CALL TO PARTICIPATE
REDESIGN PROJECT: JAMES COOK UNIVERSITY

Professor Sandra Harding, Vice-Chancellor, James Cook University (JCU) invites participation in a new university-wide initiative to redesign undergraduate subjects using technology-supported active learning strategies. The goal is to achieve improvements in learning outcomes as well as reductions in instructional costs. The Redesign Project shall operate during the period 2011-13.

The goals of the Redesign Project are to:
- Adopt new ways to improve student learning outcomes;
- Demonstrate these improvements through rigorous assessment;
- Reduce institutional costs;
- Free up instructional resources to be used for other purposes;
- Develop the internal capacity of JCU academic and professional staff to continue the redesign process.

Orientation Webinar

An orientation webinar will be held on **Friday 26 August 2011**, from 9.00 AM to 11.00 AM (EST). This orientation will feature Dr. Carol A. Twigg, President and CEO of the National Center for Academic Transformation (NCAT) and architect of the successful large-scale national and state-based course redesign programs in the United States, on which the Australian Redesign Project, jointly sponsored by the Australian Learning and Teaching Council and the LH Martin Institute, is based. The purpose of this session is to provide all interested members of the university community the opportunity to learn about the project and why you may want to participate.

*Participation in the orientation webinar is required in order to be eligible to submit a project proposal. Those who choose to submit a proposal are also required to attend a follow-up webinar on **Thursday 20 October 2011**, from 9.00 AM to 11.00 AM (EST).*

BACKGROUND

Public higher education in Australia, as in many countries, continues to be challenged by the need to increase access, to improve the quality of student learning, and to control or reduce rising costs. These issues are, of course, inter-related. As tuition costs continue to rise, access may be curtailed for those least able to afford education. Promises to increase access ring hollow when high percentages of students fail to graduate. The solutions to these challenges appear to be inter-related as well. Historically, improving quality or increasing access has meant increasing costs, while reducing costs has generally meant reducing both quality and/or access. To sustain its vitality while serving a growing and increasingly diverse student body, higher education must find a way to resolve these familiar trade-offs among quality, cost and access.

Many universities have adopted new ways of infusing technology to enhance the teaching and learning process and to extend access to new populations of students.
However, most universities have not fully harnessed the potential of technology to improve the quality of student learning, increase retention and reduce the costs of instruction in subjects that have the broadest impact on their courses. The purpose of the Redesign Project is to redesign a selection of undergraduate subjects (one semester in duration), following the guidelines of successful redesigns in the United States.

A New Approach

Since April 1999, the National Center for Academic Transformation (NCAT) has managed a number of programs in course redesign in the United States (note: ‘subjects’ or ‘units’ in Australian university terminology, not entire degrees or majors). These programs have demonstrated how colleges and universities can redesign their instructional approaches using technology to achieve quality enhancements as well as cost savings. In the seminal Program in Course Redesign (PCR), 30 institutions were selected from hundreds of applicants in a national competition to participate. Each institution redesigned one large-enrolment course to increase quality while simultaneously reducing instructional costs through the use of technology. These 30 institutions represent research universities, comprehensive universities, private colleges, and community colleges in all regions of the United States.

NCAT required each of the 30 institutions participating in the PCR to conduct a rigorous evaluation focused on learning outcomes as measured by student performance and achievement. National assessment experts provided consultation and oversight regarding the assessment of learning outcomes to maximise validity and reliability.

The findings of the PCR show:
- 25 of the 30 redesigns improved learning; the remaining 5 redesigns showed learning outcomes equivalent to traditional formats;
- Of the 24 projects that measured retention, 18 resulted in reductions in drop-failure-withdrawal (DFW) rates; and,
- All 30 projects reduced the cost of instruction--by 37% on average, with a range of 15% to 77%.

Other outcomes achieved included improved student attitudes toward the subject matter and increased student satisfaction with the mode of instruction.

While each of the 30 institutions within the PCR had complete freedom as to how they would redesign their course to increase quality and reduce costs, a number of common elements emerged:

1. **Whole course redesign.** In each case, the whole course--rather than a single class or section--is redesigned. Academic staff members begin by analysing the time that each person involved in the course spends on each kind of activity. This analysis often reveals duplication of effort. By sharing responsibility for both course development and course delivery, academic staff members save substantial time and achieve greater course consistency.
2. **Active learning.** All of the redesign projects make the teaching-learning enterprise significantly more active and learner-centred. Lectures are replaced with a variety of learning resources that move students from a passive, note-taking role to active learning. As one math professor put it, “Students learn math by doing math, not by listening to someone talk about doing math.”

3. **Computer-based learning resources.** Instructional software and other Web-based learning resources assume an important role in engaging students with course content. Resources include tutorials, exercises and low-stakes quizzes that provide frequent practice, feedback, and reinforcement of course concepts.

4. **Mastery learning.** The redesign projects offer students more flexibility, but the redesigned courses are not self-paced. Student pace and progress are organised by the need to master specific learning objectives—often in a modular format, according to scheduled milestones for completion—rather than by class meeting times.

5. **On-demand help.** An expanded support system enables students to receive assistance from a variety of people. Helping students feel that they are a part of a learning community is critical to persistence, learning and satisfaction. Many projects replace lecture time with individual and small-group activities that meet in computer labs—staffed by academics, graduate teaching assistants (GTAs) and/or peer tutors—or online, thus providing students more one-on-one assistance.

6. **Alternative staffing.** Various instructional personnel—in addition to highly trained, expert academic staff—constitute the student’s support system. Not all tasks associated with a course require an academic staff member’s time. By replacing expensive labour (academic staff and graduate students) with relatively inexpensive labour (undergraduate peer mentors and course assistants) where appropriate, the projects increase the number of hours during which students can access help and free academic staff to concentrate on academic rather than logistical tasks.

NCAT has now worked with more than 150 institutions in the U.S. to redesign large-enrolment courses at all levels of the undergraduate curriculum. Learning outcomes improved in 72 percent of the redesigns with the remaining 28 percent producing learning equivalent to traditional formats. On average, costs were reduced by 37 percent in redesigned courses with a range of 9–77 percent. Based on the experiences of the participating institutions, NCAT has identified six redesign models that represent different points on the continuum from a fully face-to-face course to a fully online course. NCAT has also established a number of proven approaches to assessing student learning as well as a variety of strategies to overcome potential implementation obstacles.

**What does “cost savings” mean in practice?**

It is important to understand the context for reducing costs. In the past, cost reduction in higher education has meant loss of jobs, but that’s not the NCAT approach. In the vast majority of NCAT course redesign projects, the cost savings achieved through the redesigned courses remained in the department that generated them, and the savings...
achieved were used for instructional purposes. NCAT thinks of cost savings as a reallocation of resources that allows academic staff and their institutions to achieve their “wish lists”—what they would like to do if they had additional resources.

Institutional participants have used cost savings in the following ways:

- offering additional or new courses that previously could not be offered;
- satisfying unmet student demand by serving more students on the same resource base;
- breaking up “academic bottlenecks”—courses that delay forward progress of students within a subject area or program because they are oversubscribed;
- increasing academic staff release time for research, renewal or additional course development; and,
- combinations of these.

Further information about NCAT, the PCR results and other NCAT course redesign programs are available at [www.theNCAT.org](http://www.theNCAT.org).

**REDESIGN PROJECT: JAMES COOK UNIVERSITY**

James Cook University, in partnership with the LH Martin Institute, the Australian Learning and Teaching Council and NCAT, will build on the successful models and lessons learned from NCAT’s American programs to create a subject redesign program for subjects at JCU. The Redesign Project will engage with NCAT to support an initial subject redesign, which will enable us to develop internal capacity to support this process on an ongoing basis throughout JCU. The Redesign Project will also operate concurrently in the Australian Catholic University.

**Project Focus: Large-Enrolment, Undergraduate Subjects**

In order to have maximum impact on student learning and achieve the highest possible return on JCU’s investment, redesign efforts supported by this project will focus specifically on undergraduate subjects, ideally with large enrolment. In addition to having an impact on large numbers of students, there are other advantages of such a focus. In many large-enrolment subjects, the predominant instructional model is the large lecture. While recognising the limitations of the lecture method, many departments continue to organise subjects in this way because they believe that it represents the most cost-effective way to deal with large numbers of students. The project will demonstrate that alternatives that improve quality and are less costly than lecture-based strategies are possible.

In addition, many large-enrolment subjects are introductory. These introductory subjects are good prospects for technology-enhanced redesign because they have a more or less standardised curriculum and outcomes that can be more easily delineated. They also serve as foundation studies for future majors. Successful learning experiences in these subjects will influence students to persist in key disciplines, like the sciences. Finally, because these subjects are feeders to other disciplines, success in them will help students make the transition to more advanced study.
TO LEARN MORE ABOUT THE PROJECT

To learn more about this new initiative, plan to participate in the initial orientation session to be held on **Friday 26 August 2011**, from 9.00 AM to 11.00 AM (EST). Dr. Carol A. Twigg, NCAT’s president and CEO, will provide an overview of the successful planning methodology used in NCAT’s redesign programs and the results they achieved. The webinar is open to all staff members who want to learn about the project and why you may want to participate.

The goal of this webinar is for participants to acquire a solid understanding of what is needed to implement a good redesign. Through presentations and case studies, participants will learn the basic planning steps as well as how to adapt NCAT’s redesign methodology to the needs of their particular subject area.

The outcome of the webinar will be that participants will learn that there are many ways to redesign a subject to achieve quality improvements and cost savings and that what can be achieved is only limited by one’s creativity.

**IMPORTANT**: Participation at the orientation webinar is required in order for an academic unit to be eligible to submit a project proposal.

**Homework**

Participants will be expected to have completed the following assigned reading about subject redesign prior to the webinar.

- **Improving Learning and Reducing Costs: New Models for Online Learning**
  An article by Carol A. Twigg that includes a full description of multiple course redesign models with examples.
  Available: [http://www.thencat.org/Monographs/ImpLearn.html](http://www.thencat.org/Monographs/ImpLearn.html)

- **Five Principles of Successful Course Redesign**
  A summary of the redesign techniques that are essential to improving student learning while reducing instructional costs.
  Available: [http://www.thencat.org/PlanRes/R2R_PrinCR.htm](http://www.thencat.org/PlanRes/R2R_PrinCR.htm)

**Who should participate?**

All staff members interested in submitting a grant proposal for this program must participate in this webinar and the follow-up webinar scheduled for **20 October 2011**. However, those who participate in the webinar are not required to submit a proposal.

We welcome representatives from a number of academic schools that might be interested in participating in the project—i.e., we think it would be a good idea not to decide which subject to redesign at this early stage but rather make that decision after the orientation webinar. Participants may be academic staff, professional staff and/or campus administrators. The webinar will help each school decide which subject is the most “ready” to be redesigned.
To Register

Send an email to Peter Bentley at peter.bentley@unimelb.edu.au and include:

1. Subject line: “Registration for Redesign Project Webinar”

2. Please include the following information:
   • Your name and title
   • Faculty and school
   • Phone and email

3. You may register multiple attendees from the same faculty or school in a single email; please include phone and email for each attendee.

How to access

Directions for how to access the Redesign Project webinars will be emailed to registered participants.

FOR MORE INFORMATION

For more information about the orientation webinar, the Redesign Project or NCAT, please contact:

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- Peter Bentley, Research Fellow, LH Martin Institute (03) 8344 0756, peter.bentley@unimelb.edu.au
- Carolyn Jarmon, NCAT Vice President, (+1) 518 695-5320, cjarmon@theNCAT.org

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