Policy Discussion: Taking Course Redesign to Scale

Carol A. Twigg, president and CEO of the National Center for Academic Transformation, will discuss the center’s six-year trek within academe to reform the pedagogy of teaching at the college and university level. The center seeks to demonstrate how the effective use of information technology can improve student learning and reduce instructional costs.

Working originally with 30 “redesign” projects – all focused on restructuring large-enrollment, introductory courses in order to both improve student performance and to achieve substantial reductions in production costs – the center has become recognized as one of the most innovative experiments in changing the delivery of higher education in America. The results have proven truly remarkable. In virtually every project more students have successfully completed the courses for which they enrolled and have demonstrated substantially greater learning (on average) than students in traditional courses. And all of this has been delivered at a lower cost.

Now moving into a new wave of academic transformation, the center is seeking to take the lessons learned to a much larger scale. Interestingly, despite the grand success of virtually every one of the 30 redesign projects, the concepts of redesign have not yet caught fire within academe, even within those institutions involved in the original projects. As a result the center has developed a new stage of activities, designed to work with states and state systems to extend the lessons learned with institutions to a much broader level of policy and practice.

Twigg will share information about this new phase of activity and will discuss what seems to work and what doesn’t as the project moves “to scale.” She will also discuss ways in which Western states can become involved in this stage of the center’s work, if they so desire. Tad Perry, a WICHE commissioner from South Dakota, will moderate.

Biographical Information on the Speakers

Carol A. Twigg is president and CEO of the National Center for Academic Transformation. The center serves as a resource for colleges and universities, providing leadership on how effective use of information technology can improve student learning while reducing instructional costs. A widely published writer and a sought-after speaker, Twigg is seen as an authority on using information technology to transform teaching and learning in higher education. In 1995, Newsweek named Twigg one of the 50 most influential thinkers in the information revolution, and in 2003, she was the recipient of the prestigious McGraw Prize in Education.

Tad Perry, a WICHE commissioner and the commission’s chair in 2002, has been the executive director of the South Dakota Board of Regents.
since 1994. Previously, he served as chief operating officer at Indiana’s Partnership for Statewide Education, a consortium of public universities for the delivery of distance education. He also held a number of positions at Ball State University in Muncie, IN, including serving as faculty member and chair of the Political Science Department, special assistant to the vice president for business affairs, executive assistant for fiscal relations, assistant provost, and associate vice provost. He received his master’s and Ph.D. in political science from the University of Missouri at Columbia. He joined the WICHE Commission in 1994.
The NCAT Course Redesign Program Overview:  
A Structured Approach to Success for the States and Systems

Goals of the Program:

- Implement a research-based and systematic approach to whole course redesign (rather than individual classes or sections) for large-enrollment, core courses to produce significant gains in student learning and substantial cost savings.
- Assist the state in focusing the NCAT program on solving critical operational issues such as enrollment growth, quality assurance and funding limitations.
- Leverage existing investments in information technology to better serve the core mission of the institution - education.
- Build capacity within the system and the individual institutions to undertake subsequent course redesign programs.

Background:

From 1999 - 2003, the National Center for Academic Transformation, supported by an $8.8 million grant from the Pew Charitable Trusts, developed the Program in Course Redesign (PCR). Its purpose was to demonstrate how colleges and universities can redesign their instructional approaches using technology to achieve quality enhancements as well as cost savings. Thirty institutions (affecting more than 50,000 students) were selected from hundreds of applicants in a national competition to participate. The institutions included research universities, comprehensive universities, private colleges and community colleges in all regions of the United States.

NCAT required each of the 30 institutions to conduct a rigorous evaluation focused on learning outcomes as measured by student performance and achievement. National experts provided consultation and oversight regarding the assessment of learning outcomes to ensure that the results were reliable and valid. The results were astounding. Twenty-five institutions showed significant increases in student learning (with the other five showing outcomes comparable to the “traditional” course), eighteen (of the twenty-four that measured it) showed sizeable increases in retention, and all thirty reduced instructional costs, on average by 37%. In total, the 30 course redesigns produced $3,000,000 in annual savings while improving student learning outcomes.

At Tallahassee Community College, students in a redesigned English composition course scored significantly higher on final essays, with an average score of 8.34 compared to 7.33 for traditional students. The cost-per-student was reduced from $252 to $145 a savings of 43%.

NCAT is now applying the methodology for course redesign developed at the national level to the state level. Specifically, NCAT is consulting with state and system education officials and managing course redesign efforts that result in an organized and scalable process for using technology to improve student learning while reducing instructional costs. The result is institutional capacity to replicate successes throughout the state or system and the ability to accommodate more students, more successfully without increasing resources.
Why Redesign?

The demand and need for higher education has never been higher while budgets for higher education are flat at best. Course redesign allows institutions to:

- Improve teaching and learning in large courses whose structures have never been optimal for students or faculty
- Accommodate more students without adding resources
- Free up faculty members to offer additional courses and programs of study that are in demand
- Increase student retention and meet goals for student achievement
- Decrease time to graduation by adding additional seats in bottleneck courses
- Improve the consistency of the quality across institution and section
- Be better stewards of state and student tuition dollars

The Methodology:

The NCAT Course Redesign methodology is a three-year; three-phase process based on the proven Pew-funded Program in Course Redesign (PCR), the subsequent Roadmap to Redesign (R2R) program and NCAT’s analysis of the effect of course redesign on underserved students. The latter program is an effort supported by Lumina Foundation for Education to assess the impact of the PCR on the success of traditionally underserved students: low-income students, students of color and adults. More information about all three programs is available on the NCAT website, www.theNCAT.org.

The process is championed by the state or system, managed by NCAT and driven by the faculty and staff. Because of the complexity of redesigning large enrollment courses, both faculty and administrators are engaged in an initial education and commitment building phase, in a very well structured planning process and a comprehensive implementation process. Course redesign projects generally focus on large-enrollment, introductory courses, which have the potential of impacting significant student numbers and generating substantial cost savings, but can be applied to any course that is taught through multiple sections or with more than one faculty member. NCAT’s proven methodology coupled with an active communications plan ensures that results are achieved and knowledge is passed on in order to leverage those successes.

For more detailed information on the NCAT’s state- and system-based redesign program please contact Andrea Fuller, Vice President of Development, at (202)257-7172 or afuller@theNCAT.org.