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## Virtual Personnel Preparation Programs for Special Educators: Several Approaches

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### INTRODUCTION

In response to teacher shortages around the country, the number of virtual personnel preparation programs has grown dramatically over the past few years (Allen & Seaman, 2008). Many of these programs have been created in order to assist in the preparation of special education professionals in a variety of specializations, including high incidence disabilities (e.g., specific learning disabilities), low incidence disabilities (e.g., autism, visual impairment and blindness, hearing impairment and deafness), early childhood and secondary transition. New and improved technologies continue to emerge and, as a result, virtual education has evolved significantly over the past decade (Ludlow, 2007). For example, current interactive capabilities of the Internet offer far more flexibility than the closed circuit television of the not-too-distant past (West & Jones, 2007).

For the purposes of this article, virtual education is defined as instruction in a learning environment where the teacher and the student are separated by time, space, or both; and the teacher provides course content via course management applications (e.g., Blackboard), multimedia resources, Internet, video conferencing, or other alternatives to traditional face-to-face education.

The purpose of this document is to:

- provide a brief overview of current research on virtual post-secondary education, particularly as it pertains to the preparation of special educators; and
- describe the features of a variety of virtual personnel preparation programs for special educators based on interviews with program representatives from five states.

Project Forum at the National Association of State Directors of Special Education (NASDSE) completed this analysis as part of its cooperative agreement with the U.S. Department of Education's Office of Special Education Programs (OSEP).

### Background

Research suggests that the number of post-secondary students participating in virtual education—particularly online education—is expanding rapidly. According to Allen and Seaman (2008) of the Sloan Consortium, an organization that devotes itself to the study of

online education, over 3.9 million post-secondary students (or 20 percent of the overall post-secondary student population) enrolled in at least one online course in the Fall of 2007—a 12% increase over the number reported the previous year.

In response to growing demand, traditional universities and other entities are placing a wide range of courses and degrees online. For example, the Online Academy, a project funded by OSEP, produced 22 online special education teacher preparation modules, which were adopted by over 160 universities (Meyen, 2000). In addition, a number of universities that only offer online courses have recently opened and are attracting significant numbers of students (U.S. Department of Education, 2001).

Virtual education is particularly attractive to students living in remote parts of states and older students with less flexible schedules. It can help post-secondary students overcome a variety of barriers, including lengthy commutes, parking challenges, travel costs, poor road and weather conditions, lack of child-care, time constraints (e.g., students may be single parents or juggling more than one job) and limited financial resources (Koch, 2007; *Rural Students*, 2006). Furthermore, there are benefits to universities that may include reduced costs and increases in enrollment (West & Jones, 2007). Benefits specific to virtual special education personnel preparation programs include the ability to prepare personnel to meet the unique needs of students with low-incidence disabilities such as autism (Ludlow, Keramidas & Flanders, 2007; West & Jones, 2007) and/or special education students living in rural areas (Ludlow, 2007). Virtual advising and/or practicum supervision may also help personnel preparation programs overcome obstacles related to advising/supervising post-secondary students who live far from campus (Ludlow, 2007).

Although studies seem to indicate that some virtual personnel preparation courses and/or programs for special educators can be effective, research in this area is extremely limited and findings are based primarily on student satisfaction surveys. For example, Koch (2007) evaluated the outcomes of an online training package for rural special educators that would enable them to teach social skills to students with disabilities. Koch found that students completing the training rated highly both the course effectiveness and their own competence in implementing basic social skills training. Additional research examining the efficacy of an online autism certification program found that graduates gave high marks for both the quality of instruction and the quality of course content (Ludlow, Keramidas, & Landers, 2007).

Findings from a student survey conducted by Luna and Medina (2007) indicate that online advising of rural special education graduate students was preferable to traditional, face-to-face advising. The presence of certain program components may contribute to the higher success rates of some virtual personnel preparation programs than of others. For example, a recent study of a mild/moderate special education teacher preparation program using an Internet-based teleconferencing system suggests that the following may have contributed to greater rates of program completion than those for the average post-secondary distance program: (1) a combination of technology for information delivery and face-to-face interactions with local site advisors or mentors; (2) workshops that train students to access technology-delivered information, communicate with faculty, and complete and submit assignments electronically; and (3) two advising websites—one for students and the other for faculty (Menlove & Peterson, 2003).

## Methodology

After developing a semi-structured interview protocol, Project Forum staff interviewed representatives from special education personnel preparation programs in five states, including the National University in California (NU); Florida's Virtual Exceptional Student Education Online Distance Learning Program (FL-VESE); the University of Kentucky (UK); George Washington University in Washington, D.C. (GWU); and West Virginia University (WVU). Interviews were conducted during January and February of 2009. Analysis of interview transcripts was conducted using Atlas.ti (software designed to assist with the analysis of qualitative data) and findings are reported in the following section of this document.

## Findings

### Background and History

The five programs profiled in this document were begun at different times—some almost 20 years ago, others much more recently—that is, UK in 1989; WVU in 1990; NU and FL-VESE in 1999; and GWU in 2007. Some programs were implemented immediately and others required between one to two years of planning and preparation. The two programs which have been around for almost two decades—UK and WVU—have also evolved significantly over time. For example, both programs began using distance education technologies then available such as satellite TV at designated sites throughout the state but now use interactive video (i.e., compressed video, which uses a fiber optic network) and/or desktop videoconferencing (i.e., which uses videostreaming via the Internet).

Three programs were originally initiated by special education faculty (UK, GWU, WVU); one by a member of the university administration (NU); and FL-VESE was a collaboration among state universities, the Florida Department of Education, and the director of the comprehensive system of professional development (CSPD). With the exception of FL-VESE, which is overseen by the Florida Department of Education but involves collaboration among the state's 12 cooperating institutions of higher education (IHEs) in terms of implementation, all other programs are overseen and implemented independently by the IHEs where they were initiated. Although these programs do not collaborate directly with the state education agency (SEA) in terms of program design and course development, several describe collaboration with departments and/or entities outside special education. For example, NU described extensive interdisciplinary collaboration with the School Psychology Department, the Teacher Education Department, and Spectrum Pacific Learning (an independent technology company that provides onsite assistance with virtual program design to NU faculty); and GWU described collaboration with the Rehabilitation Counseling Program.

Interviewees described a number of reasons for implementing virtual personnel preparation programs for special educators. For example:

- NU reported that the impetus came from the Chancellor's Office in order to keep the university "competitive," and the Department of Special Education was originally chosen to be a part of a virtual education pilot project because the department had a reputation for being innovative.
- GWU wanted to offer its transition special education program to a wider, more national audience.

- UK's program filled an important gap, because it was and remains the only program in the state to offer a master's degree with initial certification in low incidence disabilities, as well as to offer an alternate certificate program in low incidence disabilities.
- FL-VESE was originally intended to meet the needs of teachers living in rural local education agency (LEA) areas who did not have access to traditional programs and who wished to complete certification requirements to be in-field. Now the grant focuses on providing add-on endorsements in specific areas (see "Program Component" section) to teachers' K-12 special education certificates.
- WVU's program also reaches out to rural LEAs throughout the state, as well as recruiting students from neighboring states. The program now serves students from around the world.

In terms of efforts to reach out to LEAs with particular difficulties recruiting special educators (e.g., small, rural, isolated communities within the state and/or neighboring states), FL-VESE, for example, partners with projects funded by Individuals with Disabilities Education Act (IDEA) Part B discretionary funds, the Institute for Small and Rural Districts (ISRSD) and the Florida Diagnostic Learning Resources System (FDLRS), in order to ensure that LEAs are receiving information about available courses and programs; and UK and WVU both work to ensure that LEAs throughout the state receive up-to-date recruitment materials.

## **Program Components**

### *Areas of Emphasis*

The virtual personnel preparation programs described in this document cover a wide range of areas of emphasis. For example:

- NU offers both master's degrees and teaching credentials in mild/moderate, moderate/severe and deaf and hard of hearing, as well as certificates in early childhood special education and autism.
- GWU offers certificate programs for both transition special education and acquired brain injury (and participating students include both special educators and personnel in related fields such as rehabilitation counselors and transition specialists).
- FL-VESE offers add-on endorsements in severe/profound and pre-K disabilities (all of which will be required by 2011 for all Florida public school teachers). An autism endorsement will also be required for teachers whom more than 50% of their caseload consists of students with autism.
- FL-VESE also partners with the Florida Department of Health to offer coursework leading to the Infant Toddler Developmental Specialist Certificate (ITDS).
- UK offers master's degrees and certification in both early childhood and low incidence K-12.
- WVU currently offers master's degrees and/or certification in six areas: multi-categorical special education, severe multiple disabilities, autism, early intervention and early childhood special education (birth-6), gifted education, and visual impairment; and is considering adding a seventh—deaf and hearing impaired.

### *Course Delivery*

Course delivery for some programs is provided entirely online; in others, some courses must be taken on campus; and in still other cases, students may opt to take courses online, on campus, or using a combination of both online and on campus. NU, for example, has 20 campuses throughout California and one campus in Las Vegas, and students are required to affiliate with their nearest campus. Students at NU may opt to take almost all classes either online or on campus, with the exception of assessment, which must be taken on campus.

Curriculum is delivered using a variety of means including asynchronous threaded discussions (e.g., Blackboard), live chats (e.g., E-college), desktop video-conferencing (e.g., Adobe Connect, Illuminate, Centra or Wimba—software that enables students to see and interact with the instructor); audio/video clips, weblinks and scanned materials. UK students meet at different sites to participate in interactive video conferencing. Although UK plans to change from interactive video to desktop videoconferencing, with the exception of one fully online course, students will still meet at sites around the state in order to enable them to work together in cooperative groups. NU, whose courses are only one month long (i.e., students take only one course at a time, and instructors teach only one class at a time), provides a virtual office for each course where students can login 24 hours a day to ask questions or raise concerns. UK offers a distance education librarian. Most of the interviewees described offering some type of technical support to both students and instructors in terms of the various curriculum delivery technologies involved.

### *Practicum Experience*

For most programs, practicum or “field” experience is handled traditionally—that is with student teachers being supervised by some sort of itinerant or on-site supervisor. Exceptions to this are a pilot project at NU where rural student teachers videotape themselves and send in videotapes for feedback; UK and WVU’s occasional use of Skype, software that allows users to make telephone calls (including video) over the Internet in order to complete observations from a distance; and WVU’s use of live, virtual supervision “groups” where each team of practicum student, cooperating professional at the placement site and faculty supervisor discuss the student’s progress in meeting program requirements.

All programs share a commitment to ensuring that practicum experiences are close to students’ homes. Some programs describe stand-alone practicum courses and others describe integrating practicum experience into each of the program’s required courses. Also, some programs provide salaries and/or stipends to practicum supervisors, require supervisors to meet minimum requirements in terms of experience and/or training and/or require students to secure a practicum site prior to program enrollment. Other programs are less stringent in this regard and may rely solely on on-site volunteers selected by the student teacher him/herself. FL-VESE, an example of a more structured approach, has established partnerships throughout the state with LEAs and IHEs where the IHE requiring the practicum experience contracts with either the LEA in which the student resides or another, more local IHE to provide practicum supervision. In order to serve as practicum supervisors, LEA staff members are required to have clinical education certificates and must have completed specific training offered by the Florida Department of Education.

### *Student Advising*

In most instances, student advising is handled through a combination of e-mail and phone. NU requires a face-to-face admissions interview, but allows students to affiliate with the nearest of its many campuses. Similarly, FL-VESE requires students to register at the IHE closest to where they are geographically located and offers a locally based “virtual coordinator” to advise them.

### *Meeting the Needs of Students with Disabilities*

All five programs describe efforts to accommodate students with disabilities. In addition to working with each IHE’s department for students with disabilities, program representatives described adapting materials for students with visual impairments, offering transcripts of video-conferencing sessions to students with hearing impairments and providing additional time and/or private testing rooms for students with learning disabilities. One interviewee noted, however, that the program does not yet meet Bobby standards<sup>1</sup> for online materials, and another interviewee remarked that virtual programs did not “seem to have grappled with [universal design for learning] UDL in a real way.”

### **Funding and Resources**

Programs are funded in different ways. For example:

- GWU offers reduced distance tuition (i.e., 1/3 the rate of on-campus courses) subsidized by the university itself.
- FL-VESE is funded by the Florida Personnel Development Grant via IDEA Part D dollars which covers both administrative costs and tuition support to students.
- UK and WVU have both received funding via OSEP grants.
- FL-VESE, UK and WVU described the availability of funding—such as Teacher Education Assistance for College and Higher Education (TEACH) Grants—enabling students to receive tuition assistance in exchange for committing to teach for a certain number of years.

Three programs (NU, GWU, and FL-VESE) have at least one full-time equivalent (FTE) staff member dedicated to administrative and/or teaching duties related to their virtual personnel preparation programs. For example, NU has a program supervisor who oversees how faculty manage their online classrooms (not to be confused with the departmental content expert who oversees content for both online and on campus courses); online coaches who observe two courses each month and provide feedback germane to teaching methodologies; and an online editor who checks one course per month to ensure links are working and references are accurate and up-to-date. Most programs noted that instructors are not dedicated exclusively to the IHE’s virtual personnel preparation program and therefore teach both online and in traditional classroom environments. All virtual personnel preparation program staff are hired and paid by the IHE to which they belong, with the exception of FL-VESE whose program coordinator is hired by Indian River State College, but whose instructors are

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<sup>1</sup> According to the Center for Applied Special Technology’s (CAST) website: “In 1995, CAST launched Bobby as a free public service to make the burgeoning World Wide Web more accessible to individuals with disabilities. Over the next decade, Bobby helped novice and professional Web designers analyze and make improvements to millions of Web pages.”

paid directly by the IHEs to which they belong and then the IHEs are reimbursed by the grant at the rate of \$5,000 per course.

Several programs described resources to assist with online course development and design. For example, NU contracts with Spectrum Pacific Learning to provide technical support to faculty; GWU has a campus-based center that provides technology-use training, and WVU offers regular group training sessions as well as individual training.

**Evaluation and Outcomes**

Interviewees from all five programs described efforts to evaluate outcomes relating to their virtual programs. NU, UK and WVU reported that results had been published in peer-reviewed journals and/or presented at local and national conferences. For example:

- NU compared exam scores for students attending both online and on campus behavior management courses and found no significant differences between the two formats.
- FL-VESE tracks students by teaching certificate number as they move through the state and reports quarterly to the Florida Department of Education and annually to OSEP.
- WVU uses detailed course evaluations, focus groups and conducts program-wide cost/benefit analyses.

Table I provides outcome information for the five programs in terms of numbers of graduates each year, number of students currently enrolled and number of graduates remaining in the field for a minimum of two years.

**Table I – Outcomes for Virtual Personnel Preparation Programs for Special Educators**

<b>Program</b>	<b>Annual Number of Program Graduates</b>	<b>Number of Students Currently Enrolled</b>	<b>Number of Graduates Remaining in Field</b>
<b>FL-VESE</b>	75	100-125	N/A
<b>GWU</b>	20	24	All
<b>NU</b>	500	3000	80% minimum
<b>UK</b>	30	30	All
<b>WVU</b>	100-150	300-400	80% minimum

**Barriers, Successes and Future Directions**

Interviewees described a number of barriers to the successful implementation of virtual personnel preparation programs for special educators including the following:

- limitations of existing technologies (especially live video);
- inability of some students to access appropriate technologies;
- lack of necessary technical supports for faculty and students;
- challenge of managing program expansion without compromising program quality;
- theoretical debate among faculty and administrators regarding whether virtual education is a viable approach to learning;

- faculty discomfort using virtual technologies;
- faculty assumptions that virtual courses are “easier to teach”;
- concerns regarding copyright issues in terms of scanned materials;
- need for release time in order to develop virtual courses;
- need for funding to support tuition reimbursement; and
- challenge of providing supervision to remote areas.

Interviewees also described a number of successes that had resulted from the implementation of their virtual programs. For example:

- increasing the numbers of special education teachers within the state and/or region;
- serving rural teacher candidates;
- reaching out to nontraditional students;
- providing students with a range of learning formats (e.g., online versus on campus); and
- creating virtual cohorts or “electronic learning communities” that “stay linked” once they completed their programs.

Finally, interviewees described a number of goals for their programs, including the following:

- increasing virtual program options (e.g., adding master’s degrees or additional specializations);
- ensuring that virtual programs meet UDL and Bobby standards;
- providing more support to faculty vis-a-vis teaching in virtual environments; and
- increasing opportunities for student interaction within virtual learning environments.

### **Concluding Remarks**

An increasing number of IHEs are developing and implementing virtual personnel preparation programs for special educators. The five programs described in this document, while approaching virtual personnel preparation in a variety of ways, share in common both a commitment to quality and a belief that virtual education offers a viable alternative to traditional, on campus education. Significantly, although all interviewees described barriers to virtual personnel preparation, all agreed that the benefits clearly outweighed the challenges.

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