The shortage of qualified special educators in Louisiana is critical, particularly in rural areas. Factors contributing to this shortage include low teacher salaries, reduction of tuition exemption for teachers taking certification courses, and higher tuition costs. University training programs must assist teachers in developing necessary competencies and prepare them to be responsive to the challenges they will face in rural communities. Specifically, there is evidence that effective rural special educators need consultation skills for conferencing and counseling parents and other family members, and training in the uses of computers for both instructional purposes and compensatory purposes in overcoming barriers to student learning. This paper describes Project ReSET (Recruit, Retrain, Retain Special Education Teachers in Rural Areas), a graduate teacher training program developed by Southeastern Louisiana University that seeks to increase the number of highly qualified special educators working in rural Louisiana. The program consists of 21 semester hours required for certification, and additional courses focusing on educational technology and working with families. Participants are certified in either mild/moderate or severe/profound impairments. Includes course descriptions for two courses entitled The Exceptional Family and Technological Applications in Special Education.
Recruitment and retention of qualified teachers remain critical issues in education today. According to the National Center for Educational Statistics, total pupil population is projected at 54,412,000 in 2000, an increase of approximately eight million pupils in ten years (1990-2000) (Digest of Educational Statistics, 1993). This increase in the number of students in school raises concerns about teacher shortages in certain areas. In the U.S. Department of Education's Fifteenth Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act (1993), the states reported that 26,934 more special education teachers were needed during 1990-91. The greatest number of teachers were needed for students classified as learning disabled and emotionally disturbed, as well as students in cross categorical programs. Thus, the field of special education appears to be experiencing some of the most significant shortages.

Need for Special Educators in Rural Areas

With the implementation of P.L. 94-142, significant progress was observed in the provision of special education services in rural schools (Helge, 1984). The enormous growth in the numbers of children served in special education in rural areas placed burdens on rural communities, resulting in funding inadequacies and shortages of qualified personnel. Rural personnel attrition rates were described as "alarming" (McLaughlin, Smith-Davis, & Burke, 1986), with attrition rates of 30 to 50 percent considered the norm for rural special educators (Helge, 1983). This finding is not surprising as the majority of teachers, trained in urban areas, have not been prepared for the unique challenges of rural education. Today, the shortage of qualified special education personnel in rural areas remains critical. Rural school districts often employ unqualified personnel to serve children with disabilities (Helge, 1991b). As Director of the United States Department of Education, Judy Schrag discussed federal level concern with the higher attrition rate of rural special education personnel (Berkeley & Lipinski, 1991, p. 19).

The shortage of qualified special educators in southern states, and particularly in Louisiana, is critical. Factors contributing to this shortage in Louisiana include low teacher salaries, the reduction/elimination of tuition exemption for teachers taking certification courses, and higher tuition costs. The state of Louisiana is largely rural with approximately 68 percent of residents living outside of the urbanized areas of the state. Almost half of these residents live in communities with populations of fewer than 2,500. There is tremendous educational, socioeconomic, and cultural diversity reflected in this population and rural special educators must deal with unique aspects of rural communities for effective service delivery to children with disabilities.
Need for Rural Special Education Preservice Training Programs

University training programs are needed that assist teachers in developing the necessary competencies and prepare them to be responsive to the challenges they will face in rural communities. However, teacher training programs typically do not address the unique aspects of rural schools. As Helge (1991a) noted, "Problems traditionally associated with implementing comprehensive special education programs in urban areas are compounded in rural areas. Vast land areas, scattered populations, and inadequate services are obstacles to program development, particularly when highly trained personnel and specialized facilities and equipment are required" (p. 9).

During the 1980s and early 1990s there has been increasing recognition of the importance of rural special education preservice training programs. Personnel recruitment and retention efforts are likely to be more successful when universities develop programs focused on rural education. Thus, training programs are needed that develop teacher awareness of the needs/characteristics of rural communities and the ability to participate in the design and implementation of individualized service delivery systems. As Helge (1991a) noted "just as urban models are not appropriate for rural communities, there is no one rural service delivery model for the great variety of rural subcultures" (p. 10).

In the development of the Project ReSET program a literature review was conducted to examine necessary competencies for rural special educators. Special education has typically been viewed as a field of "specialization," in terms of disability, level of service, grade level setting, etc. However, as Helge (1983) emphasized, "generalists" are needed due to the lack of specialists and low-incidence personnel. Rather than serve as experts, "generalists" perform a variety of tasks and teach a wide variety of subjects to children of various ages and disabling conditions. Teacher training programs should purposefully prepare teachers for the "generalist" role (Silver, 1987). The role of the rural special educator in Louisiana, as in many states, requires skills crossing disability, level of service, and programming option boundaries. While generalists are needed, there is evidence that teacher training programs must also emphasize development of competencies in areas not traditionally addressed. Inadequate teacher preparation has important implications, with inexperienced and unprepared teachers more likely to leave the field than experienced teachers (Billingsley, 1993). Specifically, there is evidence that effective rural special educators need competencies in working with families and in technology.

Training Preservice Teachers to Work with Families in Rural Areas

The advantages of parent-teacher collaboration in the education of children with disabilities have been widely recognized, and there is strong support for the idea of training special education teachers to work with parents and families (Shea & Bauer, 1991; Turnbull & Turnbull, 1990). Research in special education has increasingly demonstrated the benefits of family involvement in the education and habilitation of children with disabilities (e.g., Bailey, 1987; Dunst, Leet, & Trivette, 1988).
addition, PL 94-142 and PL 99-457 mandate parent involvement in the identification, diagnosis, placement, and programming of children with disabilities. However, increased recognition of the importance of family coursework in teacher training programs has focused primarily on preparation of teachers of infants and toddlers with special needs. Yet, all teachers working with children with disabilities should develop certain competencies to facilitate communication and family involvement in educational programs. As Kerns (1992) noted, "Special and regular educators will be working with families whether they want to or not" (p. 53).

Working with rural families clearly requires unique approaches and specialized competencies. Distances from home and school, topography, isolated communities, and sometimes distinct cultural and social values must be considered. Hansen (1987) observed that individuals residing in rural areas confront a different set of problems than do individuals in urban areas. Specifically, the high percentage of poor living in rural areas, underemployment, higher percentages of younger and older community residents, and a sense of isolation, are cited as contributing to the unique problems faced in rural areas. Recent research on the incidence of at-risk factors for children and youth, indicates the highest incidence in the following categories: dysfunctional family, poverty, suicide/depression/low self-esteem, minority and poor, child with alcoholic parent, and child abuse (Helge, 1991b). Helge's study indicated that rural children fared worse than non-rural children in 34 of 39 statistical comparisons.

Family involvement in educational programs for rural children with disabilities cannot be over emphasized. Parents may need assistance in developing effective family communication systems, and can be an essential resource in program planning and implementation when mobilized. Special educators must acquire a broad range of skills in order to adapt to the unique perspective of the rural setting in which they are employed. Silver (1987) suggested that rural special education training programs include courses building consultation skills for conferencing and counseling parents and other family members. The rural special education teacher must often act as a liaison between the school and the family, seeking to communicate rather complicated and sophisticated concepts to individuals often unfamiliar with educational practices. Particularly in rural areas, the special educator may play a critical role in facilitating service delivery by ensuring the cooperation and participation of the family.

Training Preservice Teachers to Use Technology in Rural Schools

While most university programs offer some educational technology instruction, the introductory level course typically provided may not be sufficient for teachers to develop necessary expertise. According to Callister and Burbules (1990), the typical educational computer course "focuses on topics such as the history of computers, the technical aspects of hardware, taxonomies of educational software, programming, vocational implications, and the roles of the computer in society" (p. 3). Additionally, inservice training opportunities to acquire necessary competencies related to technological applications may be limited. Several problems with classroom use of computers were noted by teachers in a 1990 Appalachia Educational Laboratory
survey. The most serious problems identified were: lack of planning for computer integration, lack of access to software information, lack of access to programs addressing problem-solving and other higher-level thinking skills, and lack of access to training in the operation and uses of computers (Hummel, Timonium, & Archer, 1993). Thus, teachers must often rely on their own initiative to acquire or upgrade technological skills.

In addition to uses of computers for instructional purposes, computers and other technologies may be used for compensatory purposes to overcome barriers to learning. According to Church and Glannen (1992), "Microcomputers with appropriate adaptations can empower disabled individuals, provide them with independence, and offer tools with which they can realize their full potential" (p. 123). PL 101-476 (Individuals with Disabilities Education Act, 1990) requires that schools provide assistive technology devices and services, when appropriate, for students with disabilities. As a result, a federal mandate exists to provide appropriate assistive technology services to eligible students. Teachers also need skills in assistive technology use for students with disabilities. Technological competencies for personnel who provide services to students with disabilities have been delineated in the literature (e.g., Blackhurst, 1988; Kinney & Blackhurst, 1987; Thibodaux, 1993); however, such lists may not adequately reflect emerging roles and functions following recent technological developments. Additionally, many rural school systems have been slow to utilize technology due to limited financial resources and lack of trained personnel. As noted, because specialists will rarely be available, rural special educators must be provided with appropriate training and experience to support the use of technology in the schools. Thus, the development of technological skills appears to be critical for special educators in rural areas.

Description of Project ReSET

Training needs of rural special educators in Louisiana have been examined, and Southeastern Louisiana University (SLU) has been involved in designing innovative teacher training programs (e.g., deFur, Evans, Carr, & Melville, 1990; Evans, Carr, & Melville, 1994). To ascertain rural Louisiana special educator training needs personnel from a federally funded rural training project at SLU surveyed 117 special educators across the state (Reiff & Anderson, 1989). Using a needs assessment format modeled on Helge's instrument (1983), this study provided an empirical basis for delineating factors critical to a successful rural special education training program. Louisiana special educators ranked skills in working with families as one of the five most important competencies. Rural parish directors of special education were also surveyed to determine critical training needs for special education teachers (Carr, 1990). Working with families was the highest rated competency and familiarity with adaptations and uses of technology for students with disabilities ranked seventh of 20 specific teacher competencies.

More recently, a survey was designed to investigate special education teacher and administrator perceptions regarding technology use for students with disabilities
in Louisiana (Carr, Currie, & Torrey, 1995). Findings revealed positive attitudes and high importance ratings for specific technology competencies in the following categories: general computer knowledge, knowledge of assistive technology, assessment of assistive technology needs, operation of assistive technology, development and implementation of IEPs, software knowledge and use, consultation, and advocacy. However, neither teachers nor administrators were confident in their knowledge or ability to execute technology competencies identified as important. These results are important for planning preservice training programs.

Project ReSET (Recruit, Retrain, Retain Special Education Teachers in Rural Areas), now in the second year of a four-year federally funded personnel preparation grant, is designed as a comprehensive training program with two major purposes: (1) to increase the number of highly qualified and certified personnel in special education working in rural areas within the state of Louisiana and (2) to implement a specialized training program to prepare teachers to meet the needs of rural children with disabilities. The target group of trainees for this project are individuals working in special education classrooms, who reside in rural areas. Trainees may have regular education certification and seek add-on special education certification or trainees may have a non-education undergraduate degree and demonstrate a commitment to work with students who have disabilities in rural areas. This special education preparation is at the graduate level, with participants certified in either mild/moderate or severe/profound impairments upon completion of the designated course of study.

The Project ReSET program consists of 21 semester hours required for certification, as well as two courses, a technology course, and a course focusing on working with families. (See Appendix) In order to meet the training needs of participants, a modified training program includes courses taken on-campus, off-campus, and via telecommunications. Individuals enrolled in the project are surveyed annually and upon completion of the program, and this evaluation data is used for ongoing monitoring and revision of the program.

Conclusion

It is essential that attention be focused on training special educators to be responsive to the unique needs of children with disabilities in rural communities. Training programs must be designed that address (a) the recruitment and retention of rural special educators and (b) improve the quality of training for rural special educators. These programs must reflect "state of the art" knowledge in special education. Teacher training must transcend certification requirements to develop competencies needed by effective special educators in rural areas. Project ReSET objectives are designed to ensure that graduates will gain the competencies needed to address the academic and social needs of their students in Louisiana. Graduates develop technological skills and skills in working with families, skills demonstrated to be essential to high quality programming for rural children with disabilities.
References


COURSE DESCRIPTION:

This course is designed to enhance the student's knowledge and understanding of family dynamics in American Society. Special emphasis is given to families with exceptional children whose presence demands frequent adaptive maneuvers and long-term adjustments. Issues related to working with families of children with disabilities in rural areas will be given special consideration.

COURSE TOPICS

Societal Changes 1950s to 1990s - Roles of Parents
Family System Theory: Characteristics, Interaction, Functions, Life Cycle
Family/Professional Communication
Family Support: Internal and External
Education of the Handicapped Act/Individuals with Disabilities Education Act
Family Participation in Developing the IEP/IFSP
Due Process
Exchanging Information with Families
Professional Ethics

COURSE READINGS


COURSE REQUIREMENTS

Role plays, problem-solving activities, interviews, panels
Family services agency interviews and reaction
Journal article review - Reaction/critique - Class presentation as researcher
Possible Options for project: comprehensive resource list, interview professionals, observation at various family service agencies, community inventory of services available, informational booklets for adolescents and/or family members regarding rights, annotated bibliography for siblings, annotated bibliography regarding referral and evaluation issues, informational packets regarding IEPs, IFSPs, transition.
• Listening to Families Project

COURSE MEDIA:

Video: They Don’t Come With Manuals
Video: Special Dads, Special Kids
Video: Katie’s IEP
TECHNOLOGICAL APPLICATIONS IN SPECIAL EDUCATION
CREDIT: 3 Hours

COURSE DESCRIPTION:

An examination of issues relative to uses of technology in special education. Includes discussion of integration of computer technology into school curriculum. Computer technology as tools for educators and as learning, living, vocational, and recreational tools for children with disabilities will be discussed.

COURSE TOPICS

Relevant Legislation
Uses of Computers: School, Home, Society
Computer Hardware
Software - Overview
  Design and Evaluation Issue
Integration of Technology into the Curriculum
  Word processing/written expression activities for students with disabilities
  Computer assisted instruction, issues for students with disabilities.
  Use of interactive videodiscs
Multimedia
Assistive Technology
  Individuals with severe and physical disabilities
  Individuals with sensory impairments
Augmentative Communication - high tech alternatives
Uses of Telecommunication in the Schools
Technology Applications for Young Children
Models for Evaluation of Technology Implementation

COURSE READINGS


COURSE REQUIREMENTS:

A. Miniprojects:
  Demonstration of basic computer competencies
  Preview software catalogues, provide annotated listing
  Develop and demonstrate a lesson plan integrating technology into instruction for an individual student or small group
  Evaluate commercial software and provide critical reaction
  Complete the Special Net Tutorial, submit summary and reaction
  Use modifiable instructional software to develop a lesson/activity suitable for a student with mild/moderate disabilities. Demonstrate and submit reaction.
  Locate technology resources and interview agency personnel.
  Use teacher utility software to make teaching aides.

B. Major Project - presentation on a course topic

C. Design a comprehensive plan for use of technology in a special education classroom.