University of Nebraska at Omaha's College of Education Embraces Collaboration Technology to Create "Open Classroom" Experience

Using collaborative solutions to open up learning beyond the classroom and campus, the College of Education attracts more students, boosts faculty productivity, and builds a reputation for innovation.

HIGHLIGHTS

CUSTOMER PROFILE
- **Customer:** College of Education at the University of Nebraska at Omaha
- **Industry:** Higher education
- **Students:** Approximately 1500 undergraduates and 700 graduate students
- **Faculty:** Approx. 62 academic staff

BUSINESS PRIORITIES
- Enhance student engagement with new programs and education models
- Attract high-quality faculty willing to develop new pedagogy strategies and learning methods
- Prepare highly competent, skilled professionals who will be prominent in their careers and communities
- Advance the brand reputation of the college, and promote the college's programs regionally and nationally

CISCO SOLUTIONS
- Cisco WebEx, Cisco Jabber, Cisco Show and Share, Cisco TelePresence

COLLABORATION IMPACT
- Increasing flexibility and productivity with recorded lectures, remote class sessions, and peer discussions
- Enhancing student engagement with new learning models, including video-enhanced flipped classrooms, remote expert visits, and online virtual content resources for students
- Expanding access to professors with "virtual office hours"
- Enhancing the college's reputation as a leading, innovative institution

Challenge

Renowned for its innovative learning environment, the University of Nebraska at Omaha's College of Education (COE) has established itself as an academic leader in Nebraska and throughout the region. Recognized for excellence in its programs of study, the COE prepares future leaders across the state and trains many specialized professionals for careers across the country.

The COE - whose mission is to educate future professionals "to become dedicated practitioners, reflective scholars, and responsible citizens who will provide leadership for positive change in 21st-century communities" - is one of six main colleges at the University of Nebraska at Omaha and offers some of the university's most popular majors. The challenge for the COE is to meet the expectations of its progressive leadership, faculty, and graduate and undergraduate students to provide a "global experience," one that brings leading experts, content, and experiences to campus.

The COE is also poised to expand its programs in support of the chancellor's goal of increasing the university's total enrollment by 25 percent - to 20,000 students - by 2020. Within the COE, the strategy for reaching that enrollment goal includes introducing new programs and education models, recruiting students from outside the region and other new student populations, and extending the COE's reputation as a leading institution for undergraduate and graduate programs in education.

Solution

One of the keys to meeting the COE's goals has been the introduction of dynamic collaborative technologies that extend the classroom beyond its traditional four walls. "Flexible collaboration technologies that extend interactions outside the classroom - like online programs, audio-video conferencing, and virtual office hours - have the power to eliminate traditional barriers of time and space for students and faculty. These tools are making the educational process more efficient and effective for everyone," notes Dr. Nancy Edick, dean of the COE.

> "The WebEx class was extremely beneficial because I was able to receive feedback from both the classmates and the instructor. I felt a greater understanding of the material after sharing thoughts and ideas with the class and instructor."
> — Master's Student, College of Education at the University of Nebraska at Omaha

Partnering for Success with Collaboration Solutions

The uniquely strong partnership between administrators such as Dr. Edick, the faculty, and the college's information services organization has helped accelerate the adoption of many collaborative solutions already deployed on campus. Administrative leaders actively promote technological innovation, and Information Services takes the initiative by identifying first adopters among the faculty, providing training, and reducing common obstacles that could impede adoption.

Many professors at the college have become strong proponents of collaboration, helped along by a unique COE program that offers course load relief to professors so that they can invest time in developing new pedagogies. "The College of Education is dedicated to attracting future teachers who believe that the classroom is only one facet of the learning experience and who are committed to finding new ways to optimize learning and maximize student engagement," Dr. Edick says. "Our culture rewards faculty innovation in the classroom."

Transforming the Educational Experience

To date, several programs at the COE have deployed Cisco® collaboration solutions to enhance the educational experience for students, attract students from outside the region, improve the quality of instruction, and raise awareness of the college's offerings and reputation. Early successes with Cisco collaboration technology are discussed below.

Extending the Reach of a Unique Program

The COE offers a unique online master's degree program in special education with a concentration in behavior disorders. Because the program targets full-time schoolteachers who find it difficult to attend on-campus classes, the college now offers the option of an online distance learning program that uses a variety of collaborative technologies from Cisco and other vendors to make it easy for students from outside the region to remotely attend classes.

Several of the program's classes are conducted via live online lectures, using Cisco WebEx® conferencing and desktop sharing. Additional course content is disseminated through weekly learning modules in which students participate in "asynchronous" group discussions using blogs, wikis, and posts in Blackboard, the college's learning management system. Such discussions are monitored and facilitated by professors, who are also available for one-on-one chats using Cisco Jabber™ or Skype during flexible "virtual office hours."

Enriching the Educational Experience Through "Flipped" Learning

Within the Education Leadership master's and doctoral programs at the COE, collaborative technologies are helping transform conventional teaching routines and allowing teachers to spend more time interacting with students, resulting in less reliance on lecturing. Many courses in the programs are hybrids that combine the flexibility of an online program with the face-to-face experience of a traditional physical classroom.

> "I have noticed that my students are showing a greater depth of understanding. This is due to their ability to play back video lectures and other content whenever and wherever they want."
> — Dr. Jeanne Surface, Ed.D, University of Nebraska at Omaha

The program's professors use Camtasia software to record lecture videos and then upload the lectures to the class wiki. Students are required to review the lectures on their own before going to classes, which are held on the University of Nebraska at Omaha campus in physical classrooms. (This is an example of "flipped learning" in which professors can swap the time they spend lecturing in the classroom with group discussions or other activities). The classroom discussions are also recorded and added to the Cisco Show and Share® library so that students who were unable to attend (or even those who did) can review them later. The class wiki then becomes the virtual space where students continue their asynchronous discussions after class.

Improving Quality of Learning for Students Taking Content-Heavy Courses

It is common for students of the COE's postgraduate programs - many of whom juggle family responsibilities with careers as full-time educators - to find it difficult to travel to campus to attend classes. Any absence can be problematic, as missing one session of a content-heavy course such as School Law means that a student will likely spend extra hours catching up. To help students in these situations, COE faculty have begun using a "lecture capture" format, holding their classes in Cisco TelePresence® enabled classrooms with live video distribution and capture capabilities. Students who are late for class or cannot attend class in person can dial into the TelePresence session using Cisco Jabber. Professors also record classes using Cisco Show and Share, and external resources are easily brought in through these technology solutions to enrich the class discussions. For example, a professor could play a podcast of a key law association discussion, or could use Cisco Jabber to virtually connect the class with a remote subject matter expert. Class recordings are shared after class using Cisco Show and Share, and students who were late or missed class can replay the video later.

> "Our students are a step ahead if they are exposed to a wide range of sophisticated collaborative technologies at the College of Education. By embracing an array of effective technology tools, we can better prepare future educators for the 21st-century classroom, as well as successfully create future K-12 administrative leaders who will be forward-thinking role models in their schools and communities."
> **— Dr. Nancy Edick, Dean of the College of Education at the University of Nebraska at Omaha**

Creating a Regional Community of Educators Committed to a Common Goal

The University of Nebraska at Omaha's Council of Economic Education, a joint initiative between the COE and the College of Business, is tasked with improving the economic literacy of citizens of Nebraska and western Iowa by providing educational and training programs for approximately 5000 K-12 teachers. Part of the council's strategy to promote economic literacy is to extend and enhance the reach of the council by creating virtual seminars with teachers across the region via video collaboration. The council has also just begun to use these solutions to hold its own meetings, allowing more frequent sessions and developing stronger relationships across the council, which has five statewide locations. In addition, the council is looking to share its materials via collaborative solutions in advance of its annual summer retreat to help attendees prepare for their week ahead.

Bonding a Small Group of Geographically Diverse Students

The six undergraduate and graduate students in the COE's Library Media Practicum hail from Nebraska and five adjoining states. Because of the geographic diversity, the group can meet in person only once a month, with the remaining classes taught virtually via integration with Cisco Jabber and Cisco TelePresence. The six practicum students can see each other and their professor, and share a desktop via a bridge created from the University of Nebraska at Omaha campus. A key component of the practicum is for the students to create videos demonstrating how they are applying what they've learned and to present their videos via Cisco Jabber. In addition, the class uses Blackboard to post discussions asynchronously. The professor also makes it easier for students to get after-class support by hosting virtual office hours via a Jabber session that takes place an hour before each class begins.

Collaboration Impact

The use of Cisco Collaboration solutions at the COE is in the early stages but is already positively affecting students, faculty, and administrators at the COE, as well as communities across the region.

Students: Enjoying a Flexible, High-Quality Learning Experience

The COE's collaboration technologies provide flexibility and convenience for today's students. Solutions such as the virtual classroom and online faculty office hours allow students to juggle other responsibilities like work and family by reducing travel time and the expense of attending a traditional campus. Students can use their phones, tablets, or laptops from any location to review lectures and class materials, communicate with their professors, and connect with other students. The many communication options offer more opportunities for students to get their questions answered and engage with the course material. The ability to review lectures via video at their own pace allows for easier note taking and ultimately better comprehension.

"Our collaboration solutions allow students to enjoy the benefits of distance learning without sacrificing the in-person classroom education experience," says Dr. Edick. "With our new learning models, students get the best of both worlds." In addition, by embracing these technologies, students are better prepared to become tech-savvy leaders when they go back to their communities.

Faculty: Enhancing Instructional Methods at the COE

The pace of technology adoption in the education sector typically lags behind that of the private sector, since faculty with full class schedules often find it difficult to overhaul course-delivery methods. An innovative workload relief program, however, removes that obstacle and gives qualifying professors extra time to integrate new collaboration techniques and pedagogies into their courses, enabling a range of productivity benefits and accelerating the adoption of new, more effective learning methods. The COE has also invested in reducing barriers to adoption by committing full-time academic technology resources to support the faculty in their pursuit of innovative learning models.

One example of the outcomes of this program is the reinvention of traditional educational paradigms, such as flipped learning. The COE has found that flipped learning can be significantly enhanced thanks to collaboration-enabled teaching methods that amplify the content and experiences (for example, video lectures, recent news, videos featuring subject matter experts, and discussion boards) provided outside of the classroom, which in turn better prepares the students for the classroom discussions.

Administration: Facilitating Innovation and Student-Centered Learning

Collaboration adoption by students and faculty is key to the COE administration reaching its goals of introducing new programs and educational models, recruiting high-quality faculty, attracting students from outside the region, and enhancing and expanding the college's brand reputation as a regional leader in many programs. Collaboration solutions facilitate innovation and student-centered learning.

The bottom line, Dr. Edick says, is that collaboration technologies can open the door to new opportunities and generate enthusiasm for learning. It's especially exciting to continue to raise the quality of distance learning with the use of technology, she notes, adding, "Using collaboration technologies, we can provide remote students with virtually the same educational experience as our students on campus."

The Community and Region: Benefiting from Greater Access to College Programs

Collaboration solutions are broadening the reach of the college's programs, enabling students from around the state and region to join in the educational experience. When these students graduate from the COE's general education and specialty programs, they take their knowledge and leadership skills back to their local schools and employers. This results in a stronger and more tech-literate professional workforce.

Looking Ahead

The value of collaboration solutions at the University of Nebraska at Omaha's College of Education has been established with early successes in pilot programs in several departments and with select professors. Going forward, those departments and professors plan to expand their use of the collaboration technologies already in place, and add new tools. Many departments are looking at expanding their use of Cisco Jabber, which lets users access instant messaging, voice, video chats, and more from any device. In addition, the faculty is stepping up their efforts to use Cisco TelePresence to bring remote experts into discussion classes. All of these collaborative technologies will complement traditional lecture methods and promote students' understanding of class content.

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> — Dr. Nancy Edick, Dean of the College of Education at the University of Nebraska at Omaha

The COE's leadership is also planning to market these early collaboration successes to other colleges within the University of Nebraska at Omaha as evidence that these solutions positively affect students, faculty, and the university. The effective use of collaboration solutions at the COE is not surprising to Dr. David Conway, associate dean of the COE. In fact, collaboration in a broader sense - between the college and the community at large - has always been valued at the University of Nebraska at Omaha. Says Dr. Conway, "It all boils down to collaboration serving a significant role in how we operate. For us, collaboration extends outside the UNO campus to include business partners, museums, school districts, and other academic institutions to meld both formal and informal education into the instructional process."

For More Information

To find out more about the Cisco Collaboration solutions for higher education, go to http://www.cisco.com/web/strategy/education/higher_education.html.

This case study is a product of Cisco Consulting Services' Collaboration, Video and Mobility Practice. This team of business consultants helps clients & partners identify, quantify and realize the value of collaboration, video, and mobility solutions. Please email ccs-collab@cisco.com to find out more about our transformational services.

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