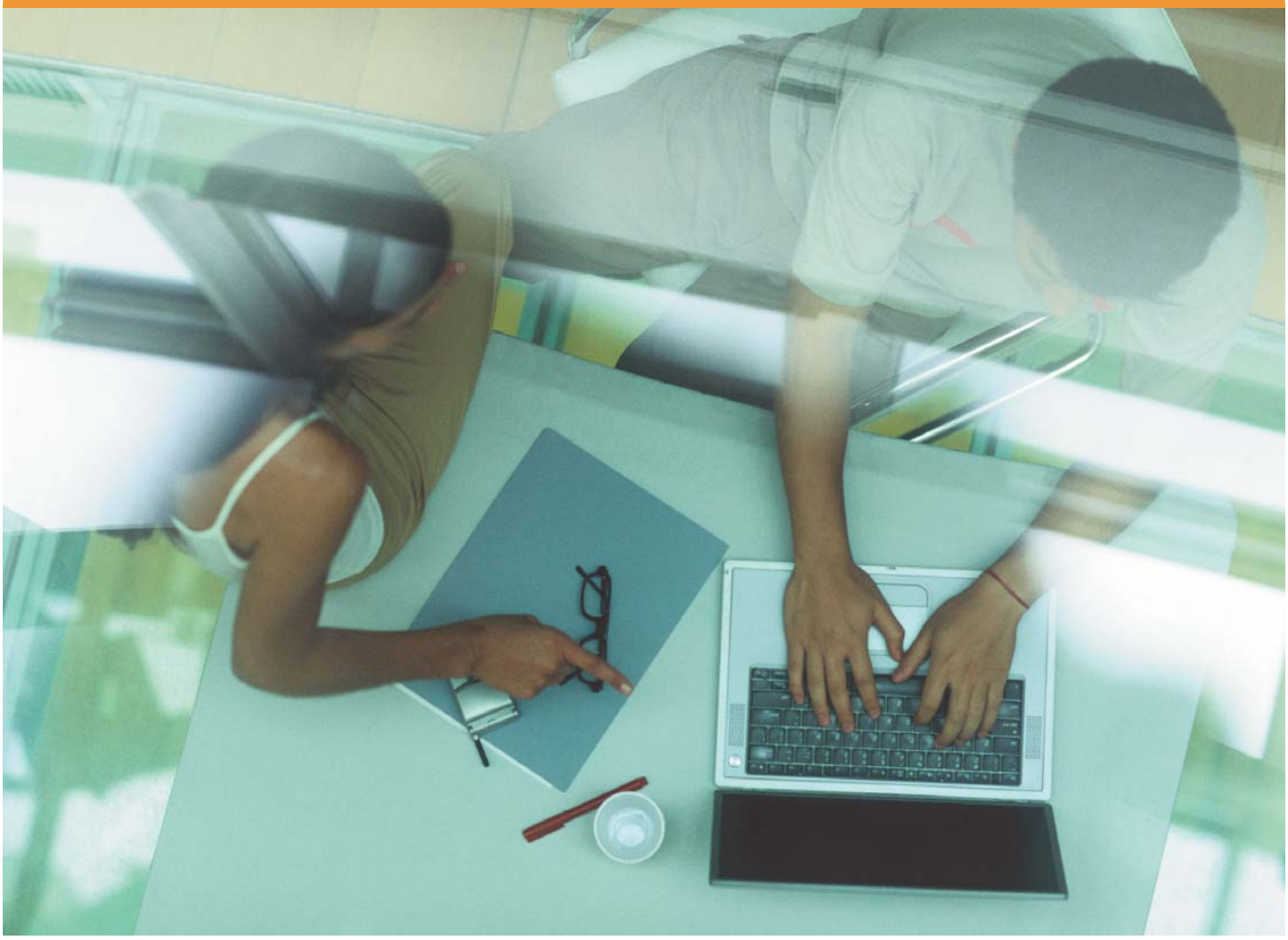

The Efficacy (and Inevitability) of Online Learning in Higher Education

September 2010

By Wendy Rickard

Foreword by John G. Flores, Ph.D., United States Distance Learning Association

Table of Contents

The Efficacy (and Inevitability) of Online Learning in Higher Education

By Wendy Rickard
Foreword by John G. Flores, Ph.D.
Contributions by Michelle Speckler

Pearson Learning Solutions, 501 Boylston Street, Suite 900, Boston, MA 02116

800 428 4466 • www.pearsonlearningsolutions.com

Foreword

John G. Flores, Ph.D., Chief Executive Officer
United States Distance Learning Association

No longer viewed solely as an alternative to traditional programs, online learning has become an integral aspect of all types of mainstream education and training environments, including K12, higher education, corporate, government, military, and home schooling. The ability to access high-quality, academically rigorous anywhere/anytime programs is today's new academic gold standard.

Indeed, integration of online learning into their curricula has become almost as common among colleges as e-mail accounts among our friends. In the report that follows, author Wendy Rickard cites both successful examples of online implementations and published analyses and studies for exploring the rapid growth and efficacy of online learning, and she presents some of the industry's most pressing challenges and opportunities.

No longer viewed solely as an alternative to traditional programs, online learning has become an integral aspect of all types of mainstream education and training environments, including K12, higher education, corporate, government, military, and home schooling.

At the United States Distance Learning Association (USDLA), we recognize that true industry growth consists not only of getting bigger but also of becoming better, more focused, and even more effective. And that the strongest impetus for improvement comes when there is a system of accountability—an insightful process designed by a representative group of experts in the field of online learning, all of whom understand the critical elements of technology and learning processes. Knowing how to best combine the two elements in order to effect student achievement and academic rigor is mandatory. Rickard recognizes that there is no single simple formula for doing this. Rather, formulas vary with the subject and vary with the students. Yet with all of the differences, certain broad principles apply, and those principles are outlined for us here.

The ability to access high-quality, academically rigorous anywhere/anytime programs is today's new academic gold standard.

Since 1986, the USDLA has supported the research, development, and implementation of online learning across the entire spectrum of education and training. The association's consistent focus on quality approaches and professional growth has enabled it to serve as a focal point and clearinghouse for some of the great innovations in the field. At present, the globalization of learning is an inescapable trend that underscores the need for standards of quality to ensure the ongoing development of programs of excellence grounded in reliable research and pedagogy. In the United States, we know that increased access to online learning has enabled schools to expand their reach across state lines. We are excited to note a similar dynamic with programs extending across international borders.

I encourage all stakeholders in the future of education to read this report. I hope you enjoy it. And I suggest that to learn more, you visit both www.usdla.org and www.pearsonlearningsolutions.com.

Why This Is Important

When Thomas Russell set out to compile existing data on the impact of distance learning on student success as compared with the impact of the more traditional, face-to-face format,[1] he was not attempting to make a judgment call. Instead, his work—eventually published as a compendium titled *The No Significant Difference Phenomenon*—was likely meant to help *shape* discussion of the relative merits of distance education, not *deride* it.

That's an important distinction because, as the keepers of Russell's work point out, *no significant difference* does not mean *unimportant*.[2] The body of research Russell compiled was critical to the evolution of distance learning. By 1999, when Russell's book was published, online learning—the key driver in the rise of distance education during the previous 30 years—had already become a part of the business of higher education. What Russell's work did was provide both a lens through which educators could map the trajectory of distance learning and a context for imagining new learning environments.

In 2009, the big question over the efficacy of online learning was answered when the U.S. Department of Education's Office of Planning, Evaluation, and Policy Development issued a report claiming that students who took all or part of a class online performed better, on average, than those who took the same course via traditional, face-to-face instruction.[3] Moreover, the report stated that blended learning—a form of instruction that combines online and face-to-face elements—was even more advantageous.

While the details of the report's meta-analysis are worth reviewing (there are considerable nuances in the interpretation of the results), the findings represent a watershed for college and university instructors, learners, and administrators, as well as for the growing number of businesses that build learning management systems, educational content, and related tools. The report offers more than validation that online learning is a legitimate piece of the education puzzle; online learning provides a stepping-stone to what could be the more important work at hand—that is, determining which strategies, tools, and applications for online learning are best suited to specific learners, to specific learning institutions, and to specific learning circumstances.

Defining the Terminology

Fueled by rapid innovations in computer technology, by the Internet, and by network-based mobile devices, what had once been a small piece of the education pie has evolved into a multibillion-dollar industry[4] now known as online learning. But what do we mean when we talk about online learning?

First, online learning is more than a high-tech grandchild of distance education. It involves systems for managing everything from registration to course work, to assessment. Whereas the terms *distance education* and *distance learning* refer specifically to any educational activity where the instructor and the student are not in the same place at the same time, online learning addresses more than just geography.

More specifically, according to *Staying the Course: Online Education in the United States, 2008* (The Sloan Consortium), "Online courses . . . are those in which at least 80 percent of the course content is delivered online. Face-to-face instruction includes courses in which zero to 29 percent of the content is delivered online; this category includes both traditional and Web-facilitated courses. The remaining alternative, blended (sometimes called hybrid) instruction is defined as having between 30 percent and 80 percent of the course content delivered online."

For purposes of this discussion, online learning is defined as any teaching and/or learning activity that *depends* on communications technologies (such as Internet- or intranet-based services) and/or computer technologies (such as computer hardware, mobile devices, and software applications) for delivery of all or most (more than 80 percent) of the educational experience. Online learning can mean a learning experience that is fully online (such as a course delivered or a degree obtained at a distance) or one that combines online engagement with some face-to-face activity (often referred to as blended learning); it can be synchronous, asynchronous, or a combination of both.

Proportion of Content Delivered Online	Type of Course	Typical Description
0%	Traditional	Course with no online technology used: content is delivered in writing or orally.
1–29%	Web facilitated	Course that uses Web-based technology to facilitate what is essentially a face-to-face course. May use a course management system or Web pages to post the syllabus and assignments.
30–79%	Blended/hybrid	Course that blends online and face-to-face delivery. Substantial proportion of the content is delivered online, typically uses online discussions, and has a reduced number of face-to-face meetings.
80–100%	Online	A course where most or all of the content is delivered online. Typically has no face-to-face meetings.

Some Background

The concept of distance education dates back at least as early as 1728.[5] The history of online learning, however, is considerably shorter. Early online, or e-learning, systems used computers to replicate autocratic teaching styles. In those cases, the so-called e-learning system was designed to transfer knowledge.

Computer-assisted learning began making inroads in traditional higher education during the late 1970s and early 1980s in large part because communications networks, such as BITNET and CSNET, facilitated academic exchange. It took a giant leap forward in the late 1980s with the integration of those and other networks into what became the Internet. In the mid-1990s, Educom (now known as EDUCAUSE)—a consortium of colleges and universities that has long advocated the transformation of higher education through information technology—began talking about the need to develop a National Learning Infrastructure.[6] Such an infrastructure would acknowledge the needs of a new generation of learners and the changing demands on institutions of higher education, and it would leverage information technology (1) to achieve increased access to higher education, (2) to improve quality, and (3) to reduce cost. In 1994, Carol Twigg declared, "What we know about high-quality learning—the use of such techniques as mastery learning, cooperative learning, and discovery learning—implies a learning-by-doing model rather than the passive, classroom-based model that typifies the teaching infrastructure."[7] Online learning, which in many instances relies on student-to-student and student-to-teacher interaction, was claimed by Twigg and other experts to be fertile ground for cultivation of an improved system for teaching and learning. Ultimately, it facilitated important changes in the ways instructors and students experience teaching and learning, respectively.

By the mid-2000s, growth in online learning was notable enough to warrant study. In a 2007 Babson Survey Research Group/Sloan Consortium report entitled *Online Nation: Five Years of Growth in Online Learning*, the authors found that almost 3.5 million students had taken at least one online course during the fall 2006 term—a nearly 10 percent increase over the number reported the previous year. While the growth appears to be spread among all types of institutions, two-year associate degree institutions experienced the highest growth rate and account for more than half of all online enrollments over the past five years.[8]

The authors of *Online Nation* say the evidence clearly points to a bright future for growth in online enrollment. According to their research, 69 percent of academic leaders report that student demand for online learning is still growing, and a majority of institutions (83 percent) with online offerings expect their online enrollments to increase over the coming year.[9]

Exploring the Efficacies of Online Learning

Few would doubt that a student-success movement is under way. Whether it's the result of harsh economic realities, shifting student demographics, or a natural consequence of what it takes to succeed in a knowledge-based economy, students, parents, and state governing boards are demanding more than ever from institutions of higher education, particularly with regard to retention, learning outcomes, and graduation rates as well as, in some cases, future employment. Today, the focus is on student achievement.

Beginning in the 1990s, in response to a growing awareness that to be effective, students must be more active in the learning process, institutions began exploring options for reengineering classrooms to make the experience more focused on the student, more collaborative, and more interactive. Allison King's famous observation that instructors should shift their focus from being the sage on the stage to being the guide on the side became the mantra for learning environments that were student centered. With online technology becoming more integral to the learning experience, the physical layouts of classrooms began to change. Gradually, the iconic image of rows of desks and chairs facing an instructor became a relic of the past. Soon, students were facing computer screens and each other, and instructors were roaming their classrooms, making themselves available as needed. As lecture notes, supplemental materials, assessments, and communications started moving online, students were taking greater control over their learning experiences. Course management systems made it possible for students to get immediate feedback. E-mail made it easier for students to communicate with instructors without having to wait outside instructors' office doors. And the advent of social networking meant students could collaborate without having to be in the same study lounges or dorm rooms.

In an effort to distill the role that information technology could play in transforming teaching and learning into an industry that is famously resistant to change, Educom outlined three key benefits.

1. Increased access to education
2. Improved quality of education
3. Contained and/or reduced cost

1. Increased access

From grade school through graduate education and from retraining to professional certification, online learning makes it possible to gain access to education—regardless of a student's geographic location or life circumstances. Access is especially important for nontraditional learners, such as working adults, for whom the four-year residential experience is neither viable nor relevant. In fact, community colleges have long been early adopters of groundbreaking online-learning models, mainly because they serve the nontraditional student market so well.

Even with the high cost of technology, institutions of higher education have found that increasing students' access to education benefits them as well as learners. With demand for higher education growing at unprecedented rates, many institutions struggle to accommodate demand in spite of limited physical space. Online learning makes it possible to serve more students without necessarily having to invest in more classroom space. Similarly, budget pressures impact a wide range of resources, including human resources, classroom space, materials, and labs. During financially challenging times, institutions find that intelligent applications of online learning make it possible to serve more students with fewer resources.

Examples abound, particularly among community colleges. The Louisiana Community and Technical College System (LCTCS), for one, focuses on programs and services that prepare students to either transfer to four-year colleges and universities or enter the workforce with marketable skills. In 2009, LCTCS—which comprises 7 community colleges, 2 technical community colleges, and 38 technical colleges—unveiled LCTCSOnline, the online education platform for the entire college system. The program is aimed at the typical LCTCS student, who is a

working adult looking to acquire skills for career advancement but who has neither the time nor the flexibility to attend traditional classes. Developed in partnership with Pearson Learning Solutions, LCTCSOnline is considered a breakthrough based on its ability to serve students via desktops, laptops, or mobile devices. The students learn from common LCTCS courses, all of which feature customized online courses, digital learning objects, e-books, and textbooks. The platform and the services are offered and managed by Pearson eCollege. The initiative embodies the type of thinking Louisiana needs to support its education institutions as they work toward a statewide goal of 10,000 additional graduates by 2015. Louisiana's community and technical college system is a critical component of economic development in the state, sending thousands of better-prepared graduates into the workforce each year. Adding the flexibility of online learning will enable even more students to realize their dreams of graduating and finding success in life.

2. Improved quality

As documented by the U.S. Department of Education's Staying the Course report, (1) online courses and educational programs produce, on average, stronger student-learning outcomes than do those conducted solely in traditional classroom environments and (2) that online learning that combines online and face-to-face elements had a larger advantage relative to purely face-to-face than did purely online instruction. The editors point out, however, that "the observed advantage for online learning in general, and blended learning conditions in particular, is not necessarily rooted in the media used per se and may reflect differences in content, pedagogy, and learning time."

That qualification speaks to a critical aspect in the ongoing evolution of online learning—that is, the ability to identify the factors that influence successful educational outcomes in general and successful educational outcomes in online learning environments in particular. Building an online course or curriculum that not only serves students' needs but also improves learning and retention is just beginning to be understood.

Improving the quality of education through online learning requires effort, innovation, and ingenuity. Reta Roberts, professor of criminal justice, came to Florida State College at Jacksonville (FSCJ) in 2000 to create online and hybrid versions of the school's criminal justice program. After successfully completing the conversion, Roberts proceeded to teach—and observe. The online and hybrid programs used the same book, covered the same material, and were taught by the same professor, but until

Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies

Summary of Key Findings

- Students who took all or part of their course online performed better, on average, than those taking the same course through traditional, face-to-face instruction.
- Instruction combining online and face-to-face elements had a greater advantage relative to purely face-to-face instruction than did purely online instruction.
- Studies in which learners in the online structure spent more time on task than did students in the face-to-face arrangement found greater benefit in online learning.
- Most of the variations in the ways different studies implemented online learning did not significantly affect student-learning outcomes.
- The effectiveness of online learning approaches appears quite broad across various content and learner types. Online learning appeared to be an effective option for undergraduates and graduate students as well as for professionals in a wide range of academic and professional studies.
- Online learning can be enhanced by giving learners control over their interactions with media and by prompting learner reflection.

Roberts integrated elements of interactivity, the results were less than impressive. "I eventually realized that the missing piece was interactivity," she says. "In the on-site classes, I could see that the students were comprehending the information, integrating it, and synthesizing it into higher learning. In my online classes, I lacked cues about what the students were experiencing."

Pearson worked with Roberts to integrate CourseConnect (Pearson's library of customizable online courses) and its myriad embedded media features into her course. It was a great success. Today, CourseConnect is used in every available criminal justice course at FSCJ. The media tools help keep students engaged, and through discussions and chats, Roberts is able to accurately gauge whether students are on track.

To support her observations of the positive effects this approach has had on student learning, Roberts conducted a study comparing the grades of students who used CourseConnect with those of students who did not. The resulting data revealed that of the students who used CourseConnect's media tools, a higher percentage passed the course. Fourteen percent more students earned passing grades on the essays and discussions; and an additional 36 percent earned As and Bs. "This is important," says Roberts. "Essays and discussions demonstrate an ability to synthesize course material—to integrate and apply it on a higher level than simple memorization."

Bill McCarthy of the criminal justice program at Quinsigamond Community College in Worcester, Massachusetts, reported a similar experience. "I and another instructor give a test at the end of every semester," he says. "We've found that students who are taking the course online usually score four to six points higher than those taking the course face-to-face. I attribute it to the increased number of activities they're required to do. That alone has the power to raise a B/C student to an A/B student."

3. Cost containment

As with access and quality, the efficacy of online learning will ultimately depend on the higher education industry's ability to contain the cost of delivering accessible, high-quality education. Technology is and will continue to be expensive to purchase and implement, but, as many schools are finding, the return on investment can be significant.

In 1973, a college graduate earned 46 percent more per hour than a high school graduate. By 2007, the difference had grown to 77 percent.[10] What concerns students (and employers) is that the price of a degree has, for many, become prohibitively expensive. Keeping costs under control so that in turn tuitions can be kept under control has become a high priority for colleges and universities. According to a report issued by the American Association of State Colleges and Universities, more than one-half of the institutions surveyed say they rely on contingent faculty and online learning strategies—such as those developed through the National Center for Academic Transformation's (NCAT's) technology-enabled course redesign[11]—in order to reduce operating costs.

The cost savings resulting from online learning technologies are not confined to tuition. Online learning technologies offer the opportunity for textbooks to be digitized, which not only saves students money but also increases the flexibility of course content in a cost-efficient manner.

Through a new eTextbook program, students at Colorado Community Colleges Online (CCCOnline) pay a onetime digital materials charge with their tuition. Students can print sections from their eTextbooks and can also obtain the content in a custom, low-cost, black-and-white print version via participating campus bookstores.

"Once e-content became more sophisticated and easier to use," says CCCOnline co–executive director Rhonda Epper, "we saw an opportunity to improve our course content by adding interactivity while substantially lowering course costs for our students."

Digitized textbooks also offer opportunities for enhanced content. CCCOnline's eTextbooks include both interactive digital content and links. "Students are getting more value for their money," says Epper. "The materials can't be separated from the course. They are integral parts of it."

Student surveys indicate that the embedded videos and slide shows are already big hits. Students appreciate that eTextbooks offer them control over the learning process: they can review concepts as many times as they need to and can go as slowly or as quickly as is suitable to their learning style.

Similarly, administrators at Rio Salado College, a community college in Tempe, Arizona, worked with Pearson Learning Solutions to create for online students various custom course materials. The resulting cost savings averaged 52 percent over print textbooks.

The Pedagogical Impacts of Online Learning

Beyond the access/quality/cost framework, online learning addresses a multitude of needs, issues, and obstacles that challenge learning organizations and students alike.

1. Responsiveness. From applications to course work, to assessment, online learning environments offer institutions and instructors the ability to become increasingly responsive to student needs. The relative simplicity with which course materials can be updated, customized, or improved means that institutions have the opportunity to quickly and flexibly adjust to the waxing and waning variables of scales, economy, and learner preparedness.

2. Diverse learning styles. Online learning facilitates interactivity, provides instant feedback, and offers students the ability to learn at their own pace.

Pearson's myitlab offers Fort Hays State University students independence and control over their learning. "Students today don't want to be *pushed,*" says Gladys Swindler, assistant professor of informatics. "They want to *pull* their knowledge, on demand, when and where they're ready. myitlab facilitates their learning in that manner."

No matter what their ages, students learn differently from each other, and online learning tools like myitlab recognize that. "Some students respond better to reading material, others to seeing it, others to doing an activity, and still others to hearing material," says Swindler. "Pearson's myitlab enables me to optimally serve all of our students by addressing all four learning styles."

3. Content and course management. In the past, administrators and instructors have had only limited options for managing courses and developing course materials. Today, customization and digitization are becoming more widely available. The digitization options help retain the quality and integrity of courses, particularly (1) those that target large-enrollment classes, (2) those that have multiple sections, and (3) those that use adjunct professors and teaching assistants. In a digital environment, Pearson's myitlab Course Coordinator feature helps the administrator create a course template that covers everything from assignments to quizzes. These types of course management systems are especially useful for departments that teach 10,000 or more students, enabling the departments to focus content and clarify their curricula, which in some cases may be taught by more than 200 adjuncts.

At Bunker Hill Community College (BHCC), where enrollments in 2010 are up 25 percent from the prior year, there has been an exponential increase in the number of sections and times that classes are being offered. "We are committed to not turning away students," says Michael Puopolo, chair of the BHCC Computer Information Technology department. "Some departments are even running midnight courses. Pearson's myitlab enables us to handle this increased scale without losing academic integrity. All instructors—whether full-time or adjuncts, whether on-site or online—are presented with a fully populated course, including assessments, PowerPoints, demos, multimedia, and assignments. In about six hours, we can train adjuncts to deliver this course in a quality fashion."

Off campus, BHCC uses myitlab for computer and information technology training for community-based organizations in its service area. During the past two years, this kind of community outreach has benefited more than 300 students, who receive full college credit for courses taken in their own community settings.

4. Student centeredness. Putting the student at the center of the learning experience was the motivation behind some of the early experiments in technology-assisted learning, such as Rensselaer Polytechnic Institute's studio classes.[12] Today, through online learning, institutions of higher education are able to give students—whether the latter are on campus, off campus, part-time, or full-time—more control over their educational experience, from course selections to mastery of content, to assessment.

Students at Guilford Technical Community College (GTCC) arrive with a wide swath of skill levels. The number of students who have never touched a computer—because of older age, background culture, language barriers, economics, or previous job position—has increased. The variety of training tools offered in Pearson's myitlab is helping instructors reach them all, and the instructors can do so without holding the rest of the class back. GTCC instructors report that myitlab helps students learn that there is in fact more to learn. It encourages students to move at their own pace, find the answers themselves, and build self-confidence.

5. Meeting the needs of underserved students. The graduation rates among our country's most underserved students—those of color, those with low incomes, and those in need of skills remediation—as well as those returning to school are lower than overall student numbers, which illustrates a gross disparity of educational achievement. National Center for Education Statistics data cited in the National Center for Academic Transformation's groundbreaking monograph *Increasing Success for Underserved Students* indicates that one-quarter of freshmen are from low-income backgrounds; almost one-third are nonwhite; and 40 percent are the first in their families to attend college. The report finds that those students are more prone to drop out: that 45 percent of African-American students and 39 percent of Hispanic students, on average, leave four-year institutions within six years without earning degrees, compared with 33 percent of white students and 26 percent of Asian-American students.

According to Peter Ewell, vice president of the National Center for Higher Education Management Systems, three things must occur for those underserved students to gain competitive educational footing: (1) more of them must successfully make it through the critical, first year of college; (2) they must effectively master the skills and knowledge that first-year courses encompass, because most of those courses are prerequisites for the rest of the undergraduate curriculum; and (3) both of the first two things must occur on a large scale and at affordable prices.

In 2004, supported by a grant from The Lumina Foundation for Education, NCAT conducted an in-depth study to document the impact of course redesign on underserved populations. The results were heartening. "Although the program in course redesign was directed at a broad first-year student population at all types of institutions, NCAT knows that its redesign techniques have been particularly effective with underserved students: low-income students, students of color, and adults." Following are some highlights of the monograph.

- Rio Salado College, a community college in the Maricopa County Community College District, focuses on distance education for adult learners. By redesigning four of its online introductory math courses, Rio Salado increased course completion rates from 59 percent to 65 percent.
- The University of Idaho increased success rates in intermediate algebra for Hispanic students from 70 percent to 80 percent—thus surpassing the success rate for the entire algebra population as a whole.

Five out of six pedagogical techniques the NCAT study identified as most effectively contributing to improving the learning of and to increasing the success rates among underserved students are:

- Online tutorials
- Continuous assessment and feedback
- Increased interaction among students
- Individualized, on-demand support

- Structural supports that ensure student engagement and progress

The combination of redesign and Pearson's MyMathLab gave institutions participating in the NCAT study the kind of pedagogical and technological boosts that enabled their students to learn more, achieve more, and experience success in ways previously unattainable. Online learning supports verbal, visual, and discovery-based learning styles and can be accessed anytime—and either at home or in a lab. Online resources enable instructors to see the work that students are actually doing and to easily monitor their progress.

"We have a high population of low-income students," says Becca Morgan, manager of the mathematics computer lab at Wayne State University. "What makes a difference for them is MyMathLab's videos. They keep them focused and remove any confusion that might arise based on graduate assistants or instructors who have foreign accents. MyMathLab also helps increase self-confidence. Many of these students don't want to ask for help. MyMathLab offers them an option. And it works."

Since implementation of the MyMathLab-redesigned model, pass rates for intermediate algebra at the University of Alabama have increased by more than 50 percent. "Students who come in more poorly prepared benefit more from this format," says Senior Associate Dean Joe Benson. "On average, our African-American students are less prepared than our Caucasian students. They're very sharp kids, but many have weak math backgrounds. In the traditional teaching model, their success rates were slightly below the Caucasian students'. Since we initiated MyMathLab and the mandated-lab setting, they've been performing as well as or better than the Caucasian students. I believe this is related to the availability of support. Students don't have to worry about stigma or what seems like a dumb question. The key with MyMathLab is willingness to do the work. They can—and they do."

6. Limited classroom space. As more and more students pursue postsecondary education, colleges and universities find themselves scrambling for classroom space and lab space. With online learning, institutions can explore distance education, virtual labs, and other options for meeting increased demand for higher education.

At Fort Hays State University, myitlab has transformed both on-campus and online classes to a more effective, hybrid-learning model. At a cost per credit hour of roughly 25 percent of the average Fort Hays course, the school's online courses can reach an increased number of students (from an initial 120 to 500 now) with fewer faculty and more-efficient use of teaching assistants.

In regions hit by the economic downturn, online learning helps manage an incoming tide of students seeking workforce training and skills development. The Guilford Tech Computer Technology department's enrollment increased by 52 percent in one year. The school is now better able to respond to demand via more online courses—but not more faculty. Since online classes are not restricted by enrollment caps, the school can accommodate the spillover while adhering to the same objectives, outcomes, and quality standards of its on-campus classes.

The Challenges

The efficacy of online learning is not without its challenges: institutions are still learning how to successfully package and deliver online courses and programs, and students are still learning how to learn online.

Institutional Perspective

Traditional colleges and universities are adept at delivering education by means of the classroom model, but few understand the steps that make online learning successful. Such steps as identification of the market for an online course or program, creation of a marketing plan to reach that market, designation and training of appropriate faculty, and selection of a learning management system are not always obvious, but they go a long way toward creating online courses and programs that succeed. Even more important is making sure that the institution has a technology infrastructure that can support online learning.[13]

Learner Perspective

Even when an institution has its online ducks in a row, the success of an online course or program will depend on students. Academic leaders often fear that the very students who are most attracted to online course work are the ones least likely to succeed at it. For many students, the presumption is that an online course will be easier. In reality, online courses and programs are generally as rigorous as their face-to-face counterparts, the difference being that the online course requires much more in the way of discipline, time management, and organization.[14]

Career Schools

With advancements in information and communication technologies, for-profit career colleges represent one of the fastest-growing segments of the education market. They are also at once highly progressive and extremely cautious in their approach to online learning.

The Association of Private Sector Colleges and Universities, formerly the Career College Association, describes a career college as "a postsecondary institution that provides professional and technical, career-specific educational programs." Career colleges are for-profit ventures that pay taxes yet receive no direct financial support from state governments.

Unlike not-for-profit educational institutions—such as most two- and four-year colleges, universities, and community colleges—career colleges are bound by law to demonstrate accountability to accreditation bodies, regulatory bodies, and legislatures. (They must demonstrate a graduation rate of 80 percent or they face consequences.) That means they need to perform, which makes them less likely to experiment with new and untested teaching and learning models, such as online learning, without a solid plan. Regardless of their specialties (such as health care, automotive studies, or computer technology), career colleges are outcome oriented; so, whether their courses are online, face-to-face, or hybrid, achieving successful learning outcomes is what helps them stay in business.

Career colleges have a lot in common with community colleges in that they tend to target nontraditional learners—in other words, students who tend to be older, employed, and caring for families. In many cases, such students are either pursuing new careers or satisfying continuing education requirements for a current job or requirements for maintaining a professional license.

The decision to go online is a much different process for career colleges than it is for other colleges and universities. As a result of the accreditation process and the demands of its governing board, a career college must be able to make a business case for any teaching and learning methodologies or models that deviate from what is already approved. That includes everything from introducing new online curricula to converting existing face-to-face courses to online courses.[15]

Like most businesses, career colleges face so-called pain points when they venture into new services or business models. Those pain points include time to market, faculty training, student retention, and costs. "If they want to go online, [career colleges] need to decide what they're going to do; they need do show the impact it will have on enrollment; and they need to be able to demonstrate that they can place students," says Pearson Learning Solutions assistant vice president Karen Allanson. And like most businesses, career colleges need to determine what it will cost and what the return on that investment might be. Many schools are seeing success—in both driving their enrollments and delivering increased student gains.

Carrington College (formerly Apollo College), which has 10 campus locations in the Western states, decided to take the leap in 2008 to expand into an online presence after finding that demand was outpacing classroom space. To maintain quality and consistency, the college decided to have existing textbooks and curricula customized via such tools as CourseConnect, eBooks, MyMathLab, and the Pearson LearningStudio platform. The school's regional program director of online education, Mike Case, expressed appreciation for being able to tailor individual

courses with videos, podcasts, animations, and collaborative group work by means of discussion boards. Courses that once had been delivered solely by mail to distance learners got transformed into livelier, more interactive, teacher-led courses. "It's changed the nature of courses for the better," Case reported in a profile published by Pearson. "There's bonding among students participating from different states, real-life clinical experiences shared daily, and group learning taking place naturally. Our new courses bring students' experiences to life and enable them to learn from those experiences, share them, and confirm them as valuable."

By all accounts, the 10 courses initially rolled out (5 of which were generic and 5 of which were built from the ground up) have been highly effective. The students who went through the online college's first round of courses said they were impressed, which is no small achievement for any school. In Carrington College's case, the school received a 98 percent approval rating from students. According to Case, the online courses have been successful across the board—from student persistence and satisfaction to academic achievement.

Career colleges such as DeVry University are seeing improvement in learning outcomes from hybrid classes, mainly as a result of new tools that help students and teachers manage the course work. DeVry's Kansas City, Missouri, campus implemented myitlab into 150 to 200 sections per term in 2008. Since then, the company has seen the systemwide withdrawal rate drop to less than 25 percent from an average of about 36 percent. According to Sally Baker, faculty chair of the Computer and Information Science department at DeVry in Kansas City, at some locations it had been as high as 60 percent.

What about the *value* of online courses and degrees? The success rate among students taking courses and obtaining degrees online may be gaining traction, but how do employers perceive online learning and online degrees in particular? Much better. According to a 2008 Excelsior College/Zogby International online survey of more than 1,500 U.S. CEOs and owners of small businesses, more than four out of five of those familiar with online or distance-learning programs said they strongly believe a degree earned online is as credible as one earned through a traditional campus-based program.[16] Similarly, in a July 2009 Society for Human Resource Management survey of human resources professionals, 76 percent of respondents said they view online college degrees more favorably today than they did five years ago. Additionally, 58 percent of respondents said individual courses (as opposed to online degrees) taken through online colleges are considered as credible as traditional college courses.[17]

Where Do We Go from Here?

With the core debate over the efficacy of online learning resolved, the next step is for education providers to determine how best to leverage online learning to their advantage and for the benefit of students. As stated earlier, realizing the potential of online learning to improve learning and enhance the educational experience requires strategizing, planning, and investment on the part of educational institutions. Learning management systems are key to successful programs, as are instructors who are trained to deliver education in this fashion. At the same time, students who have known only the traditional classroom model might find themselves challenged by the self-discipline and organizational skills required to be successful in online environments.

While it is unlikely that the traditional, on-ground two-year- and four-year-college experience will disappear, we can expect it to become a much smaller part of the education landscape. Now more than ever, learning is a lifelong endeavor. With that in mind—and in order to remain relevant—educational institutions and education providers must find methods of successfully delivering education by using models that fit neatly into the framework of a learner's life. Online learning is an important step in realizing that goal.

References

[1] http://nosignificantdifference.wcet.info/faq.asp.

[2] Ibid.

[3] Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies. U.S. Department of Education, 2009.

[4] http://thejournal.com/articles/2007/07/30/elearning-market-to-hit-526b-by-2010.aspx.

[5] B. Holmberg. The evolution, principles and practices of distance education. Bibliotheks und informationssystem der Universität Oldenburg, 2005, p. 13.

[6] Carol A. Twigg. The Need For A National Learning Infrastructure. *Educom Review,* vol. 29, nos. 4, 5, 6, 1994; http://net.educause.edu/ir/library/html/nli0001.html.

[7] Ibid.

[8] I. Elaine Allen and Jeff Seaman. Online Nation: Five Years of Growth in Online Learning. Babson Survey Research Group and The Sloan Consortium, October 2007.

[9] Ibid.

[10] Staff report: Financing the Dream: Securing College Affordability for the Middle Class. Middle Class Task Force, the Vice President of the United States, 2009.

[11] National Center for Academic Transformation, http://thencat.org/.

[12] Bradford C. Lister. Interactive Distance Learning: The Virtual Studio Classroom. Rensselaer Polytechnic Institute.

[13] For advice about starting up an online learning initiative, see Carrie Spagnola-Doyle, What Every College Administrator Must Know: A Primer for Online Learning. Career College Association, *The Link,* Winter/Spring 2007.

[14] Errol Craig Sull. A Guide to Making the Grade Online. *Distance Learning Today,* vol. 1, issue 2, April 27, 2007.

[15] Carrie Spagnola-Doyle. What Every College Administrator Must Know: A Primer for Online Learning. Pearson Learning Solutions.

[16] https://www.excelsior.edu/Excelsior_College/About/News_and_Announcements/Online_Degrees_Earn_Wider_Acceptance_in_the_Business_World1.

[17] http://www.shrm.org/Research/SurveyFindings/Articles/Pages/CredibilityofOnlineDegrees.aspx.


MOHAWK windpower

This report is printed with soy-based inks on Mohawk Bright 30 percent PC White Opaque, which is manufactured entirely with Green-e certified wind-generated electricity. Green-e is the nation's leading independent consumer protection program for the sale of renewable energy and green-house gas reductions in the retail market. Mohawk Bright is also certified by Green Seal, an independent nonprofit organization dedicated to safeguarding the environment and transforming the marketplace by promoting the manufacture, purchase, and use of environmentally responsible products and services.

PEARSON

501 Boylston Street, Suite 900, Boston, MA 02116
800 428 4466 • www.pearsonlearningsolutions.com