Chapter 6.6

Cost Effectiveness in Course Redesign:
The Transformation Toward E–Learning

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EXECUTIVE SUMMARY

As Web-based technologies march forward, improved access to higher education by traditional and non-traditional student, alike, is a certainty, but such technologies as a mechanism for lowering costs are still subject for further exploration. Course redesign from traditional to electronic delivery serves not only to grant access or improve achievement for the student, but can offer a cost savings for the institution. Educational leaders in higher education may consider the Web-based redesign alternative as not only a learning instrument, but a means to cut instructional costs. An explanation and application of a cost-measuring instrument, as well as reviews of literature and Web-based instructional models or strategies, is at the heart of this examination of course redesign. Educational content has become a commodity. Improved networks provide rapid and flexible dissemination of course content, opening up numerous options for organizing programs. Rather than designing content delivery around the schedule and resources of the provider, the institution, it can be customized around the needs of the recipient (Lovett, 1996). Courses, programs, and even degrees, can be organized around a combination of flexible course modules to accommodate particular student/client needs. Technology-mediated instruction, taken to its anywhere-anytime extreme, makes traditional academic calendars and curricular structures irrelevant or even a barrier to effective education.

THE ISLAND UNIVERSITY AND THE COST OF LEAVING THE ISLAND

Texas A&M University-Corpus Christi (TAMU-CC), located on the Coastal Bend of the Texas coast, is a doctoral-granting institution with a strong emphasis in education, nursing, and coastal studies. It has a tradition of serving primarily as a regional institution for the citizenry of South Texas; however, as the fastest growing public institution in the state, it has attracted interest nationally and internationally. How does a once regional-serving institution expand cost-effectively and technologically without compromising the integrity of the classroom environment?

There are a number of considerations for the design and development of the online classroom. First is the issue of economics. Unless there is a minimum, sustainable number of students at a distance to benefit from the virtual classroom implementation, the university administration will view the initiative as an inefficient waste of resources. There must be institutional policies and procedures in place. There should be a realistic long-range plan considering equipment, skilled personnel, resources, and instructional impact (Hsu, 1999). Furthermore, as part of the planning and development strategy, there should be emphasis on cultivating an atmosphere of connectivity between sites and participants (Schrum, 1996).

Course development, whether for traditional classroom environments or high-tech settings, has been viewed as a significant drain on education funds. For web-based strategies, the cheaper and easier route has been to purchase pre-developed courses, much like a textbook or telecourse, and adapt the materials for campus use. The Florida Community College Distance Learning Consortium has successfully consolidated the licensing of instructional content since its creation in 1996 (FCCDLC, 2004). The Consortium has saved approximately 50 per cent over the individual institution costs by combining purchases and leveraging resources to make upfront buyouts of high-use course content. Where the course content changes rapidly, such as the case of information technology training, the Consortium has achieved favorable results in state-level master agreements for IT courseware by working with collaborating institutions, pooling their resources towards larger, otherwise unaffordable, purchases (Opper, 2002). Participating institutions benefit by large volume discount pricing. There is a key distinction between licensing and development activities: Licensing curricular content for use becomes an ongoing expense while development is a one time, up front cost. The reality is that any course, whether developed from scratch or licensed and adapted, requires revision within a year or two of its introduction; therefore, in the long run, development can cost more up front and, yet, still obligate the institution to later maintenance costs. The critical factors to consider are the stability and durability (the test of time) of the content and the number of students served (Opper, 2002).

While shared resources bring about greater choice and supply of curricula, effective instructional technology collaboration at the higher education levels may not necessarily translate to success in cost-effectiveness terms in K-12 school systems. One study that investigated the implications of distance education for cost-effectiveness and equity in the allocation and use of educational resources involved participants from nine New York school districts utilizing interactive television as their distance education modality. The results revealed that distance education did, indeed, allow small and rural schools to expand their curricula; however, interactive television distance education courses cost substantially more to offer than traditional on-site courses (Brent, 1999). Districts varied considerably in their utilization of the network and participating students did not benefit equally. In question is the reliance on interactive television, as opposed to web-based learning, as the choice of distance learning modality. Some forms of distance education can result in lower unit costs than those of classroom-based instruc-

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