

Using Blended Distance Learning Methodologies/Technologies to Deliver Sustainable Rural Professional Development Programs

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Due to the rural nature of South Dakota's K-12 school districts, the state of South Dakota currently operates a video network that connects each of the state's K-12 school districts, institutes of higher education, cultural institutions and other national and international educational resources. Despite this connectivity, the experience of distance learning that is solely based on videoconferencing often lacks a sense of real time collaborative teamwork, spontaneity and immediacy. In an effort to enhance the educational experience of high school students, faculty, staff and community members, we have sought to blend the resources provided by synchronous and asynchronous web based collaborative tools with the current video infrastructure, to broaden the experience of those involved in distance learning programs and collaborative partnerships.

Case Studies

The case studies outlined below provide an overview of the methodologies and technologies used to deliver two distance learning professional development programs to school administrators and teachers during the 2004-2005 school year. The programs include the Mid-continent Research for Education and Leadership Center (McREL) Rural Technology Initiative (RTI), and South Dakota's Educational Services Agency One/29-90 DLC Precision Leading Precision Teaching Project (PLPT).

McREL Rural Technology Initiative

The primary purpose of the Rural Technology Initiative (RTI) is to field test McREL's model for online collaborative learning among teachers and administrators as a way to address the challenges faced by rural educators including geographic isolation, limited collegial networks and lack of proximity to higher education (Pitler 2005).

The characteristics of the RTI intervention include the following elements:

- Face-to face orientation meeting
- Monthly one-hour online class for teachers/pre-reading, homework – Classroom Instruction That Works
- Monthly facilitated online teacher discussion groups/skills training, homework to apply in the classroom
- Threaded online teacher discussions and debriefing with other teachers in the project – ongoing, monitored
- Monthly online principals discussion group on leadership
- Principals post teacher lesson plan sample for discussion, principals attend teacher sessions

The following table provides the characteristics of the RTI treatment/control schools*:

Table 1. *Characteristics of the RTI Treatment/Control Schools**

School Characteristics	Treatment Schools	Control Schools (8)
Average school size	182 students	231 students
	17 teachers	18 teachers
School Title I status	5/7 Title I schools	8/8 Title I schools
Student SES	48% eligible for FRL	41% eligible for FRL

*Groups are the same on being rural, % minority, and grade levels – all PK – 12 (Pitler, 2005)

Observations

During the 2004-2005 RTI and pending a comprehensive data analysis in progress, the following observations have been made of the RTI:

- Quality of materials
- Perceived increase in understanding
- Utility of intervention

Precision Leading Precision Teaching Project

The Precision Leading Precision Teaching (PLPT) project involves the use of web based conferencing tools and face to face instruction time to form strategic partnerships designed to disseminate professional development programs more effectively. The project relies on web conferencing to alleviate travel time, limited access to resources, sharing common documents and experiences, and to alleviate scheduling problems created by limited videoconferencing endpoints.

The goals of the PLPT project include the following elements:

- Bridge distance and time barriers
- Bridge resource accessibility barriers
- Bridge isolation in practice
- Enhance support services for project implementation
- Reinforce sustainability of implementation processes

In an effort to enhance the effectiveness of the PLPT we have framed the program using the following general guidelines. Research suggests face to face and distance learning are equally effective modes of instruction. There are time/place advantages to asynchronous distance learning methodologies. Blended learning impacts instruction through the fundamental reconsideration of instructional content using new media choices (Voos, 2004). There are sociological advantages to synchronous audio and video instructional methodologies including visible cues (facial expressions) paralinguistic cues (voice frequency) psychological cues (mood) (Liu, 2000). It is possible to combine a number of current technologies and methods to create an even more effective mode of instruction and collaboration than are possible using a single communication tool.

Observations

Anecdotal evidence from the PLPT project suggests that blended distance learning technologies provides a more dynamic learning environment.

This more dynamic environment may enhance professional development in at least five ways:

- Facilitates the convergence of learners and content providers
- Allows for more frequent communication before, during, and after training sessions
- Provides a secure means for resource allocation and communication in a user friendly intuitive interface
- Supports multiple learning styles
- Requires a reevaluation of curriculum

References

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Biographical Sketch

Mr. Brian Dzwonek is the Director of the 29-90 Distance Learning Consortium (29-90 DLC) a group of ten school districts located in southeast South Dakota. The 29-90 DLC is committed to using ITV to deliver high school level courses, enrichment activities and professional development for students, faculty and community members. Mr. Dzwonek's current interest in technology mediated distance learning is the formation of sustainable professional communities using a combination of both synchronous and asynchronous video/web conferencing. Mr. Dzwonek is in the dissertation phase of a doctorate in education with an expected graduation in May of 2006.

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RTI Website: <http://ecampus.learningstreet.net>