Using Distance Learning to Prepare Supported Employment Professionals

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The continued growth of supported employment services nationwide has led to the need for greater numbers of trained supported employment professionals. However, rapid expansion of supported employment and the lack of any real requirements for training or systematic personnel preparation has resulted in little training for these professionals. Consequently, innovative strategies are needed to maximize existing training resources, as well as deliver training to personnel in widely scattered locations. The North Carolina Supported Employment Cooperative Preparation Program located at UNC Charlotte has developed, implemented, and evaluated the use of distance education to provide training to both in-service and pre-service supported employment professionals. Data collected suggests that distance education is a viable alternative for providing personnel preparation and training in supported employment.

The number of persons with disabilities entering the workforce through supported employment services continues to increase (McAulay, Kiernan, McNally, Gilmore, & Keith, 1995; West, Revell, & Wehman, 1992), escalating the need for qualified supported employment professionals. Literature on preparing professionals to become supported employment specialists can be divided into two categories: (a) research delineating the major roles/functions, and (b) information regarding the need for training (Park, Shafer, & Drake, 1993).

In the first category, Everson (1991), Neubert and Krishnaswami (1992), and Morgan, Ames, Loosli, Feng, and Taylor (1995) all surveyed supported employment professionals to determine their self-reported training needs. In the most recent study, Morgan et al. (1995) found that the most important training topics identified by their 131 participants included (a) matching job to applicant, (b) job development, (c) encouraging family/parent support, (d) marketing, (e) strengthening social skills, (f) encouraging employer/supervisor support, and (g) improving job skills. In addition, with the increased use of strategies based on the use of natural supports, the role of supported employment professionals now includes both directly training persons with disabilities and acting as a training consultant for employers and businesses (Rogan, Hagner, & Murphy, 1993; Test & Wood, 1997).

In the second category, a number of studies have indicated the need for training supported employment professionals (Neubert & Krishnaswami, 1992; Park, Shafer, & Drake, 1993). In their study of 1,003 employment specialists from 32 states, Park, Shafer, and Drake (1993) indicated that while 62% of employment specialists had received some level of training, 65% were trained in a week, 22% in 1-2 weeks, with the remaining 13% being trained in 3 or more weeks. Neubert and Krishnaswami (1992) interviewed personnel from 45 supported employment programs in Maryland. Based on their results, which indicated almost half (45%) of the job coaches did not hold a degree (e.g., associates, bachelors), the authors stated that there is an obvious need for trained supported employment personnel. Unfortunately, systematic, on-going in-service and/or pre-service supported employment training is not widely available.

One possible solution to this training problem is distance learning. Distance learning has been defined as providing instruction to persons in a place or time different from that of the instructor (Moore, 1990). Distance learning can take many forms including use of audio/ videotapes (Bitter, 1995; McNamara, Nemec, & Farkas, 1995), internet (Bitter, 1995; Burgstahler, 1995), audio teleconferencing (Bitter, 1995; McNamara, Nemec, & Farkas, 1995), and compressed video/TV (Bitter, 1995; O'Brien & Schiro-Geist, 1995). In addition, distance learning has the advantage of alleviating geographical isolation by widely distributing scarce or unique instructional resources (McLaren, 1995).

Two examples of the use of distance learning in rehabilitation are Boston University's off-campus graduate degree program in Rehabilitation Counseling with a specialization in Psychiatric Rehabilitation (McNamara, Nemec, and Farkas, 1995) and Virginia Commonwealth University (VCU) Rehabilitation Research and Training Center's Supported Employment Telecourse Network (SET-NET) (Wehman, 1997). Boston
University's off-campus program was originally developed as a “low-tech” approach using telephones, audiotapes, and videotapes. Recently, “high-tech” approaches have been incorporated into the program, including fax machines, conference calls, speaker phones, an electronic bulletin board, and e-mail. VCU's SETNET uses satellite downlinking and one-way audio-video television in combination with return voice contact from remote sites via telephone or fax lines. It is used for question and answer periods to deliver a 30-week, non-academic training sequence for direct-service supported employment personnel.

Given the increasing need for trained supported employment professionals and the lack of available systematic, on-going training programs, the purpose of this manuscript is to describe a pre-service and in-service personnel preparation program designed for supported employment professionals via distance learning.

University of North Carolina at Charlotte's Supported Employment Coursework

The University of North Carolina at Charlotte (UNC Charlotte) began offering graduate coursework in supported employment in 1988 through a federally funded Rehabilitation Services Administration (RSA) long-term training grant (1988-1991). While the grant targeted rehabilitation professionals (e.g., counselors, job coaches), school-to-work professionals interested in the concept of transition were also drawn to the university. As a result, the graduate program was expanded to include coursework involving both supported employment and transition issues and methods. As an outcome of this initial grant, students were able to receive an M.Ed. in Special Education with a concentration in Supported Employment and Transition. The master’s degree program involves completing 36-semester hours, which includes 18 hours of coursework in supported employment and transition, and a 6-hour internship. Since the program began, 41 individuals have graduated from the program. Of these graduates, 90.6% are employed. Half of the graduates are employed in supported employment and rehabilitation, and the other half are employed by local education agencies.

Unfortunately, the number of program graduates has not been able to keep pace with the statewide demand for trained supported employment professionals. In addition, not all supported employment personnel are interested in pursuing a master's degree. Based on these needs, UNC Charlotte recently received an RSA Rehabilitation Training: Experimental and Innovative Training grant (H263A50016) to design and deliver a sequence of supported employment courses via distance learning. As part of the distance learning grant, the university established a Graduate Certificate in Supported Employment and Transition to serve (a) professionals who work with adult service agencies that provide supported employment services and (b) school system personnel who are responsible for helping students make the transition to adulthood. The graduate certificate program requires the completion of 12 semester hours of supported employment and transition coursework.

Description of the Distance Education Program

In 1995 the Department of Counseling, Special Education and Child Development, College of Education, UNC Charlotte, in conjunction with the North Carolina Division for Vocational Rehabilitation (DVR), and the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMH/DD/SAS), implemented a North Carolina collaborative personnel preparation program. The program was designed to provide graduate training to professionals who were interested in supported employment (e.g., Employment Specialists, VR Counselors, Case Managers, Vocational Evaluators, and Program Managers). The coursework was provided through an interactive microwave satellite network, combined with on-site instruction, to sites at three partner universities. UNC Charlotte served as the home-site; Appalachian State University (ASU) and East Carolina University (ECU) served as partner-sites for the first phase of the project (1995-1996).

During the second phase of the project, initiated in the Spring of 1997, UNC Charlotte continued to serve as the home-site; the University of North Carolina-Ashville (UNC-A) and East Carolina University (ECU) served as partner-sites. This allowed the project to recruit students from every region of North Carolina. This program also enabled UNC Charlotte, which has the only program concentration in supported employment and transition in North Carolina, to refine, expand, and offer its supported employment coursework to professionals who would otherwise not have access to it. By providing this coursework through the NC REN (North Carolina Research and Education Network), the project has quickly and economically increased the number of qualified supported employment professionals across the state.

North Carolina Research and Education Network (NC REN)

NC REN is a private telecommunications network that links universities, research institutions, medical centers, and graduate centers throughout North Carolina. The network utilizes private microwave and public/private fiber optics links and satellite technologies. It consists of duplex analog and digital video channels, as well as, a high-speed 45-Mb/s digital data channel. The video network consists of two full duplex channels for conferencing, collaboration, and instruction. Additional video capability is achieved via compressed video on the NC REN Data Network. NC REN interfaces with the North Carolina Information Highway video network, the High-Performance Computing and Communications Video Collaboratory and external sites via AT & T/Sprint dialup services. Campus program selection is managed by the NC REN Usage Committee, which is composed of representatives from each connected campus and the University of North Carolina General Administration. This technology allows for a fully interactive learning environment where all students can interact simultaneously with the instructor and/or students at each site.

Course Delivery

The graduate level coursework consists of three classes offered consecutively over a three-semester period. Courses are scheduled one per semester and offered one night a week for three hours. The supported employment courses originate from UNC Charlotte and are broadcast simultaneously to the other sites. All classes are located in the telecommunication studios located on each campus. The interactive capabilities of the NC REN allows students to see and interact with the instructor and other students.
in other sites in “real time,” as if all participants are in the same physical location. The instructor also travels twice a semester to each of the partner-sites to teach and meet the students in person. On these occasions, the class broadcast originates from the partner-site location.

During class, the instructor wears a lavaliere microphone for freer classroom movement. Originally, course lecture materials were presented via “paper” overhead transparencies which were telecast, however, now the majority of course lectures are illustrated with Microsoft PowerPoint slides, which are broadcast directly from a laptop computer or scan converter (which converts the signal from the computer to video). Students in all sites are also given paper copies of the slides to minimize the amount of time slides are projected. Instruction is also supplemented through interactive class exercises and videotapes, as well as guest speakers. Having “classrooms” located across the state allows guest speakers to travel to the nearest location, enabling individuals to become guest speakers who would normally not be able to travel to UNC Charlotte.

Each partner site has a class facilitator who is identified and hired by the project. Facilitators are graduate students in related fields without supported employment experience. Facilitators attend each class and are responsible for weekly communication with the instructor. Their responsibilities include copying, faxing and mailing class materials/assignments, monitoring class activities and quizzes/exams, and assisting with the instructor’s travel arrangements.

Students in the partner sites communicate with the instructor via telephone, FAX, e-mail, and/or through the facilitator. The instructor also meets with students and partner-site technical support staff during the scheduled visits to each partner-site. UNC Charlotte students use all of these modes of communication, as well as meeting directly in the instructor’s office.

Program Content
The course content was designed to accommodate students who are interested in entering, or in improving their skills, in the field of supported employment. The requirements for each course include class participation in a variety of activities, such as role-playing job development strategies, demonstrating teaching techniques, and discussing real-life examples of supporting individuals with disabilities in jobs.

In addition to other class assignments, requirements for each course incorporate at least one field-based assignment per semester that results in a written product, allowing students to develop their own supported employment portfolio (Vince, Miller, Ghiossi, Sharpton, Killam, Slaton & Albano, 1994). Class time is allotted for students to evaluate the draft products of other classmates using a review guideline prior to receiving a final grade on each assignment. This process is utilized to monitor student progress toward course objectives in lieu of field observation, since direct observation by the instructor is not feasible due to the time and travel limitations involved in teaching to a number of sites statewide.

The course descriptions are as follows:

**Introduction to Supported Employment.** This course introduces the concept of supported employment including the underlying philosophies and values. It features implementation processes, a variety of service delivery approaches, current trends, and relevant state and national policies. In addition, current issues, such as long-term support and natural supports, are discussed. The course has two field-based assignments which are included in student portfolios. The first assignment is a Consumer Interview in which students are required to interview two individuals with disabilities (one individual working in a real job in the community and one individual attending a sheltered workshop) and summarize the similarities and differences in the interviewee’s lives based on issues discussed in class and related readings. The second assignment is a Supported Employment Program Review. This entails assessing the status of a program and making recommendations for improvements in the areas of Administration, Job Matching & Development, and Job Training and Support.

**Supported Employment Methods.** This class focuses on direct service delivery competencies: finding employment sites based on consumer choice and assessment; using assistive technology; on-the-job training; providing long-term supports; and on-going advocacy. This course also includes two portfolio assignments. The first assignment involves developing a Job Site Training Strategy in which students select one of the areas of need (skill acquisition, production training, or behavioral support strategy) and develop an individualized and detailed written intervention plan for a person with a disability. The second assignment involves developing a Long Term Support Strategy. In this assignment students assess an employee in a real job site utilizing observation, interviews, performance data, productivity, social integration, and compatibility on the job. The data are summarized and necessary intervention strategies are identified.

**Interagency Collaboration/Case Management.** This course content includes information on: person-centered planning; financial planning and government benefits (e.g., Social Security Work Incentives); guardianship; interagency collaboration; and an in-depth look at the roles, responsibilities, and eligibility requirements of adult services as they relate to work. The portfolio assignment for this course is an Agency Interview. Each student is required to conduct an interview with a manager/supervisor in a community agency other than their own place of employment. The format for this informational interview is developed by the students in the last class session.

**Interagency Collaboration.**
A project advisory board was formed to provide input regarding course content, assessment, portfolio assignments, guest speakers, and student recruitment. Board members include representatives from the Division of Vocational Rehabilitation Services, Division of Mental Health/Developmental Disabilities, Association of Rehabilitation Facilities, the University of North Carolina at Chapel Hill Developmental Disabilities Training Institute, as well as a consumer of supported employment services and two supported employment service providers. Board members meet twice a year using the NCREN teleconferencing capabilities. Board members also participate in the courses as guest.
speakers by broadcasting from their most convenient partner-site location.

Recruitment of Students

Flyers announcing the courses are mailed twice a year (at the end of each semester) to all supported employment vendors and local Mental Health/Developmental Disabilities authorities in the state. In addition, course information is disseminated at each of the partner-sites, as well as via a number of organizational newsletters/mailing lists (e.g., Autism Society of North Carolina, Exceptional Children's Assistance Center, The Arc, Association of Rehabilitation Facilities and Association of Psychosocial Community Support Programs). Potential students are also encouraged to apply for stipends available through the project to defray the cost of tuition. Another incentive for students is the development of the UNC Charlotte Graduate Certificate in Supported Employment and Transition, which recognizes students who successfully complete the three-course sequence and an additional course in transition services or an independent study course in supported employment.

Distance Education Program Evaluation

The North Carolina Supported Employment Cooperative Preparation Program includes an evaluation component to assess and monitor project effectiveness. Evaluation of project effectiveness focuses on questions related to student satisfaction with the courses and the distance education format, degree of increase in training competencies, degree of increase in use of supported employment methods (e.g., systematic instruction, facilitating natural supports, etc.), and outcomes, such as placements of individuals into employment positions. Demographic and numeric data track enrollment and the nature of who is participating in the distance education courses across sites and semesters. Data collection to monitor project effectiveness is addressed through objective tests, supplemental course evaluations, portfolio assessment, and pre- and post-training measures. The following sections report the findings from evaluation efforts related to student enrollment, student population, and satisfaction with the supported employment courses via a distance education format.

Student Enrollment and Student Population

Recruitment and enrollment are central concerns in a distance education program because of the challenges of "getting the word out" across geographic locations, registration issues across multiple university campuses, the willingness of students to participate in coursework taught in a remote location away from direct contact with the instructor, and finally, maintaining and/or increasing enrollment with a satisfied customer base. Individuals who are targeted as participants in the original proposal included supported employment specialists, Vocational Rehabilitation (VR) counselors, case managers, and vocational evaluators. Information disseminated which was critical to the project's achievement of its enrollment objective included the (a) availability of courses, (b) availability of stipends to offset tuition, (c) schedule and location of the courses, and (d) overall nature of the course content.

The number of students who participated in each class offered in the first three-course cycle increased each semester. During the first semester 12 students (5 at UNC Charlotte, 3 at ASU, and 4 at ECU) participated. This number increased to 18 in the second semester (9 at UNC Charlotte, 2 at ASU, and 7 at ECU) and to 20 for the final semester (11 at UNC Charlotte, 4 at ASU, and 5 at ECU). Altogether, 31 different students completed at least one course in the first three-course cycle, 13 students completed two courses (8 of these 13 students completed the third course in the second course cycle), and 2 students completed all three courses in the first cycle.

Demographic data collected on all 31 students indicated that 80% were female, 75% were Caucasian, 70% were over age 31. Out of the total group of students, 35.5% were employed by an agency, 22.6% were employed by a sheltered workshop, 19.3% were employed by a school system, 6.4% were VR counselors, full-time students, or employed in an unrelated field, and 3.2% were employed by a residential agency.

Course Evaluations

In addition to standard course evaluations required by the university, a supplemental evaluation form was collected from each student at the end of each course. The form posed questions specific to the use of distance learning as an educational medium and the strategies used to enhance course instruction. Data were gathered to allow a comparison of home-site and partner-site student satisfaction. The results of the student course evaluations revealed: (a) a 100% satisfaction rate with the supported employment coursework; (b) a very high degree of satisfaction (91% total; 90% home-site vs. 93% remote-site) with the use of distance education as a medium for accessing the supported employment courses, and (c) satisfaction (91% total; 95% home-site vs. 86% remote-site) with the portfolio and peer review process.

Students were also given an opportunity to respond to open-ended questions about what they liked and disliked about the course. Positive student comments regarding the use of distance education were: "I like the telecommunication because it gives professionals a rare opportunity to collaborate/share ideas with other service providers across the state." "Having a telecourse is a great idea as many others are able to attend a course which otherwise may not have taken place," "At first I was a little intimidated but after a class or so, I became relaxed. It was very interesting and fun. I really enjoyed being in a telecast class. It makes you pay more attention," and "Now that I am used to it, I like it." Some of the negative responses included: "I think the medium is great except for reoccurring [technical] problems," "This medium served its purpose. There were times when it was difficult to hear," and "I am glad it is offered, but it is better when the instructor is present."

Discussion

Based on our results, it appears that distance learning can be a viable option for delivering training to current and future supported employment professionals. While the North Carolina Supported Employment Cooperative Preparation Program is still new, a number of strategies for simultaneously managing multiple classrooms and providing effective instruction have emerged.

Logistical Considerations

In order to allow students easier access to the university sys-
tem, class registration was simplified at the distance sites (e.g., allowed registration the first night of class). This necessitated both a determination of where each student would be enrolled (originating or partner-site), as well as advance course publicity in the areas where the courses were to be offered. Strategies for making up missed classes in each location due to technical difficulties or weather-related emergencies were also developed. Due to the geographically diverse nature of North Carolina, it was necessary to tape class sessions for later viewing or coordinate additional viewing dates at the distance sites to accommodate circumstances beyond the student’s control (e.g., snow storms, hurricanes, rockslides, etc.). Quizzes and examinations that did not require air time were scheduled in alternative locations on each campus to conserve use of the distance learning classrooms. The instructor also communicated course syllabi changes, such as broadcast and travel dates, to the originating site media director and the partner-site media departments. The establishment of facilitators in each site responsible for liaison duties between the instructors and the students proved to be crucial in the course work delivery. In addition, teaching simultaneously to several sites over a large geographic area required greater advance preparation of class materials so that each class would receive the necessary materials via FAX, E-mail, or overnight mail.

Instructional Considerations

The instructor found that it was important to modify her teaching style in order to enhance teacher effectiveness. Instructor self-evaluation, accomplished partially by reviewing videotapes of classes, resulted in several changes that included: delivery style and interaction with the students; limiting overhead use (to avoid “talking head” effect) by sending reduced copies of overheads to sites prior to each class session; and addressing the intimidation factor of camera and microphones by orienting students and guest speakers to the nontraditional classroom. Media directors at each site were asked to limit students’ views of themselves on camera in order to facilitate student participation. The instructor also utilized multi-media presentations (videotapes, computer, etc.), guest speakers, and group work across sites to promote student attentiveness. Although technical difficulties during class sessions were infrequent and usually short-lived, the instructor continuously monitored the partner sites and was prepared for the loss of visual or auditory contact with students. On occasion, this required a change in the agenda, communicating via phone to the other sites or briefly repeating material previously covered. Finally, the ability to travel and teach from each of the sites was instrumental in the development of the student-teacher relationship.

In conclusion, distance learning provided current and future supported employment professionals the opportunity to access university-level coursework, previously unavailable due to distance and resource limitations, through UNC Charlotte’s Supported Employment Cooperative Preparation Program. Students appreciated the two-way interactive capabilities of the current distance learning system because it enabled them to interact with the instructor, guest speakers, and classmates as if they were in the same room. While one drawback was the difficulty of supervising field-based experiences, the use of portfolio assessment appeared to solve this problem. Because of this, distance learning can be viewed as an excellent method for providing the systematic training needed to assure that supported employment professional are providing quality services.

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References


