79) advised in his conclusion that curriculum planning should be “flexible and adaptive”. The planning / developmental process needs to go beyond mere transparency of well publicised guidelines, which may be used to effectively side-line, and perhaps even silence, those who could contribute, by defining them as part of the “audience”.

Curriculum planning should be fed by up-to-date information on policy directions, and concurrent developments in other organisations. The resultant curriculum should
address practitioner needs, alongside those of the professions and wider community. Exchange of views between stakeholders early on in the planning phase is preferable, even “vital”, for longitudinal progression. Dialogue, clashes of rival priorities, explorations of tensions and contradictory values, can indeed unsettle those aiming for a stable outcome, but without these being aired near the start of the curriculum development process, they will almost certainly be voiced when it is “too late” to adequately address them.

The framework of the seven “C”s of assessing educational management may be re-defined and applied to curriculum development as one aspect of gauging the effectiveness of the initiatives.

**Comprehensiveness of the Procedures**

The question of comprehensiveness of the procedures put in place to support the University’s curriculum development and review activities may be viewed from a number of perspectives.

1. does it address all University-specific requirements for course review and development?
2. has it addressed the problems identified by the CRC?
3. is it consistent with the AVVC Guidelines?
4. does it support the Course Review Committees

At the first level – the University-specific requirements, the web site gathers all documents required for submission to the appropriate Committees together into a single location. The web site’s structure reflects the process of review and development, with links to “outcomes” documents, and support or reference material.

The CRC’s issues can be summarised, as a substantial variation between the different Department-based Course Review Committee’s understanding of curriculum-related issues, processes and components. This was aggravated by inconsistent use of terminology and highly variable understandings of courses – from the cafeteria-style student selection of subjects, through to highly prescribed inter-relationships between subjects, aligned with course objectives. The CRC now links its feedback to these Committees to the web site to clarify the CRC’s requirements. The CRC also refers Course Review Committees to the Learning and Development Program for additional support.

The structure of the web site makes the contribution of courses to the institutional mission and objectives more apparent – as recommended in the AVVC Guidelines. The process of review requires an informed analysis of how students have perceived the course, focussing on how the course structure, workloads and assessment impact on student learning – thus the course review process “contributes to monitoring, maintenance and improvements of standards and quality” and “support[s] and enhance[s] student learning” as recommended in the Guidelines.

**Communication**
The role of the Course Review web sites as publicly accessible resources, where those who are interested can follow the progress of the course review without having to attend all meetings is a time-friendly feature. Selective participation is important to “peripheral parties” with vested interests, such as Departments providing “service subjects” for a course, or professional bodies and individuals providing “expert comment” on developments. When combined with notification of additions to the web site, these parties can monitor and follow–up on the decision-making process. The role of the Course Review Secretary is vital to ensure that the theory of wider, selective participation can be realised, and mechanisms for contribution fully understood by, and transparent to the participants.

The primary web site links to pertinent University documents and sites as a single entry point, with links to exemplars of “good practice” both on and off campus.

**Cogency.**
The alignment of development and review of courses is informed by the AVVC Guidelines, and the University’s institutional and “teaching and learning” strategic plans, guided by the values implicit in these documents. The courses themselves will be evaluated on their success in addressing their stated aims and objectives. One expects an alignment from the broader higher education context, through to course-specific aims.

**Coherence.**
The key document in the course development is the graduate profile. The graduate profile is used to focus alignment throughout the course development process as described in the earlier section “Primary Curriculum Web Site – Supporting Curriculum Development and Review”. It expresses knowledge, values, attitudes and skills in a course-specific framework, and when appropriate, profession-specific context. See Appendix A for an example of the Bachelor of Aviation graduate profile.

**Consonance.**
The content and structure of the site has been a collaborative project between the Learning and Development Program and the CRC. It was designed to specifically address issues raised by the CRC in response to the perceived vacuum of university-specific curriculum information, and has undergone an organic development process. After a full year’s implementation, we will be in a better position to evaluate how the procedures and methods of quality assurance embedded in the site actually address the issues of initial concern, and fulfill the intended aim of the site.

**Constancy.**
As the process of systematic and regulated course development and review is relatively recently implemented in the University, the quality assurance mechanisms are being regularly refined. As such, it is difficult to establish whether these curriculum quality assurance mechanisms have become embedded in the University culture.

**Consequence.**
Even though the site has been operating for such a short period, there have been visible improvements in the documentation submitted to the CRC. Furthermore, significantly less time has been spent working with Departments to revise their documentation as a result of CRC feedback. However, it is acknowledged that this may be purely circumstantial, and is awaiting investigation in addition to a full year’s implementation.
References


Appendix 1

Bachelor of Aviation Graduate Profile

*Students graduating with a Bachelor of Aviation degree from the University of Newcastle will have the following attributes:*

GP 1. The knowledge and abilities to communicate effectively with others using written, graphical and spoken techniques especially in briefings;
GP 2. Have interpersonal relationship skills and strategies that allow the graduate to work effectively with people from both within and outside the discipline domain;
GP 3. The capacity to contribute to and work effectively in a team;
GP 4. High level skills and strategies in problem solving within the aviation domain;
GP 5. Have the knowledge and strategies to effectively complete tasks within the domain;
GP 6. Have the knowledge, technical skills and expertise associated with airmanship;
GP 7. Have the knowledge, skills and attitudes to perform in a professional manner in the aviation industry;
GP 8. Be an effective manager of time;
GP 9. Have the skills and attitude to support life-long learning;
GP 10. Have appropriate computing skills and competencies;
GP 11. Have the ability to apply critical thinking skills;
GP 12. Have a working knowledge of regional airlines and the issues associated with this level of the aviation industry;
GP 13. The ability to produce and make appropriate responses to industry reports;
GP 14. Skills to manage resources within their level of responsibility;
GP 15. The skills to effectively use computers to access information;
GP 16. Have an appropriate and responsible attitude to safety
Appendix 2

Suggested Guidelines for Course Development and Review Process

The following document outlines a process of review that compliments the University’s course review agenda. It is the intention of the Learning and Development Program to establish support for Faculties and Departments at a range of levels to meet this need.

Outcomes of an Effective Course Review Process

• Reciprocal interaction between stakeholders and the course developers. Stakeholders include:
  • potential students
  • current students
  • staff
  • graduates
  • professional associations
  • accrediting bodies
  • employers

This ongoing interaction developing a strong relationship between the University and the community in which it is a component

• a transparent process for the development of curriculum that are the outcome of a broad base of interaction
• involvement of all instructional stakeholders in the review process with subsequent ownership of review outcomes
• a course curriculum that meets the current and future needs of the students
• a process of curriculum design based on informed decision making
• increase the focus on student centred learning activities
• development of an detailed graduate profile
• integration of knowledge, skills and attitudes into the curriculum expressed as graduate outcomes
• the ability to apply appropriate teaching/learning methodologies in order to meet the identified graduate outcomes
• the development of individual subject outcomes that contribute collectively to meet the course outcomes
• the correct sequencing of subjects to both deepen and broaden the student’s study program
• the development of subject streams that meet the diversity of graduate specialisation needs
• the consideration of, and where appropriate application of, flexible delivery modes of instruction
• development and application of assessment strategies that will support the intended outcomes of the course
• development of a plan of action for the implementation of the course
• establishment of procedures for the ongoing evaluation of the course
• inclusion of the equity issues required of current University courses