The University of Kentucky has been providing graduate-level distance learning programs in moderate and severe disabilities and early childhood special education since 1989 through the Training Rural Educators in Kentucky (TREK) Projects. To document the effectiveness of the program, a follow-up survey was conducted in 1998 with an emphasis on the program's impact on students with disabilities, other teachers, and school districts. Surveys were returned from 29 former and current TREK participants. Results indicate that a significant number of participants had achieved an advanced degree or additional certification in some area of special education. A majority of respondents who indicated a job change felt that the change was due to their completion of the TREK course. On a scale of 1 (not useful) to 5 (very useful), the range of scores across all courses was 4.4. Components of the three delivery formats--on-site, satellite, and compressed video--were rated, with the satellite and combination approach tying for preferred format, followed by compressed video and on-site. A greater percentage of participants were implementing best practices for children with disabilities after taking TREK courses, and a majority of these participants shared information about the practices with other adults. Nineteen respondents reported that systemic changes in their places of employment resulted from the knowledge they gained in the TREK program. The emphasis on research-based decision making resulted in TREK participants becoming agents of change in their rural districts on behalf of children with disabilities. (TD)
The University of Kentucky has been providing graduate level distance learning programs in moderate and severe disabilities and early childhood special education since 1989 through the Training Rural Educators in Kentucky (TREK) Projects. In an effort to document the continued effectiveness of the program with an added emphasis on its impact on students with disabilities, other teachers, and school districts, the project director and principal investigator of the third TREK project conducted a follow-up survey in 1998 of all students who had participated in distance learning programs since 1989. The purpose of this article is to (a) review the program components of the TREK projects, (b) summarize the satisfaction data collected through the follow-up survey conducted in the summer of 1998, and (c) describe the impact data collected through that same survey.

Follow-up Survey

Overview

The Project Director and Principal Investigator adapted the survey developed by Collins (1997) for use for a second follow-up evaluation. The adapted survey contained satisfaction questions similar to those on the previous survey but emphasized the impact of the distance learning program on students with disabilities, other service providers, and school districts. Specifically the survey contained the following components: (a) demographic information; (b) degree, teaching rank, certification, and employment position prior to and following enrollment in distance learning courses; (c) rating of usefulness of each course taken; (d) suggestions for changing course content; (e) the effectiveness of each type of delivery system (i.e., on-site, satellite, compressed video); (f) suggestions for changing the method of delivery; (g) preference for method of delivery; (h) advantages and disadvantages of each method of delivery; (i) funding sources for tuition; (j) use of best educational practices before and after taking distance learning course(s); (k) number of children affected by implementation of best practices; (l) number of adults with whom the student shared information about best practices; (m) summary of systematic change resulting from taking distance learning course; and (n) personal experiences with the distance learning program. The Project Director and Principal Investigator mailed the survey to 141 former and current TREK and TREK-DL students. The survey packet consisted of an introductory letter, the questionnaire, and a metered self-addressed envelope.

Satisfaction Data.

Demographics. Of the 141 surveys mailed, 28 (29.9%) of the surveys mailed were completed and returned. In addition, 11 (8.5%) of the surveys were returned as undeliverable. A majority of the respondents ranged in age between 30-39 (50%) and most were female (82%). Upon entering the distance learning program, most of the students had degrees in a variety of areas including psychology, elementary education, speech and language, and special education.

Upon entering the distance learning program, 60% of the respondents had completed a bachelors degree, 25% a masters degree, 11% a rank II program (i.e., 30 hours above a bachelor’s degree), and 7% a rank I program (i.e., 60 hours above a bachelor’s degree). At the time the survey was conducted, 18% of the respondents had completed a masters degree, and 25% completed a change in teaching rank (25% for rank II and 46% for rank I). Of the students still taking coursework, 25% still planned to complete a masters degree, others anticipated the
completion of a change in teaching rank (8% for rank II and 25% for rank I) and the remaining were seeking advanced degrees at the specialist (7%) and doctoral (4%) levels.

Prior to entering the TREK program, 32% of the respondents already were certified in some area of special education (LBD - 18%; MSD - 7%; Other including hearing impaired or vision impaired - 32%). Some of the TREK students (46%) were either solely or additionally certified in general education (early childhood - 4%; primary - 43%; middle school - 21%; high school - 25%). At the time the survey was conducted, 32% of the respondents had achieved an additional certification in special education, primarily in the area of MSD (21%). As well, 21% of the respondents had obtained certification in interdisciplinary early childhood education (IECE). An additional 39% of the students still anticipated that they would obtain certification in either MSD or IECE.

With regard to their employment status, 7 (25%) of the respondents worked as early childhood providers; 13 (46%) were special education teachers; 4 (14%) taught in general education settings; 7 (25%) were employed by mental health services (adult and early intervention services; 4 (14%) were related services providers; and 1 (4%) was an administrator. The majority of the respondents (54%) had 1-5 years experience in their current place of employment. Some respondents said that their employment changed either while or after they took their distance learning courses. Included in that number were 4 (14%) early childhood providers, 7 (25%) special education teachers, 2 (7%) general education teachers, 3 (11%) mental health services professionals, and 3 (11%) related services professionals. A majority (69%) of those who indicated a job change indicated that the change in their employment status was due to them completing courses through the TREK projects.

Course evaluation. The survey respondents had taken all of the courses offered through the TREK projects, with a range of 1-11 students indicating they had completed every course. Students were asked to rate the usefulness of the courses from 1 (not useful) to 5 (very useful). The range of scores across all courses was 4.4 - 5.0 with Applied Behavior Analysis, Instructional Programming in Early Childhood Special Education, Advanced Practicum: Early Childhood Special Education, Instructional Methods for Students with Disabilities and Issues in Special Education: MSD and ECSE tying as the most useful courses with a score of 4.8. (Nonspeech Communication) was identified as the least useful course, although the score was also high (i.e., 4.4). When asked how the course content should be changed, respondents made 27 suggested changes. Of those, these included additional information to the course content on the alternate portfolio process or other issues related to the Kentucky Education Reform Act (KERA) (Kleinert, Kearns, & Kennedy, 1997), behavior management, legal issues (e.g., IDEA), community based instruction and assistive technology.

Delivery. TREK courses have been delivered to 22 locations using three different modes of delivery (i.e., on-site, satellite and compressed video). The number of students who responded ranged from 1-6 at any given site. Five (12%) of the respondents attended classes on-site at a rural location, 22 (51%) attended classes at designated satellite delivery sites, and 16 (37%) attended classes at designated compressed video sites (with most students participating in classes across more than one delivery format).

The students were asked to rate the on-site, satellite, and compressed video delivery formats on a scale of 1 (not effective) to 5 (very effective). The on-site delivery format receiving the highest rating (4.8) was instructor feedback and the component receiving the lowest rating (4.0) was guest speakers. Regarding satellite delivery, advising and in-class discussions received the highest rating (4.6) and site monitors and on-campus activities received the lowest (3.5). Several compressed video components received the highest rating (4.7), including instructor feedback, television quizzes, on-site exams, class lectures, class discussions, and class activities. The lowest rated component for compressed video was library services (3.7).

The students were asked to identify their preferred distance learning format. Of the 25 students who responded to that question, 3 (12%) selected on-site, 7 (28%) indicated satellite, 4 (25%) preferred compressed video, and 7 (28%) preferred a combination approach. Four students (25%) had no preference. Students preferred on-site delivery because they had easier access to the instructor and the instructor could read students’ nonverbal
cues to determine if the students understood the information. Two reasons were stated for why students preferred satellite delivery. Four students stated that the site was easily accessible to their home and another indicated that they got to know other professionals from their region by taking classes in that method. All of the comments relative to compressed video had to do with the fact that students preferred compressed video because there was greater interaction between students and the instructor. Students preferred the combined approach for a variety of reasons (e.g., convenience, interaction, difference in modes of instruction).

**Funding issues.** Students were asked if they received tuition assistance through grants supplied by the University to cover the cost of their coursework. Eighty-two percent of them indicated that they did, and another 29% indicated that they received tuition assistance from other sources, such as the state traineeship program. When asked if they would enroll in distance learning coursework without tuition assistance, a majority of the respondents (71%) indicated that they would.

**Impact Data**

In order to determine the impact of the TREK projects on services to children with disabilities, a series of questions were asked on the survey. The first set of questions related to the use of best practices highlighted throughout the TREK projects. These practices included inclusion, functional curriculum, functional/ecological assessment, community-based instruction, positive behavioral support, person-centered planning, errorless learning procedures, data-based decision making, transdisciplinary teaming, family-centered programming, activity-based instruction and longitudinal programming for transition. Students were asked to indicate (a) if they used the practice before taking TREK coursework, (b) if they used the practice after taking TREK coursework, (c) the number of children affected by using the practice (if they used it), and (d) the number of adults with whom they shared the information. Next, students were asked to indicate any systemic changes at their place of employment that they perceived being a result of the knowledge and skills they gained from being involved in the TREK project(s). Table 1 shows the number of students who indicated they were using the practices before and after they took TREK-DL coursework and also the number of children and adults impacted by the TREK-DL program.

**Use of best practices.** It is worth noting that the majority of the respondents (i.e., greater than 50%) said that they were not using 50% of the practices before taking coursework (i.e. functional/ecological assessment, community-based instruction, person-centered planning, errorless learning procedures, family-centered programming, and longitudinal programming for transition). As well, the remaining 50% of the practices were not being used by 21% - 46% of the respondents (i.e., inclusion, functional curriculum, positive behavioral support, data based decision making, transdisciplinary teaming, and activity-based instruction).

Students were then asked if they used the practice after taking related coursework. The highest percentage of respondents who said they were not using specific practices was 21% (person-centered planning and longitudinal programming for transition). In addition, 18% indicated they were not using family-centered programming, 14% were not using community-based instruction and transdisciplinary teaming, 11% were not practicing the use of functional curriculum, functional/ecological assessment, errorless learning, and activity-based instruction, 7% were not using data-based decision making, and 4% were not practicing inclusion or using positive behavioral supports.

**Students affected.** If students said that they were using a particular practice after taking coursework through the TREK project(s), they were asked to indicate the number of children with whom they used each practice. All practices were used with between 1 and 299 children with disabilities. The practice used with the largest number of children (mean = 68) was activity based instruction. Following is the mean number of children affected by the use of the remaining best practices: (a) errorless learning – 60, (b) family-centered programming - 56, (c) transdisciplinary teaming - 50, (d) positive behavioral supports - 50, (e) longitudinal programming for
transition - 49, (f) data-based decision making - 35, (g) functional curriculum - 29, (h) community-based instruction - 26, (i) person-centered planning - 26, (j) functional/ecological curriculum - 24, and (k) inclusion - 20.

Other teachers affected. Students who said they were implementing best practices they learned through coursework also were asked to indicate the number of adults with whom they shared information regarding the practices. All practices were shared with between 0 and 123 adults. The practice shared with the largest number of adults was positive behavioral supports (mean = 27). Following is the mean number of adults with whom TREK-DL students shared information about the remaining best practices: (a) longitudinal programming for transition - 24, (b) inclusion - 23, (c) transdisciplinary teaming - 21, (d) activity-based instruction - 18, (e) person-centered planning - 17, (f) family-centered programming - 16, (g) functional curriculum - 13, (h) community-based instruction - 12, (i) errorless learning procedures - 11, (j) data-based decision making - 10, and (k) functional/ecological assessment - 6.

Systemic change. Last on the survey, students were asked to provide examples of systemic changes in their places of employment that they believe resulted from their increased knowledge and skills in using recommended practices. There were seven (7) comments regarding an increase in inclusive practices for children with disabilities that respondents attributed to the knowledge they gained through TREK courses. One respondent indicated that the use of Circle of Friends (Vandercook, York, & Forest, 1989) a person-centered planning process taught in several TREK courses, facilitated the inclusion. One student stated, "My school is moving toward full inclusion. I have shared my materials from my UK classes with my colleagues, and we all have found them to be very beneficial." There were three comments from students indicating that they saw improvement in the area of behavior management since they completed TREK courses. Three respondents also stated that their school was more proficient at data collection as a result of the courses. As well, three respondents indicated that they saw greater progress on students' IEPs because of the gained knowledge of how to do systematic instruction. Two respondents said that they believed their curriculum was more functional since taking courses on designing functional curriculum models for students with disabilities. One respondent developed a parent education program based on knowledge and skills obtained through TREK-DL coursework, another indicated that the quality of students' IEPs had improved, and a third said that the program where they work had moved from a unidisciplinary to a transdisciplinary model of service delivery since taking TREK courses. A comment by one student provides evidence of the type of systemic change TREK program faculty strive for in providing services to students in rural areas. The student said, "I believe that our school has become more efficient and proficient in systematic instruction and data collection. I also feel that many more students are included in regular classes and the doors continue to open every year."

Personal Experiences

Students related only positive experiences about the TREK projects. In general, students commented about the content and quality of the coursework, the program faculty, and the convenience of taking courses via distance learning. Students described the TREK projects as valuable, outstanding, practical, and functional. Respondents noted that program faculty were accommodating to students' needs. As well, a number of respondents indicated that they would not have completed their graduate work without the availability of distance learning coursework. They cited the long distance they had to drive to take coursework and the competing demands of family and career as challenges to completing courses offered only at a distance.

Discussion

This current follow-up survey provides useful information on how to implement distance learning programs in rural areas. As well, the survey yields valuable information regarding how personnel preparation programs can promote positive results for children with disabilities and their school systems. It is noted as a limitation that the survey only had a response rate of 29.9% (with 8.5% undeliverable). While the data gathered from the surveys may not be representative of the students who did not return the surveys, it still offers
information that can be valuable in planning and refining a distance learning program. In addition, it is impressive to note that the impact data represent only a small percentage of those who have been affected by the TREK projects.

The responding students were generally satisfied with all of the coursework offered through the TREK projects, with no course scoring below 4.4 on the Likert scale. This is important information given that there should be no discrepancy between the quality of coursework offered to on and off campus students. While students evaluate all courses in the Department of EDSRC at or above the college mean, it is worth noting that distance learning courses are often evaluated higher than any course in the department.

With regard to the delivery technology, two important issues emerge. First, many technology difficulties occur that are beyond the instructor's control. This can be frustrating to students and faculty alike. Technology difficulties are an inevitable issue that must be contended with when coursework is delivered in this manner. It is important for faculty to accentuate the positive aspects associated with taking coursework near one's home, after work hours, and with tuition assistance, so that students will remain positive as well. Communicating with faculty was a second issue that was repeatedly raised in our survey. With regard to actual coursework, the issue relates to the students' ability to communicate directly with other students and faculty during class time. It is important that faculty structure distance learning courses so students are actively involved in the class. The survey respondents also frequently mentioned their frustration with being unable to reach the course instructor between class meetings. The TREK projects have been structured so program faculty are frequently "in the field" supervising students throughout the school week.

The results of this survey indicate that a greater percentage of students were implementing best practices for children with disabilities after taking TREK courses. Further the majority of these students used the practices with students who have disabilities and shared information about the practices with other adults. These results are promising and would have been strengthened by two factors. First, the original TREK project was established so students could acquire a masters degree with a focus in either ECSE or MSD. Since students from both of those programs participated in the survey, it is possible that students responded a certain way depending on their program orientation. For example, students working with young children would not likely use community based instruction. Conversely, students who teach children with moderate/severe disabilities would be less likely to use family-focused programming. Second, the current survey was mailed to all students who had taken any courses through the TREK projects. Although the practices listed in the survey permeate many courses in the TREK curriculum, it is possible that some students had not been exposed to some of these practices.

The positive results of the impact data demonstrate the need for a common philosophy and core set of emphasized practices in a personnel preparation program. All of the coursework offered through the TREK projects is rooted in applied behavior analysis (ABA). While ABA is emphasized in all courses, students also obtained skills and knowledge in other areas important to the education of children with disabilities, including inclusive education practices, functional assessment and curriculum development, family centered programming, and longitudinal transition planning. What is not captured in the survey is the heavy emphasis in the TREK projects on reflective teaching. Students are required to become consumers of current research and to conduct research in their classrooms or employment sites. The emphasis on research-based decision making impacts students' capacity to effectively implement recommended practices and to share them with others. As a result, TREK students have become agents of change in their rural districts on behalf of children with disabilities.

Conclusions

Federally funded programs are under close scrutiny to produce positive results for children with disabilities and their families. These results are captured in the Government Performance and Results Act (GPRA) (1999). GPRA outlines specific goals and objectives that all programs funded under IDEA should achieve. The goal under Part D (National Activities) is "to link best practices to states, school systems, and families to improve
results for infants, toddlers, and children with disabilities" (p. 10). Specifically personnel preparation projects funded under Part D are charged with assisting "states in addressing identified needs for highly qualified personnel to serve children with disabilities" (p. 10). This survey is one attempt to gather data on those outcomes.

Furthermore, discretionary programs are challenged to evaluate federally funded programs on numerous levels. Student satisfaction and the attainment of skills and knowledge are two types of evaluative data. There are mechanisms in place at the university level for determining students' satisfaction with coursework (i.e., course evaluations) and attainment of skills and knowledge (i.e., class projects and examinations). The TREK survey extends that level of evaluation and provides more informative data to help guide the continued development and enhancement of the program. In addition, this survey provides insight into other evaluation levels. Specifically, there are data to show the high level of implementation of recommended practices for students with disabilities and the impact of the program on students with disabilities and their families. Ultimately, the goal of personnel preparation programs is achieve this result.

References


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