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ABSTRACT

The Collaborative Early Childhood Special Education Program provides training to students from rural and remote areas in Utah that leads to a certificate in early childhood special education. The program represents a collaborative effort between Utah State University, the University of Utah, and the Utah Office of Education. Contact with special education directors in rural school districts revealed that only 29 percent of preschool teachers in Utah's rural areas had received required special education certificates. It was apparent that to accommodate rural teachers, an effort had to be made to provide requisite classes in rural areas. The Utah Office of Education organized a consortium of faculty and agency personnel who met regularly to discuss both preservice and inservice teacher education. In addition, the state office funded a yearlong planning and development grant to support a faculty member who was instrumental in formulating agreements between the two universities responsible for program implementation. In light of limited university resources, faculty and administrators agreed to assign delivery of core courses to one institution and specialization courses to the other. Core courses were led by trained facilitators and delivered to rural students via videotapes. In addition to two specialization courses that were already adapted for delivery in rural areas, six additional specialization courses were offered via interactive television. Program staff assisted students in accessing the necessary technology for participating in the program and hired an instructional technologist to help students learn to use computer technology to communicate with university faculty. (Contains eight references.) (LP)

BUILDING A DISTANCE EDUCATION PROGRAM THROUGH COLLABORATION AND COMBINED TECHNOLOGIES

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Overview. The Collaborative Early Childhood Special Education Program provides training to students from rural and remote areas that leads to Utah's early childhood special education teacher certificate. The program represents a joint effort between the two universities that provide this certification training in the state (Utah State University and the University of Utah) and the State Office of Education. In this paper we shall describe (a) the need for the program, (b) the collaborative process through which a multi-university program was developed and delivered, (c) the incorporation of technology to deliver the program, and (d) support offered to participating students, who were in rural areas.

Need. The need for the program was established through contacts with special education directors in the most rural of Utah's 40 school districts and the Early Childhood Special Education specialist at the State Office of Education. These revealed that while teachers of preschool children with disabilities in Utah were required to obtain the required teaching credential by June, 1995 or to be enrolled in an approved program of studies by that date, in the fall of 1994 only 29% of such teachers in rural areas were credentialed. More than 36 individuals required the certificate, and population increases as well as teacher turnover were expected to exacerbate the need for credentialed teachers within two years. These expectations have proven accurate.

Utah's demographics and the location of the two universities that offer requisite training for preschool special educators make travel to attend university classes prohibitive for residents of communities outside of the "Wasatch Front," a 150 mile north-south strip that encompasses the state's urban and suburban areas. Residents of other areas would have to travel at least 1 ½ hours each way to attend classes on campus. The turnover of preschool teachers in these areas was already a concern (John Killoran, Preschool Specialist, State Office of Education, personal communication, 1994). This turnover is consistent with trends reported in other states (Ludlow, Bloom & Wienke, 1990; Reid & Boss, 1993). It was apparent that to accommodate those teachers who needed to acquire certification training and who were stable residents of rural communities, an effort must be made to provide requisite classes in rural locales. While both Utah State University and the University of Utah had histories of offering programs through distance education, neither had the resources to mount a new initiative.

Collaborative processes. Development and delivery of this program required both inter-agency/university and intra-university collaboration. We shall focus upon the inter-agency efforts.

The Utah Office of Education led efforts to develop this program in two ways. First, the Early Childhood Special Education Specialist organized a consortium of faculty and agency personnel who met regularly to discuss both preservice and inservice education. This group considered the feasibility of developing a multi-university program. Second, and as an outcome of this effort, the State Office funded a year-long planning and development grant that supported a faculty member. She was the primary agent who (a) conducted an extensive needs assessment to determine which personnel serving young children with disabilities might participate in such an effort, (b) conducted an intensive examination of preschool special education certification and core special education coursework offered at the two universities to determine how a collaborative program might be organized to meet state certification standards and to obtain agreements between the two universities, (c) determined the technological alternatives for delivering the collaborative program through distance education, and (d) sought financial resources necessary to develop and deliver the program.

One accomplishment of the planning grant was the formulation of agreements between the faculty and administrators at the two universities as to which courses would be delivered by which institution, how registration and certification would be accommodated, and how activities would be coordinated. Also, two grant proposals written as a result of the planning process were funded. The state's higher education authority awarded a grant to enhance and deliver coursework by using advanced technologies such as CD ROM and electronic mail, and the U.S. Office of Education awarded a grant (#H029Q50031) to support rural students' tuition and some faculty time. The State Office provided additional program development funds.

Decisions about how coursework should be allocated between the universities were based upon currently available resources. The University of Utah offered a different certification program in several rural areas (Sebastian, 1991; Sebastian, 1995). This program included delivery of core special education courses that were also necessary for preschool certification. At Utah State University, early childhood special education faculty were available to develop and deliver specialization (early childhood special education) courses. In light of these resources, faculty and administrators agreed to assign delivery of core courses to one institution and specialization courses to the other. A number of procedures were developed. These included student advisement procedures and the scheduling of classes across sites and over time.

The incorporation of technology into course delivery. The University of Utah's system to deliver programs to students in rural areas has been extensively described and evaluated (Egan, McCleary, Sebastian, & Lacy, 1988; Egan, Welch, Page, & Sebastian, 1992; Sebastian, Egan, Welch, & Page, in press; Welch, Gibb, & Egan, 1992). This system provides videotapes of coursework delivered on campus to students in rural centers. Led by individuals prepared to serve as facilitators, students participate in class activities such as discussion, covering the same content as do students who take the class on campus. Four core special education courses delivered through this system were opened to early childhood students. The major challenge offered by incorporation of early childhood special education students into these courses was financial; to the extent that their numbers significantly increased class size, more faculty and facilitators would be required to evaluate their work in and outside of class. The securing of external financial resources made it possible for the multi-university program to address this issue.

Two specialization (early childhood special education) courses at Utah State University had been adapted for delivery in rural areas; these were courses offered as modules mailed to individual students who accessed faculty via telephone. The additional financial resources permitted faculty to offer the other specialization courses -- five that were didactic and one practicum--via interactive television. The state of Utah's educational system has more than 40 sites connected via fiber optics or microwave. Students in multiple sites can see the instructor on a telvision monitor and talk to one another using microphones. Students at all sites can see the instructor at all times; however, they (and the instructor) can see only one class site at a time. Because of the great demand to use this system, scheduling time for classes was a challenge. Scheduling classes as blocks (for example, 4 hours per day 4 days per week for two weeks in the summer) proved to be one solution to this issue. Another was scheduling classes during the academic year at lower-demand times such as Friday night.

The most demanding effort in terms of time and resources was the adaptation of courses to a format suitable for delivery at multiple sites via interactive television. Faculty used a model that structured existing courses into modules. Prior to coming to class each student completed individual modules that addressed content and a check of their knowledge prior to coming to class. Class time could then be spent in analysis and application of content. Each module included material presented in one or more of the following formats: printed materials such as journal articles or books, videotapes, and CD ROMs. Some print materials and videotapes were commercially available. Other printed materials, tapes and the CD ROMs were developed by CECSEP faculty and staff. To assure that students could communicate with faculty, a home page accessible on the Internet was created and updated regularly. It included information such as course syllabi, schedules, and procedural information--for example, how to access financial aid. Students could submit assignments via E-mail, which was faster and more economical than surface mail or fax. A toll-free number allowed them to contact the instructor without cost. These innovations were also added to the courses which had previously relied only upon surface mail and telephone for interpersonal communication.

Students evaluated the course materials and delivery system after each class was completed, and faculty and staff revised them accordingly. A parent co-instructor and a specialist in instructional technology were critical participants in the design and development effort. The evaluation results indicated that students could and did master content delivered in this manner.

Support for rural students. A somewhat unexpected challenge was the effort required to help students in remote areas access the technology. While the state education system had established an electronic network for all teachers and was in the process of electronically linking secondary schools and administrative offices, many elementary and preschool teachers did not have the hardware and software necessary to access this system. CECSEP staff worked collaboratively with personnel who developed, maintained, and provided training on the use of the electronic network. To help individual students, CECSEP personnel contacted local agencies such as community colleges and extension offices to map resources that might be made available to students. In some cases students were able to use these agencies' hardware and software. CECSEP personnel also assisted students who had personal computers in installing and using the necessary software. This required hiring individuals with technical expertise; the additional financial resources enabled the

program to hire them.

The instructional technologist provided written step-by-step instructions to help students use electronic mail and to use CD ROMs. In areas in which there was more than one student, students helped each other. During this phase of the project, faculty were careful to provide options for students for whom access to the technology was difficult--for a student who might have to drive to another town to use the computer at the school district office, for example. However, in most instances, after mastering the technology, students could save time and money by using it. Before students attended class, they worked through content modules and submitted assignments for faculty evaluation. Prompt feedback was essential in helping them master content. Because the timely exchange of work and feedback was critical, the electronic media were particularly useful. This may have helped some students to overcome their anxiety regarding the use of technology.

Other considerations. As we have implied, the development and initial implementation of this collaborative rural program was an expensive endeavor, requiring both additional faculty and technical personnel. However, the benefits of the initial efforts to develop collaborative agreements, course modules, the delivery system, and the student expertise to use technology-enhanced materials and communication systems will extend over several years as the courses are repeated and additional students enter the program. The initial investment will be "amortized" over time. Moreover, the benefits of participation in the certification program will be "amortized" across children and families as participants implement what they have learned. The technological expertise that many students acquired as they learned to use technology for purposes of the course will be a beneficial side effect of the program. In the long term, this expertise may help these rural residents to take advantage of communication systems such as the Internet. These permit continued access to information, thus overcoming a significant challenge posed by geographic isolation.

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