

**A Decade of Distance Education Services
for Multi-area Educational Leadership Programs**

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Introduction

This article explains how the Tri-College University (TCU) Educational Leadership Program's decade long distance education delivery has evolved to serve multiple areas throughout North Dakota and northwest Minnesota. Faculty from the Minnesota State University Moorhead (MSUM) and North Dakota State University (NDSU) are lead by an academic chair governed by consortium policy independent of these two universities. Their program primarily prepares graduate students for Principalship and Superintendent certification and/or licensure for both states. Distance education services have been delivered in a variety of ways from both universities according to the program's scheduling tactics as follows:

1. A two-year master degree-level program is offered in cooperation with the Educational Leadership faculty at the University of North Dakota (Grand Forks) to serve central and western North Dakota via the statewide Interactive Video Network (IVN).
2. Master's and Specialist degree program courses are offered over a four-year cycle from MSUM Business Center studios to graduate students at selected high school Interactive Television (ITV) studios located in communities throughout Northwestern Minnesota and the IVN system in North Dakota.
3. On-campus program course offerings for the Fargo-Moorhead service area are extended to sites not scheduled with the degree programs offered on the closed-circuit networks over either IVN or ITV studios.
4. Web-based courses are offered on-line independent of the program semester timetable and web-based supplements are used for regular courses taught with or without IVN and ITV connections.

Development of the Infrastructure

The Tri-College University Educational Leadership faculty began to utilize the North Dakota Interactive Video Network (IVN) in 1990 (Van Berkum & Stammen, 1992; & Stammen, Van Berkum, D. W., & Keogh, 1992). The IVN telecommunication analog-based system connected the state of North Dakota's 11 colleges and universities. The North Dakota Interactive Video Network utilizes a statewide network of coordinators and classroom technicians to assist instructors. This group has refined and documented distance education techniques by holding monthly meetings and summertime retreats. They develop policy, technology training manuals, and in-service opportunities about the fundamentals of presentations with the available studio technology. Classroom technicians serve as test monitors and provide paraprofessional assistance such as

duplicating faxed documents and other clerical duties. Although student absenteeism is minimal, graduate students who miss a class can request the session to be videotaped for later viewing. The universities require all students to sign a permission form to allow this taping.

North Dakota's 2001 legislative session enabled every PK-12 school district to replace regional closed-circuit connections established in the past decade. As a result, the IVN system evolved into a statewide web-based system (H323 protocol) that includes broadband access to every county seat and local educational agencies.

Regional controlled ITV system in Minnesota started in 1986. The Minnesota ITV studios, located in selected high school located in communities throughout Northwestern Minnesota, were available on a limited basis until 1998. The construction of the Center for Business on the Minnesota State University, Moorhead's campus provided state-of-the-art digital and analogue studios. Due to the regional nature of Minnesota's ITV system, coordination and scheduling responsibilities rest largely with the program faculty and the administrators of the studios at the local schools. The Minnesota ITV studios have a technician at the university studio, but many receiving sites rely on a host graduate student to manage the studio controls. The MSUM and NDSU facilities have multiple cameras in order to fully utilize actual classroom situations along with Internet and full technological instrumentation. The lack of a technician at receiving sites on the ITV system has led to some problems. Frequently the camera is not positioned properly; students are not in focus and class time is lost as the instructor directs a student at the receiving site to reposition the camera. At other times, one or more of the remote sites are not on-line at the assigned time.

The Minnesota ITV has been updated according to regional-based consortia initiatives. Following the IVN transition in 2000 to a computer based format; connections have been successfully piloted, demonstrating the two systems and the associated studios are compatible. At this time, the use of this feature has yet to be used for regular program courses. Recently due to budget restraints, several public school boards have elected to close two of the MN studios most frequently used by the TCU faculty.

Development of the Program and Instruction

The number of courses offered since 1990 over the networks in North Dakota and Minnesota increased each year, making it possible for the first graduate student to complete a degree in Educational Leadership via distance education by the Spring of 1996. Later that year, the first two-year cycle for a statewide master's program began in cooperation with the University of North Dakota (UND) Educational Leadership faculty. The faculty of the two educational leadership programs (TCU and UND) developed a research-based marketing plan in 1995. Quantitative surveys and focus groups were utilized with district administrators to help revise the curriculum for principal preparation in conjunction with developing the program for the interactive video network. Professors jointly developed and team-taught each course from their

respective delivery sites to cooperatively serve central and western North Dakota during the first two-year cycle (Boswell, 1997). After the second two-year cycle began in 1998, the professors alternated teaching schedules so each university equally shared delivery responsibilities. The third two-year cycle offered over the state's closed circuit Interactive Video Network (IVN) was completed at the end of the 2001-2002 academic year and a fourth cycle has been approved and began the Fall Semester of 2002.

Coordination with the ITV staff allowed for classes to be on Wednesday evenings from 6:00 p.m. to 10:00 p.m. CT. In addition, the graduate students meet in a geographical-centered location on selected Saturdays to hold regular classroom instruction to utilize advantages of face-to-face interaction.

Thus, the two-year cycle program across North Dakota meets for one Saturday during a two-semester hour course, two Saturdays during a three-semester hour course, and three Saturdays during a four-semester hour course (Backus and VanBerkum).

Following the same curriculum as that offered over the IVN system in North Dakota, the delivery of the courses on the ITV system in Minnesota is somewhat different. In all cases, the courses originating from the MSUM campus studios have students present at the originating studio (the same site as the instructor). Whereas, on the ITV system for the jointly delivered program with UND, the enrollment is reserved for students in central and western part of the state. Therefore, the originating studios at NDSU and UND located in the extreme eastern side of the state may only have the instructor present. This feature offers the flexibility for the instructor to travel to the various sites over the period of the course and to disable the vacant university studios during their absence. The model also allows for guest or adjunct professors from Western ND to deliver presentations or entire courses without coming to either of the university campuses.

The enrollment limits were imposed after open enrollment models were attempted that resulted in over eighty students registering and attending a course at four IVN sites (the majority attending at the respective university studios). The reserved status of the IVN delivery for Central and Western ND (limited to approximately thirty students - fifteen from each university) allows the on-campus and ITV delivered courses to Western MN to maintain a manageable level of approximately the an equal number of students per course.

Preparation for instructors to teach over the network is easier for instructors who have already mastered classroom computer-assisted and student-based instructional models. They have little trouble making the transition to teaching utilizing the media. Lecture-based instructors accustomed to preparing a few days prior to class time have the most difficulty adjusting to teaching over the networks. The logistics demand preparation and distribution of materials a week before each class meets. ITV and IVN courses have worked best when the instructor visits or rotates to each site to deliver the course.

Group work teaching methods occur in most of the courses. The receiving sites having fewer members do their group work by talking over the network, while the sites with larger number of attendees conduct discussions with muted microphones. The instructor is able to monitor each site's group discussions by having the technician switch the muting controls. The Saturday face-to-face sessions also allow for activities requiring high levels of interaction.

In addition to the assurance of quality instruction and reliable technical support, the logistics for coordinating student registration for the joint cooperative master's program (Tri-College University and the University of North Dakota) are often the most challenging. Each of the two programs is allocated "slots" for 15 students for each course. The agreement to limit enrollment to approximately 30 students at no more than four remote sites was based on prior experiences. Economics and pedagogical practice limit the number of receiving sites to a maximum of four. Fewer students limits the potential for interaction during group activities between students at each of the remote sites – more than 30 students limits interaction between the students at different sites and with the instructor. While a cohort format facilitates the management of limited enrollment programs and was the enrollment format adopted by the University of North Dakota, this option did not fit the Tri-College University's Educational Leadership program for various reasons. First, typical of most land-grant universities and regional state universities providing services to a broad base of educational programs and services, the Educational Leadership program courses are integrated into numerous advanced-degree programs. These programs include cooperative extension, vocational or athletic administration, and other programs such as general leadership for mid-management college positions. Although the joint master's program is tailored towards the PK-12 Principalship, the addition of students with diverse career backgrounds has been viewed by the students as a positive element.

The second concern about following a required enrollment cohort format was that it limited program completion to a minimum of two years. To allow a shorter timetable for completion, each of the master's degree's required courses be offered during summer sessions (on-campus) and electives offered every other year. Both the programs' faculty and students believe the summer sessions offer a "full immersion" experience similar to the traditional residency requirement. Therefore, students are encouraged to design a program of study that includes a series of courses on campus during the summer months and a choice of courses over the IVN system that best fit their academic objectives and professional schedules. Overall, the open enrollment format for the IVN courses combined with on-site summer courses has helped to facilitate a very high rate of program completion in less than two years, and near 100 percent in three years.

Various strategies have been implemented to address an open enrollment format for the IVN courses. The most important of these strategies was to coordinate all enrollment procedures through the IVN program coordinator. This person functions as registrar and business department for the graduate students. Due to additional fees associated with the North Dakota IVN network it has been a benefit for both the university and the students to have one person handling both aspects of the registration. The various fees

are for compensation to the host institutions, technician salaries, and other delivery costs that are not included in conventional on-campus courses. Having a separate coordinator for registration and billing activities prevents students from enrolling in the IVN-delivered courses rather than the on-campus courses by mistake.

A second administrative strategy implemented was to screen all applications for admissions in order to identify and establish communication as early as possible with students that may want to take advantage of distance delivered course formats. Assigning students near the IVN sites to the same advisor has also been practical. Working off a four-year schedule of courses developed to identify on-campus, remote delivery, web-based, and IVN delivery, a preliminary program of study can be developed that identifies potential enrollment for the IVN courses. The information from the programs of study is entered into a database and a list of potential students for each of the courses over a two-year cycle is generated. These lists serve as a guide for periodic contact between the students and the advisor via either e-mail or conventional mail correspondence. The Tri-College University's Educational Leadership program also supports a web-site that includes the same information as the hard-copy catalog and a two-year schedule of courses (http://www.ndsu.nodak.edu/ed_lead/).

Despite the extra efforts and resources required to provide non-traditional course delivery over the IVN system, there are often conflicts with the traditional nature of higher education institutions. The most daunting is the per-pupil-type state payments based on full-time equivalent registration known as the FTE count. This FTE count is based on the third week of the semester enrollment. To take advantage of block scheduling over the IVN system (every Wednesday from 6:00 p.m. to 10 p.m. CT), two classes may be offered in consecutive order during each academic semester (Fall and Spring). With the absence of late registration fees imposed by any of the participating universities, students delaying registration – and of course payment – until “the first day of class” in October or March would not be counted towards the program's FTE. To address this dilemma, and to enhance the enforcement of a registration deadline, IVN program coordinator was able to implement a delayed billing process.

Student access to course textbooks has often been a problem with IVN-delivered courses. Keeping in mind most of the students live at least 200 miles and up to 400 miles from either campus, an alternate to visiting the campus bookstore had to be developed. Student-centered services by the campus bookstores such as free delivery to students taking classes over the ND IVN or the MN ITV systems are often plagued with supply-and-demand problems. The solution has been to also register the texts through any of the on-line bookstores.

Web-based Course Components

Computer centers at both universities provide beginning instructors with training to utilize the web for instruction and support for all aspects of distance education. The web-based transition from the print-based materials to the electronic World Wide Web version is often laborious and time-consuming. The main goal is to augment the quality of the curriculum instructional design and the web design into workable modules for

self-contained instruction. While three web-based courses that are conducted entirely online have been developed, most of the courses rely on web-based resources to supplement the text and course materials. For courses that are offered over either IVN or ITV systems, course materials assessable through the web have reduced the dependency on land-based mail services.

For traditional (one-site) courses the web offers additional flexibility in scheduling. Semester-long courses in politics, policy, and school-community relations meet in regular class session every other week and meet online during the weeks in between. In a region where winter weather is a concern, the web is also a useful communication tool for reporting weather and travel conditions and class status. Due to the vast distances between remote ITV and IVN sites, it is not uncommon for weather conditions to cause a cancellation of a class at one site, while the other sites are not affected.

The faculty found that web-based technologies in and of themselves do not automatically change the nature of teaching and learning. It is the way they integrated such technologies into curriculum that has brought about change. The role of the instructor is changed because the medium forces learner-based environments to be developed due to the technological infrastructure. It is difficult for educators who were trained to work with static "print-based material" to convert their educational material over to dynamic "interactive-electronic data." The experience gained during the research-based implementation provided additional knowledge and skills in both the technical and the curricular aspects to make the courses work relevant to the prospective school administrators' education and training needs (Stammen, 1995).

Conclusion

The TCU professors are aware of each other's individual skills through continuous collaboration. They are willing and able to assist each other in the distance education environment. This has made them more comfortable in assuming and assigning roles of leadership during a time when the program has developed competency-based portfolios as a popular option to the quantitative and/or qualitative master-degree disquisition. Both professorate and student-based group dynamics helped each other envision the outcomes mandated by state standards. The ten years of experience delivering courses over the distance education media has made this graduate program adaptable to meeting various students needs. The result are a flexible mix of regular on-campus courses and distance education courses which the students perceive as being dependable with options that fit their professional schedules.

In addition, the program recognizes that to continue to develop, institutional support is essential. The migration of the ND IVN system towards a staff position responsible for coordination of site reservations, student registration and business office duties has been an essential component. This development provided a two-year cycle of courses at the same remote sites, enabling stability for both student and faculty.

Authors

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