



Creating an Interinstitutional Agricultural Systems Management Distance Education Program

John W. Slocombe¹, Kerri Ebert², Leon G. Schumacher³

¹ Professor, Department of Biological and Agricultural Engineering, Kansas State University, 129 Seaton Hall, Manhattan, KS 66506, USA. Phone: 785-532-2906 Email: slocombe@ksu.edu

² Extension Assistant, Department of Biological and Agricultural Engineering, Kansas State University, 129 Seaton Hall, Manhattan, KS 66506, USA.

³ Professor, Agricultural Systems Management, University of Missouri, Columbia, MO, USA

Abstract

Four Midwestern universities collaborated to develop a distance education delivery network for agricultural systems management courses. These undergraduate courses were initially offered to students at Iowa State University, Kansas State University, University of Missouri, and University of Nebraska-Lincoln with funding from a USDA Higher Education Challenge Grant and affiliated with the Great Plains Interactive Distance Education Alliance. The program has expanded and is now available nationally. This paper describes how the project was developed, the interinstitutional collaboration process, and the procedures and infrastructure created to achieve learning and delivery objectives.

Keywords: distance education, agricultural systems management



Introduction and Review of Literature

Meeting students' changing and expanding educational needs is among the most pressing problems facing colleges and universities today (Eckel et al., 2004) "The landscape for higher education delivery has evolved from the traditional...format to one that is Internet-based and learner-led" (Moxley and Maes, p. 1, 2003). This paper outlines the approach taken by four Midwestern universities to create collaborative distance education opportunities for students enrolled in agricultural systems management (ASM) and agricultural engineering programs.

Literature about distance learning abounds. Most published works focus on comparisons of student performance in traditional vs. distance settings and how technology is being used to extend the traditional campus. Significantly fewer works address shared courses between universities and the concept of collaborative distance education offerings.

Carnevale (2000) compared and contrasted two approaches to collaboration in distance education. Citing two notable models as examples—Western Governors University and the Southern Regional Education Board's Electronic Campus—he noted that interinstitutional collaborations present obstacles as well as benefits. Both models spanned large geographic regions, but their approaches and results differed.

Eckel (2003) explored the strategic alliances known as curricular joint ventures (CJV) and pointed out that alliances are not new to higher education but rather are a new form of collaborative partnering between universities that capitalizes on partner institutions' strengths in teaching and curriculum design. His work revealed how a CJV can enable partner institutions to maximize academic programming capabilities while minimizing strain on academic resources such as faculty workload.

Kuramoto (1999) shared experiences of faculty from five nursing schools who created an innovative registered nurse to bachelor of science in nursing program offered via distance education technology and concluded that distance education delivery has a promising future.

Moxley (2005) observed that collaboration in online delivery capitalizes on each partner's technological and human capacities because interinstitutional programs have advantages of distributed risks, increased reach, and greater depth and scope.

Methods

The idea for distance education courses began with informal discussions between faculty from the University of Missouri and Kansas State University about their inability to teach several key courses they believed were essential for the ASM/agricultural systems technology programs. Faculty believed distance education technology offered a potential solution; it would allow teaching a greater variety of subject matter without negatively affecting the time allowed for teaching and research and without increasing advising loads.

Initial discussions led to a meeting with representatives from ASM programs at land grant universities in neighboring states (Kansas, Missouri, Nebraska, and Iowa) to discuss the possibility of distance education programming and collaboration. This collaborative distance education effort would seek to develop a collaborative, multistate program to add depth and dimension to each university's instructional program in ASM, capitalize on the expertise of



individual faculty members at each cooperating institution, reduce overall faculty teaching load, and focus teaching talents and efforts in specific areas within each of the four institutions.

Key questions to be answered included:

1. What would be the core content at each institution and what courses would not be considered for distance delivery?
2. Which courses were already "distance ready" (video, HTML, Blackboard, etc.)?
3. How would students enroll?
4. How would faculty and departments be recognized (given credit) for a course for promotion and tenure, program evaluation, etc.?
5. What specialty courses would be offered at each institution?
6. What kinds of distance education technology were available at each institution (Blackboard, Web-CT, other)?
7. Could extension be involved at each university; if so, how?

The ASM faculty learned that the Great Plains Interactive Distance Education Alliance (IDEA) had answers to many of their questions. Alliance members included Colorado State University, Iowa State University, Kansas State University, Texas Tech University, Michigan State University, Montana State University, University of Nebraska, North Dakota State University, Oklahoma State University, and South Dakota State University. The University of Missouri joined the alliance in 2006.

The Great Plains IDEA is a multistate alliance lead by human sciences colleges founded in 1994. Its purpose is to create a marketplace for sharing distance education courses and programs at the graduate level by combining emerging technologies with program-based alliances to connect students around the country and afford them the opportunity to be admitted to one member institution and study at other member institutions via Internet-based courses. With a solid foundation provided by Great Plains IDEA, many of the anticipated institutional problems, such as program pricing, enrollment, and records management, had already been addressed. The Great Plains IDEA learned early on that program administrators could not create a stable program alliance without supportive institutional policies, practices, and, most importantly, people who fulfill relevant institutional responsibilities.

With many administrative challenges overcome with established protocols and guidance from the Great Plains IDEA, the ASM faculty focused their efforts on creating a structure for sharing courses between cooperating universities. Their efforts were rewarded with a \$300,000 USDA challenge grant for distance education development. Grant funds were divided among the four cooperating institutions (University of Missouri, University of Nebraska, Iowa State University, and Kansas State University) within four discipline areas: agricultural mechanization, food safety, grassland management, and agricultural education. A portion of grant funds was set aside for course development, market analysis, faculty training, and meetings.

The ASM faculty resolved to focus their efforts on developing an undergraduate distance education program rather than a graduate level program as proposed by the other disciplines that were part of the grant. Then, ASM faculty worked with each other and staff from the Great Plains IDEA on details related to courses offered, number of students allowed per class, expectations of each participating university, enrollment details, fees, and course structure. The ASM faculty met regularly, varying meeting locations so visits were made to the campus of each cooperator. Regular, timely meetings allowed participants to take advantage of distance learning technology (such as Polycom) when they could not attend in person and to keep discussions current and relevant as program development progressed. Each meeting included



specific discussions about goals and questions raised at the previous meeting. Table 1 illustrates the agreed upon core courses based on needs established over a period of two years.

Results and Discussion

By the spring of 2006, two years after the initial discussions, the faculty had agreed upon classes to be taught, which institution would take the lead for each class, a timeline for course offerings, and delivery methods. The committee of faculty agreed to offer the first courses in spring 2007. The first two courses, agricultural safety and precision agriculture, were chosen because they were ready for distance delivery prior to organizing the ASM distance education group. Both courses were deemed a success with cumulative enrollment of 46 for agricultural safety and 10 for precision agriculture. Table 1 shows the division of labor for the project, and Table 2 shows the initial class schedule for interinstitutional distance ASM courses. Courses will be added as needs are identified.

Table 1. Agricultural systems management distance education core course needs and offerings

| University | Curriculum needs | Distance courses developed and offered |
|--------------|-----------------------|--|
| Missouri | Machinery | Safety, Machinery II, Soil and water |
| Kansas State | Precision agriculture | Sprayer technology |
| Nebraska | Process handling | Energy, environment, and economics |
| Iowa State | Machinery, sprayers | Precision agriculture |

Table 2. Timetable for inaugural distance education courses

| Semester | Courses | Taught by |
|-------------|------------------------------------|--------------|
| Spring 2007 | Precision agriculture | Iowa State |
| | Safety | Missouri |
| Fall 2007 | Sprayer technology | Kansas State |
| | Energy, environment, and economics | Nebraska |
| | Machinery II – GPS technology | Missouri |

An advisory board will be formed to ensure curriculum is relevant and assist with development of a certificate program through the Great Plains IDEA. Student fees are an issue that still needs attention because University of Missouri students experience little difference in the fees, whereas students at the other campuses pay \$50 to \$75 more per semester hour.

Acknowledgements

Contribution no. 09-112-J from the Kansas Agricultural Experiment Station.



References

- Carnevale, D. 2000. 2 Models for Collaboration in Distance Education. *The Chronicle of Higher Education* 46(37): A53-55.
- Eckel, P., B. Affolter-Caine, and M. Green. 2003. *New Times, New Strategies: Curricular Joint Ventures*. Washington, DC: American Council on Education. Available at: http://www.acenet.edu/bookstore/pdf/2003_joint_ventures.pdf.
- Eckel, P.D., M. Hartley, and B. Affolter-Caine. 2004. *Cooperating to Compete: A Campus Leaders' Guide to Developing Curricular Partnerships and Joint Programs*. Washington, DC: American Council on Education.
- Kuramoto, A.M. 1999. The Challenges and Rewards of Institutional Collaboration in Distance Education. *Journal of Nurses in Staff Development*, 15(6): 236-240.
- Moxley, V. 2005. Inter-institutional Academic Alliances—When, Why, Who, and How. *Presentation at Academic Chairpersons Conference*, Orlando, FL, 9-11 Feb 2005. Available at: <http://www.gpidea.org/about/collaboration/download/IAA-When-Why-Who-How.pdf>.
- Moxley, V.M., and S.C. Maes. 2003. The Great Plains Interactive Distance Education Alliance. *Continuing Higher Education Review* 67: 143-156.

