



# Roots & Wings

## 2006 PEPNet Conference Proceedings

### Introduction

During April 2006, educators, students, service providers and professionals from across the nation and the world gathered together at the fifth biennial PEPNet Conference in Louisville, Kentucky, to share concepts, ideas, research, technologies and successful practices that have helped individuals who are deaf and hard of hearing establish strong roots and grow strong wings. The purposes of this conference were to bring challenging issues and promising solutions together in a collaborative atmosphere, to establish solid networks that enhance one-on-one service delivery to clients and students who are deaf and hard of hearing, and to put solid workable strategies in the hands of professionals, students and clients alike.

Roots & Wings brought together professionals with expertise, interest and training in service provision, disability support, rehabilitation, state and federal government, educational and technological arenas to share successes, challenges, initiatives, issues, encouragement and support. Through their willingness to share new, exciting and creative ideas, PEPNet conference participants were given a wealth of ideas to improve their own service delivery efforts while also providing them opportunities for personal and professional growth.

The PEPNet 2006 conference offered sessions that were of interest to disability support services staff, administrators, counselors, students, interpreters, tutors, and faculty members. The conference featured sessions that offered practical, replicable strategies for providing services to students who are deaf or hard of hearing and who are attending postsecondary educational or training programs. This publication offers the reader a small sample of the information that was exchanged during the conference. It is our hope that knowledge and information shared in these sessions will grant each reader the opportunity to strengthen both roots and wings!

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## **Conference Sponsors**

Our deep gratitude goes to those who assisted as co-sponsors for this conference:

- PEN-International: The Postsecondary Education Network International
- Kentucky Commission on the Deaf and Hard of Hearing
- The four Regional Postsecondary Education Centers for Individuals who are Deaf and Hard of Hearing who comprise the Postsecondary Education Programs Network (PEPNet):
  - Postsecondary Education Consortium (PEC)
  - Western Region Outreach Center & Consortia (WROCC)
  - Midwest Center for Postsecondary Outreach (MCPO)
  - Northeast Technical Assistance Center (NETAC)

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# **If It's Not One Thing, It's Another: Supporting Individuals with Hearing and Vision Loss**

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## **Abstract**

Just as someone gets adjusted to late onset hearing loss, they may be facing a vision loss as well! Vision loss in addition to an existing hearing loss can limit mobility, increase a sense of isolation, and further impact social relationships. This paper will explore who has dual sensory loss, the most common causes of low vision, the barriers to full participation in community life, and available resources. Along the way you will get a glimpse of what low vision looks like and the strategies and assistive technology individuals use to meet the challenge of this secondary disability.



## **Who Has Dual Sensory Loss?**

The focus of this paper is not the individual who has been deafblind from birth and is a member of a specific cultural group. The individuals we are talking about here are those who have learned to live with one sensory loss and later develop a second sensory disability. This group includes those who have Usher's or other syndromes, individuals with vision loss who sustain late onset hearing loss, or who have hearing loss then lose their vision, senior citizens who lose one sense, then another due to aging, or those who lose a second sense due to trauma. Experience has told us that this group of individuals is not comfortable with the term "deafblind." They prefer the terms "dual sensory loss" or "vision and hearing loss" (Blashaski & Sligar, 2004).

Those with combined vision and hearing loss do not live in a silent, dark world. These individuals have a "combined loss of hearing and sight to such degree that he or she cannot make immediate use of facilities for those with impaired hearing or sight alone" (Gill 2006). It means any degree of hearing loss combined with any degree of vision loss, and it interferes with communication and the acquisition of information.

## **Low Vision**

Low vision cannot be corrected with glasses, surgery or contact lenses alone. Normal vision is often described as 20/20, that is someone standing 20 feet away from an object can see it clearly. It is a measure of visual acuity. An individual has low vision if the corrected vision in the

better eye is 20/40 or less. That means that individual can only see at 20 feet what someone with normal vision can see from forty feet away. Low vision can also be defined by a restriction of the visual field, or how wide a field you can see while you are looking straight ahead. A person has low vision if their visual field is 20° or less. You can simulate by holding a 12 inch ruler in front of you at arm's length. The field circumscribed by the ruler is approximately 20°. Low vision can be a loss of acuity, i.e. 20/40 vs. 20/20, a visual field deficit, difficulties with contrast between an image and the background, sensitivity loss or poor discrimination. Low vision is a functional loss rather than actual impairment to the eye.

Before we go any further, we should debunk some myths about low vision. Just because you sustain a vision loss does not mean that you will develop ESP; if you are not a musician, you won't magically become one; you will not live in total darkness. (para. 7, "Chapter 1: Myths and Misconceptions About Blindness," n.d.) Eighty percent of individuals with changed vision retain some ability to see (ibid).

There are a number of causes and effects of vision loss. Cataracts make vision cloudy and indistinct and may add a yellow tint, like looking through a piece of wax paper. Retinitis pigmentosa, which is associated with Ushers syndrome, causes tunnel vision, described as viewing an elephant through a straw. Individuals must turn their heads to see what is in their periphery. In contrast, macular degeneration affects central vision making it blurry. It affects one's ability to do fine work such as sewing, reading, puzzles, and recognizing even the most familiar faces. Diabetic retinopathy affects the blood vessels to the eye and leads to loss of vision in the area affected. Vision for these individuals is patchy: when they look at something, pieces are missing. Both peripheral and central vision can be affected. Glaucoma affects peripheral vision, which has an impact on balance and depth perception. Individuals with glaucoma may have difficulty negotiating stairs or seeing open doors in their path. Visual field deficits usually affect the same area of vision in both eyes. The defect can be on the right, left, upper or lower quadrant. Often these individuals are unaware that they cannot see the entire visual field.

People with vision loss have a number of challenges. Glare can be a major problem, indoors as well as outdoors. Some individuals need a great deal more light to be able to see. Contrast is a problem for some people, as is print size, font style (sans serif is better), foreground and background color, and whether he sees better with light on dark or dark on light. Orientation in various surroundings can be a major issue, whether it is finding one's way in a strange setting, or finding one's place on the printed page.

## **Hearing Loss**

Hearing loss can be defined in terms of degree, i.e. whether the loss is mild, moderate, severe, or profound. In functional terms, someone with a mild hearing loss may not hear whispered speech, or a soft breeze blowing through the trees, or many of the high frequency consonant sounds including f, s, h, k, p, v, or z. A moderate loss affects the ability to hear environmental sounds like an air conditioner or the remaining consonant sounds. Since most of the intelligibility of speech is carried by the consonants, even a mild hearing loss can be significant in one's ability to understand and to function socially. Those with severe hearing loss may not hear a lawn mower, a piano or the ringing of a phone. Profound hearing loss means only the loudest sounds can be perceived such as the rumble of a truck, a rock band, or an airplane taking off.

Hearing loss may also be defined by type. If there are problems in the outer or middle ear, the loss is conductive. If the canal is closed or the small bones in the middle ear are not formed properly, the sound cannot get through to the inner ear. Severe chronic ear infections can damage the ear drum or middle ear. A sensorineural loss occurs when there is damage to the cochlea as a result of genetics, normal aging, ototoxic drugs, illness, or accident. Some individuals have a combination of conductive and sensorineural loss.

There are some common misconceptions, or myths, about those with hearing loss: It is not true that hearing loss automatically brings the gift of speechreading. The clarity of an individual's speech is not an index for the severity of his or her hearing loss. Many late-deafened individuals who have severe to profound hearing losses retain good speech. The impact of a hearing loss on an individual's life is not directly related to its severity. Finally, poor speech or lack of a spoken language is not an indicator of intelligence.

Challenges for those with hearing loss include difficulty with speech discrimination, dealing with background noise, localizing sound, and understanding rapid speech (Older Adults' Speech-Processing Difficulties, 1998). Visual cues provided by speechreading, sign language, or text help individuals to understand. Speechreading is more than just seeing the spoken word on the lips. It includes using body language, facial expression, and contextual cues to help decipher meaning. A speech rate of 180 to 200 words a minute is considered ideal for listeners to process (Humpherys, 1996). In today's fast-paced environment, many people talk well in excess of 200 or even 300 words a minute, making understanding even more difficult for those with compromised listening skills.

### **The Impact of Dual Sensory Loss: A Double Whammy**

Causes of dual sensory loss include a variety of syndromes, the most common of which is Usher's Syndrome I or II, head injury, diabetes, congenital rubella, and neurofibromatosis II (nf2). Individuals fall into one of four groups: those who have been sighted and hearing most of their lives, those who had a hearing loss first, then began to lose vision, those who had vision loss first and then lost hearing, and those born with both vision and hearing loss. Among these groups, those with long-term hearing and vision loss probably fare best. Those who lost both senses found communication very difficult, experienced frustration and a loss of confidence in their ability to function. In their study of emotional functioning of older adults who lost vision and hearing, Jang, et al (2003) found that, "Vision was a significant factor for disability, while hearing was significantly associated with social activity, implying the unique contribution of vision and hearing." They did not find a significant association between the severity of vision or hearing loss and depression, but found that personality and social resources were key issues.

Dual sensory loss imposes functional disability with a greater risk of falls and more utilization of health services. Difficulty with Activities of Daily Living (ADL), mobility, transportation, and communication all contribute to a loss of independence. Individuals with vision and hearing loss have poorer social relationships and express dissatisfaction with their social interactions. Individuals may feel isolated, angry, and depressed along with the other phases of grief as they move toward acceptance of their loss of vision and hearing.

Disability services staff on campus should be aware that the challenges that these individuals face, and the means they select to deal with them, may have an impact on their academic achievement, their attendance, the types of reasonable accommodations they will need, the appropriate assistive technology, and their integration into campus life.



## Strategies

Strategies and assistive technology go hand in hand to make life easier for those with dual sensory loss. We will address strategies first. Professionals providing direct services to those with vision and hearing loss note several negative ways to cope. Individuals may bluff, pretending to see or hear rather than admit that they don't understand. Those with hearing loss may dominate conversations on the premise that if you are talking you don't need to worry about listening. Individuals may refuse to try new technology, as though by finding AT beneficial they have to admit the loss in the first place. They may withdraw from social situations and live in isolation rather than struggle to function with vision and hearing loss. In addition to saying that these coping strategies bring "short term gain with long term pain" (personal experience at SHHH conference workshop, 1988), Sam Trychin (2002) believes that individuals with hearing loss may stop paying attention when they cannot understand. This habit can evolve into a secondary disability that exacerbates the problems of hearing loss.

What can coordinators of disability services do to encourage students to use positive coping strategies? First they can urge them to be proactive and to talk about their struggles. Suggest they begin with a trusted family member or friend, or seek professional help. Identifying and enlisting the support of a personal network is another positive move. Learning the facts about their vision and hearing loss and focusing on residual vision and hearing rather than what was lost is a big step toward acceptance.

In the classroom, students can request preferential seating. If they have low vision, they may request additional task lighting. Controlling natural light to reduce glare can be critical in dealing with both vision and hearing loss. Students should seat themselves with natural light at their backs and use draperies or shades to control light.

Organization and planning are critical in making strategies work for the student. Materials should be available ahead of time in accessible format and put in the same spot in the classroom, in the same order, each time. Hazards in halls and aisles such as furniture, hanging plants, or open cupboard doors should be eliminated. All assistive devices specific to a particular class should be kept in a convenient place.

Help students learn to be assertive and to advocate for themselves by asking them what they need and encouraging them to ask for help on their own, including finding classmates who will help. Ask them how they feel you can help them. Make directions and instructions very specific.

Instructors unfamiliar with hearing and vision loss may need to know how they can make their classrooms and lectures accessible. Remind them to get the individual's attention first, to present materials in as many modes as possible, to speak slowly and clearly without exaggerating lip and mouth movements, to learn the basics about the types of assistive technology used, and how to work with an interpreter or captioner.

Social situations can be a real challenge for students with vision and hearing loss. Yet, students who do not feel a part of the social fabric on campus, are at higher risk of dropping out. Disability services staff should encourage students to choose quiet, well-lit venues on campus for get-togethers, to move in closer to maximize understanding, or to make arrangements to meet with people privately when large groups and noisy surroundings make clear communication impossible (Trychin, 2002). Above all, urge students to "just do it" because many anticipated difficulties never happen. Joining a support group, or even starting one on campus, provides a comfortable forum to learn coping strategies and share experiences with peers.

Students who are working part-time or at summer jobs can use helpful hints, too. Suggest that they post a sign near their work stations asking visitors to announce themselves. Showing co-workers how to write messages in a way that they can read them and having a designated place where co-workers can leave messages, mail, or other items makes life on the job a lot easier. At meetings, arriving early allows an individual to be seated at the head of the table before others arrive and maximizes their view of the participants.

## **Assistive Technology, or Gizmos and Gadgets**

For those with low vision, there are four categories of assistive technology or AT: magnification, large print, contrast, and talking programs. Magnifiers may be hand held, or fixed, i.e. placed on a desk or table, and may include a light. CCTVs (closed circuit TV) are comprised of a monitor and TV camera. Traditional CCTV models are permanently placed on a table or desk, but newer smaller models are much more portable and allow users to view things on a desk top or at the front of a classroom. Text enlargers are software programs that allow users to change the size and type of font, the foreground and background colors, and adjust the contrast. Commonly used programs are ZoomText, Magic, and WebEyes. If the individual retains speech discrimination skills, screen readers such as JAWS, and programs like books on tape, or Talking Books provide excellent access to printed materials. Scanners allow print materials to be scanned onto the computer for text enlargement or screen reading. Braille programs convert text to Braille format for those with Braille literacy.

Large print is often requested by students with low vision. Large print is defined as a sans serif font, 14 to 20 point in size, with high contrast. Foreground and background colors can be critical and preferences vary from user to user. Talking aids, including watches and clocks help students stay on schedule and on time. The Braille ‘n Speak notetaker can be invaluable to students who know Braille, and audio recorders benefit those with sufficient residual hearing to use them. In addition there is a long list of low tech aids to make life easier including wide-lined paper, writing guides, 20/20 pens, large print calendars, date books, and schedulers, tactile paint and raised dots for marking key pads and dials, and liquid level indicators to prevent coffee and soda spills during study marathons.

Students with hearing loss who use residual hearing often benefit from assistive listening devices or ALDs. A personal ALD may tuck into a pocket or clip to a belt for interpersonal conversations; larger systems can serve one or more users seated around a table or in a classroom. Magnetic induction loops range from permanent installations in large meeting rooms to individual use in the form of a chair pad or clip board. Induction loops are especially useful for those who have t-switches or telephone switches on their hearing aids. There are a variety of devices that interface directly with an individual’s hearing aids or cochlear implant. Often these items are proprietary, available only through the maker of the hearing instrument.

Students without sufficient residual hearing to use listening devices, but enough residual vision may request speech to text services. CART (Communications Assistance Realtime Translation) is verbatim transcription read from a laptop screen or a TV monitor, and offers the user a choice of font type, size, and foreground and background colors. C-print, developed by NTID, and TypeWell are meaning-for-meaning speech to text programs that use a type of shorthand. The newest type of speech to text program involves voice recognition technology.

Individuals with vision and hearing loss have a variety of telecommunications equipment to choose from depending on their individual needs. Amplified phones, large button phones, TTYs,

TTYs with large visual display, braillephones, and CapTel, which uses voice recognition technology, are widely available. Telecommunications relay includes basic relay services, video relay services, online relay, and wireless services.

## Conclusion

Disability services coordinators play an important role in assisting students with vision and hearing loss to achieve academically and to be full participants in campus life. Understanding the nature of vision and hearing loss, the challenges they pose for students of all ages, and the appropriate strategies and assistive technology for each campus setting is essential for successful outcomes.

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# **Creating a Winning Team: Working Together to Foster Student Success in College**

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## **Abstract**

This paper explores research findings and current practices related to promoting success among deaf college students. Also described is the importance of using a team approach that puts the student at the center of a developmental process with college and university personnel and family members as crucial supports. A review of relevant literature regarding student persistence is presented. Practices employed by the National Technical Institute for the Deaf will be reviewed.



Success for students who are deaf and in college can be measured and described in many ways. Some measure success by the percent of first year college students who return for their second year. Others view success as the percent of college students who graduate. Still others measure success by looking at test scores, grade point averages, and how much time is required, on average, for students to graduate. Others look at multiple factors and combinations of factors to determine success (Kuh, Kinzie, Schuh, Whitt & Associates, 2005; Upcraft, Gardner, Barefoot & Associates, 2005). The reader will have to decide for him or herself what determines success on his or her campus. Our purpose here is to explore factors (strategies and characteristics) that will influence student success no matter how it is measured. We divide these factors into two groups: institutionally-based factors and student-based factors. Further, we discuss the importance of taking a team approach to fostering student success. By this we mean the student working along side faculty, staff, administrators and family members to enhance his or her potential for being successful.

Often, when success in college is discussed you will hear people talk about what gets in the way of success. Heads will nod as this list of barriers to success is produced. The following list illustrates some of the more common areas in which students may struggle: study skills, learning style, English skills, time management, emotional development, access to classroom communication, institutional attitude, money, lack of home support or social support, transition to college, course selection and placement, college resources, student attitude toward college, motivation, and commitment. Whether we look at factors that facilitate success or factors that obstruct success the characteristics of both institutions and students must be considered.

## **Institutional Characteristics**

Institutions of higher education must demonstrate commitment to the success of each student. This can happen in many ways. It begins before the student ever steps foot on the campus and continues through graduation and continues until the former student finds satisfactory employment. These three stages in the student's life then become critically important: transitioning into college, working through the college years, and transitioning to life after college.

College admissions standards and materials must be clear and appropriate for the students being accepted. Each student accepted must have a reasonable chance to succeed based on the college's admissions process. Courses, degree programs, and graduation policies must be clearly described for both students and their families.

College programs, both in and out of the classroom, must put an emphasis on student learning (Kuh, et al., 2005). In this regard, students must be both challenged and supported with appropriate resources. These resources may include academic support/learning centers, academic advising, counseling, an academic early alert system, support for career undecided students, and out of classroom programming and support. Faculty and staff should be encouraged to engage the students in numerous and ongoing ways both in and out of the classroom. Kuh, et al. (2005), talk about engaging pedagogies that are systematic and active, pedagogies that engage the student both inside as well as outside of the classroom. This interaction among students and those who work at the institution is critical if students are to connect with the institution and the programs offered.

The institution's administration should show clear and ongoing support for students and their success. The administration should demonstrate institutional respect for students of diverse backgrounds and characteristics and provide the resources necessary for their success. Resources should be relevant to student need, provided in a timely fashion, and be in adequate supply. Institutions should encourage families to be involved, as well.

A person or office on campus should be designated as the place for parents to contact when questions arise. Parents are increasingly involved in their children's lives during the college years. Ignoring the benefits of this involvement is a mistake. Parents need to know how and what the college intends to communicate with them. Families are often the students' best allies when it comes to facilitating success.

It is our view that the faculty, staff, and administration within the institution have a responsibility to work effectively among themselves, keeping students in the center of the educational process, engaging students all along the way, and evaluating the outcomes of their strategies and policies as they measure the success of their students. Student success is enhanced when all members of the college community work together as a team toward this common goal (Schroeder, 2005).

## **Student Characteristics**

Students who are most likely to succeed in college typically share some common characteristics. They are developmentally and academically ready to face the challenges they will encounter in college (Evans, Forney & Guido-DiBrito, 1998). They learn how to engage the environment and the people they will meet. And they find ways to seek balance in all that they

do, a balance that will enable them to complete the necessary tasks that lead to academic success and eventually, graduation (Adams, 2001).

Students in college who are deaf, like hearing students, initially seek to find their place in the college environment. Whether they are recent high school graduates or returning older adults, whether their high school experience was in a residential setting or mainstreamed, and whether they are attending a residential college setting or commuting to a local community college, students who are deaf will need to find their place in this new setting. New college students will surely face a myriad of problems: finding a major, managing time, making friends, seeking help, facing disappointment, being independent, advocating for themselves, and completing work assigned. How students see themselves in this process, this sense of identity, is crucial to their success. Do they see themselves as deaf or hard of hearing? Do they prefer to communicate with ASL or speech or Cued Speech or with a combination of communication modes? What types of communication are comfortable within the classroom? Can they work independently on assignments? Can they work well in teams? What experiences have they had with peer and adult relationships? How do they handle the disappointments that will surely come their way in the academic and social college environment?

Successful college students are not successful in all areas of their lives at all times. They very likely will experience disappointment, failure, rejection, confusion, loneliness and loss during their college years. Success is not guaranteed to some students and withheld from others. Success is the result of a process of encountering and working through the daily challenges that a student will face in a manner that enables them to move on to the next stage in their lives. This process could lead to graduation, the earning of a degree and finding employment. It could mean transferring to another college. Or it could mean leaving college to find rewarding work without degree completion.

The college experience of successful students is often an experience of engagement or integration with the college community (Pascarella & Terenzini, 2005). Students cannot be successful in isolation. They must interact with students, instructors, administrators, and often with family members if they are to succeed in college. Instructors, friends and courses will come and go. The student remains and must find ways to navigate the inevitable changes and losses encountered. There is often help, of course, and the successful student will learn to reach beyond him or herself to engage the environment and the people there who can assist in this process.

Success means different things to different people. A student's sense of success may be different from his or her parent's. The road to success will surely vary for each student as will the destination. But the student need not be engaged in this process alone. Nor should the college simply provide what it considers to be adequate resources and hope for the best. The college student, the college personnel, and the student's family must work together as a team each listening to and learning from the other to foster success for students who are deaf and in college.

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## **STSN, Your Speech-to-Text Services Network: Working Together for Quality Services**

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### **Abstract**

The Speech-to-Text Services Network, STSN, is a non-partisan professional organization for service providers, administrators and consumers involved in the delivery of speech-to-text services. The mission of STSN is to be an information resource, and an advocate for high quality services. This half-day workshop included an update on the progress of STSN since its official launch at PEPNet 2004; extensive information for administrators, including guidelines for assigning services to students, models of technical support, and budget issues and solutions; and instruction for service providers, including preparation strategies, transcript ‘readability’ guidelines, ways for dealing with math classes, and ergonomic guidelines.



### **Part 1: Speech-to-Text Services Network: Working Together for Quality Services**

Panelists for Part 1 include Denise Kavın, Marcia Kolvitz, Pam Francis, Sharon Downs, and Judy Colwell.



### ***Denise Kavlin***

Welcome to the first STSN national workshop for administrators and service providers. This is a dream come true! STSN, the Speech-to-Text Services Network is a professional organization for everyone involved with speech-to-text services: administrators, service providers, consumers, researchers, and interested others. The mission of STSN is to provide information and support to service providers, administrators, and consumers about speech-to-text support services, and to foster excellence of service.

### ***Judy Colwell***

We'll begin with a historical perspective. Speech-to-text communication access services began in earnest at NTID with RTGD (Real-Time Graphic Display) in the early 1980's under the direction of Ross Stuckless, the "father" of speech-to-text services. Court stenographers went into classrooms to provide real-time communication access for students at NTID. This evolved through the 1980's and 1990's into C-Print. Also, the availability of CART services increased around the country. TypeWell was developed in 1998. And automatic speech recognition programs came on the scene in late 1990s, both with the microphone on the teacher and with a shadow speaker, using a steno mask.

Now, services are provided across the country and in other English-speaking countries. Thousands of service providers work every day – in classrooms, meetings, worksites, social agencies, houses of worship, etc. And thousands of consumers are receiving text access to the communication around them. It is because of this proliferation of services that STSN was developed.

### ***Sharon Downs***

STSN is the result of many people with a shared dream coming together, and working hard. In 2002, a call was put out at PEPNet conference in Kansas City, for a professional organization for speech-to-text services. In 2003, a core group of interested professionals from around the country began organizing STSN, and the official launch of STSN was at the PEPNet 2004 conference in Pittsburgh, PA. Over 100 supporting members joined STSN, and the momentum for the international professional organization grew. Denise Kavlin took became the first President, and an Advisory Council was formed. It included service providers, administrators and consumers, who represented CART, C-Print, TypeWell, and voice recognition backgrounds.

Committees were formed, headed by people from across the country. Each committee was given a charge of work by Denise, to address questions and issues for our new organization.

### ***Marcia Kolvitz***

Much has been accomplished since the official STSN launch in 2004. Under Denise's excellent leadership, STSN has obtained tax-exempt and non-profit legal status. These legal filings were done pro bono by attorney Howard Rosenblum, and the legal filing fees were paid by the PEC Arkansas State Outreach and Technical Assistance Center.

Tax exempt and non-profit status mean we can now have a real membership structure, and collect dues (small!) and have a system of continuing education units. With the membership dues we can fund more workshops, and eventually maybe even offer certification.

The STSN Legislative Committee is co-chaired by Jo Alexander (Oregon State University), Denese Harlan (University of California-Davis), and Rhett Simmons (CART provider in Davis,

CA). Much of the STSN legislative structure was dictated by the legal requirements of tax exempt and non-profit status. The legislative structure of STSN includes three officers (President, Treasurer, and Secretary), an advisory council, and a group of committee chairs.

The Membership Committee is chaired by Glenna Bain. The committee set up a new membership structure that will replace the “Supporters” structure with which STSN got started. There will be one category of membership, and it will be open to service providers, consumers, administrators and interested others. Benefits of membership include:

- Voting rights;
- Eligibility to hold office (including advisory council membership);
- Eligibility to chair &/or participate on working committees;
- Eligibility for discounts on registration fees for continuing education credits; and
- Eventually, documentation of CEUs.

The membership dues are ONLY \$35.00 yearly. What a bargain! Sign up by filling in the form at <[www.STSN.org](http://www.STSN.org)> and mailing it along with your check to the STSN Treasurer. You’ll see her name and mailing address on the membership form.

The Public Relations Committee is chaired by Cindy Camp. She designed an STSN flyer designed for distribution at conferences, meetings, etc. There is a copy of the flyer in your handout, and it is available as a pdf download from the STSN website. This committee also maintains the STSN website. Website costs and the <[www.stsn.org](http://www.stsn.org)> domain name were supported by the PEC Arkansas State Outreach and Technical Assistance Center. Sharon Downs comes to the financial rescue again!

The Continuing Education Committee includes co-chairpersons Jennie Bourgeois, Glenna Bain, and Cheryl Thomas. This committee did an extensive study of CEU systems of other professional organization, and they will do a needs survey of members this summer to help determine what members want in a CEU system. Then they will set up and maintain the CEU system and be a resource for information for sponsors.

The Certification Study Committee is chaired by Mary Morrison. The committee researched the area of professional certification and learned certification development was too expensive for STSN now. The task is further complicated by having different kinds of service providers represented in the organization. Eventually STSN could have a certification system, as we grow and come into our identity more. During the next term, the committee will:

- Develop job description and professional standards of the profession
- Promote quantitative measurement of service provider skills, regardless of system used
- Develop resource packet for state licensure committees
- Change name and focus to Professional Standards Committee

### ***Denise Kavin***

I am happy to announce that the new president of STSN will be Sharaine Roberts. You may know her by her maiden name, Sharaine Rawlinson.

Sharaine has more than 27 years of experience in the field of Deafness. Deafened at age 14, she received a cochlear implant 23 years later. Sharaine holds a BS in Social Work and a Master’s of Social Welfare. She has extensive experience in working with secondary and post-secondary educational institutions serving deaf and hard of hearing students. She is an internationally-sought expert on deafness and hearing loss, access law and cochlear implants. She has published articles in numerous publications.

Our other two officers are Treasurer, Gretchen Francini, and Secretary, Judy Colwell. The 2006 – 2008 Advisory Council members are:

- Sharon Downs, University of Arkansas;
- Pat Graves, CART Caption First, Inc.;
- Marcia Kolvitz, Postsecondary Education Consortium;
- Bob Sidansky, California State University, Northridge;
- Pam Francis, National Technical Institute for the Deaf;
- Jennie Bourgeois, Louisiana State University; and
- Sharon Allen, Portland Community College.

The STSN goals for the next two years include:

1. The continued growth of a sense of community among people involved with speech-to-text services, through the promotion of membership and involvement in STSN.
2. The development of an STSN code of ethics, applicable to all members.
3. The development of a formal process for choosing officers, advisory council members, and committee chairs.
4. The development of guidelines and/or a budget for use of membership dues to further the goals of STSN.
5. The design and implementation of a continuing education unit system.
6. The design and implementation of at least one national continuing education presentation at the PEPNet conference in 2008.
7. The development of a speech-to-text service provider general job description and professional standards of the profession.
8. The development and dissemination of an informational resource kit for states and provinces considering licensing of speech-to-text service providers.
9. The development of bylaws for STSN.

### ***Pam Francis and Judy Colwell***

STSN is growing, and we encourage you to be part of the growth, and help shape our professional group. Why is STSN important? Why should you get involved?

STSN is a unifying force of the speech to text community. It gives a voice to the community's beliefs, wants, and needs. Everyone will have a different answer to why a professional organization is important to them. Here is what some people have said:

*I am an effective and competitive student because of the help that the (speech-to-text service providers give) me. Because of them, what is said and what I have to say changes the destiny of it all. My place in class is no longer passive and withdrawn. Through my transcribers I am brought to an equal learning level with my peers in the university classroom. (Consumer's response.)*

*Speech-to-text services have meant the difference between failure and full academic success for many students we otherwise couldn't serve. I find myself with a growing staff of this new kind of service provider - who I want to keep and support. STSN provides the means to share the wealth of experience we are all gaining day by day. (Supervisor's response.)*

*I didn't know at first if I could do this job, but now I can't see myself doing anything else. I see students learning because of the access I provide. . . and I feel good about that. These kids inspire me to be the best that I can be. (Service provider's response.)*

What does your involvement in STSN do? Here are some words that might fit your own reasons: diversity, resource, community, opportunity, goals, support, fairness, quality, professionalism, stability. Join STSN, and be part of this new adventure!

## **Part 2: What Every Administrator Wants to Know**

### ***Guidelines for assigning speech-to-text services***

#### ***Jennie Bourgeois***

Speech-to-text services encompass a wide array of communication access accommodations for deaf and hard of hearing individuals. These services are defined as “any method of relaying spoken information into a text format”. There are many options available within the field of speech-to-text services including steno captioning, TypeWell, C-Print, I-Communicator, and CaptionMic. In addition, many of these services can be provided both on-site as well as remotely.

As an administrator, there are many issues that should be addressed prior to utilizing speech-to-text services with a deaf or hard of hearing student. It should be determined if the student is a user of sign language or Cued Speech. The student's command of English should also be considered. It should be noted whether the student is stronger in English or sign language for general communication purposes. In addition, the student's reading level should be assessed to ensure that they have at least a fourth grade reading level. A fourth grade reading level is generally the minimum reading level usually recommended when using speech-to-text services.

There are also numerous environmental issues that an administrator should consider when using speech-to-text services as well. Classes that are conducted in a lecture format tend to fare better for the student using speech-to-text services than classes that are more discussion-based. The acoustics of the individual classroom should also be considered. The overall background noise of the classroom is a factor as well. Another thing to consider is whether or not the teacher plans to dim or turn out the lights during class frequently. If so, speech-to-text services may be a better option than sign language due to the laptop screen being illuminated. Naturally, electrical outlets strategically placed within the classroom are also fundamental when providing speech-to-text services.

When an administrator is trying to determine how to allocate interpreting and speech-to-text resources appropriately, there are some logistical issues to take into account. The overall availability of qualified interpreters and speech-to-text service providers is a fundamental issue that may be the overriding factor in allocating the available resources. Another administrative issue that is unique to speech-to-text services is the consideration of equipment needs for hardware, software, and the necessary internal technical support.

Internal policies and procedures also need to be included in the determination process for administrators. The policies concerning how students make requests for accommodations, including interpreting and speech-to-text services, are important to clarify. In addition, administrators should establish the student cancellation and “no show” policies. The internal

policies for choosing the type of accommodations is another consideration that needs to be discussed by an institution's administration.

Is the provision of speech-to-text services required if other equitable services are available? Administrators should have mechanisms in place to determine on a case-by-case basis what is considered to be equitable for certain students. In general, a student or volunteer notetaker is usually not considered to be a real-time communication service. Therefore, notetaking would not be considered an equitable service for speech-to-text services.

The administrator's role in establishing and maintaining a speech-to-text program is vital. A well-informed administrator will be able to address situations before some issues occur and handle problems as they are presented.

### ***Dealing with technical issues in speech-to-text service delivery*** ***Lauren Whitman and Judy Colwell***

We distributed a survey about technical issues to 75 schools and several listservs, asking about current and ideal practices related to technical issues. Fifty-six people responded, evenly divided among C-Print users and TypeWell users. Responses were pooled because there were no obvious response differences between the two services types. Several respondents also gave information relative to CART use at their sites.

The results of the survey provided interesting information. For those sites that reported using CART services, all reported using independent contractors who provide their own specialized hardware and maintain it themselves. For sites using C-Print or TypeWell, the sites themselves generally owned the equipment and dealt with technical issues. The following data relate to those technical issues.

**Who owns the computers?** Eighty-eight percent of the respondents said the computers are owned by the Disability Support Services (DSS) department. This ownership works best because it gives the most control over the type of computers, care and maintenance, and flexibility of scheduling

Twelve percent indicated that the computers are owned by independent contractors. A positive aspect of this is that the department saves that money and is able to use it for other services. The negative aspect of this is that a computer used by a service provider may not be compatible with others in the department, or the quality may not be as good as desired.

**What other technical items are provided, and by whom?** Eighty-five percent of the respondents said their sites provide steno table, roller bag, and writeable devices. Most sites also provide school email account for sending notes, textbooks and printers. Twenty percent provide pagers. Special parking permits are provided by a few institutions.

**How are computers chosen?** Ninety percent of the respondents reported that their sites buy computers following the recommendations of the particular speech-to-text system being used, the site's technology specialists, and often the experienced service providers in the department. The DSS supervisor usually has the final say in the choice (55%).

**How are computers signed out to service providers?** Eighty percent of the sites sign out a computer or pair of computers to a service provider for a full school term, or longer. Seventeen percent have one set of computers shared by several providers.

**Miscellaneous items.** Sixty-one percent indicated that service providers are allowed to use the computer for non-work uses. However, caveats included not being allowed to install any new programs, not being able to change any settings, and not being allowed to use computers for financial gain.

Thirty-two percent said the DSS department is responsible for damage or loss to the computer while it is in the care of the service provider, unless there is clear negligence or abuse. Forty percent reported that it depends on the situation; 28% said it is the service provider's responsibility. Sixty percent of the respondents indicated that their site does not have a written policy about this responsibility; 10% didn't know. Most sites without a written policy say they think they should have one.

**Ideal practices.** The respondents recommended the following ideal practices for postsecondary institutions:

- The DSS department should own the computers.
- The DSS department should use collaboration to choose the computers, with the DSS boss having final say instead of the campus technology or purchasing department. Ask experienced service providers for input about weight, size of screen, size of keyboard, etc.
- The DSS department should provide steno tables, roller bags, writeable devices/printers, email account, texts, office space to edit, and pagers
- The most important ideal practice is for the DSS department to have its own technology person who is in charge of care and maintenance of the computers, instead of someone from campus technology services or no one at all. Only someone within the DSS department seems to have the real understanding of the importance of having the computers ready and working well. And only the DSS staff members appreciate how student needs are paramount.
- The DSS department should allow service providers to use computers for non-work activities, with written guidelines.
- The DSS department should formalize written policy of who is liable for damage/loss (depending on factors such as negligence, regular wear and tear, etc.)
- Regarding care/repair, the DSS department should:
  - Train service providers for basic troubleshooting;
  - Educate a specific techie about the specialized program/services;
  - Have backup computers for emergencies; and
  - Collect computers and other items at end of school year for maintenance.

### ***Allocating resources in sparse times***

#### ***Phil Hyssong***

Let's assume that you have a budgeted sum of money. How do you make it stretch? So often we forget to ask the most fundamental questions, "What does the student need?" or "What is the best way to support the student?" Asking these questions allows you to avoid wasted spending. If the class is a foreign language class, an English-based text system might not be the answer. Talk with the student and the professor to determine the best way to proceed. Furthermore, just because a student has hearing loss, it does not mean he or she can sign. The converse is also the same. Many sign users are not comfortable with a completely text-based accessibility solution.

There are options on stretching the dollar. First and foremost be appreciative for the funds that you have. Handling what you have well will demonstrate to administration that this is wisely invested money. If one fritters away a small amount, administration will be assured that a large amount is not safe.

Contact your service providers and try to package a deal. Vendors do not want to have to worry that you will jump ship, for example, to \$5 per hour. Establish an annual agreement with the vendor assuring you of the best rate possible and then lock them.

Be creative with your services. Some schools sell the transcripts, or make them available to the professors for books. There are options if you look for them.

Encourage students to “batch” classes or take one longer class vs. a number of shorter classes. It is always easier to secure a service provider for three consecutive hours rather than one hour at three separate times of the day. Discuss with your service providers when they have the most available time and try to match schedules.

One can build relationships with neighboring schools in an attempt to maximize the investment. Perhaps one campus invites students from a neighboring campus to access a particular class. More students in one class mean less cost per student.

As stated previously, use resources well. Justify what is spent. Demonstrate the value to administration. Have the students say “thank you” to administration. It is frequently heard that students never thank administration for support services. Students can also be advocates with administration. Have students demonstrate the need and who the benefit of the services received.

### **Part 3: Fresh Ideas for Service Providers**

#### ***Preparation strategies***

##### ***Jo Alexander and Glenna Bain***

Speech-to-text service providers are often called upon to provide communication access in contexts covering a wide variety subject matter. They often do not have adequate time to become well versed in concepts surrounding the material they are covering. The preparation strategies workshop is designed to aid service providers in gaining deeper insight into their own unique learning styles as well as providing strategies to assist them in preparing more effectively for those situations that are “on the fly”.

Adequate preparation is essential when dealing with an unfamiliar subject as well as in times of intense personal stress. Self care, always an important part of effective preparation, becomes especially critical during particularly stressful periods in individuals lives. Effective preparation also includes arriving early, maintaining a commitment to lifelong learning and understanding the “brain stuff” involved. Specific “predicting strategies” can be very effective in preparing oneself for challenging assignments as well.

There are a variety of study methods, or metacognitive strategies, that have been developed, based on research in cognitive psychology. These methods provide guidance on how to get the most from a textbook or online course. One of the most popular is SQ3R. This is a method of surveying, questioning, reading, reciting and reviewing the material in order to better comprehend and more effectively work with it.

As Winston Churchill so aptly put it, “Let our advance worrying become advance thinking and planning.”

#### ***Formatting notes with the reader in mind***

### ***Pat Graves***

This presentation addressed terminology for CART, captioning, CART provider, captioner/ist, and the umbrella term of speech-to-text provider which includes C-Print operators and TypeWell transcribers.

Three major things affect the display for consumers. The first is software capabilities, such as font style, color and size, as well as background colors and lines per page add to the ease of reading the display, especially for long periods of time. Technique will also affect the display. This means putting in paragraphs at the appropriate times, upper and lower case letters, indentations for the change of speakers and the speaker names. The final major item that affects the display for consumers is the environment, such as lightness/darkness in the room, brightness of projector, glare, line of sight and the angle of the screen. Examples of different displays were shown in order to solidify the ideas.

### ***Techniques for providing real-time captioning in math and science classes***

#### ***Valorie Smith-Pethybridge***

This workshop provided demonstrations and directions in how to make captioning more accessible in classes with lots of symbols, equations, and graphs. The system used at Valorie's work site is C-Print, but some of these techniques may also apply to other captioning systems.

#### **Adding symbols.**

- Font: Arial Unicode
- To add symbols:
  - Insert a symbol into a WORD doc
  - Copy symbol to clipboard [e.g.: ã θ ə ]

#### **Adding symbols with MSWord.**

- Format/AutoFormat/Options/AutoCorrect
- Replace: [type in abbreviation]
- With: [paste symbol]
- OR: Insert
- Symbol [highlight the symbol]
- AutoCorrect
- Type in abbreviation

#### **Adding symbols with C-print Pro.**

- Make up an abbreviation; Ctrl+/
  - Paste into the expansion window

#### **When using worksheets.**

- Get digital copies of worksheets through email [or scan the hard copies]
- Link IT to the worksheet and caption onto the worksheet itself

#### **To caption onto PowerPoint presentations for C-Print users.**

- Arrange to have the presentation emailed to you
- Connect the laptops
- Open: IT, the PP program, blank WORD doc.
- Link: IT + WORD—minimize IT



- Put the PP in front of WORD window
- Right click: in empty space of blue taskbar at the bottom of screen (where 'START' is)
- Select: "Tile Windows Horizontally"
- Caption in the lower [WORD] wind
- Scroll through the PP slides using the double arrow [on right]

### **To caption using a Tablet PC.**

- Connect Tablet PC to student laptop
- Open IT + WORD doc (or TypeWell)
- Begin captioning
- Graphs, diagrams or equations can be drawn as you caption

### **Inserting equation editor.**

- Tools/Customize
- Tab: Commands
- In the left window: Insert
- In the right window: Click: Equation Editor icon [ $\sqrt{x}$ ] and drag & drop it onto any toolbar
- In a Word document: click on the:  $\sqrt{x}$  icon and insert a function
- Highlight the function [double click]
- Edit/Copy
- Format/autoformat/options/autocorrect: 'Replace': [make up an abbreviation]
- 'With': [right click: paste the copied function]/

### **Adding other media.**

- Digital pictures:
  - Small webcam in USB port
  - Take the snapshot and insert into the notes later

### **SMART Boards.**

- Works best if captions are projected onto space above the Smart Board
- As each snapshot is saved: draw line in the notes:

- 
- Merge text with snapshots using lines to match up text with snapshots

### **Virtual captioning.**

- Log onto network/internet
- Open chat window
- If using a webcam: attach to the IM
- Open IT and connect to the chat window
- Begin captioning

### ***Keeping healthy***

#### ***Pam Francis***

"An ounce of prevention is worth a pound of cure," are words to live by for speech-to-text service providers. While there are a number of medical professionals trained to treat injuries, a greater emphasis should be placed on preventing injuries. Ultimately, it will help maintain the

personal health and safety of service providers. Additional benefits are increased quality of services, increased job satisfaction, and less likelihood of insurance/compensation claims.

Whether a speech-to-text service provider is mobile or stays in one location, there are associated risks. Ergonomic considerations include: (a) the job and the demands on the service provider, the equipment; (b) the service provider's capabilities (and limitations); and (c) the physical and social environment. It's a considerable challenge, as there are a number of variables and speech-to-text service providers tend to have some unique needs. Fortunately there are a number of resources available which provide helpful information on existing research and prevention advice.

Some behaviors and job-related conditions that contribute to injuries are posture and sitting position, "off-the-clock" activities, repetitive motions, lifting, computer design, and lack of natural breaks. The assumption by some administrators and employers that the task is "light" work, or not stressful can also create unsafe conditions. To help alleviate some of the risks, employers can create an ergonomically-friendly environment (i.e., portable tables, light-weight equipment), and encourage an open, communicative atmosphere where individuals who experience symptoms can speak up.

For the most-part, the health of a service provider is the responsibility of the service provider. To reduce the risk, individuals can make optimum use of the technology (equipment and software), accessories, and system-related shortcuts, and avoid unnecessary exposure to risk (e.g., work in a safe and supportive environment). Finally, increasing personal health—eating healthfully, exercising, and reducing personal stress—will help make service providers less susceptible to injuries.

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# **What the Boss Needs to Know: Running a Good Speech-to-Text Program**

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## **Abstract**

The use of speech to text services to provide communication access and notes to students and others is growing by leaps and bounds. Administering these relatively new service programs is not always easy. This Speech-to-Text Services Network (STSN) presentation addresses four important aspects of a successful program: finding good providers; keeping good providers; evaluating good output; and developing a site policy handbook.

Administrators whose programs use, or are considering using CART writers, C-Print captionists, TypeWell transcribers, voice writers, or other speech-to-text service providers will all benefit from the general and specific information provided.



## **Strategies for Finding Good Speech-to-Text Service Providers: Jennie Bourgeois**

The current speech-to-text technology that is available for communication accommodations is truly remarkable. The technology, however, is only going to be as good as the service provider who is utilizing the technology. How do administrators recruit and select individuals to become competent speech-to-text service providers? Where should administrators look for individuals and what skills should they be seeking?

When seeking out individuals for speech-to-text training, administrators may wish to look in certain areas for potential trainees. One excellent source would be to consider those individuals who are already trained in providing communication services to individuals who are deaf and hard of hearing. Cross-training sign language interpreters is an excellent way to help utilize the communication processing skills that they already possess. If a sign language interpreter is also competent in speech-to-text services, they are able to meet a wider spectrum of accommodation needs by students who are deaf and hard of hearing. Naturally, the sign language interpreter would also need to possess excellent typing and computer skills to be considered for speech-to-text training as well.

Other excellent populations to consider for potential trainees are former court reporters, individuals finishing court-reporting school, or those who don't care for the legal setting. Many individuals who complete court reporting school may find that while they enjoy the actual work that they provide, they do not care for the legal environment. These individuals may be perfect candidates for providing speech-to-text services in an educational setting.

Medical transcriptionists may also find that the medical field is not their area of interest or that the work may not be stable or steady enough for them to work from home as they initially thought. These individuals already possess a skill set that can be adapted and utilized within the educational setting as well to provide speech-to-text services.

Other populations that administrators may wish to consider include former telephone relay service communication assistants, answering service operators and in-house clerical staff, and educational aids. In addition, word of mouth referrals from current speech-to-text service providers can many times prove to be the best resource in recruiting.

Should administrators consider publicly advertising for individuals to be trained? There are some benefits to advertising such as reaching a larger pool of potential applicants and being able to reach individuals that might not otherwise be reached. However, there are also some drawbacks to publicly advertising. In general, administrators cannot determine an individual's work ethic simply through the interview process and the individuals applying without any prior knowledge may not have a full understanding of deafness or the position.

When seeking out potential service providers for speech-to-text, what are the desired skills and qualities that administrators need to look for in an individual? Potential candidates should definitely have a minimum typing speed of at least 55 to 60 words per minute. Their typing skills should be both fast and accurate in order to be a competent speech-to-text service provider.

In addition, individuals should have a strong work ethic with a proven record of dependability and trustworthiness. Individuals must be prompt and reliable. They must be able to learn and process new information quickly and be able to adapt to changing work schedules and the changing postsecondary educational environment. Potential speech-to-text providers must be team players, be self-motivated and have excellent people skills. They also need to be able to work independently and problem solve in stressful situations.

It is also important for potential speech-to-text service providers to keep assignment- and client-related information confidential and remain in the professional role of a Communication Service Provider at all times. They should possess excellent listening skills and be able to quickly obtain the meaning from spoken information. Candidates should also have an excellent understanding of English grammar and have superb spelling skills.

Some other factors that administrators may want to consider when interviewing candidates include their personal postsecondary experience, their general computer and technical knowledge, and if they have had any history of repetitive motion injury or strain. It is also beneficial to know if the individual is willing to commit to working a certain amount of time upon conclusion of the training.

The selection, hiring and training process of individuals is crucial to the success of a speech-to-text program. The technology is only capable of performing to the skill level of the speech-to-text provider. Successful speech-to-text programs have competent and well-trained individuals who utilize the technology well and provide quality services to the students.

### **Strategies for Keeping Good Speech-to-Text Service Providers: Jo Alexander**

Once you have successfully recruited and trained speech-to-text service providers, it's time to do everything possible to retain them! Consideration for the physical, mental, and emotional demands of the job requires advance planning before the first meeting of the class. This is perhaps the most crucial aspect of preparing for speech-to-text providers at your site.

Endeavor to contact the instructors directly and have a conversation about the service. Alternatively, a document with information about the service should be available by email, hard copy, or a website link. A meeting between the instructors, coordinators, and service providers can also be helpful.

Addressing instructors' concerns about issues such as the size of the equipment, ownership of transcripts, confidentiality, communicating with students who are deaf and hard of hearing, and accommodating students during small group work can ease tension on the first day of class!

When meeting with the instructor, explain the difference between meaning-for-meaning and verbatim output. Offer the opportunity for instructors to look over transcripts for clarity, completeness, and accuracy. Doing so provides an opportunity for instructors and service providers to develop a collaborative working relationship. Explain to the instructor that the service providers will type information that is spoken but not presented on overheads or slides, and ask for copies of those materials. Remind the instructor that videos should be captioned, and direct the instructor to the personnel at your site who can assist her or him.

Students should also be informed in advance about your site's policies regarding use of the service. Explain how the equipment will be issued and if the student is permitted to use the equipment for personal use. Discuss the process for typing comments to the service provider for voicing, and discourage students from typing personal comments to the service provider. Additionally, the students should know if and how the transcripts of the classes will be provided, if transcripts can be copied for other students' use, and if the transcript will be supplied when the student is absent. In general, sites do not release transcripts to students who were absent from class unless the absence was disability-related, and this can be a point of contention if students are unaware of the policy.

Students should be encouraged to speak directly with service providers about needs, questions, and concerns. This develops a sense of teamwork and offers an excellent opportunity for students to enhance self-advocacy skills. Ensure that the service providers have training in Deaf culture in order to promote smooth interactions.

Try to prepare the service providers in advance for circumstances that they may not anticipate. If equipment needs to be plugged in or if the providers need to position themselves in an aisle, make sure they are aware of fire codes. If the equipment in certain buildings can interfere with wireless transmission, arrange a "back up" plan for the providers. Be sure to always have an extra set or two of laptops charged and ready in the case of equipment failure. Review the code of ethics and work with the providers to prepare tactful ways of dealing with uncomfortable situations.

Perhaps the best way to retain service providers is to develop the attitude that *your job is to work for them*. Providing quality communication access is difficult and stressful, and a little TLC goes a long way. Begin by advocating for a professional wage and position at your site. When scheduling providers, consider class content and length, speed of delivery, skill of the transcriber, environment, prep time, and the need for breaks. If course materials are posted on the internet, be sure to arrange access to the site to aid in class preparation. If the instructor has an accent or the environment has a great deal of ambient noise, provide an FM system for the provider's use. Updated maps of accessible entrances and elevator locations are appreciated, and service vehicle permits for the providers are great stress reducers!

Service providers will respond to the Coordinator's efforts to point out campus amenities such as the library, art galleries, recreation centers, "eateries", and daily campus events. Purchasing an associate ID card (or its equivalent) for providers whose positions are not staff is a

nice gesture of appreciation and allows access to events and services that are restricted to students and employees.

Help the service providers prevent injury by stressing ergonomics in the workplace. Provide quality, well-maintained equipment with consideration for reliability, size, and weight. It is helpful to supply a waterproof roller bag with large wheels for transporting the equipment. Padded chairs and sturdy steno tables will allow providers to concentrate on the job at hand!

Be mindful of ways to provide ongoing professional development, and develop a mentor program for new trainees. Observe in classes each term, and provide helpful feedback; remembering to comment on what was done well. Most importantly, carefully listen to the service providers' comments, suggestions, and requests, as the seeds of an excellent program are embedded in them!

### **You Have Them, Now What Do You Do? Laurie Watts-Candland**

At Utah Valley State College, all speech-to-text service providers are required to e-mail transcripts to the Manager of Deaf Services/Coordinator for all classes within the allotted 24-hour time period. This has a dual purpose. One is for documentation purposes. If a student makes a claim that he/she didn't receive their transcripts, or that they were incomprehensible, it can be easily verified when, or if, the speech-to-text service provider sent the transcripts, and review the content. Secondly, the transcripts are used as an initial diagnostic tool. They are routinely reviewed for cohesiveness, grammar, punctuation, and flow. If a pattern emerges, then it can be incorporated into skill development activities tailored for that specific person.

Each semester in-class observations are conducted. Normally these are unannounced. The evaluator arrives early to observe setup, and to position themselves in an unobtrusive position near the student who is deaf. This gives the evaluator an opportunity to observe the real-time lecture output and exactly what the student is receiving in class. These observations are then combined with what has been noticed in reviewing the edited transcripts. The service providers then schedule a meeting with the Coordinator and the service provider's work is discussed. These tend to be very positive meetings.

Mandatory testing is required at the beginning of each semester. This is only to make sure that all the speech-to-text service providers can still meet the minimum qualifications required by their certification. This is not used as a diagnostic tool.

A secondary in-house certification test was developed about a year ago. This allows the more experienced and qualified speech-to-text service provider an opportunity for a pay increase as well as better prepare them for certification testing such as TypeWell and the National I and II Informational Level certification tests.

At Utah Valley State College, philosophy videos were borrowed from the distance education department, and then transcribed by our CART provider. Three professionals independently pick out the major and minor points within the transcripts. These were then reconciled and became the master copy of the test.

Here is a breakdown of the different areas graded:

Area	Calculation	Score
Words per minute	(Number of Words/Time)	ex:70
Structure	(Pts. Correct/Total Possible Pts.)	25 points total minus 1 point per error
White Spacing	(Pts. Correct/Total Possible Pts.)	25 points total minus 1 point per error
Grammar	(Pts. Correct/Total Possible Pts.)	25 points total minus 1 point per error
Spelling	(Pts. Correct/Total Possible Pts.)	25 points total minus 1 point per error
Content	(Pts. Correct/Total Possible Pts.)	To calculate, add up the number of all major content points chosen for review. Total to determine possible points.
Overall	(Total accrued pts/total possible)	ex: 110.5/123=89.8%

The applicants must bring computers or equipment that they are accustomed to using. They are allowed warm-up time prior to the test. The test is administered within a five minute time frame. At the conclusion of the test, the raw transcript is sent to the Coordinator and the transcript on the laptop is deleted.

After the test is graded, the Coordinator and the individual meet and review the results. Through offering this intermediary test, the morale and longevity of my employees has increased. By incorporating tailored as well as generalized skill development exercises, further testing/certification opportunities and one-on-one debriefing, I have a happier group of speech-to-text service providers who enjoy their jobs.

### **Writing a Speech-to-Text Service Provider Handbook: Kim Thiessen**

Of course, in order to enjoy a job, an employee must understand the requirements and policies that are required of them. It is absolutely essential that the hiring department has a speech-to-text providers' handbook which explains all of the campus' policies and procedures in writing. There are a number of important points that need to be described in a clear and concise format, with as detailed language as possible, in order to eliminate any future conflicts which may arise.

The first thing that needs to be looked at is the actual position of the speech-to-text provider. Is s/he a staff employee, an hourly exempt employee, or a contracted provider? Each employment status will have a slightly different emphasis in the handbook.

To get started, PEPNet has developed a template, which can be found at <<http://sunsite.utk.edu/cod/pec/products/Captioni.DOC>>. If you already have an interpreter handbook, much of the information may be similar. Other institutions using speech-to-text services are also a wonderful resource as you begin writing your handbook.

You should begin with general campus information and your disability services' mission statement, along with your state laws and the ADA laws pertinent to the speech-to-text service provider's position.

The roles and responsibilities of the speech-to-text provider need to be clearly defined, with the priority being the provision of real-time equivalent communication access. Your campus' policies regarding qualifications and interactions of service providers with students, faculty, and other staff should be included. You may also want to explain that it is the responsibility of the

speech-to-text provider to be alert to their own ergonomic needs and also to be aware of treating the students as adults.

If your campus has a general dress code, this should be included along with special situations that may require protective clothing, such as goggles in chemistry labs.

The payroll system at your institution should be explained fully; including pay scale, the timesheet submission process, and pay dates. How speech-to-text providers become eligible for wage increases is another important item which needs to be addressed.

The handbook should explain the process for receiving an offer of work at your institution, which may include the speech-to-text provider providing a schedule of their availability and class preferences, along with an update on skills and certifications.

Teaming procedures on your campus should also be included.

Having policies regarding contact information is extremely important in case of emergency, class change or cancellation.

After being offered work, the speech-to-text provider will need to know various aspects of the assignment; such as how the instructors will be notified of services in their class, who is responsible for getting textbooks and other prep materials, and the process for getting appropriate chairs into the classroom; as well as details of the assignment such as date, time, location, length, client, and team info.

Time allowed for preparation and editing should be defined, as well as procedures and timelines regarding transcript distribution.

Expectations for attendance and absences need to be clearly outlined. Your department's policies regarding payment for class cancellations, student absences, extra-curricular assignments, illness, bad weather, or emergencies should be explained in as much detail as possible.

Parking information is important for the speech-to-text provider to know before the assignment begins, to avoid last minute problems getting to the assignment on time. It should also be said whether your institution pays for travel to and from the campus.

Your handbook should explain the kind of evaluative measures that are used on their campus. Diagnostic tools such as in-class observations, transcript analysis, tape recording comparisons, and certification testing are some of the ways your program may choose to evaluate performance levels of your speech-to-text service providers.

Information regarding the speech-to-text equipment should also be discussed. S/he will need to know which equipment to use, how to check out the equipment if not using their own, what responsibilities will there be connected to the equipment, machine maintenance, what to do in case of equipment breakdown, renewing batteries, having cords, etc.

It is a good idea to list professional development expectations and possible opportunities for the speech-to-text service provider and if these will be supported and paid for by the institution. Occurrences such as staff meetings, conferences, workshops, and mentoring are some of the ways service providers can experience a variety of learning.

As employees working on your campus, speech-to-text providers need to have access to the procedures of due process at your institution. In the event that a student has a complaint regarding services or if the service provider has an unresolved grievance, the formal filing process should be outlined.

The information provided in this paper about running a good speech-to-text program is in no way comprehensive. All of the co-presenters agree that discovering ways to improve the service is an on-going and gratifying process. Students who are introduced to the service are those who



have often “fallen through the cracks,” and the feedback from those who have recently used the service for the first time makes all the effort of implementing a program more than worthwhile!

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## **Circles of Learning: Communities of Excellence**

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### **Abstract**

Learning Communities have become an integral part of the curricula at Gallaudet University. Faculty members have created ways in which Learning Communities are used to help students make significant connections between the courses they are taking as well as feel involved in communities that foster connections between students, faculty, staff, and the University. This article describes several Learning Communities and the ways these courses integrate materials and ideas. Almost all First Year Seminar (FYS) courses are linked with another course from English, history, biology or another discipline. Other Learning Communities have focused on creating Integrated Discipline Studies (IDS) courses that integrate two disciplines into one course. Learning Communities will be discussed in depth in hopes that other programs may adopt this idea.



### **Introduction**

Learning communities, which include a variety of structures in which students have a common education experience, have developed into a national movement in higher education during the past fifteen years. Their structures range from cohorts of students simply attending the same group of classes, to linking two or more courses (in a range of curricular connection), to integrating disciplines into a single course. All learning communities have two or more instructors working together and students in learning communities may share a common living experience as well. Learning communities, as research is now showing, are effective in enhancing student learning (Smith, et.al., 2006, p. 6).

Learning communities at Gallaudet University are currently structured in two different ways. Through the First Year Experience program, the majority of First Year Seminar (FYS) course sections are linked with English, history, or biology. In addition, faculty members have created Integrated Disciplinary Studies (IDS) courses which integrate two disciplines in one course. IDS courses typically ask one important question that students examine throughout the semester.

Both models at Gallaudet share the goals of developing a community of learners and enhancing their learning. This is accomplished through increased communication among students and faculty, increased participation and motivation in class, and shared academic activities. This article describes some of the learning communities that faculty members and students at Gallaudet University have been involved with.

### **A First Year Seminar and Biology Learning Community**

Two professors, Jane Dillehay and Khadijat Rashid taught a linked FYS-Biology section with the theme of bioethics. The class addressed the subtext, “what does it mean to be human?” The collaboration utilized the synergy generated by the two very different courses. FYS is a process-oriented course with the primary goals of helping students discover who they are and how they can best learn and succeed in the new environment of college. Biology, on the other hand, is a typical science course with rigorous content requirements that introduces students to the scientific method.

The bioethics learning community was posed at the juncture of those divergent disciplines, in an effort to help students move beyond “soft” FYS and “hard” science and understand the ethical issues and ambiguities inherent in any field of study. In the process, we hoped that students would learn more about themselves, their environment, today’s technology, and society in general.

College freshmen often see the world as either black or white, with few shades of gray. We wanted to help them transition toward an understanding that life is full of ambiguities, and there are frequently lots of grays, with no clear answers. Despite this lack of clarity, it is still possible for the student to learn, and to develop a sense of self and values. Much of the material we developed for the class and the discussion in the classes focused on these shades of gray, with students frequently coming down on one side or the other, but learning to respect those on the “other” side. In order to facilitate this discussion, students developed a class code that consisted of the following rules:

- Respect each other’s opinions, privacy, and personal differences.
- Keep an open mind.
- Be friendly and polite.
- Take turns – don’t interrupt.
- Agree to TIME OUT if discussion becomes hot.

The summer before we taught the learning community, we met several times to develop content that we wanted to emphasize in our courses. We attended several workshops that focused on working with freshmen, including ones on emotional intelligence and working across disciplines. Still, the two courses were taught separately, with different readings and coursework, and they were held on different days (FYS on Tuesdays and Thursdays; Biology on Mondays, Wednesdays and Fridays). In the biology class, students discussed standard topics such as cell structure and function, reproduction and genetics, photosynthesis and energy production. In FYS, students were introduced to various aspects of the college experience, and we read articles from a reader about the freshman experience.

However, in both classes the bioethics theme was always present, and we continued to emphasize it as we covered regular material in each class. The aim was to establish and maintain bioethics as the thread that bound the classes together. Additionally, the professors visited each

others' classes and met regularly over the course of the semester to discuss student progress and share strategies and ideas.

In addition to regular class meetings and coursework, the professors held three dinner and movie nights during the semester. All the movie nights followed the same basic pattern—first, the professors met the students for dinner at the campus cafeteria an hour before the movie was shown, and then we all watched the movie together. The movie was then followed by a discussion of the ethical issues that the movie's protagonists had raised or confronted. The movies viewed were *The Lost Boys* (Gordon, 2002), about refugees from Sudan resettling in the Midwestern United States; *The Sound and the Fury* (Weisberg, 2002), about the impact of cochlear implant technology on a multi-generational deaf and hearing family; and *Gattaca* (DeVito, Shamberg, & Sher, 1997), about genetic engineering in the near future.

Students were required to develop short presentations in both classes on different issues in bioethics. The students rose to the challenge and many gave in-depth presentations with surprisingly perceptive and sophisticated analysis of their chosen topics. Topics included stem-cell research, anabolic steroids, genetic engineering, euthanasia, and in-vitro fertilization.

The goals for our FYS/Biology learning community were to enhance:

- student cooperation and participation during class
- student motivation
- student learning
- improved communication among students and faculty members
- ways to help students feel more engaged while learning content in their linked classes.
- appropriate thinking skills
- ability to integrate concepts
- ability to use Blackboard and Powerpoint (common academic software)
- an atmosphere that demonstrated appropriate class conduct

Based on the feedback from students as well as assessment that occurred during and after the course, we met all of those goals. Students who participated in the link showed better critical thinking skills, improved reading and writing skills, better interaction with peers, an increased sense of responsibility, and more engagement in learning. Faculty also reported noticing significant improvement in student academic progress as well as a better sense of community and rapport with faculty members from other disciplines and students.

Both students and faculty agreed that learning communities were more time-intensive and required more preparation and commitment than most other courses. One challenge faced primarily by Dr. Dillehay was balancing the requirement to teach a regular college biology curriculum with the learning community's emphasis on bioethics. Focusing too much on the latter would mean less time on the regular curriculum, which might penalize students in that section during final exams (all first year biology students follow the same curriculum and are required to take the same exams). However, the payoffs in terms of student learning and retention, and a more nuanced understanding of biological and ethical life issues, were deemed by both students and faculty to be worth this slight risk. Another learning community that used a link with FYS is discussed next.

### **An English and First Year Seminar Learning Community**

Two professors, Jane Nickerson and Judy Termini, linked their courses to create a learning community for our English (Critical Reading and Thinking) and First Year Seminar (FYS)

students. Students attended both classes and developed a sense of community throughout the semester. We asked the students to read many of the same essays for both classes so that they could discuss them with different perspectives in mind. We wanted our students to think carefully about various issues in ways that they may not have ordinarily thought about. For example, when our students read about how people interact with society, we focused on several articles that addressed issues related to diversity, culture, religion and race. We wanted the students to broaden their horizons and think about themselves and how they fit into our global society.

We were pleased with the development of our learning community. Our successes for this learning community included the following:

- Students became members of a small learning community.
- Students cooperated well with their classmates (most of the time).
- Students were more motivated to come to the linked class than the students in a non-linked class.
- Students learned about the writing process, strategies for reading, and developed critical thinking skills as they read essays for the linked courses

We asked students to think about this learning community and provide feedback so that we can improve our learning community in the future. Student comments included:

- “I enjoyed taking English 102 and FYS with the same group of students. I felt comfortable working with my classmates. We felt like we were part of a community.”
- “The students in my classes helped each other even though we had different perspectives on a lot of issues. We discussed our ideas openly.”

Overall, we were pleased with our learning community and will continue to work together in the future to design learning communities in which the students learn and cooperate from each other as they start their college experiences. A second English course was linked with an art course to create an Interdisciplinary Studies (IDS) course. This course will be discussed in the next section.

## **An English and Digital Media Learning Community**

Two professors, Jane Nickerson and Tracey Salaway created an Interdisciplinary Studies (IDS) course that integrated English 323 and Art 235. Each IDS course focuses on a broad question that we asked our students to think about throughout the semester as they read texts, watched and produced their own films. Our question for this course was: “How is society represented in literature and films?” As we developed materials that would integrate the curriculum between the English and Art departments, we thought about this question and ways in which we could help students create many interrelationships between our disciplines.

As faculty members, we wanted our students to become experts who look at literature, film and film production in many ways. We encouraged them to read novels, screenplays, and/or other documents that supported the films they watched for class. We also wanted them to think about how they could incorporate ideas from the films we watched into films they created. Students often asked us questions about literature, film, and film production and we sought to answer those questions together as the semester progressed. In addition, we encouraged our students to make connections among the ideas that were discussed, analyze novels and

documents they read and films they watched that connect ideas from history, culture, art, literature, sociology and other content areas together, and create two short films.

Our goals for the students included the following:

- Read and discuss several texts for class discussions and film critiques.
- Write and rewrite some of their film critiques in order demonstrate their abilities as readers, writers, and film critics.
- Learn to appreciate the literary (genre, theme, and plot) aspects of films, focusing on how screen writers and directors tell stories in the films.
- Create two short films utilizing: an individual project (developed or self-written screenplay), a remake of a scene from master film, (a group project is required by selecting one of the best student screenwriters in class).
- Students learned about the basic visual components such as space, line, shape, tone, color, movement, and rhythm used in films.
- Students learned to understand camera movement, lighting, including moods, emotions, ideas and many film techniques.
- Students had opportunities to participate in various roles as: director, screenwriter, camera operator, lighting operator, editor, and actor.

We were pleased with the successes we had in this course. We felt that the students enjoyed reading the texts and that they had good class discussions about the books and the films. After we completed our discussions, we asked the students to write film critiques for each film in which they compared and contrasted the reading selections with the films. As a result, the students became very engaged in critical thinking activities. We were also pleased that the students were exposed to films from different genre. We watched the following films in class (and for many of them, we read the text that went with the film): *Amelie* (Deschamps, & Ossard, 2001), *Citizen Kane* (Welles, 1941), *Erin Brockovich* (DeVito, Shamberg, & Sher, 2000), *Like Water for Chocolate* (*Como agua para chocolate*) (Arau, 1992), *Road to Perdition* (Mendes, Zanuck, & Zanuck, 2002), *The Shawshank Redemption* (Marvin, 1994), and *Shrek* (Katzenberg, Warner, & Williams, 2001). We were also very pleased with the short films that each student created as they were all unique and showed the knowledge they gained in the class. When students created their own films, they learned about writing short screenplays, lighting, shooting, directing, acting, and editing. Overall, the students created films that showed how well they learned the various techniques they saw in many of the films. Each film was shown in class so the students had the opportunity to watch and critique the films. The students offered excellent feedback and as the semester progressed, the quality of the films improved. We were very pleased with the films the students created.

There were also some challenges that we faced in this class. It was difficult for us to teach everything we wanted to teach as we sometimes ran out of time. As a result, one of the professors met with students in the evenings and on weekends to provide workshops on filming techniques.

In the future, we hope to continue our IDS course and help our students expand their knowledge in many areas. We always hope that our students become more enlightened film critics and film makers! The next section focuses on assessment and tools for assessments that were used to examine these learning communities.

## **Assessment**

Several assessment measures noted benefits to both faculty and students in learning communities linking FYS with another course. Students who participated in the learning communities had higher levels of satisfaction with the course and the community and felt that it benefited them in many ways. Faculty who participated also saw benefits to the students, and for themselves. Finally, student achievement was higher for students who participated in the learning communities than for students who did not participate.

## Tools for Assessment

Both quantitative and qualitative measures were used for assessment. Three quantitative measures of students progress were used; The First-Year Initiative Benchmarking Survey (FYI), progress in English, and end-of-semester evaluations. Qualitative measures were used for both faculty and students and included both written and verbal comments. This data was used to compare differences between students who participated in learning communities and those who did not, as well as faculty perceptions of learning communities.

The First-Year Initiative Benchmarking Survey loads into 15 factors. Of these 15, three were considered of interest and included Academic/Cognitive skills, Critical Thinking, and Connections with Peers. In each of the learning community sections (an FYS course linked with English or another content area); the learning community sections had responses that were about or at the Gallaudet FYS mean on these three factors.

In all FYS sections that were linked with Developmental English, students made more progress (movement to a higher level English course) than those in English courses that were not linked. The results are as follows:

Developmental Course	Learning Community	No Learning Community
English 50	52% qualified for credit English or moved up	47% qualified for credit English or moved up
English 70	47% qualified for credit English or moved up	41% qualified for credit English or moved up
English 80	100% qualified for credit English or moved up	68% qualified for credit English or moved up

Results of the FYS evaluations indicated that students enjoyed the linked courses, felt that they got to know their classmates, saw connections between disciplines, and had opportunities to apply what they were learning in other contexts. One negative comment was that one student felt as if he were being “watched too closely.”

Results for faculty who taught in these links indicated that they benefited and learned about new pedagogy from working together. They were able to see students making connections across disciplines, and using reading and writing in the context of work required for courses other than English. In addition, they saw students helping one another and developing a sense of community. Concerns faculty shared included the amount of time they had to invest in these

learning communities, as well as the work necessary to be sure the same students were enrolled in each class.

## Results and Recommendations

Based on both quantitative and qualitative data, both faculty and students benefited from participating in learning communities. Students made academic gains as well as social connections. This model of social and academic integration is fundamental to student retention. In addition, a natural faculty development model evolved where faculty learned from one another in an informal way. The First Year Experience program will continue to offer the linked-course model of Learning Communities, with continued faculty development, beginning during the summer and continuing through the semester.

## Conclusions

We have described several different learning communities that have been established at Gallaudet University. These learning communities have enabled students to become more actively involved in the learning process. We have observed that students cooperate and participate more often during class discussions, are more motivated to accomplish the tasks for their classes, and communicate often with each other and with their professors. Faculty members at Gallaudet University will continue their work in learning communities in the future as we recognize the important factors that enhance student learning.

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# **Administrative Issues: Sign Language Interpreters in the College Setting**

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## **Abstract**

This presentation includes the information that a disability support staff (DSS) should know when working with a sign language interpreter in the post secondary level.

Recruiting, advertising, interpreter credentials and hiring procedures will be addressed.

Developing policies for interpreters in the area of team interpreting, evaluating interpreters, as well as providing additional incentives and support for sign language interpreters will be presented.

DSS coordinating responsibilities and standard practices in the profession are among the other topics discussed.

## ***Learning objectives***

1. Hiring qualified interpreters and the importance of understanding interpreter's credentials.
2. Developing policies for the sign language interpreter such as, developing pay rates, team interpreting, substitutes, down time and prep time.



Providing sign language interpreting services to deaf and hard of hearing students in a college setting can be a challenging task. Finding, supervising and retaining good interpreters requires creativity, work and preparation on the part of the Disability Support Staff. This presentation is designed to address ways to keep your institution a place where interpreters want to work. As the disability service provider, you must be clear as to what the role of an interpreter is so that you can inform your faculty and meet your students' needs.

## **What Do Interpreters Do?**

Sign Language interpreters must be fluent in both sign language and spoken English. They are responsible for expressing words/signs, inflection and intent to be sure they are providing an equivalent message from one language to another. Interpreters of American Sign Language are also responsible for cultural communication. Often, a mainstream college instructor may be working with a Deaf/Hard of Hearing student for the first time and does not know about Deaf Culture.

It is critical that the Disability Support Staff interview the students to be certain of their communication preferences. Depending on a student's educational background and hearing loss, he/she may request American Sign Language (ASL), Pigeon or Contact Sign Language (PSE), Transliteration, Tactile Signing, Oral Transliteration or Cued Speech Transliteration. It is important to find interpreters who can successfully provide each of these services.

## **Recruiting Interpreters**

Recruiting interpreters can be done in a variety of ways. Getting referrals from interpreters already working at your institution can be most helpful. You may also choose to advertise in professional publications circulated in your county or state or on Internet bulletin boards. Your state RID chapter and local interpreter training programs are also good sources for finding interpreters. When you do advertise, be sure to emphasize what your institution offers like free use of the library or work-out room. Some schools offer free tuition and emphasize that college interpreting means long term assignments and a steady income, something freelance interpreters are always looking for.

Know the meaning of interpreter credentials. This will make the hiring procedure more manageable. There are a variety of certifications an interpreter can receive. Interpreters who have received Registry of Interpreters for the Deaf (RID) Certification, or National Association of the Deaf (NAD) Certification or the new National Interpreter Certifications (NIC, CI,CT, CSC) are considered highly skilled professionals. Many states have their own quality assurance screening processes. If an interpreter has graduated from an Interpreter Education Program (IEP) it means they have received formal training in the skills required to become a professional interpreter. It is also wise to ask about an interpreter's work experience and background. Educational interpreting is skill specific and it may be valuable if the interpreter has a strong academic background.

If your pool of interpreters do not have the credentials previously listed, it will be helpful to find someone you can bring in to assess skills. There are many interpreters doing good work who have not yet achieved the level of national recognition. In-house screening can be a valuable tool for the disability provider. During the interview process, questions that are helpful can be those that identify the interpreter's areas of strength and weakness, their preferences in course content, hours of availability along with questions that focus on their understanding and use of the RID Code of Ethics.

Your office or institution should, early on, establish a pay rate scale dependent on the interpreter's credentials. As discussed previously, this can mean certified, state screened, experienced or novice. Knowing the "going rate" in your area for freelance interpreters will help you make sure your rates are competitive. Have documentation in the form of literature or an interpreter handbook, which includes all of your institutions policies and procedures spelled out clearly, including the rate of pay. If possible, include a Deaf student or employee in the interview process to insure that the interpreter has the level of interpreting skills needed for Post-Secondary work.

Policies and procedures should be established for the following issues: class cancellations, student no-shows, snow day or other emergency school closings, arranging for substitute interpreters, and team interpreting. In the field it is standard to provide 24-48 hours notice when interpreters are not needed. Less than that time means the interpreter will receive payment for the assignment. In many colleges, interpreters are asked to wait for the student outside the classroom door for twenty minutes for each hour the class meets. After that time, interpreters can

report to the disability office for further instructions. Each institution will develop their own plan for locating substitute interpreters. Often there is a list of acceptable candidates to be used by the interpreters themselves when they are unable to work a scheduled assignment. In some offices, the disability provider prefers to handle that task.

Team interpreting has become another standard in the field. It is important to project the need for a team of interpreters. Examine the classes your students have registered for. Are the classes lengthy? Is the course content challenging? Do you know that the professor speaks rapidly? The answers to these questions will help you be prepared with the proper coverage and will give you time to adjust your budget to accommodate this need. It is common for class assignments lasting more than one hour, and that are mostly lecture, to provide a team of interpreters, both of who remain in the classroom. The interpreters share the time “in the chair” working for twenty to thirty minutes each, while the team member remains attentive, ready to feed signs or words missed during the lecture. It would be appropriate to rely on the primary interpreter when he/she tells you a team is required. Interpreters know that the quality of what they produce falls drastically if a single interpreter works for an excessive amount of time without a break. Problems with Repetitive Motion Injury (RMI) and Carpel Tunnel can be disabling for an interpreter who suffers from overuse.

Another thing to consider when working with interpreters in the college environment is how well we compare with the private sector. A freelance interpreter, also known as a private practitioner, relies on individual assignments to make his/her living. In educational interpreting, often times the rules in the private arena do not apply in the college setting, making retention of talented people difficult. Each institution, when making their pay scale, must decide whether or not to include portal to portal fees, mileage and tolls, and two hour minimums; things interpreters have come to expect in private practice. Always remind interpreters that college work provides them with ongoing, consistent schedules and income for at least a full semester.

## **Evaluating Interpreters**

How do you know how effective the interpreter is in the classroom? Ask the students! Sending out evaluation forms to the student after the first few weeks of the semester is a way to empower them and get the feedback that you need. If there is a problem with an interpreter, it is important to address it as early as possible. Classroom observations are another way to ensure that the interpreter is doing the job needed in the college classroom. If you have someone on staff to perform that task, be sure to schedule the classroom visits early in the semester. If not, hiring a consultant to provide feedback to the interpreting staff will be beneficial to both the interpreters and the students using their services. Most interpreters welcome feedback as a form of professional development. Finally, check in with your faculty. Survey's distributed to your teaching staff either at the middle or end of the semester will let you know what the instructor's experience working with the interpreter was like. Did the interpreter work as part of the educational team? Was the instructor comfortable with the interpreter present in the classroom? Did the interpreter provide cultural information that was helpful? Be sure to keep an open door policy for students, instructors and interpreters so they can come to you to speak openly and freely about any questions and concerns they might have.

## **Supporting Interpreters**

Consider the possibility of hiring one or more staff interpreters as part of your service team. Having someone who works as a full time member of your department means you have someone who is vested in your program and the students you are serving. A full time interpreter becomes familiar with other staff members, faculty and students on campus. That person can more easily negotiate the campus system, will have more flexibility with their schedule, and can be responsible for additional tasks as needed during the course of the day. A staff interpreter understands the goals of your program as well as the academic needs of individual students.

If your only option is to hire freelance interpreters, try your best to support them as they work to support your student population. Providing free textbooks for class preparation each semester is a help to the interpreters and they will appreciate having that available to them. Priority parking may be a simple benefit that makes arriving on time to class that much more manageable. Skill development opportunities are invaluable. Nationally certified interpreters are required to maintain their certification by attending professional development workshops and conferences. Organizing and hosting such programs at your college as well as inviting your local RID chapter to have meetings on your campus is a good way to develop the professional relationship you want to have with the people in the field of interpreting.

The responsibilities of the interpreter coordinator or disability service provider are huge. Recruiting, scheduling, supervising and evaluating the interpreting staff at your institution is a demanding job. To run a successful program and provide your diverse student populations with the variety of services they need means you must be informed. Know your students' needs, know your interpreters' needs, and know your institution's needs. For more information, you can refer to the Resource List provided below. Best of luck to you!!!

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## **English Access Forum: High Stakes Testing, Reading/Writing Accommodations, Implications for Programs and Services**

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### **Abstract**

The English Access Forum addressed the historically, controversial topic of accommodating English (print) for people who are Deaf and Hard of Hearing. Jo Anne Simon, Dr. Noel Gregg, and Dr. Alton Brant, were expert guests from the fields of disability law, language, and disability accommodations. The discussion concerned High Stakes Testing and challenged current policies. Georgia leaders discussed high school graduation tests, entrance/exit tests for colleges, universities, technical education, employment, training. Information and challenges will be shared to interact with session participants, to further this discussion nationwide, and to help professionals consider an appropriate range of accommodations for the future.



Georgia's State Outreach and Technical Assistance Center (Postsecondary Education Consortium for PEPNet) is often asked what to do when clients, employees, and students do not pass exit, entrance, and certification tests despite what appears to be "otherwise qualified" circumstances. High Stakes Testing issues have long been at the root of controversy in professions working with people who are Deaf or Hard of Hearing. GA-SOTAC has received inquiries about many tests including high school graduation tests, the Georgia Board of Regents Test, developmental studies exit exams, entrance requirements for technical colleges, the Praxis Exam, graduate school entrance exams, the CRC exam, teacher training standards and student teaching requirements, and general testing.

Professionals are looking for creative, appropriate strategies to address the needs of many students, clients, and employees who are Deaf and Hard of Hearing who have historically struggled with High Stakes Tests. How do we determine "otherwise qualified" in academic and employment settings that require entrance and exit tests which are given in English (print)? What are appropriate, reasonable accommodations for people who are Deaf and Hard of Hearing in high stakes testing situations? And, perhaps most importantly, how do we insure that a test given in printed English is credible, valid, and reliable for a person who is Deaf or Hard of Hearing? If a test is not purported to measure the ability to read and write, and it is administered in printed English, is it always an appropriate measure for an individual who is Deaf or Hard of Hearing?

On February 23, 2005, GA-SOTAC hosted The English Access Forum to address many of these questions and provide better technical assistance. Katherine Bruni, GA-SOTAC Outreach Specialist, and English Instructor at Georgia Perimeter College, facilitated the Forum. The goal

of the Forum was to begin a dialogue nationally about English Access for people who are Deaf and Hard of Hearing. Information about the Forum should help others 1) gain information to help consider an appropriate range of accommodations for testing, and 2) learn about legal perspectives and accommodations for hearing students with disabilities that may challenge current practices.

## **Guest Experts**

Expert guests from disability law, language development, and disability accommodations led a discussion with Georgia policy leaders to begin a dialogue about English Access.

Jo Anne Simon is an attorney in New York. Formerly a teacher of the Deaf at Gallaudet, she has taught Deaf and blind children. Because of the similar difficulties in reading that are experienced by people who are Deaf and people who have learning disabilities, a background in deafness helped Simon try an important case on learning disabilities. Her perspectives challenged Forum participants to consider “what is the right thing to do” within a context of legal requirements and mandates.

Dr. Alton Brant had the “good fortune of growing up in a deaf home.” His first language was ASL. He was trained as an educator. He was a principal in a school for Deaf children. He currently teaches at Clemson University, teaching ASL and Deaf Studies.

Dr. Noel Gregg has been in the field of learning disabilities for almost 25 years. One of the filters that influenced her comments at the Forum is related to the fact that a “learning disability is a communication disorder. It is a difficulty in understanding either verbal or non-verbal types of information. Some of those difficulties have similarities to people with hearing impairments.”

## **Forum Leaders and Policy Makers**

More than forty leaders and policy makers in Georgia represented almost every aspect of work with people who are Deaf or Hard of Hearing, including education, both postsecondary and K-12 and both public schools and state schools, counseling, disability services, employment and training, vocational rehabilitation, advocacy and community services, testing, disability law. Consumers, students, and parents also participated.

## **A Framework for Discussion**

To facilitate a productive discussion, participants were reminded of the following principles that would serve as the framework for discussion:

1. One size does not fit all. Decisions about appropriate, reasonable accommodations should be made on an individual by individual basis. One accommodation is not necessarily a good fit for every individual.
2. Test development and administration requires that we know what we want to measure. We must consider what a test is purported to measure when administering an assessment to any individual.
3. English Access is also relevant to instruction and general access of information.

## Questions: Dissecting the Pink Elephant

In general our field seems hesitant to discuss English Access, and the Forum explored this hesitation. In the field of education of the Deaf, we discuss how to improve reading/writing instruction. When is it appropriate, however, to accommodate English (print) as is done for individuals with other disabilities? How do we define “otherwise qualified” in academic and employment settings? When are tests that are administered in English (print) discriminatory? And when are they not credible, reliable, or valid? These are questions that we tend to avoid perhaps because of our eagerness to promote the fact that people who are Deaf and Hard of Hearing can achieve, accomplish, and succeed.

Perhaps we are afraid that we will diminish the integrity of degrees administered by institutions and of achievements attained by individuals who are Deaf or Hard of Hearing. The Forum suggested, however, that these fears are unfounded if we adhere to sound principles of accommodation provision and testing. Surely there is a way to maintain the integrity of the achievements of some individuals while not jeopardizing the opportunity of others to meet their human potential.

Brant put a new twist on an expression at the Forum, saying, “This is a ‘*pink elephant*’ in the middle of the room.” We have known this “pink elephant” has been here for decades, but no one wants to talk about it. We talk about instruction, but we don’t talk about real access issues with regard to print and people who are Deaf. Brant challenged Forum participants to address English Access issues head-on; “We are going to dissect this pink elephant today!” he said. Discussion at the Forum considered difficult questions that do not have easy answers: What is literacy? What is the definition of “illiterate”; might it have a different definition for people who are Deaf and Hard of Hearing? What accommodations are being provided to people who are blind and to hearing people with learning disabilities related to reading and writing? What are the legal perspectives related to English Access? What does language disability mean for an adult who is Deaf or Hard of Hearing? What research questions do we need answered? What are the accommodations that might be considered for printed material? When might these accommodations be appropriate and for whom?

## Instructional Access – Children

As Forum Experts and participants addressed these questions, they concluded that English Access also means access to knowledge, information, and power, as well as language. Within this context, participants discussed instruction, even though the Forum focused on English Access as it relates to testing. Brant discussed the lack of standards for teachers and interpreters regarding signed communication reminding us of the importance of fluent communication skills among professionals and of the relevance of English Access in instruction and curriculum development. Dr. Harley Hamilton, Atlanta Area School for the Deaf, Center for Accessible Technology in Sign, participated in the Forum. Hamilton is modeling best practices that emphasize the importance of English Access to instruction. The web site <[www.aasdweb.com/CATS](http://www.aasdweb.com/CATS)> should be explored as a resource for instruction that attends to English Access in work with children.



## **What is Reading and Writing? What is Literacy?**

Guest experts challenged Georgia leaders to expand their traditional notions of literacy and to consider a new paradigm when considering testing and instruction that involves reading and writing skills. Gregg described a new conception of reading:

Reading has been defined very conservatively in the past as reading with your eyes and reading print on a page with your eyes. That is no longer an acceptable definition for what reading represents in our society. Again a person can use an iPod and download a book onto it, and they are listening to that book. That is reading a book. It does not anymore have to be that it (reading) must come through our eyes in order to access that knowledge. So reading equals the alternative media that allows you access to that information. Is reading with words on a page different from reading through our ears, such as through a book on tape? Our traditional ways of reading have been very restrictive and have not allowed many adults with learning disabilities, with hearing impairments, or with visual impairments to be able to really demonstrate their knowledge. Today with iPods and other types of MP3 players we are beginning to redefine what we mean by the term reading, and this will have a very significant effect in how we define how to test reading.

Simon spoke of “the notion of literacy under a Multiple Intelligence Framework,” and she challenged the Forum to think of listening and reading and intelligence within a different framework. “We are really talking about knowledge and access to information. High Stakes Testing can help with many things but not the mission of education and knowledge,” she said. The high correlation between listening comprehension and intelligence was discussed, and the need to consider different ways to demonstrate knowledge of information was encouraged. The discussion suggested far reaching implications for education of people who are Deaf and Hard of Hearing and for appropriate accommodations for print. When might it be appropriate, for example, to have reading material interpreted in sign language to determine an understanding of the material or even to determine the main idea, to draw conclusions, or to determine inferences? People who are blind often access printed material through listening because they cannot physically see the print.

## **Looking to Other Disabilities**

Participants were encouraged to look to other disabilities to consider what accommodations are being requested and granted, and they were reminded that extended time and “read-alouds” are the most used accommodations by people with learning disabilities. “Read-alouds,” Gregg explained, “are when someone reads a test to you or signs the test to you, so that your eyes do not have to interpret the meaning that is in front of you. Again a redefinition of what we mean by reading.” Hearing people who are blind or have reading and writing disabilities are requesting “read-alouds” (often through technology) and scribes; these requests are often granted (on a case by case basis.) Forum participants pointed out that similar requests for readers, or interpreters, are seldom made by people who are Deaf and Hard of Hearing, and such accommodations may not be officially considered despite the well documented and direct correlation between congenital hearing loss and reading/writing ability. The reliability, validity, and credibility of testing instruments may, indeed, be compromised by the lack of consideration of appropriate accommodations for certain individuals who are Deaf or Hard of Hearing in testing situations. Alternative media, especially with regard to reading, is the “way of the future,” Gregg advised,

and she further defined reading as the ‘alternative media’ that allows you access to (that) information.” She continued:

Alternative media represents many different types of technologies that are available to an individual for accommodations. For those individuals with learning disabilities or with visual impairments the most common type of alternative media refers to things such as books on tape where an individual in order to understand a book would have to hear that book through their ears. Alternative media could be Braille for an individual with visual impairments. It is an alternative way of accessing information. We must begin to think about reading in a different framework.

## **Legal Perspectives**

Brant shared the challenges that teachers who are Deaf face regarding the passing of tests for licensure and certification. The dilemma is that deaf people who can communicate effectively have difficulty passing tests for licensure; however, hearing people who passed the exam have difficulty communicating the content in the child’s primary language. A parent at the Forum explained her child’s struggle with a graduation writing exam that he took approximately twelve times before passing and receiving a high school diploma. That same student is now at NTID, and he has made the Dean’s List. In South Carolina, Brant explained, interpreting various tests as an accommodation has been approved for a standardized high school graduation exit exam, but the state considers the signing of the reading section of the test to be a modification rather than an accommodation. Simon challenged that decision, saying:

I don't believe that is a modification. I believe every State Department of Education in the country thinks it IS a modification. That is part of the battle. But I think we should look at that line and think about re-drawing it. What is an accommodation versus a modification?

From a legal perspective, Simon inspires the field of deafness to reconsider traditional notions of literacy, modifications, and accommodation:

If reading is visual and text based, what are we doing with blind people?  
So what do we mean by reading? We combine what we test with the mechanics of (a) test. When a fundamental thing is changed we consider it a modification. It’s not a modification of math to be signed or history or science for it to be signed. Why is it on reading? It’s the same thing as books on tape.

Within the context of appropriate testing principles and a new framework to define literacy and reading, Simon discussed reasonable accommodations vs. auxiliary aids and services, undue burden, fundamental alteration of programs, and tutoring and personal services. “I don’t believe that what the law requires at this juncture is, in fact, true access,” she said. Simon challenges professionals to ask themselves if the way we as educators are doing things is the only way and the right way. Disability Law and Deaf Education have the responsibility to explain, and to understand, deafness and its impact on the reading and writing process; people who are Deaf and Hard of Hearing should not have to have a diagnosed learning disability to receive accommodations for reading and writing.

## Testing

Specifically regarding testing, Simon continued:

Signing a test is the same as reading the test. We have MP3 and iPod players. You can take the digital version of those tests, and that interpreter puts it on the iPod and interprets it. How is this different than services which are provided for a dyslexic person?

Gregg reiterated the importance of understanding specifically what it is that is being measured by a test:

One of the unfortunate assumptions that has gone on in the literature for some time is that the accommodation is what makes the difference in a student's performance. The accommodation is simply the tool that allows you to access or demonstrate your knowledge. If an individual does not have the knowledge, giving them extra time or giving them alternative media is not going to make the difference. The issue is not the accommodation. The accommodation is no different than, for instance, someone like myself who needs reading glasses. The reading glasses allow me to access and demonstrate my knowledge. I still have to have the knowledge. If you give me my reading glasses and then give me content that I don't understand, the glasses are not going to make the difference. It is the access to that knowledge. Using of the accommodation is simply a tool. It is the leveling of that playing field.

Gregg further discussed Universal Design whereby the "environment becomes what we are trying to change in order to accommodate all learners not just certain types of learners. iPods and MP3s are being used by students more and more frequently to access reading."

Simon cautioned consumers and advocates not to make requests on the basis that English is a second language because second-language learners do not have protections regarding access, by law, that people have because of a disability. It is important to explain the "functional limitations" with regard to reading and writing that exist because of a hearing loss.

## Strategies and Needed Research

Gregg stated that more research is needed to understand "what it means to have a universally designed test. How can we create tests so that we are truly measuring what we think we are measuring and will not discriminate for different types of learners?" There is also a need to conduct research to determine the effectiveness of accommodations. As a possible strategy, Brant reiterated the precedent set in South Carolina for interpreting standardized tests.

Simon emphasized the importance of "following up" after requesting accommodations for testing or instruction. Furthermore Simon recommends that it is "usually a good idea to disclose your disability when applying to schools (although you do not have to disclose your disability) because you will eventually if you are going to request accommodations." Simon also suggests that students make:

...part of (a) personal statement, that you have a disability, how it affects you, what proper accommodations you are requesting, (and state) if not accommodated the score (on an entrance test) may not be a valid indicator of your ability to be successful in that program.

## **Challenges and Recommendations**

Some administrators at the Forum expressed concern about giving the impression that children who are Deaf and Hard of Hearing should be excused from, for example, the High School Graduation Test, or that they cannot learn to read because they are Deaf. The Forum challenged administrators to understand that the issue with regard to accommodations is access to knowledge. Experts challenged “fundamental assumptions, understandings, and beliefs.” Simon cautioned administrators about the conflating of standards with testing:

I think that education standards do not always mean that there is a test for it or a test to be passed. Testing is one way to implement standards and to assess knowledge, but it’s not the whole thing. Some of these questions don’t get answered (because) they’re hard, and people haven’t committed to doing that very, very tough work, some of which requires a lot of us to go back and soul-search what we understand, why we understand it, what our assumptions are, what we believe that may not, in fact, be true.

Gregg supported her colleague, saying, “What we want to do with accommodations is to allow individuals with disabilities, whether that is a learning disability, a hearing impairment, or visual impairments, access to knowledge that those without disabilities have on an every day basis.”

Gregg recommended instruction, and therefore knowledge, be provided in varied formats and through alternative media. To provide individualized, effective accommodations, Gregg encouraged quality (not quantity) assessments that are tailored to the individual and administered by qualified evaluators. An additional recommendation addresses agencies and bureaucracies and challenges them to develop “clear standards and policies that can be used across systems.” Simon reminded Forum participants of the importance of political action, explaining, “There’s tremendous support for making federal issues local these days, working to make sure that your local policymakers on the state and local level are educated about these issues.”

The Forum decided that presentations about the English Access Forum should be made at national conferences to promote a dialogue about English Access issues. Presentations were completed in April 2005 at the Western Symposium on Deafness in San Diego and in June 2005 at the English Think Tank at the National Technical Institute of the Deaf. Leaders and experts at the Forum concluded with a summary and implications for future action:

### **English Access needs to be considered when making decisions about instruction and testing.**

We need to challenge our beliefs, fundamental assumptions, and decision making regarding policies and accommodations.

We need to discard the notion that reading only means seeing the print with our eyes.

We need to expand traditional notions of literacy and consider a new paradigm.

We need to learn from other disabilities and the accommodations that they are requesting and receiving for print.

We need to educate others, and our field, about the profound impact that hearing loss can have on language, reading print and writing.

We must maintain a focus on principles of accommodation provision and testing.

The English Access Forum will convene again to further explore many of the questions that remain unanswered and undefined regarding English Access in instruction, and testing of individuals who are Deaf and Hard of Hearing. It is important to make decisions about accommodations on a case by case basis. We must be sure that a test is measuring what it is intended to measure and not the disability of the person taking the test. We must consider appropriate accommodations for individuals in test taking situations to ensure the reliability, credibility, and validity of the testing instrument. Since the English Access Forum took place in February 2005, an important resource has been published that further challenges leaders and policymakers:

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# **‘ROOT’ing Service Delivery: Interpreters Find Their Wings in the World of VRS**

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## **Abstract**

A panel representing the four regions of PEPNet will discuss creative strategies to address emerging interpreter shortages and funding challenges. Video Relay Services are bringing a needed service to urban and rural communities, but they also provide new challenges. Participants will be encouraged to share positive and creative solutions to the critical needs for interpreting services in this changing era. Participants will: (a) learn/share new strategies for addressing the critical shortage of interpreters; (b) gain information about creative structuring/funding of interpreting services.



Many states are experiencing the benefits and challenges of Video Remote Services (VRS.) Postsecondary institutions, secondary schools and other PEPNet/PEC clients have contacted PEPNET outreach centers throughout the country proclaiming that they cannot find interpreters and/or that interpreters are taking higher paying positions with VRS companies. The reaction to VRS has frequently been negative on the part of agencies, organizations, and institutions trying to find interpreters despite the overall positive appreciation for VRS on the part of consumers who are Deaf.

The reality is there have always been interpreter shortages and money concerns about providing interpreting services. Interpreter shortages have always been an issue, especially in rural areas. Now, they are an issue in urban areas as well. VRS is not the enemy.

VRS companies, as a matter of fact, have gone a long way to develop initiatives and policies that are beneficial. In some parts of the country, companies such as Sorenson have used monies to speed up RID exam results. Some VRS companies have tried to build mentoring programs and increase the community interpreter pool. It is appropriate and important to shift the focus from a negative perspective to a positive approach for providing interpreting services.

A panel representing all four regions of PEPNet led a discussion that encouraged a positive perspective and approach to providing and funding interpreting services in this era of VRS. Knowledgeable resources were also present in the audience to share ideas and information that would help the panel do a thorough job of articulating creative recommendations.

Panelists included: Bambi Riehl, University of Wisconsin, Interpreter and PEPNet/MCPO Outreach; Jane Nunes, Massachusetts Site Coordinator, PEPNet/NETAC; Annette Leonard, PEPNet/WROCC Outreach Coordinator, Oregon, Idaho, Washington, Alaska, and Disability Services, Western Oregon University; Debra Brenner, Coordinator of Services for Students who are Deaf and Hard of Hearing, Georgia Perimeter College; and Katherine Bruni (Presentation Moderator/Facilitator), GA-SOTAC Outreach Specialist PEPNet/PEC and English Instructor to students who are Deaf and Hard of Hearing, Georgia Perimeter College.

There are no absolute answers to issues of interpreter shortages and funding issues, but there are some positive initiatives about how to find and fund interpreters that the panel and experts in the audience shared with others in our field.

In this session participants learned new strategies to address the critical need to find interpreters, gained information about creative ways to fund interpreting services, and were encouraged to share positive and creative solutions to address interpreting needs.

Six topics provided a framework for discussion: funding interpreting services, finding interpreters, communicating with administrators, remote services, considering other accommodation options, and legal considerations.

## **Funding Interpreting Services**

Some in-house ideas regarding the funding of interpreting services included hiring staff interpreters, hiring part-time interpreters, considering a different student fee structure, and billing other departments on campus.

Some institutions can save money by hiring staff interpreters, and that has been the experience at the University of Wisconsin. Bambi Riehl explained that staff interpreters are generally not paid for travel time, and they are not paid for mileage. Difficulties with interpreter availability may also be overcome by hiring staff interpreters. A national survey on interpreting salaries may assist programs in justifying staff interpreting positions on their campuses. The 2005 Survey of Postsecondary Interpreter Services: Salary and Program Demographics can be accessed on the MCPO web site <[http://www.mcpo.org/interp\\_survey.asp](http://www.mcpo.org/interp_survey.asp)>.

Riehl suggested that savings can be realized by:

...growing your own interpreters. Now, we are hiring those (interpreters) with fewer credentials with less experience, but we mentor them. Certified doesn't always mean qualified. We hire pre-certified interpreters and spur them on to more experience and skill.

Nunes and Brenner recommended splitting positions into part-time interpreting positions and offering benefits for part-time interpreters. It can be helpful to provide administrators a comparison of costs for contracting with free-lance interpreters and for providing part-time interpreting positions with benefits. Benefits are often attractive to an interpreter who has been working free-lance without benefits. Nunes explained, “I convinced my administrators that this is what I would have paid them (interpreters) if they were freelance. We can pay them a lower rate on salary because the benefits take up the rest of the slack. It became very effective to attract and keep interpreters.” Interpreters may also have other duties and not interpret every hour that they are working. Furthermore, Nunes recommended a flexible work schedule and “swing schedules” that are negotiable per the interpreter’s contract; this will also add flexibility in scheduling for the postsecondary disability services office.

Annette Leonard encouraged programs to investigate their student fee structure for clues about funding interpreting services. At Western Oregon University the group that makes the decision about how student fees are spent involves students, faculty, and staff. When considering funding for interpreting services for non-academic and extracurricular activities like sports, clubs, and residence hall events, it may be very helpful to request funds from student fees.

Leonard also suggested that it is sometimes appropriate to bill other departments outside the disability services office for interpreting services. As departments see how much interpreting services cost, they may set aside interpreting services as a line item in their budgets. It is important to work with the departments and educate them about appropriate accommodations and their costs so that students who are Deaf are accepted and welcomed into all campus activities. It is important to consider all funding options at one’s institution.

In addition to in-house solutions, statewide and institutional strategies for sharing resources must be considered. Some of these strategies include: system wide agreements, subcontracts between institutions, and sharing interpreter lists and contracts.

Agreements between Vocational Rehabilitation and postsecondary institutions can be very important, and they may also increase funding through opportunities to match and/or access additional funds. Kentucky has a strong VR and postsecondary partnership. Tricia Davis is the KY-SOTAC/PEC Coordinator and Grants and Projects Director for the Center on Deafness at Eastern Kentucky University. Davis is an excellent resource for establishing such partnerships.

System wide strategies may also be considered. In Georgia there is discussion about funding “following the student” within the Board of Regents system. The concept being discussed would enable any institution within the Board of Regents system to contribute to and then subsequently draw from a single, system wide funding source as funds are needed to provide interpreting services. Bonnie Martin, Director of the Center for Disability Services at Georgia Perimeter College, is trying to build this concept in her state.

Another strategy is to subcontract interpreters to neighbors. Riehl suggested, “You can think of people that you can partner with. Think about the campuses within 30 minutes of your campus and how you can share interpreters.”

Brenner emphasized the importance of sharing lists of interpreters and contact information even when one might be hesitant to do so because of interpreter shortages. Sharing between institutions may also be a more efficient use of interpreter resources; interpreters spend a lot of time traveling to assignments that could be spent interpreting if institutions shared resources for a more efficient system of scheduling. The sharing of resources and information about finding interpreters may also lead to a partnership or subcontract agreement with other institutions that could be beneficial to all with respect to funding interpreting services.



## Finding Interpreting Services

The RID website is one resource for finding interpreters; the web address is [www.rid.org](http://www.rid.org). RID has several databases that are searchable, and one is a database of members. This web site allows an individual to seek out interpreters and members by city and state. That doesn't mean that the person seeking an interpreter will necessarily always be able to identify interpreters with certification, but the site will give the person contact information for people in his or her area, and people seeking interpreters should check the site regularly. There is also information on the site that will help the individual make sure interpreters are maintaining their certification, and that's a great resource.

Offering creative incentives to interpreters may also be a way to find interpreters for one's campus. Jane Nunes suggested a number of creative incentives that have been helpful in securing interpreters in her state including: paid parking, tuition discounts for interpreters who may want to work on their degrees, fitness center discounts or privileges, free or reduced programs or courses perhaps through continuing education, free housing on campus, training opportunities, and opportunities to get critical diagnostic feedback to improve interpreting skills.

Nunes also recommended borrowing and bartering with other institutions, organizations, and agencies when unable to find an interpreter. It may be possible to find a staff interpreter who is not busy who may be "borrowed" and then reimburse that particular agency or place of employment. Postsecondary interpreters may indeed appreciate the opportunity to be "loaned" back into the community as a change of pace, and this has been the case at the University of Wisconsin. Thinking creatively about what interpreters might want or need in the community is a good way to begin a creative process to find interpreters.

Interpreter training programs are, of course, a great way to increase the number of interpreters in communities, but Debra Brenner offered that they may also be a great source for finding interpreters. Interpreters in training may already be fluent in ASL (a CODA for example) but may not have completed their formal education in interpreting.

Project Reach is an example of cooperative agreements that can help find interpreters and fund services. Riehl shared information about another presentation at the PEPNet Conference, "Schools Working Together to Meet Interpreting Needs: Three Successful Wisconsin Interpreting Subcontracting Projects." That presentation, which took place at the PEPNet Conference on April 7<sup>th</sup> at 3:30 PM, discussed three campuses and how they established partnerships in their areas of Wisconsin. Project Reach is a good example of how to collaborate from the bottom up and the top down for funding and finding solutions. Hopefully, an article will be published of that presentation in the PEPNet Proceedings of the Conference. Riehl is a good resource for more detailed information about Project Reach.

Mary Morrison, WROCC Coordinator and University of Montana Director, shared from the audience the collaborations and partnerships established in her state with Vocational Rehabilitation and with the public school system. Morrison is a particularly valuable resource to others in rural areas.

## Communicating with Administrators

If a disability services provider has some funding and finding ideas, then how does he or she convince the administration to accept creative solutions?

There are strategies to explain costs such as spreading costs over all students or dividing costs in terms of credits, GPA, or retention. "You have to show how expensive the service is, and

this requires crunching numbers to increase the budget in your area,” Nunes explained. She noted that there may be many creative ways to do this, including comparisons of GPA averages for students with disabilities (receiving accommodations) and GPAs for students without disabilities. Nunes introduced Bobbi Cordano in the audience as an excellent resource regarding creative strategies that address the costs of providing accommodations and explaining those costs to administrators. Cordano is the Director of Disability Services at the University of Minnesota.

Leonard further reminded presentation participants that:

...retention is on everyone's mind. The administration pays attention to this. Without accommodations appropriate to the student, retention tanks. Students with these services are more likely to stay in school. (We need to look) at the fact that by providing access and auxiliary aids, we are maintaining our numbers and furthering the retention of the college.

Disability services providers need to explain accommodations and their costs in terms that will help administrators define their value to the institution.

There are strategies for educating and networking with administrators. Leonard noted that:

PEPNet is a wonderful resource. I have told my VP and others above me my opinions, but if I refer them to PEPNet as well, they believe them! You should contact your local PEPNet person to help support (your creative recommendations.)

Statewide meetings to discuss interpreting service issues is a strategy that has been helpful in Massachusetts, and the meetings have gone a long way to educate administrators and to network to support creative ways to think about budget issues and to provide services.

Leonard suggested that it may also be helpful to share information with one's administration that will show them how many classes went uncovered (meaning no interpreters). This information may reflect the number of potential lawsuits.

The most important strategy, however, is to build relationships with the administration that are productive and positive. Listen to the needs and concerns of the administration. Take time to build relationships with individuals in administration, and seek their input and opinions.

## **Remote Services**

If a disability services provider says an interpreter can't be found, has he or she looked into the possibility of providing remote services?

Providing remote services means education and technology working together. It is also important to know about ongoing projects and resources and independent and private sector vendors.

The technology for providing remote interpreting services is not 100% effective in all areas and all situations and environments yet, but it cannot be dismissed as an option unless it has been tried. It is a marriage between technology people and educators. It is impossible to know if arrangements can be made for remote interpreting until one's own technology service providers have been consulted.

Riehl discussed the PantherCom Project and displayed a slide of the PantherCom studio on

her campus. She explained, “We have a program called Panther Communications. VR...gave us money to investigate remote services. We now have this studio and can occasionally provide these services. We are not doing much, but every once in a while when needed.”

Dr. Nanci Scheetz is also involved in research that uses remote technology for the provision of interpreting services, tutorial services, and teacher and interpreter education. Heading up the Teacher Training Program as well as the Interpreter Training Program at Valdosta State University in Valdosta, Georgia, Dr. Scheetz is another valuable resource.

Riehl encourages the field to be open to the use of remote technology for the delivery of services. She explained:

Two years ago when I came to PEPNet, people were talking about Video Remote Interpreting (VRI). Now there are agencies offering VRI. ...There was a press release on the Sorenson website that said only 10% of the VRS market has been tapped. The exponential change in the next 5 years (due to remote technology) will be incredible.

Nunes has compiled a list of vendors for VRI, Video Remote Interpreting, and VRS, Video Remote Services. This list is available as final slides on the PowerPoint of this presentation and should be available on the PEPNet website: <[www.PEPNet.org](http://www.PEPNet.org)>. The PowerPoint presentation, with the list of vendors, is also available on the following web site: <<http://dss.jsu.edu/pp/rooting.pps>>. This list is forever changing; one should use it as a resource that is not necessarily endorsed by PEPNet or the members of this panel. Users of this list should update it frequently for their individual use. Some of the vendors on the list, SLA, for example, may also be able to provide services in other languages in addition to English and ASL.

### **Considering Other Accommodations**

As decisions are made about appropriate accommodations on a case by case, individual by individual basis, it is important to consider all accommodations. There are a number of text accommodation options including: stenography – CART, C-Print, Typewell, instant messaging, text messaging (pagers), and captioned conference calls. When considering these text accommodation options, it is important to understand that English fluency is a factor that must be considered when determining whether or not these accommodations are appropriate options. A text accommodation cannot just summarily be substituted for interpreting services. Furthermore, the situation, the environment, the student or client, and the duration of communication all should be considered when determining appropriate and creative use of these options. Some of these options may not be employed for primary access but rather for “behind the scenes” accommodations to facilitate communication in select situations.

### **Legal Considerations**

FCC regulations and “getting one’s legal house in order” are two important topics. It is important to remember that Video Remote Services (VRS) and Video Remote Interpreting (VRI) may use the same or similar technology, but they are different services in their application. VRI is a fee based service, which can be billed by increments of time. VRS is regulated by the FCC. This is the service that a portion of phone bills supports. Society pays for VRS in advance each

month with its phone bills. That means, Leonard reminds us, “We are abusing the services if we are in the same room having a conversation (using VRS.)” VRS is not an option for the classroom when the instructor and student are both in the room; it cannot be used to provide that kind of accommodation. VRS could, however, be used for a student to meet with and confer with an instructor over the phone. VRI, on the other hand, is indeed used to provide an accommodation in the classroom where an interpreter is assigned to interpret for the class but is just in a different location using remote technology to make that accommodation possible.

It may be important in the times ahead to be informed about FCC regulations and responsive to FCC requests for information as disability service providers address issues that may impact availability and costs of interpreting services.

Leonard further emphasized that documentation is imperative when “getting your legal house in order.” David Ladou, a speaker at the PEPNet Conference, addressed this issue expertly. If a service provider is not able to find an interpreter, he or she should document thoroughly all the ways that were explored to provide interpreting services (including through remote technology).

Leonard stressed creative strategies that were discussed during the presentation as she emphasized that:

Access is a campus wide issue. That's not the responsibility of the office of disability services, but the whole institution. When we think about how to communicate with administrators, we need to be inclusive, including people who are Deaf and Hard of Hearing. When I say you make departments financially responsible, you need to spread access across the whole university.

Nunes shared a strategy that has been effective in her state. As a former Director of Deaf Services, she established an advisory board for the Deaf and Hard of Hearing Services. As she explained:

The advisory board established, and then partnered with, a campus wide access committee. The membership of that committee had direct access to all vice presidents on campus. The access committee convinced the director of facilities, the 504 compliance officer, and a person from academic services to join the committee. It became a powerful and successful committee. I (now) go in as a consultant, and I could not have accomplished many things we did without having the power of the committee.

VRS companies are expanding our infrastructure, providing a much needed service to the Deaf and Hard of Hearing communities, and creating new opportunities for freelance interpreters. VRS companies are not the enemy but a challenge that is a catalyst for a new era. We must be creative and diligent in meeting the challenges to find and fund interpreters, to develop and utilize remote services, to communicate effectively with administrators, to consider all possible accommodation options, and to attend to necessary legal considerations at our institutions.

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# More Than Words on the Screen

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Captioned Media Program

## Abstract

It is well known that captions are crucial to anyone with a hearing loss. It has also been shown that captions benefit all students in retaining information more efficiently. However, the reality is that less than 10% of all educational videos contain captions. It is important for education institutions to be well versed in captioning options. There are resources for obtaining captioned versions of some media, but there may also be a need to add captions if there is not already a captioned version. All media produced by a college or university should be captioned during the production. Commercial media can be captioned, post production, with permission from the copyright holder. The process of adding captions can be costly and time consuming but the benefits to the students far outweigh the difficulties.



Captions are crucial to students who have a hearing loss. In addition all students can benefit from captions by using multiple sensory input. However, less than 10% of all educational media is captioned. Educational productions are usually produced on a much smaller budget than Hollywood productions and captions are not a priority. So it is left up to individual institutions serving deaf and hard of hearing students to try and make these materials accessible.

Some institutions may try to provide accessibility through an interpreter. However, this option does not fully provide real-time access. Dr. Malcolm J. Norwood, “the Father of Closed Captioning”, himself deaf and a certified teacher, conducted research in 1978 comparing the effectiveness of two modes: print (captions) and sign language (interpreter). His findings, reported in his dissertation entitled “Comparison of an Interpreted and Captioned Newscast Among Deaf High School Graduates and Deaf College Graduates,” confirmed earlier research that deaf persons receive significantly more information from captions than from a sign language interpreter.

Another method being used to try and make uncaptioned media accessible is a written transcript. This does satisfy the letter of the law because a simple definition of captioning is the text version of the spoken word. But again it does not provide full access because it is important that sound effects, speaker identification, and music also be included in the text. In addition effective captions are synchronized (appear at approximately the same time as the audio is available), equivalent (content in captions should be equal to that of the spoken word), and accessible (readily available to those who need them).

These components provide true access for those who cannot hear the audio. However, research has determined that it also benefits many who can hear, including those who are not

fluent in the language in which the audio is presented and individuals with learning or reading difficulties.

Laws such as the ADA and Sections 504 and 508 for the Rehabilitation Act require that access to information be provided to individuals with disabilities. In recent years, and with the help of several important law suits, more and more colleges and universities have begun to be diligent in their attempts at providing captioned materials.

When schools produce their own media such as promotional videos or recordings of classroom lectures it is important to remember that captioning should occur during the production stage. Captions may not fit in naturally if they are added in later. In addition, for DVD and CD media, captions are included at the design/authoring stage and become a part of the digital information on the disc. Once the disc has been created (burned), there is no way to add the captioning. The original programmer (or author) of the disc would have to add captions and burn a new disc. While many school AV and media departments are beginning to deemphasize the VHS format, many instructors still have personal classroom video collections. For this reason, there may still be a need for a system that will caption VHS as well as digital media.

Digital media is the easiest to caption since additional hardware is not required as it is with VHS. The main programs used to display media on the computer are QuickTime, Windows Media Player, and Real Player. Each has a built-in function for displaying captions. All that is needed is a time-coded transcript. MAGpie is a free software that can do this. It is time consuming, but not too difficult to use.

Schools should know that commercially produced media is normally copyrighted, and copyrighted material cannot be altered or produced in a different format without permission. Adding captions alters a video, and even digitizing a VHS video is changing the format. Therefore, written consent from the producer is a must. At this time there are no exceptions under the Fair Use provision even for educational institutions.

However, the first step should always be to locate a captioned version if possible. Two resources to help determine if media is already captioned are: R.R. Bowker LLC (888-269-5372 (V), <http://www.bowker.com/>) and the Captioned Media Program (<http://www.captionedmedia.org/>). R.R. Bowker maintains a database of commercially produced captioned media produced in the U.S. The Captioned Media Program is a free loan library of open captioned media for individuals with a hearing loss and professionals in the field of hearing loss. Both can provide databases of accessible media. If you already own an uncaptioned version of a video and find that a captioned version is available, try negotiating an exchange with the producer even if an exchange fee is required.

While all media used in the classroom should be accessible, the reality is that everyone has to maximize use of resources. Because captioning is expensive and time consuming, schools will need to develop a process for prioritizing what is captioned. The following questions can help in prioritizing media.

- How current is the media?
- What is the life span of the media?
- How often is it used?
- How many faculty use this title?
- How often do students with a hearing loss take this class?

Once the media has been selected then the process is to create a transcript, perform line divisions, and then to add the captions. The captions are only as good as the transcript they come from. The transcript should be verbatim with correct spelling, capitalization, and grammar. It should follow all standard rules for punctuation as well as the unique rules which apply to captioning. All essential sound effects should be included, either in words or symbols (e.g., “buzz” or 🎵). Once an accurate transcript is obtained then the text has to be broken into sentences, and then the sentences must be sub-divided into captions. Then a text file is prepared for digital media or a VHS tape can be closed captioned through the use of special software and hardware.

The transcript and line division process can be the most difficult and time consuming. Since translating speech to text is not easy, as spoken language is generally very different from conventional written text. Spoken language sometimes appears improperly constructed when put into written form and can be difficult to punctuate.

Equal access demands a verbatim transcript that adheres to high standards. It is very important to apply captioning grammar and presentation rules, such as those presented in the Captioned Media Program’s “Captioning Key: Guidelines and Preferred Techniques.” (<http://www.captionedmedia.org>) These rules include:

1. Spelling and capitalization should be accurate through checks made by utilization of high-quality general dictionaries, specialized dictionaries, and encyclopedias. All proper nouns should be verified.
2. Grammar and punctuation rules from standard grammatical style guides and reference manuals are followed when possible. However, acceptable and understandable speech may consist of broken sentences, incomplete sentences, run-on sentences, and other constructions normally considered not acceptable when originated as written language. Transcription of these speech constructions into text sometimes requires use of punctuation that is unique to the captioning process and style guides. Punctuation should make captions as easy as possible for viewers to read.

It is not necessary to repeat, in caption form, any information that is already on the screen (such as the name of a presenter or temperatures read out in a weather report), assuming that such information is not obscured by inappropriately positioned captions.

There are several different ways of obtaining a transcript. Some schools have speech-to-text services established for their students who are deaf or hard of hearing. These service providers can be contracted to produce a transcript. One factor to consider is how much time the transcription will require and does the service provider have the time in addition to their classroom hours. Also, remember that your in-house people probably lack training in creating appropriate and accurate verbatim transcripts for captions. While they may cost less per hour they may require more time to complete the project.

Hiring a professional service is another option. There are several commercial transcription services in the United States. Many serve individuals needing one-time services as well as very large companies. While commercial services may charge high fees they should have the training to produce quick and accurate transcripts. The final difference in cost between in-house and commercial services may not be as great as they appear at first glance. The following are a few of the services available:

- Via Communications - <[www.viacommunications.com](http://www.viacommunications.com)>
- Closed Caption Maker - <[www.ccmaker.com/](http://www.ccmaker.com/)>
- Casting Words - <[www.castingwords.com](http://www.castingwords.com)>



- Escriptionists - <[www.escriptionist.com/](http://www.escriptionist.com/)>
- Production Transcripts - <[www.productiontranscripts.com/](http://www.productiontranscripts.com/)>

Some companies charge per page or per hour of labor, leaving you to guess how much your bill will be after they've completed the work. Others charge based on the length of the recorded audio submitted. There may also be additional fees for poor audio quality, multiple speakers, and strong accents. You should be sure to discuss your expectations and theirs before deciding on which service to use.

At this point it is time to look at the various captioning systems available. When buying a system these are some of the questions to ask:

- What type of captions are displayed? (Pop on or roll up?)
- With what type of media will this program work?
- How are the line divisions created?

When purchasing software one should first clearly define what the needs are and what formats will be required. Some of the more inexpensive systems only create roll up captions because they are easier to produce. However, the preferred format is pop on thus captioning abilities should not be limited just to save a few dollars. Another consideration is the type of media the system is compatible with. While the world is moving to digital formats there are still many campuses with VHS tapes in use. In this case a school can either purchase equipment to convert VHS to digital format or purchase a system that works with the data for Line 21.

Some systems will automate parts of the captioning process. Some software will automatically create line division based on parameters which are set by the user. If this is the case does the software then allow for editing? While technology is wonderful it is not a replacement for the human brain. The captions will still need to be proofed to be sure that they follow standard guidelines.

There are several closed-captioning equipment and software vendors, including:

- Computer Prompting and Captioning Co. (CPC) [www.cpcweb.com/](http://www.cpcweb.com/)
- Image Logic® <[www.imagelogic.com/](http://www.imagelogic.com/)>
- CCMaker <[www.ccmaker.com/](http://www.ccmaker.com/)>
- Rapidtext <[www.rapidtext.com/index.html](http://www.rapidtext.com/index.html)>

Company	Software	Cost	Peripheral Equipment	Cost	Training	Tech Support	Total Cost
Computer Prompting and Captioning Co. (CPC)	CPC-700	\$4,995	Time Code Generator Time Code Reader Video Display Device Encoder (OC/CC)	\$325 \$315 \$75 \$1,200	User-Friendly	5 free hours for first year; can purchase additional hours	\$6,910
Computer Prompting and Captioning Co. (CPC)	CPC-600	\$2,995	Video Display Device Encoder (OC/CC)	\$75 \$1,200	User-Friendly	5 free hours for first year; can purchase additional	\$4,270

						hours	
Image Logic®	AutoCaption II	\$8,000	Time Encoder (Generator & Reader) Line 21 Encoder Deck (2)	\$2,300 \$2,800 \$200	Software is similar to Windows and Word—Should be user-friendly	Offers 30 days of free support	\$13,500
CCMaker	OCMaker	\$3,000			User-friendly; able to learn in 4 hours	Free unlimited tech support	\$3,000
CCMaker	AddrollupCC	\$3,000			User-friendly; able to learn in 4 hours	Free unlimited tech support	\$3,000

The above chart provides cost comparisons, technical support availability, and comments about training. This is not meant to be a comprehensive list of systems but an overview of the variance in price and services.

Two digital software programs for creating captions from “scratch” are: MAGpie and Hi-Caption. MAGpie can be downloaded from <http://ncam.wgbh.org/webaccess/magpie/> for free. Hi-Caption can be purchased at <http://www.hisoftware.com/hmcc/index.html> for between \$400 and \$500.

MAGpie (Media Access Generator) was developed by the CPB/WGBH National Center for Accessible Media (NCAM) to make Web- and CD-ROM-based multimedia accessible to people with disabilities. It allows someone with minimal training to add captions and/or audio descriptions to video files that will be viewed over the web or on a CD-ROM which can be viewed using Microsoft Media Player, Real Player or QuickTime.

Although MAGpie may have its quirks, it's very easy to use and can be learned in a very short amount of time. At the outset, some people may feel intimidated and sure that they never could master it. But once they actually have their hands on the keyboard and start the process, they'll realize how easy it is and have fun. A free training kit is available to provide you with all the tools necessary to conduct a training or workshop on adding captions using MAGpie 2. (This is not a self-tutorial; it assumes you already know how to use MAGpie and want to train others in its use. If you are looking for a resource to teach yourself how to use MAGpie, see “Resources” at the end of the Trainer Manual).

Hi-Caption is relatively inexpensive software that also allows you to add captions to Web- and CD-ROM-based multimedia. Some may find the interface more user friendly than MAGpie, which is bare bones software. Hi-Caption has a few more bells and whistles and can speed the process along for the user.

Some additional pieces of software which may be useful are Caption Keeper and Amazing Slow Downer.

- CaptionKeeper
  - Retains closed captions when converting VHS to digital
  - <http://ncam.wgbh.org/webaccess/captionkeeper/>
  - Large organizations (over 100 employees) \$5,000
  - Non-profit large organizations \$2,500
  - Small organizations (under 100 employees) \$1000
  - Non-profit small organizations \$500
- Amazing Slow Downer
  - Slows digital audio without distorting clarity
  - <http://www.ronimusic.com/slowdown.htm>
  - \$44.95

CaptionKeeper is an additional piece of software you will want if you are converting a VHS tape with line 21 closed captions to digital format. Normally the closed captions are not transferred to the new digital media. This software allows you to convert the captions so that they are not lost in the new digital format.

Amazing Slow Downer is a piece of software which allows you to slow down digital audio files. This is very useful when you are transcribing audio files to produce a transcript. Normally you would need to repeatedly stop the audio, back up, listen again, etc. This software slows down the audio without distorting the sound quality so that the person transcribing the audio will not need to stop and restart. Some captioning software packages may come with a similar piece of software. If you are purchasing a system be sure to ask what additional features/options are available.

When considering producing in-house captions one area that should not be over looked is the investment in time and personnel. For a 30 minute video the following are approximate times for each step of the process:

- 3–4 hours to transcribe
- 3–4 hours to digitize
- 2–3 hours to do line breaks
- 2–3 hours to sync the captions to the audio
- 10–14 hours total

The time investment is significant, but the benefits will be enormous for all students and faculty.

For additional information a power point presentation of this information can be found at:  
<http://dss.jsu.edu/pp/wordsonscreen.ppt>

### **.How to cite this article**

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# Online Resources Available From the 2005 NTID Instructional Technology Symposium

Paper Presented at PEPNet 2006 Conference, Louisville, KY  
April 6, 2006



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## Program Abstract

The International Symposium on Instructional Technology and Education of the Deaf was held at NTID June 27- 30, 2005. The symposium offerings included presentations by 44 speakers, two plenary addresses, 24 poster sessions, and 10 exhibits. A major goal of the Symposium was to make information presented available on the Symposium Web Site (<http://www.rit.edu/~techsym>) for worldwide dissemination. Each presentation and poster summary, as well as abstract is available on the WWW, as are complete papers. Presentation media can also be viewed, along with the captions generated during each presentation. A captioned video presentation of each plenary and concurrent session also are available. This presentation will review the highlights of the 2005 Symposium, with emphasis on accessing resources from the WWW.

## Contents

- 1) Two Page Summary of Symposium  
<http://www.rit.edu/~techsym/2005rpt.pdf>
- 2) Overall Symposium Evaluation Report  
[http://www.rit.edu/~techsym/Overall\\_Symposium\\_Eval\\_05.pdf](http://www.rit.edu/~techsym/Overall_Symposium_Eval_05.pdf)
- 3) How to Access Resources From Symposium Web Site  
<http://www.rit.edu/~techsym/2003/howtouse.pdf>
- 4) Handouts  
<http://www.pen.ntid.rit.edu/ewc/pepnet06/2005symhnd.pdf>



## Instructional Technology and Education of the Deaf:

### Supporting Learners, K-College

An International Symposium – June 25 – July 1, 2005

<http://www.rit.edu/~techsym>

The National Technical Institute for the Deaf (NTID) co-hosted, with The Nippon Foundation of Japan and PEN-International, an international symposium entitled, “Instructional Technology and Education of the Deaf: Supporting Learners, K-College” June 27 – July 1, 2005, on the campus of Rochester Institute of Technology (RIT) in Rochester, New York. The primary goal of the Symposium was to provide a forum, for educators supporting deaf and hard-of-hearing students, to disseminate information relative to current and future innovations and developments in the use of educational media and technology within the teaching and learning process.

A total of 230 teachers, administrators, and technologists representing 17 countries attended the Symposium. The Symposium consisted of two plenary addresses, 44 concurrent presentations, 24 poster sessions, and eight commercial exhibits. In addition, 10 post-symposium workshops were offered to provide participants with a hands-on opportunity to develop skills in the application of instructional technologies.

On Monday, June 27, 2005, Judith E. Heumann, Advisor, Disability and Development at The World Bank opened the Symposium as the first plenary speaker. On Wednesday morning, June 29, 2005, Markku Jokinen, President of the World Federation of the Deaf, addressed the Symposium as the concluding plenary speaker.

The presentations that were rated most favorably included:

- “Technology Integration in the K-12 Classroom” (T11A)
- “BSL Tuition in the Hands of Deaf People – a BSL Academy” (T10C)
- “Creating a Book-on-Demand: Publishing a Workshop Planner’s Guide for Promoting Classroom Access” (T9A)
- “Technology in the ASL/English Bilingual Classroom” (T10A)
- “Achieving Goals! Career Stories of Individuals Who are Deaf or Hard of Hearing” (W10C)
- “I Can SEE What You HEAR!” (T10D)

*“It’s been my new inspiration and motivation.”*

*2005 Symposium Participant*

*“I thought the selection of topics matched my interests and needs best of all.”*

*2005 Symposium Participant*

*“The presenter provided me with a wealth of information that I am excited about using in my classroom! This presentation was wonderful!”*

*2005 Symposium Participant*

*“Congratulations for the excellent symposium. It was excellent in every aspect (organization, content, speakers, exhibitions, hospitality). I’m so glad I participated. I learned a lot and I had the opportunity to meet and talk to many good people.”*

*2005 Symposium Participant*

## Photographs of Symposium

Any of these photographs can be made available in high resolution for use in publications.

- a. Monday  
<http://www.pen.ntid.rit.edu/images/techsym05/M/index.htm>
- b. Tuesday  
<http://www.pen.ntid.rit.edu/images/techsym05/T/index.htm>
- c. Wednesday  
<http://www.pen.ntid.rit.edu/images/techsym05/W/index.htm>
- d. Workshops (and Lunch)  
<http://www.pen.ntid.rit.edu/images/techsym05/WS/index.htm>

## For Additional Information

An *Overall Symposium Evaluation Summary* ([http://www.rit.edu/~techsym/Overall\\_Symposium\\_Eval\\_05.pdf](http://www.rit.edu/~techsym/Overall_Symposium_Eval_05.pdf)) provides a brief background of the Symposium goals, participant backgrounds and analysis of responses to the Overall Symposium Evaluation submitted by attendees. A separate *Exhibitor Evaluation Summary* is available at <http://www.rit.edu/~techsym/exhibeval05.pdf>.

The complete Symposium schedule of two Plenary Addresses, 44 Formal Presentations and 24 Poster sessions is available at: <http://www.rit.edu/~techsym/schedule.html>. From this site, it is possible to link to full descriptions, presentation materials, handouts, video and caption displays of every session at the Symposium.

Program Book (<http://www.rit.edu/~techsym/pb05.pdf>)

Abstracts of Presentations and Posters (<http://www.rit.edu/~techsym/abs05.pdf>)

To learn how to access the 2005 and 2003 schedules and online resources, read "How to Access Symposium Presentation Resources on the WWW" (<http://www.rit.edu/~techsym/2003/howtouse.pdf>). This document describes how to view, online, all presentation summaries, abstracts, media files, captions and video files.

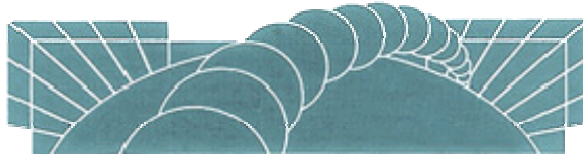
The "Program at a Glance" which includes a list of presentation titles, first authors, date/time of presentation or poster, along with a schedule of events for the Symposium, can be downloaded at: ([http://www.rit.edu/~techsym/pag\\_05.pdf](http://www.rit.edu/~techsym/pag_05.pdf))

At the conclusion of the symposium, a "culminating luncheon" was held among symposium participants. The goals of this session were to foster reflection regarding symposium proceedings, and stimulate collective speculation regarding future potential for instructional technology in deaf education and what barriers are likely to hinder the realization of the optimal implementation of technology. The following notes attempt to capture the rich discussions that ensued. (<http://www.rit.edu/~techsym/CullLunchSum.pdf>)

## Contact

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Technology Symposium: <http://www.rit.edu/~techsym>

# Instructional Technology and Education of the Deaf



Supporting Learners, K – College  
An International Symposium

Sponsored by National Technical Institute for the Deaf at Rochester Institute of Technology  
The Nippon Foundation of Japan and PEN-International  
June 27 – July 1, 2005

<http://www.rit.edu/~techsym>

## Overall Symposium Evaluation Summary

### Executive Summary

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The National Technical Institute for the Deaf (NTID) co-hosted, with The Nippon Foundation of Japan and PEN-International, an international symposium entitled “Instructional Technology and Education of the Deaf: Supporting Learners, K-College” June 27 – July 1, 2005, on the campus of Rochester Institute of Technology (RIT) in Rochester, New York. The primary goal of the Symposium was to provide a forum, for educators supporting deaf and hard-of-hearing students, to disseminate information relative to current and future innovations and developments in the use of educational media and technology within the teaching and learning process.

A total of 230 teachers, administrators, technologists, and researchers representing 17 countries attended the Symposium. The Symposium consisted of two plenary addresses, 44 formal concurrent presentations, 24 poster sessions, and eight commercial exhibits. Of the formal concurrent presentations, most (32 out of 44) of the topics related to all audiences, eight specifically targeted participants affiliated with K-12, and four targeted participants affiliated with deaf and hard-of-hearing stu-



**Judith E. Heumann**  
Advisor, Disability and Development at  
The World Bank, Opened Symposium  
as First Plenary Speaker



**Markku Jokinen**  
President of the World Federation of the Deaf,  
Addressed Symposium as Concluding Plenary Speaker

dents at the college level only. In addition, 10 post-symposium workshops were offered to provide a hands-on opportunity for participants to develop skills in the application of instructional technologies.

On Monday, June 27, 2005, Judith E. Heumann, Advisor, Disability and Development at The World Bank, opened the Symposium as the first plenary speaker. Ms. Heumann spoke to Symposium participants about the technological advances benefiting individuals with disabilities. On Wednesday, June 29, 2005, Markku Jokinen, President of the World Federation of the Deaf, addressed the Symposium as the concluding plenary speaker. Mr. Jokinen's speech focused on the current impact of instructional technology and how to position oneself appropriately for the future.





**Rosemary Stifter of Laurent Clerc NDEC Presents "Technology in the ASL/English Bilingual Classroom," One of the Highest Rated Sessions at the Symposium**

(V/TTY).

The Symposium was extremely successful. Almost all (97%) participants rated the Symposium either excellent (70%) or good (27%). Similarly, 97% of participants rated the strategies for supporting communication (interpreting, captions) very favorably (84% excellent, 13% good).

Satisfaction levels were consistently high among all of the attributes relating to the Symposium. Eight out of the 10 attributes were rated 90% or higher. Participants were most satisfied with the attributes relating to NTID facilities, distribution of information prior to the Symposium, food service, variety and quality of formal concurrent presentations, and the Symposium being a valuable resource and offering information and strategies that met overall needs.

Networking with colleagues from different nations played a very important role in the success of the Symposium. Many participants mentioned the variety of people from different countries when asked what they liked most about their overall Symposium experience. Many other participants felt the whole Symposium was very well organized and enjoyable, the selection of topics ideal, and the introduction to practical technological information that can be implemented immediately to be invaluable.

Most participants said they plan to share, recommend, or integrate the new information/technology learned at the Symposium at their worksite. Many others said they will further investigate ideas and strategies for possible implementation. Several participants mentioned having a renewed sense of inspiration and motivation to teach as a result of attending the Symposium.



**James Mallory of NTID/RIT, Presents "SnagIt" Post-Symposium Workshop**



**Zhong Zhanguo of Changchun University Presents "Doing Math with PEN-International" Poster Session**

An additional goal of the Symposium was to make the information presented available on its wWeb site for worldwide dissemination. Each presentation, poster summary, and abstract was posted on the Web site as well as entire papers, PowerPoint slide shows, and captioned video presentations. Complete symWposium information and program details can be found at <http://www.rit.edu/~techsym>.

In an effort to continuously improve the Symposium, the sponsors, -- the National Technical Institute for the Deaf at Rochester Institute of Technology, The Nippon Foundation of Japan and PEN-International, -- conducted various evaluations to assess participants' experiences. This report summarizes the Overall Sympo-

sium Evaluation results only. Separate evaluation summaries have been generated for the Formal Concurrent Presentations and the Post-Symposium Workshops. The evaluation results are extremely favorable within all areas. These additional summary reports are available upon request by contacting E. William Clymer, Chairperson Technology Symposium, [techsym@rit.edu](mailto:techsym@rit.edu), 585-475-6894



The formal concurrent presentations that were rated most favorably include:

- “Technology Integration in the K-12 Classroom” (T11A)
- “BSL Tuition in the Hands of Deaf People – a BSL Academy” (T10C)
- “Creating a Book-on-Demand: Publishing a Workshop Planner’s Guide for Promoting Classroom Access” (T9A)
- “Technology in the ASL/English Bilingual Classroom” (T10A)
- “Achieving Goals! Career Stories of Individuals Who are Deaf or Hard of Hearing” (W10C)
- “I Can SEE What You HEAR” (T10D)

More than 80% of all participants attending these sessions rated them as excellent. An overview of each of these highly rated presentations are provided below.

### **Technology Integration in the K-12 Classroom (T11A)**

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**Mari Liles**

**Texas School for the Deaf**

**Email:** [mari.liles@tsd.state.tx.us](mailto:mari.liles@tsd.state.tx.us)

**Date:** Tuesday, 6/28/05 – 11:00 AM

**Location:** LBJ (060) Panara Theatre

**Strand:** Using Technology to Support Learning

**Audience:** All

**Summary:** Students and teachers at Texas School for the Deaf are integrating technology into every aspect of the curriculum. Come see how our students and teachers are using electronic whiteboards (ACTIVBoards), document cameras (Elmos), laptops, digital cameras, various software applications and more to enhance and inspire learning.



(<http://www.rit.edu/~techsym/detail.html#T11A>)

### **BSL Tuition in the Hands of Deaf People – a BSL Academy (T10C)**

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**A. Clark Denmark**

**University of Bristol**

**Email:** [a.c.denmark@bristol.ac.uk](mailto:a.c.denmark@bristol.ac.uk)

**Co-presenter:** Tim Rarus

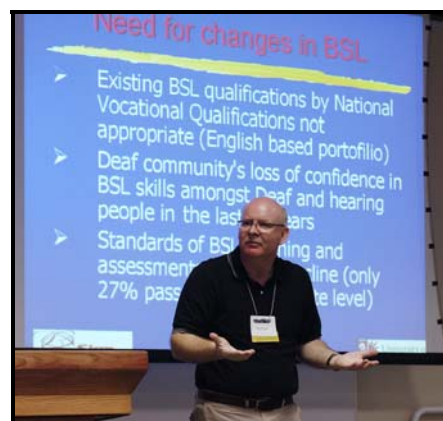
**Date:** Tuesday, 6/28/05 – 10:00 AM

**Location:** LBJ (060) 2590

**Strand:** Online and Distance Education

**Audience:** All

**Summary:** A Proposal from the British Deaf Association for training to establish a United Kingdom wide framework to support the Recruitment, Training and Deployment of British Sign Language Tutors, which will enhance their numbers, status and levels of Qualification through Distance Learning.



(<http://www.rit.edu/~techsym/detail.html#T10C>)

## **Creating a Book-on-Demand: Publishing a Workshop Planner's Guide for Promoting Classroom Access (T9A)**

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**Donald Beil**

**NTID/RIT**

**Email:** [don.beil@rit.edu](mailto:don.beil@rit.edu)

**Co-presenters:** Alan Cutcliffe, Susan Foster,  
Gary L. Long, Marsha Young

**Date:** Tuesday, 6/28/05 – 9:00 AM

**Location:** LBJ (060) Panara Theatre

**Strand:** Using Technology to Support Learning

**Audience:** All

**Summary:** This session describes the experiences of Project Access, which promotes access for deaf/hard-of-hearing students, in creating a book-on-demand on leading workshops that promote access. The processes of creating source material, designing pages, and working with an on-line publisher to catalog and print books one at a time as needed will be described.

(<http://www.rit.edu/~techsym/detail.html#T9A>)



## **Technology in the ASL/English Bilingual Classroom (T10A)**

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**Rosemary Stifter**

**Laurent Clerc National Deaf Education Center**

**Email:** [rosemary.stifter@gallaudet.edu](mailto:rosemary.stifter@gallaudet.edu)

**Date:** Tuesday, 6/28/05 – 10:00 AM

**Location:** LBJ (060) Panara Theatre

**Strand:** Using Technology to Support Learning

**Audience:** K-12

**Summary:** Our goal is to create an ASL/English bilingual classroom using technology to enhance social and academic proficiency in both languages. Examples of technology use will be provided to reflect the interactions between two languages and how students benefit from hands on experiences and visual learning in a linguistically rich environment.

(<http://www.rit.edu/~techsym/detail.html#T10A>)



## **Achieving Goals! Career Stories of Individuals Who are Deaf or Hard of Hearing (W10C)**

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**Pat Billies**

**NTID/RIT**

**Email:** [pabnca@rit.edu](mailto:pabnca@rit.edu)

**Co-presenter:** Regina Kiperman-Kiselgof

**Date:** Wednesday, 6/29/05 – 10:00 AM

**Location:** LBJ (060) 2590

**Strand:** Online and Distance Education

**Audience:** All

**Summary:** Come and view the multi- award winning video and Web site project, providing strong role models that influence the aspirations of young students who are deaf or hard of hearing! Newly released video features individuals working with computers!

(<http://www.rit.edu/~techsym/detail.html#W10C>)



## I CAN See What You HEAR! (T10D)

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**Pat Billies**

**NTID/RIT**

**Email:** [pabnca@rit.edu](mailto:pabnca@rit.edu)

**Co-presenter:** Marcia Kolvitz

**Date:** Tuesday, 6/28/05 – 10:00 AM

**Location:** LBJ (060) 3237

**Strand:** Using Technology to Support Learning

**Audience:** All

**Summary:** Exciting new technologies make it easier for deaf and hard-of-hearing students to access classroom as well as co-curricular activities! This presentation will look beyond traditional interpreting and notetaking. We'll introduce you to various systems of speech-to-print technologies for classroom access, both live and remote: Realtime Captioning and C-Print. Video remote interpreting will also be discussed as an option to traditional "live" interpreting. Innovative wireless technologies such as video relay interpreting and Internet-based systems will also be discussed.



(<http://www.rit.edu/~techsym/detail.html#T10D>)

## Methodology

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### *Evaluation Design*

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The evaluation instrument consisted of 19 questions. The types of questions included rating scale, open-ended, and classification questions. Rating scale questions were based on a 5-point scale ranging from "strongly agree" to "strongly disagree" or a 4-point scale ranging from "excellent" to "poor."

Respondents were asked, in open-ended format, what they like most about the Symposium, suggestions for improving the Symposium, and what changes they intend to make at their worksite as a result of their experiences.

A copy of the evaluation form can be viewed at <http://www.rit.edu/~techsym>.

### *Sampling*

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The evaluation was conducted using a self-administered methodology. The Overall Symposium Evaluation form was included in the set of materials distributed to all participants at registration and also available online. Participants were reminded during the closing luncheon to complete the Overall Symposium Evaluation and return the completed survey to the registration desk. A handful of evaluations were submitted electronically. Evaluations were accepted through August 7, 2005.

All 230 participants had the opportunity to complete an Overall Symposium Evaluation. Of the 230 participants, a total of 31 evaluations were completed resulting in a 14% response rate and a



**Registration Desk**

$\pm 16\%$  margin of error in estimated values in the participant population (based on the finite population correction factor at the 95% confidence level). Although the return rate is low, it is fairly consistent with the response rate from the 2001 Technology Symposium (18%). Decisions that were made based on the 2001 data were proven to be accurate and extremely beneficial.

## ***Analysis***

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Data obtained from the evaluation forms were tabulated for the entire sample, as well as broken down by curriculum level affiliation (K-12, Postsecondary, Other) and job function (Teacher, Administrator, Technologist, Researcher). Differences between demographic categories were considered statistically significant when p-values (or attained-significance levels) are equal to or less than 0.05. SPSS software was used to compile the data.

Most of the findings are presented using percentages. For all rating scale questions, the total responding to the question was used as the percentage base. For most other types of questions, the total sample was used to compute percentages. The percentages for individual response categories do not always add up to 100%. This results from either rounding factors, a small percentage of no answers, or multiple responses provided by participants.

In addition, all open-ended questions were coded in an effort to quantify responses. The actual verbatim responses are included at the end of the summary report.



**Symposium participants visiting exhibits at their leisure.**



## Demographic Profile of Participants

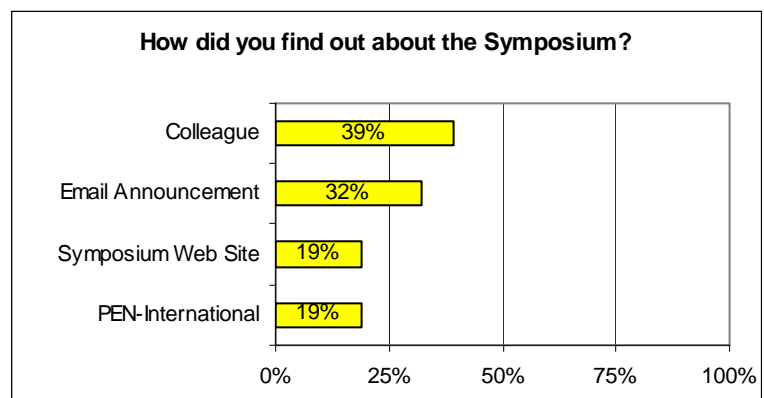
The demographic profiles of participants are provided below. The demographic variables captured from participants that completed the Overall Symposium Evaluation were comparable to the demographic variables of all Symposium registrants provided by PEN-International. One-third (33%) of all Symposium participants met the early registration deadline. Fourteen individuals took advantage of a 10% discount in registration fees by participating in two conferences: the Technology Symposium and the Literacy in the English Classroom and Beyond Conference that was held at NTID a few days prior to the Technology Symposium. Thirty-eight percent (38%) of the participants presented material at the Symposium, and 14% of participants requested a sign language interpreter.

NTID/RIT faculty and staff conducted 15 out of the 44 concurrent sessions (34%) and 7 out of the 24 poster sessions (29%). PEN-International partners and associates conducted 1 concurrent session (2%) and 9 poster sessions (38%).

Participants represented 93 different organizations from 17 countries, including Russia, China, Japan, Thailand, Philippines, Canada, Finland, Greece, Italy, Korea, United Kingdom, Czech Republic, Denmark, Hong Kong, Norway, Viet Nam, and the United States.

Demographic Profile of Participants Symposium Registrant Population vs. Overall Symposium Evaluation Sample		
	Symposium Registrant Population	Overall Symposium Evaluation Sample
Curriculum Level Affiliation		
Postsecondary	33%	68%
K-12	14%	16%
Other	53%	24%
Job Function		
Teaching Faculty	32%	52%
Administrator	15%	35%
Technologist	10%	12%
Researcher	N/A	16%
Not Specified / No Answer	43%	10%

Thirty-nine percent (39%) of respondents said they learned about the Symposium through a colleague. Similarly, one-third (32%) said they received an email announcement informing them about the Symposium. Other respondents said they found out about the Symposium through the Web Site (19%) or directly through a PEN-International representative (19%).



## Overall Assessment

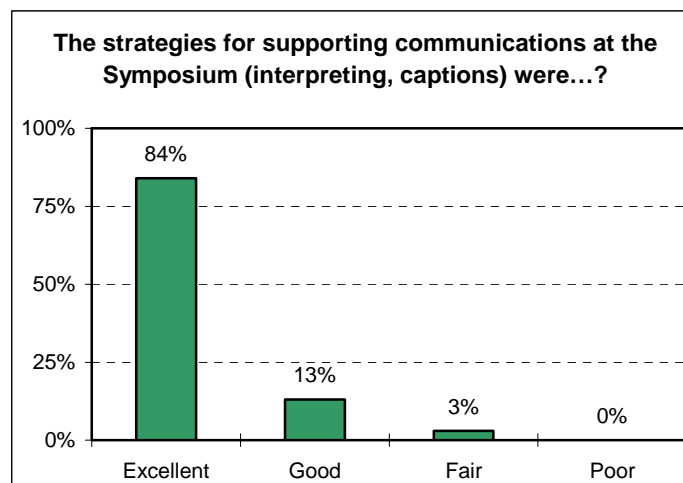
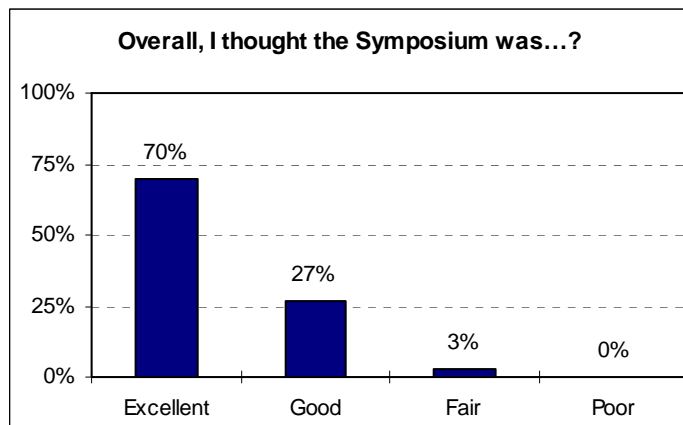
Respondents were asked to rate their overall assessment of the Symposium. Seventy percent (70%) of respondents said they thought the Symposium was excellent. Twenty-seven percent (27%) rated the Symposium as good, and the remaining 3% rated the Symposium as fair.

*“Congratulations for the excellent Symposium. It was excellent in every aspect (organization, content, speakers, exhibitions, hospitality). I’m so glad I participated. I learned a lot and I had the opportunity to meet and talk to many good people.”*

*“What a wonderful conference you and your incredible colleagues hosted at NTID! As always, my expectations were thoroughly exceeded. The feeling of welcome embrace is unmatched at other conferences.”*

*“The overall impact of this Symposium for one is the encouragement it has given me in trying out technology in delivering instruction. I am not a tech-savvy person and I consider myself to be a techno-phobe and this Symposium has got me thinking that learning new technology may not be as difficult as I think it is and the rewards in my classroom may well be worth it.”*

Eighty-four percent (84%) of respondents felt the strategies for supporting communication at the Symposium (interpreting, captions) were excellent. Thirteen percent (13%) of participants rated the strategies for supporting communication as good and 3% rated it as fair.



**Symposium participants socializing during a reception near the commercial exhibits**

Respondents were asked to rate their level of agreement/disagreement to a series of statements related to the Symposium. Respondents were most satisfied with NTID facilities, distribution of information prior to the Symposium, food service, variety and quality of formal concurrent presentations, and the Symposium being a valuable resource and offering information and strategies that met overall needs. The following graph outlines the findings by question in descending order.

Over two-thirds (68%) of respondents strongly agreed that the NTID facilities (meeting rooms, audio-visual equipment, etc.) effectively supported Symposium sessions. The remaining one-third (32%) agreed with this statement.

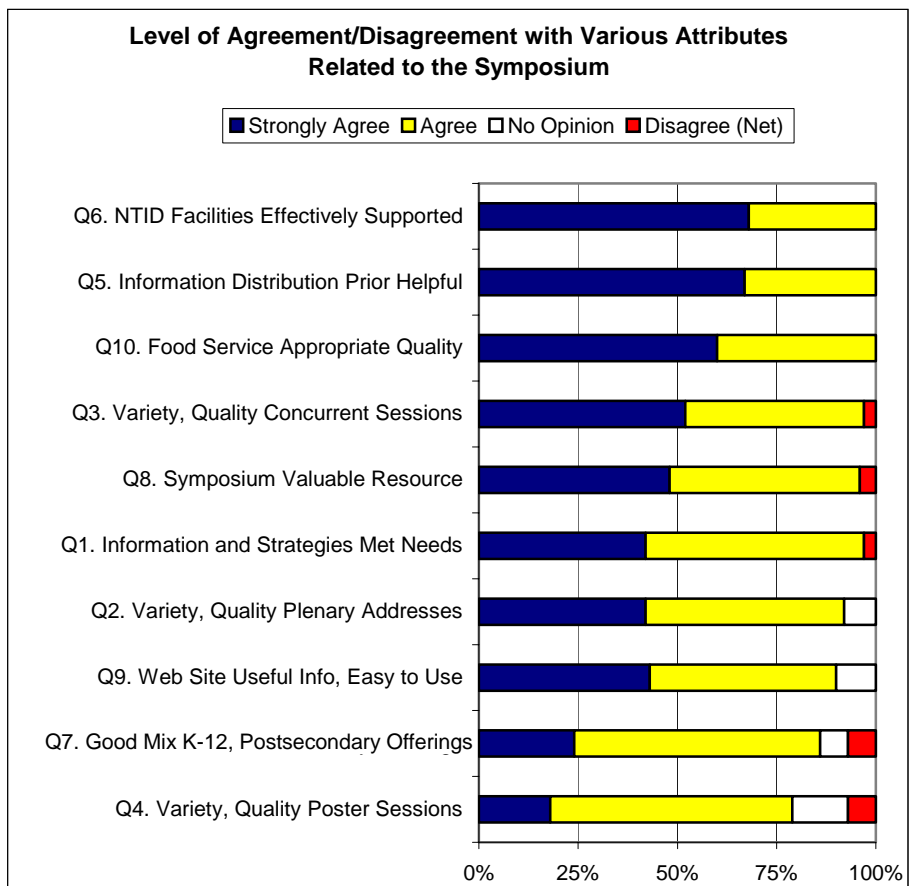
*“Excellent technical support.”*

Similarly, 67% of respondents strongly agreed that the information distributed prior to the Symposium was helpful in making plans to attend. Again, the remaining one-third (33%) agreed with this statement.

*“The information distributed prior to the Symposium was excellent.”*



**Harold Johnson of Kent State University Presents  
“Classrooms as Learning Portals:  
Teachers & Students as Learners”  
Formal Concurrent Presentation**



All (100%) of the respondents either strongly agreed (60%) or agreed (40%) that the food service for lunch and receptions was adequate and of appropriate quality for the Symposium. Ninety-seven percent (97%) of respondents agreed (strongly agree/agree net score) that the concurrent sessions offered the variety and quality that they look for in conference programs. Teaching faculty respondents were more likely, than respondents in other job functions, to strongly agree with this statement (statistically significant difference).

*“I liked the variety of the presentations from the many countries. This gave us a clearer picture of what is being taught around the world for the deaf and hard-of-hearing people.”*

Similarly, 97% agreed (strongly agree/agree net score) that the Symposium was a valuable resource of ideas and insights regarding applications of instructional technologies to support deaf and hard-of-hearing students, and that overall, the Symposium offered information and strategies that met needs. Respondents in administrator positions were less likely, than respondents in other job functions, to strongly agree that the Symposium offered information and strategies that met their needs (statistically significant difference).

*“I thought the selection of topics matched my interests and needs the best of all.”*

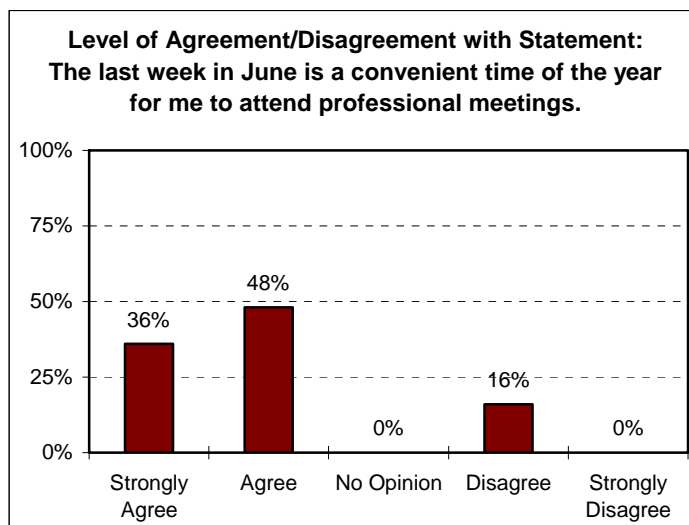
Other attributes that were rated 90% or higher included the variety and quality of the plenary sessions (42% strongly agreed, 50% agreed), and the usefulness of the Symposium Web Site (43% strongly agreed, 47% agreed).

The lowest rated attribute was the variety and quality of the poster sessions. Seventy-nine percent (79%) either strongly agreed (18%) or agreed (61%) that the poster sessions offered the variety and quality that they look for in conference programs. A few respondents commented, in open-ended format, that the poster sessions seemed the same as the last the Symposium. Similarly, 86% of respondents agreed (strongly agree/agree net score) that there was a good mix of K-12 and postsecondary offerings at the Symposium, however this finding did not differ significantly by curriculum level affiliation.

*“Poster sessions seemed repetitive of last Symposium poster sessions.”*

*“There was very limited sessions that met the needs of K-12 program. Many of the sessions were similar in content! Greater variety of workshops or sessions.”*

*“Some sessions were marked ‘all’ – they seemed to be more K-12 focused.”*



June appears to be a convenient time of the year to hold a symposium for most of the respondents. Eighty-four percent (84%) said they either strongly agreed (36%) or agreed (48%) that the last week in June is a convenient time of the year to attend professional meetings. Sixteen percent (16%) of respondents disagreed with this statement. One respondent from Russia explained that June is not a convenient time of the year because it is the end of their academic year.

*“The end of June is the end of the academic year in Russia, so this was not the best time for attending!”*

Respondents were asked, in open-ended format, what they liked most about the Symposium. Thirty-nine percent (39%) said they liked networking with colleagues from around the world most. Twenty-nine percent (29%) mentioned comments relating to the operations and organization of the Symposium including friendly and helpful staff, sessions flowing smoothly, and session length being ideal. Similarly, 21% mentioned that they liked the variety/selection of topics most.

*“The opportunity to communicate with colleagues from around the world.”*

*“Very pleasant staff. Friendly and helpful.”*



*“The sessions were well managed and flowed smoothly.”*

*“The variation and ability to pick and choose between subjects of interest.”*

Thirteen percent (13%) of respondents appreciated receiving practical information that they could implement immediately. Ten percent (10%) of respondents said they liked learning about new technologies, and sharing and discussing different teaching approaches. A few respondents (6%) said they felt the keynote speakers were excellent.

**Question 14**  
**What did you like most about the Symposium?**

- Networking with colleagues from around world – 39%
- Operations: Friendly staff, flowed nicely, session length – 29%
- Variety / Selection of topics – 21%
- Provided practical information – 13%
- Gained knowledge about new technologies – 10%
- Sharing different teaching approaches / Discussions – 10%
- Keynote speakers – 6%

*“Succinct precise information I can use immediately and implement in my region for minimal cost!!!”*

*“The practical suggestions and technologies presented here were outstanding because of the very fact they were practical!”*

*“New knowledge about technologies (IdeaTools, Tablet, etc.).”*

*“An opportunity to meet different people and exposure to different approaches adopted.”*

*“Great keynote speakers!”*

*“Judy Heumann was outstanding.”*

Forty-five percent (45%) of respondents did not include any suggestions for improving the Symposium. Sixteen percent (16%) of respondents suggested improving the Symposium by dealing with various facility/environmental issues. These respondents specifically mentioned the chairs were uncomfortable, the temperature was a little too cold, and the lack of tables for the purpose of note taking was less than ideal.

*“The chairs were horribly uncomfortable.”*

*“A little chilly.”*

*“It is hard to balance notes on your lap, maybe desks and chairs, or chairs with partial desks would help.”*

**Question 15**  
**Any suggestions for improvement?**

- Issues related to facilities/environment – 16%
- More social events / Opportunities to network – 13%
- Foreign interpreters distracting – 13%
- Greater variety of sessions / Too similar in content – 13%
- Include hands-on workshops as part of Symposium – 10%
- Poster sessions repetitive from last Symposium – 6%

Thirteen percent (13%) of respondents suggested implementing more social events and opportunities to network, particularly in the evening. Similarly, 13% suggested that foreign interpreters and their delegates wear microphones and earpieces in an effort to be less distracting to other participants. One respondent suggested using the Thai interpreters as a model because *“very rarely did you recognize they were the interpreters in the session.”*

*“It would be great to have some kind of social program (for the evening).”*

*“Perhaps more opportunities to mix with other participants.”*



**Networking Opportunity During Lunch**

*“It would be helpful if spoken language interpreters used some type of assistive devices to assist with the interpreting process. It became difficult to focus and learn during several workshops due to the high noise level.”*

*“Accommodations for foreign delegates that also do not distract the other delegates. Maybe a microphone with the foreign language interpreter and earpiece for the foreign delegate so that other delegates are not confused with several voices speaking at one time.”*

Other respondents suggested a greater variety of sessions that differed more in content (13%), including the hands-on workshops as part of the Symposium (10%), and offering new and different poster sessions (6%).

*“I would increase the number of the presentations dedicated to the use of the new technologies for teaching deaf and hard-of-hearing students.”*

*“Make the post-symposium workshops part of the active schedule of events. It was a let down to come on Thursday to an empty building tearing things down.”*

*“I felt that there was very little that was new and very exciting, especially the poster sessions.”*

Participants were asked, in open-ended format, what changes they plan on making at their worksite as a result of their Symposium experiences. Thirty-six percent (36%) of respondents said they plan to share, recommend, or integrate the new ideas/strategies. Several of these respondents acknowledged a renewed sense of inspiration and motivation to teach as a result of attending the Symposium.

<b>Question 16</b> <b>Based on your Symposium experiences, what changes will you make at your worksite, your professional development activities, or your studies?</b>	
•	Share, recommend, integrate new ideas/strategies – 36%
•	Conduct further research on new ideas/strategies – 16%
•	Reach out to new contacts – 11%

*“I’ll certainly share the information with my colleagues, which will hopefully motivate all of us to use technical facilities in class in a more varied way.”*

*“Bringing back two strategies: Authoring with Video, MS Producer. Two ideas we can directly use now.”*

*“A major overhaul of my lesson plans incorporating better visuals and assisting aids for the deaf.”*

*“It’s been my new inspiration and motivation.”*

Sixteen percent (16%) of respondents said they will be conducting further research on the new ideas and strategies before implementation at their worksite. Others said they plan to reach out to new contacts that they have made and/or friendships that they have renewed (11%).

*“I’ll investigate ways to improve access across the distance learning and Web-based curriculums.”*

*“Will begin more investigation into additional technologies.”*

## Verbatim Comments

---

### *Question 14: What did you like most about the Symposium?*

Wide variety of individuals in attendance. Well done!

I thought the selection of topics matched my interests and needs the best of all these IT and Ed of Deaf Symposi-ums.

The support staff was excellent.

The opportunity to communicate with colleagues from different countries. New knowledge about technologies (IdeaTools, Tablet, etc.).

Presentations relevant to teaching English to the deaf, and video-based presentations on successful members of deaf community worldwide and meeting friends from all over the world.

Possibilities to meet colleagues from other countries.

A lot of the presenters talked about their topics in simple terms and I did not have to be tech-savvy to understand what they were trying to say.

The variation and the ability to pick and choose between subjects of interest.

Succinct precise information I can use immediately and implement in my region for minimal cost!!!

Opportunity to renew some friendships and see what was happening in other schools for the deaf. Tuesdays sessions in the AM were much better.

The sessions time was very well managed and flowed smoothly between sessions. In closing, however, I want to acknowledge the amount of work in organizing the Symposium and thank the efforts of all who were involved.

Variety. Excellent technical support. Very pleasant staff. Friendly and helpful.

Length of time for presentations and discussions.

The atmosphere.

Great keynote speakers!

Like it all. It's very pleasurable for us.

An opportunity to meet different people and exposure to different approaches adopted.

Information distributed prior to the Symposium, the NTID facilities, and the Symposium was a valuable resource of ideas and insights regarding applications of instructional technologies.

I liked the variety of the presentations from the many countries. This gave us a clearer picture of what is being taught around the world for the deaf and hard-of-hearing people.

The practical suggestions and technologies presented here were outstanding because of the very fact they were practical!

Variety of speakers from around the world. Ongoing water supply and coffee pot. Hands-on workshops on Wednesday and Thursday (post-symposium workshops). Networking with others, discussion with peers.

Judy Heumann was outstanding. The information distributed prior to the Symposium was excellent.

Variety of presentations.

***Question 15: Any suggestions for improving the Symposium?***

There was very limited sessions that met the needs of a K-12 program. I was disappointed after attending several of your conferences. Many of the sessions were similar in content! Greater variety of workshops or sessions. More vendors of products for the deaf. Longer sessions. Consider establishing different locations throughout the country. Virtual tours of facilities or set ups.

Regarding #6 (NTID Facilities) Some rooms were a little awkward, but well-equipped!

Why not use the participants more? Maybe use untraditional forms of meeting, which allow the participants to share and discuss their knowledges, maybe use "open space" methodology?

The end of June is the end of the academic year in Russia, so this was not the best time for attending! Making the Symposium a little longer might be a good idea too. It would also be great to have some kind of social program (for the evening).

Tables so it's easier to write notes and not try to write with the paper on our laps. Accommodations for foreign delegates that also do not distract the other delegates. Maybe a microphone with the foreign language interpreter and earpiece for the foreign delegate so that other delegates are not confused with several voices speaking at one time. I don't know if this is possible but just a suggestion.

I would greatly appreciate a session focusing on financial resources, institutions known for supporting our populations, and grant possibilities! Help! There's not an official category to address this issue and I know it's not under direct control of the Symposium itself, but the chairs were horribly uncomfortable.

This was my third Symposium and while I enjoyed the sessions I attended, I also felt that there was very little that was new and very exciting, especially the poster sessions. Got me to wonder if tech development in the area of education (in general) and for the deaf (in particular) have reached some leveling off plateau. I also noticed (or perceived) that the attendance this year seemed to be less than in 2001 and 2003. There were noticeably very few representatives from down state NY and I cannot help wonder why that is so? In general, I felt the enthusiasm to be somewhat flat and the buzz of excitement melted. I believe in 2001 and 2003, entertainment was provided on the first night which brought attendees together in a very social way. Also, in 2003 there were keynote speakers each day in the morning. Yeah, overall I felt the reduction and cutting back, which will give me pause as to whether or not I'll attend if offered in 2007.

A little chilly. More acknowledgment of co-presenters on program.

Require presenters to send outlines to interpreters at least a week prior to the conference. Have a meeting for presenters and interpreters, and optionally captioners, the evening before the presentations. The voice interpreting and some of the sign interpreting was often embarrassingly poor. Consider hiring conference interpreting from outside.

More on individual pieces of software technology.

None. I've been satisfied.

Poster sessions seemed repetitive of last Symposium poster session.

Perhaps more opportunities to mix with other participants.

Everything was wonderful.

I would increase the number of the presentations dedicated to the use of the new technologies for teaching deaf and hard-of-hearing students.

Make the post-symposium workshops part of the active schedule of events. It was a let down to come on Thursday to an empty building tearing things down.

The price of the workshops on Wednesday/Thursday were a bit high (post-workshops). It is hard to balance notes on your lap, maybe desks and chairs or chairs with partial desks would help. Allow more discussion time on closing day or another day at lunch, by the time we got lunch, I had to hurry to get to 1:00 PM workshop.

Should have had more K-12 offerings. Make sure the international interpreters use wired loops for their clients who wear earphones to receive.

Lunch on Wednesday was too slow, great food, but should have had two lines.

Some sessions were marked “all”- they seemed to be more K-12 focused. It would be helpful if spoken language interpreters used some type of assistive devices to assist with the interpreting process. It became difficult to focus and learn during several workshops due to the high noise level. The Thai interpreters (voice and sign) provided a great model, very rarely did you recognize they were (the interpreters) in the session.

***Question 16: Based on your Symposium experiences, what changes will you make at your worksite, your professional development activities, or in your studies?***

I'll investigate ways to improve access across the distance learning and Web-based curriculums.

I will be much more aware of the many technical possibilities that do exist to facilitate a better learning experience for hard of hearing and deaf.

I'll certainly share the information with my colleagues, which will hopefully motivate all of us to use technical facilities in class in a more varied way.

The overall impact of this Symposium for one is the encouragement it has given in trying out technology in delivering instruction. I am not a tech-savvy person and I consider myself to be a techno-phobe and this Symposium has got me thinking that learning new technology may not be as difficult as I think it is and the rewards in my classroom may well be worth it.

Not a great deal! A couple of ideas I can add but disappointed in the conference this year! Some suggestions gained on Tuesday. We'll look at adding some hardware aspects.

Bringing back two strategies: Authoring with Video, MS Producer. Two ideas we can directly use now. New contracts and networks.

Explore greater use of Webcams for face-to-face distance communication.

It's been my new inspiration and motivation.

I am planning to improve teaching of the instructional technology to the deaf and hard-of-hearing students in accordance with ideas of this Symposium.

I would do my best to use the new technologies and the new products that were presented at the Symposium.

A major overhaul of my lesson plans incorporating better visuals and assisting aids for the deaf.

More aware of some things.

Experiment with more technology.

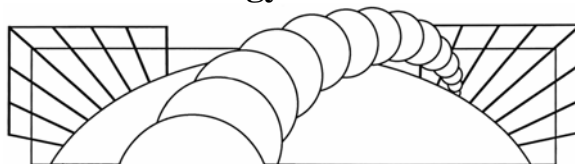
Several, but will begin more investigation into additional technologies.

L:\Symposium 2005\Sym 05 Files\Evaluation Sym 05\Overall\_Symposium\_Eval\_05.doc

11/2/2005 2:53:06 PM

Overall\_Symposium\_Eval\_05.doc

# Instructional Technology and Education of the Deaf



Supporting Learners, K – College  
An International Symposium  
National Technical Institute for the Deaf

June 23- 27, 2003

Sponsored by  
National Technical Institute for the Deaf at Rochester Institute of Technology  
The Nippon Foundation of Japan and PEN-International

<http://www.rit.edu/~techsym>

## How to Access Symposium Presentation Resources on the WWW

### Symposium Background

Over 275 deaf education professionals, from 12 different countries met at NTID, June 23-27, 2003 for the Instructional Technology and Education of the Deaf Symposium. The program consisted of three plenary addresses, 42 formal presentations, 25 poster sessions, a recommendation report discussion, 13 commercial exhibits, and lots of time for conversation, sharing and networking. 106 individuals attended 16 pre-conference workshops.

### Symposium Resources Online!

A major goal of the Symposium was to make the information presented at the Symposium available on the Symposium Web Site for wide dissemination. For each presentation at the Symposium, it is possible to read the presentation or poster summary and abstract. It is also possible to read a complete paper submitted by the presenters, to view the presentation media, such as PowerPoint, read the captions generated during each presentation, see a photograph of the presenter(s) and actually view a captioned video presentation of each plenary and concurrent session!

Each Plenary Address, Concurrent Session and Poster Session has a "Listing" on the Symposium Web Site. These listings provide linkages to the all the resources available for each session.

You can access each presentation listing from the Symposium Schedule or Session Lists. This document describes how to use either structure to find a presentation or poster listing.

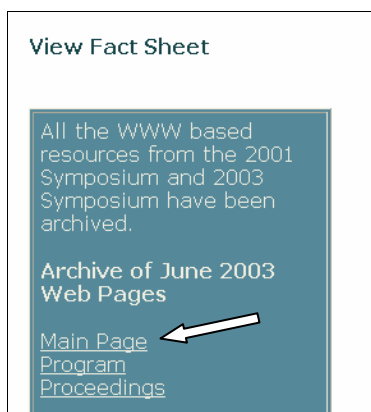
### Directory

- [Access Session Resources from the Symposium "Schedule" \(Page 2\)](#)
- [Access Session Resources from the Symposium "Session Lists" \(Page 4\)](#)
- [Presentation Resources Available from Session Listing \(Page5\)](#)

## Access Session Resources from the Symposium “Schedule”

[Back to Page 1](#)

- From the Main Page of the Symposium Web Site (<http://www.rit.edu/~techsym>); on the bottom, left of the screen, select “Main Page” from the “Archive of June 2003 Web Pages”.



- Select “Schedule” on the left menu.



- Select a Plenary Address, Concurrent Session or Poster Session Time.

Symposium				
Time	Wednesday June 25, 2003		Thursday June 26, 2003	Friday June 27, 2003
8:00AM	Coffee		ASD Reception	Coffee
8:30AM	<u>Opening</u>			
9:00AM	<u>Plenary 1</u>		<u>Plenary 2</u>	<u>Plenary 3</u>
10:00AM	<u>3 Concurrent</u>		<u>4 Concurrent</u>	<u>4 Concurrent</u>
11:00AM	<u>4 Concurrent</u>		<u>4 Concurrent</u>	<u>4 Concurrent</u>
Noon	Lunch		Lunch	Lunch
1:00PM	Open		Open	<u>Recommendations</u>
2:00PM	<u>4 Concurrent</u>		<u>4 Concurrent</u>	<u>Closing</u>
3:00PM	<u>4 Concurrent</u>		<u>4 Concurrent</u>	<u>Final Evaluation</u>
4:30PM	<u>Poster Sessions</u> (4:30-6pm)	NTID Reception (4:30-7pm)	<u>Poster Sessions</u> (4:30-6pm)	RSD Reception (4:30-6pm)
5:00PM				
6PM				
7PM	Symposium Participant Taiko Performance		Rochester Community Taiko Performance	



## Access Session Resources from the Symposium “Schedule”

[Back to Page 1](#)

4. Select a Session Number.

Wednesday—June 25					
Times	Session#	Name	Title	Audience	Room Number
8:30 AM	<a href="#">W830A</a>	Symposium Committee	Opening	All	Panara Theatre
9:00 AM	<a href="#">W9A</a>	Sasakawa, Yohei	The Growing Importance of Global Education Networks in the Age of Information Technology	All	Panara Theatre
10 AM	<a href="#">W10B</a>	Elliot, Lisa	What's New with C-Print?	All	1510
	<a href="#">W10C</a>	Burik, Linda	Active Learning Through Technology: Creating a Technology-Infused Environment to Actively Engage Deaf Students in the Learning Process	K-12	2590
	<a href="#">W10D</a>	Roush, Danny	Providing Sign Language Access to Digital Information Using 3D Animation Technology: An Overview	All	3237

5. View the “Listing” for the selected session. To learn more about the resources available under each listing go to “[Presentation Resources Available from Session Listing](#)”, page 5.

### The Growing Importance of Global Education Networks in the Age of Information Technology (W9A)

**Yohei Sasakawa**  
President, The Nippon Foundation of Japan

Email:

**Wednesday, 6/25/03 -- 9:00 AM**  
**Location: LBJ [060] Panara Theatre**

**Strand:**  
**Type:** Plenary    **Audience:** All

#### Summary:

The Nippon Foundation supports assistance activities around the world with the belief that the world is a family and every individual that inhabits this Earth is an important family member. In recent years, the foundation has turned its attention to international educational networks and the use of technology in education as effective means for promoting educational and economic development across the world. In his speech, Mr. Sasakawa will touch on recent developments in the field and propose a vision for the future of international educational networks.

#### [Abstract](#)

#### [Paper](#)

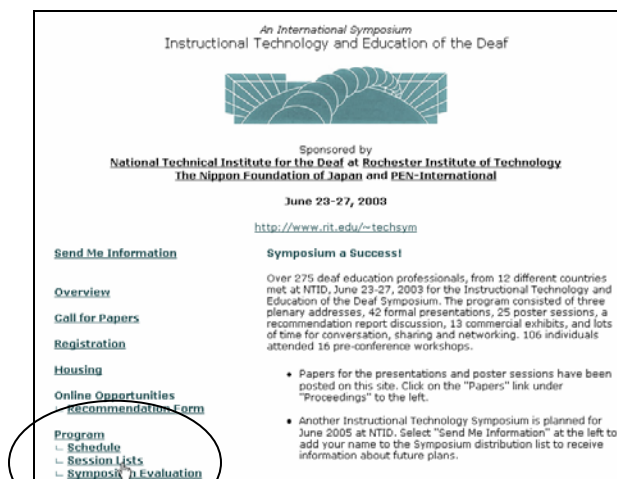
#### Presentation

- [Media](#)
- [Captions](#)
- [Streaming Video](#)
- [Photos](#)

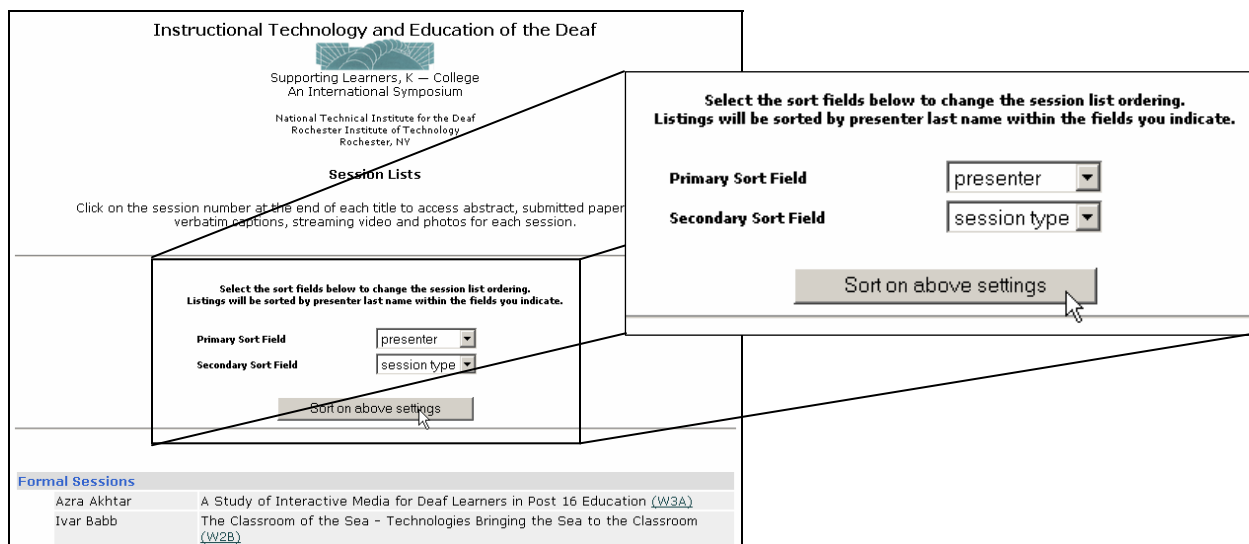
## Access Session Resources from the Symposium “Session Lists”

[Back to Page 1](#)

1. From the Main Page of the Archive of the June 2003 Symposium Web pages (<http://www.rit.edu/~techsym/2003>), select “Session Lists” on the left menu.



2. To facilitate access to sessions, it is possible to sort the sessions by date, type or presenter. After sorting, select a Session Number to obtain more information.



3. Select the session number to move to the session listing.

Olga Orechkina	Techniques for Meeting the Needs of Deaf Students in the Design of Shared Computer Laboratories at a Major Technical University in Russia ( <a href="#">W01P</a> )
Becky Sue Parton	The Interpreter Who Never Tires: Adding Animated Sign Translations to Student and Teacher Presentations ( <a href="#">W10P</a> )
Geoffrey Poor	American Sign Language Video Dictionary and Inflection Guide ( <a href="#">W11P</a> )
Melanie Updegraff	Captioned Media Program Online Innovations ( <a href="#">W12P</a> )
<b>Plenary Sessions</b>	
Yohei Sasakawa	The Growing Importance of Global Education Networks in the Age of Information Technology ( <a href="#">W9A</a> )

# Presentation Resources Available from Session Listing

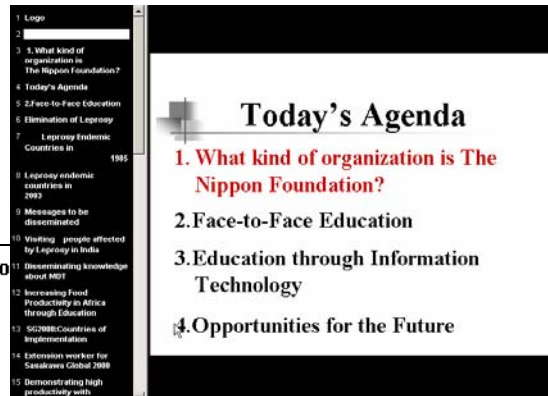
[Back to Page 1](#)

- Click on the resource links to access materials related to the session. Note that some sessions may not contain all the listed resources because they have not been submitted by the author.

(Sample of a paper)



PowerPoint Presentation



The Growing  
Yohei Sasakawa  
President, T

Wednesday,  
Location: LBJ [060] Panara Theatre

Strand:  
Type: Plenary Audience: All

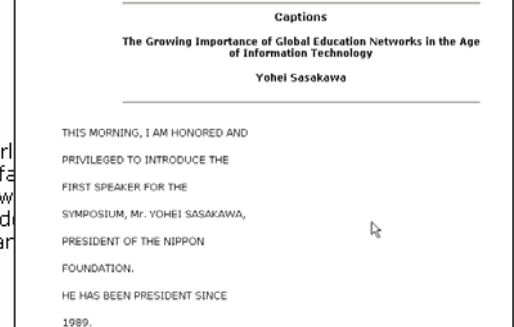
Summary:

The Nippon Foundation supports assistance activities around the world and every individual that inhabits this Earth is an important part of the foundation. The foundation has turned its attention to international educational networks as effective means for promoting educational and economic development. In this session, Mr. Sasakawa will touch on recent developments in the field of international educational networks.

[Abstract](#)  
[Paper](#)

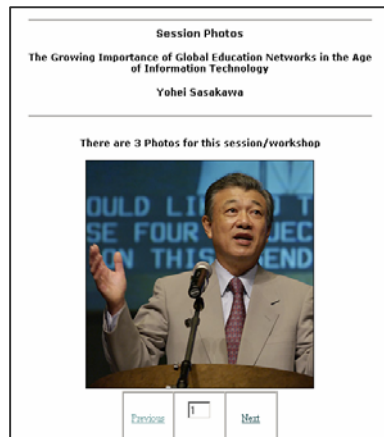
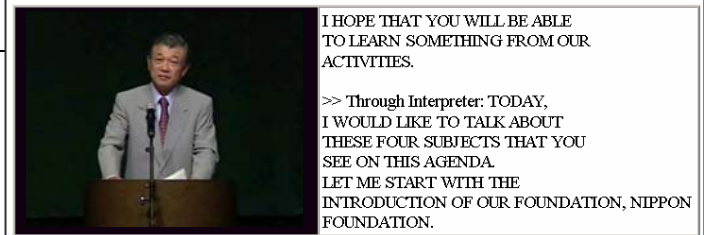
[Presentation](#)

- [Media](#)
- [Captions](#)
- [Streaming Video](#)
- [Photos](#)



Streaming Video  
The Growing Importance of Global Education Networks in the Age of Information Technology  
Yohei Sasakawa

The technology that makes video streaming and synchronized caption displays is being revised. At this time it is possible you may experience technical problems. Currently this video stream technology is designed to function with Internet Explorer, Media Player, and RealOne Player.




Handouts on Web  
<http://www.pen.ntid.rit.edu/ewc/pepnet06>

## Online Resources Available From the 2005 NTID Instructional Technology Symposium

**E. William Clymer  
Denise Kavim  
Jim DeCaro**


PEN-International  
<http://www.rit.edu/~techsym>  
 April 6, 2006

Paper Presented at PEPNet 2006 Conference, Louisville, KY




## Objectives



- Using <http://www.rit.edu/~techsym> You Will be Able to:
  - Search the NTID Symposium Web Site for Presentations and Poster Sessions
  - Given a Session Listing, to Access Related Media Files
- NTID Center on Access Technology 2008 Symposium



## Overview



- June 27 – July 1, 2005
- Sponsored by:
  - NTID
  - Nippon Foundation
  - PEN-International
- 248 Participants
  - 17 Countries




## Participants

■ Curriculum Level	
○ Postsecondary	33%
○ K-12	14%
○ Not Specified	53%
■ Teachers	32%
■ Administrators	15%
■ Technologists	10%
■ Not Specified	43%





## Program

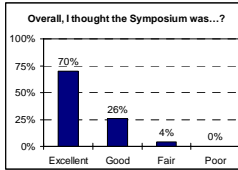
- 2 Plenary Addresses
- 44 Concurrent Presentations
- 24 Poster Sessions
- 8 Commercial Exhibits
- 10 Post-Symposium Workshops



## Overall Evaluation




**Overall, I thought the Symposium was...?**



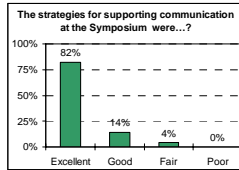
*"It's been my new inspiration and motivation."*

2005 Symposium Participant



## Sign Language and Communication Services

- Skilled Interpreters
- Communication Facilitators
- Real-Time Captioning
- Real-Time Graphic Display
- Assistive Listening Devices



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## Program Overview

- 4 Strands
  - Using Technology to Support Learning
  - Online and Distance Education
  - In-Service/Pre-Service Strategies for Educating Teachers in Technology
  - Assessing the Impact of Technology in the Teaching/Learning Process



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## Plenary Addresses

- Judith E. Heumann  
Recognizing Technological Advances Benefiting Individuals with Disabilities; and Acting as Agents for Change
- Markku Jokinen  
Positioning Ourselves for the Impact of Instructional Technology: 2005 and Beyond



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## Concurrent Presentations

- 44 Formal Presentations
- 30 Minutes for presentation; 15 minutes for discussion
- 4 Sessions held concurrently



*"I thought the selection of topics matched my interests and needs best of all."*

2005 Symposium Participant



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## Highest Rated Sessions

- "Technology Integration in the K-12 Classroom" (T11A)
- "BSL Tuition in the Hands of Deaf People – a BSL Academy" (T10C)
- "Creating a Book-on-Demand: Publishing a Workshop Planner's Guide for Promoting Classroom Access" (T9A)
- "Technology in the ASL/English Bilingual Classroom" (T10A)
- "Achieving Goals! Career Stories of Individuals Who are Deaf or Hard of Hearing" (W10C)
- "I Can SEE What You HEAR!" (T10D)



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## Technology Integration in the K-12 Classroom (T11A)

- Mari Liles  
Texas School for the Deaf  
Email: [mari.liles@tsd.state.tx.us](mailto:mari.liles@tsd.state.tx.us)



Tuesday, 6/28/05 -- 11:00 AM  
Location: LBJ [060] Panara Theatre

Strand: Using Technology to Support Learning  
Type: Formal Audience: All

**Summary:** Students and teachers at Texas School for the Deaf are integrating technology into every aspect of the curriculum. Come see how our students and teachers are using electronic whiteboards (ACTIVBoards), document cameras (Elimos), laptops, digital cameras, various software applications and more to enhance and inspire learning.



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### BSL Tuition in the Hands of Deaf People – a BSL Academy (T10C)

- A. Clark Denmark  
University of Bristol  
Email: [a.c.denmark@bristol.ac.uk](mailto:a.c.denmark@bristol.ac.uk)
- Tim Rarus

**Tuesday, 6/28/05 -- 10:00 AM**  
**Location: LBJ [060] 2590**

**Strand:** Online and Distance Education  
**Type:** Formal **Audience:** All

**Summary:** A Proposal from the British Deaf Association for training to establish a United Kingdom wide framework to support the Recruitment, Training and Deployment of British Sign Language Tutors, which will enhance their numbers, status and levels of Qualification through Distance Learning.

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### Creating a Book-on-Demand: Publishing a Workshop Planner's Guide for Promoting Classroom Access (T9A)

- Donald Beil  
NTID/RIT  
Email: [don.beil@rit.edu](mailto:don.beil@rit.edu)
- Alan Cutcliffe
- Susan Foster
- Gary L. Long
- Marsha Young

**Tuesday, 6/28/05 -- 9:00 AM**  
**Location: LBJ [060] Panara Theatre**

**Strand:** Using Technology to Support Learning  
**Type:** Formal **Audience:** All

**Summary:** This session describes the experiences of Project Access, which promotes access for deaf/hard-of-hearing students, in creating a book-on-demand on leading workshops that promote access. The processes of creating source material, designing pages, and working with an on-line publisher to catalog and print books one at a time as needed will be described.

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### Technology in the ASL/English Bilingual Classroom (T10A)

- Rosemary Stifter  
Laurent Clerc National  
Deaf Education Center  
Email: [rosemary.stifter@gallaudet.edu](mailto:rosemary.stifter@gallaudet.edu)

**Tuesday, 6/28/05 -- 10:00 AM**  
**Location: LBJ [060] Panara Theatre**

**Strand:** Using Technology to Support Learning  
**Type:** Formal **Audience:** K-12

**Summary:** Our goal is to create an ASL/English bilingual classroom using technology to enhance social and academic proficiency in both languages. Examples of technology use will be provided to reflect the interactions between two languages and how students benefit from hands on experiences and visual learning in a linguistically rich environment.

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### Achieving Goals! Career Stories of Individuals Who are Deaf or Hard of Hearing (W10C)

- Pat Billies  
NTID/RIT  
Email: [pabnca@rit.edu](mailto:pabnca@rit.edu)
- Regina Kiperman-Kiselgof

**Wednesday, 6/29/05 -- 10:00 AM**  
**Location: LBJ [060] 2590**

**Strand:** Online and Distance Education  
**Type:** Formal **Audience:** All

**Summary:** Come and view the multi-award winning video and Web site project, providing strong role models that influence the aspirations of young students who are deaf or hard of hearing! Newly released video features individuals working with computers!

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### I Can SEE What You HEAR! (T10D)

- Pat Billies  
NTID/RIT  
Email: [pabnca@rit.edu](mailto:pabnca@rit.edu)
- Marcia Kolvitz

**Tuesday, 6/28/05 -- 10:00 AM**  
**Location: LBJ [060] 3237**

**Strand:** Using Technology to Support Learning  
**Type:** Formal **Audience:** All

**Summary:** Exciting new technologies make it easier for deaf and hard-of-hearing students to access classroom as well as co-curricular activities! This presentation will look beyond traditional interpreting and notetaking. We'll introduce you to various systems of speech-to-print technologies for classroom access, both live and remote: Realtime Captioning and C-Print. Video remote interpreting will also be discussed as an option to traditional 'live' interpreting. Innovative wireless technologies such as video relay interpreting and Internet-based systems will also be discussed.

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### Poster Sessions

- 24 Poster sessions
- 12 at one time
- Opportunity to discuss one-on-one
- Hands-on
- No other events
- Networking opportunity





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## Commercial Exhibits

- 8 Organizations with products and services
- Relevant to participants
- Available throughout the Symposium



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## Exhibits Included...

- PEPNet
- Automatic Sync Technologies
- Captioned Media Program
- NTID
- Caption First
- ULTECH



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## Post-Symposium Workshops

- Hands-on opportunity for skill development
- 10 Workshops in total
- 57 Participants



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## Workshop Topics

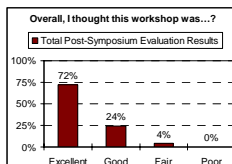
- Acrobat
- Electronic Portfolios
- Online Tutorials
- Smart Board Technology
- SnagIt
- Emerging Technologies and Assistive Communication
- Photoshop Elements
- Video Editing



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## Post-Symposium Workshops



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## Symposium Evaluation

- What did you like most about the Symposium?
  - Networking with colleagues from other countries – 39%
  - Variety/Selection of topics – 21%
  - Operations: Friendly staff, flowed nicely, session length – 29%
  - Provided practical information – 11%
  - Gained knowledge about technologies – 7%
  - Sharing different teaching approaches – 7%



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## Symposium Evaluation

- Based on your Symposium experiences, what changes will you make at your worksite, your professional development activities, or in your studies?
  - Integrate new ideas/strategies – 28% (Provided inspiration that will carry over)
  - Conduct further research on new ideas/strategies – 14%
  - Reach out to new contacts – 11%



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## Culminating Luncheon Discussion

- Opportunities to be seized
  - 10 years from now, where should the field of deaf education *ideally* be regarding the use of instructional technology?
- Challenges to be met
  - What barriers are likely to hinder the realization of the above ideal??



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## Opportunities to be Seized

- Human Networks of Students & Teachers
- Equipment & Resources Issues
- Impact of Cochlear Implants
- Internet & Web-based Resources
- Impact on Student Education
- Accessibility & Universal Design



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## Challenges to be Met

- Teachers & Administrators
- Technical Support Staff
- Funding
- Greater Investment in R & D
- Preserving Linguistic & Cultural Minorities
- Preserving the Role of Human Interaction
- Educate Deaf Community in Benefits of Technology
- Need to Simplify Technology



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## <http://www.rit.edu/~techsym>

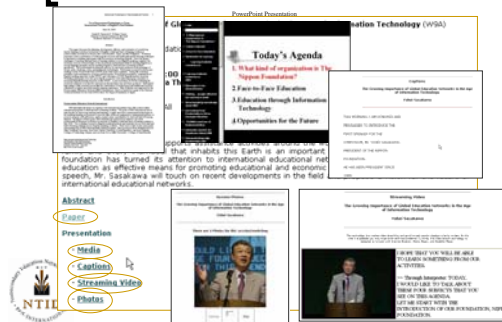
- Each plenary, concurrent, poster and workshop on WWW.
- Papers, presentation media, caption files, video and photos.



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## Accessing Symposium Resources on the Web



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## Access Technology Discussion

- Initial Focus Group to Help Formulate NTID's Center on Access Technology.
- [http://www.pen.ntid.rit.edu/ewc/atc/Summary\\_of\\_AT\\_Discussion\\_6-28-05.pdf](http://www.pen.ntid.rit.edu/ewc/atc/Summary_of_AT_Discussion_6-28-05.pdf)



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## NTID Center on Access Technology

- <http://www.ntid.rit.edu/cat>
- Four Strands of Research
  - Classroom Access Technologies
  - Mobil Technologies
  - Training and Evaluation Services
  - Audio and Sound Technologies



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## Next Symposium Scheduled for June 2008

- Sign-up for Email Announcements
- Suggest Program or Format Ideas
- Possible Greater Focus on Access Solutions



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# Universal Instructional Design: Enhancing Understanding of the Benefits for Students with Hearing Loss<sup>1</sup>

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## Abstract

The movement to integrate principles of Universal Instructional Design (UID) into higher education has grown. UID literature for students with hearing loss typically provides examples like captioning, interpreting, and FM systems. These examples, however concrete and beneficial, limit our understanding of the full potential benefits of UID for students with hearing loss and other students in learning environments. While other strategies have been proposed, they usually are only in the disability-specific context (i.e., deafness), but not in connection with the specific principles. The purpose of this session is to provide background on the principles of UID, deepen our understanding of the benefits of these principles for students with hearing loss and provide an assessment tool to participants.



## Introduction

Universal Instructional Design (UID) first emerged in educational circles in the late 1990s as an outgrowth of an effort recognizing that strategies good for students with disabilities also benefited other students.<sup>2</sup> UID adapts the principles of Universal Design developed in the field of architecture to learning environments.

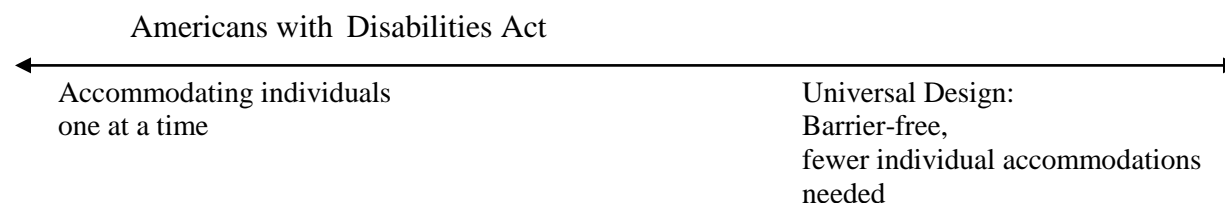
Our review of literature regarding UID strategies that benefit or are effective for students with hearing loss in the classroom yielded little information and examples that demonstrate the breadth of benefits for students with hearing loss beyond the traditional accommodations provided. The experience of the authors at the University of Minnesota is that the most common examples cited are those related to using interpreters, captioners or assistive listening devices.<sup>3</sup>

If we are to continue to promote UID in higher education, we must fully explore the benefits of Universal Design as it relates to all disabilities and illustrate how these benefits also accrue to other students. This paper, based on our presentation at the PepNet conference in April 2006, explores in greater depth how UID principles benefit students with hearing loss as well as other learners in the classroom. In addition, it includes an assessment tool that was shared, which can be used by educators<sup>4</sup>, disability service professionals and students to analyze and develop strategies to assure greater access in the classroom for students with hearing loss and other students.

### ***Universal Instructional Design***

“Universal Design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design”<sup>5</sup>. The application of Universal Design to learning environments is commonly called Universal Instructional Design. “The basic premise of universal instructional design is that curriculum should include alternatives to make it accessible and applicable to students with different backgrounds, learning styles, abilities and disabilities.”<sup>6</sup> In the context of the legal compliance environment in higher education and disability services offices, it is helpful to think about Universal Design in the context of a continuum.

### **Universal Design Continuum**



One end reflects the legally-mandated individualized accommodations in classrooms required by state and federal laws particularly, the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973.<sup>7</sup> The other end reflects the benefits of Universal Design, where the environments in a classroom are designed to be barrier-free. In such environments, fewer individual accommodations are required.<sup>8</sup>

UID focuses on accessibility for all learners. It seeks to create and include alternatives for conveying information and facilitating learning. Though the field is still young, UID has benefited a wide array of students. Students with disabilities benefit as do students from ethnic/racial cultures, students with different learning styles, and students for whom traditional learning environments are inconvenient or difficult to navigate.<sup>9</sup>

### ***Principles of Universal Instructional Design***

The Curriculum Transformation and Disability project at the University of Minnesota<sup>10</sup> identified 8 principles of Universal Instructional Design<sup>11</sup>:

1. Create a welcoming classroom climate
2. Determine essential components
3. Provide clear expectations and feedback
4. Incorporate natural supports for learning
5. Use varied instructional methods
6. Provide for a variety of ways of demonstrating knowledge
7. Use technology to enhance learning
8. Encourage faculty-student contact

In this paper, we will briefly explain each principle and then expand on the knowledge of each by identifying how these strategies provide additional benefits to learning for students with hearing loss.

## 1. Create A Welcoming Classroom Climate

To create a welcoming classroom climate, the original CTAD project noted the following strategies:

- Establish ground rules for class discussion
- Avoid singling out students who receive accommodations
- Recognize the authority of personal experience
- Attend to physical *and communication/information* needs of students *and accommodation providers*.
- Share your own experiences
- Honor diversity and cultural differences
- Develop inclusive syllabus statements<sup>12</sup>

As a result of this project, the authors have revised the fourth bullet item to state: “Attend to the physical *and communication/information needs* of students and *accommodation providers*.” The purpose for this change is to acknowledge that the physical environment must not only be accessible (e.g., lighting), but also that the communication/information environment must be effective, too. Accommodation providers were included as well because if a student is using a sign language interpreter or a captioner, things like lighting, space, and electrical power sources must be available for the accommodation to be effective. In other words, one cannot just think about ensuring an environment for only students. For UID to truly be implemented, one must design environments that are inclusive of students and any accommodation services that may be provided in that setting.

For students with hearing loss, a welcoming environment includes the planned placement of accommodations such as interpreters and captioners central to the learning in the room. By central to the learning in the room, it means being prepared to locate the accommodations in places where the student can feel they are not marginalized in the learning environment. To do this, it also means that the furniture, lighting and the placement of the accommodation must also support an environment that ideally assures that the student with a hearing loss is able to participate meaningfully and fully.

Creating a welcoming climate also includes engaging strategies that reduce the isolation of the student with a hearing loss through introductions (with people identifying themselves clearly and slowly) and intentional (and frequent) class interactions.

Among the things educators must also do is develop and share communication strategies that take into account information delay when interpreters and captioners are used. A student with a hearing loss will always experience difficulty participating effectively and frequently if people are not aware of when the interpreting/captioning process is completed for any one conversant.

Another strategy in creating a welcoming environment is to consider accommodations used for students with hearing loss in other situations where students may benefit. For example, if an educator has a very strong accent that is difficult to understand, captioning can benefit all students in the classroom, regardless if a student with a hearing loss is present.

To apply UID strategies, it is imperative to understand and be able to articulate the essential components of the course. Essential components are the outcomes (skills, knowledge, and attitudes) all students must demonstrate with or without using accommodations to be evaluated in a nondiscriminatory manner. Student performance outcomes, not process, are determinative. Process is where flexibility and creativity can emerge for all involved.

When determining the essential components of the course, educators must consider:

- The purpose of the course
- Outcomes absolutely required of all students in the course, with or without accommodations
- Instructional methods that most effectively address the essential outcomes
- Effective measures that allows fair evaluation of *all* students

Hearing bias, or what is more currently referred to as audism<sup>13</sup>, creeps into course expectations often rather unconsciously because of the hearing perspective and life experience of educators. An expectation in a clinical rotation that a resident be able to use a specific type of stethoscope to diagnose conditions is an example. Upon further analysis, it becomes evident that it may not be the use of that particular stethoscope that is the essential component, but rather it is the ability to diagnose conditions in the lungs, abdomen and heart and identifying some specific conditions that are most common. A student may not be able to use the specific stethoscope identified, but may be able to engage in a number of different strategies to identify and diagnose conditions in the lungs, abdomen and heart, including using a different type of stethoscope adapted for people with hearing loss.

It is imperative that, as early as possible, students with hearing loss work with educators and DS providers to become familiar with essential components for completion of the major, minor or advanced degree. This will assure that there can be planful discussions about various compensatory strategies (including accommodations) that may be available to them throughout their course of study. This process engages the interactive process intended by the Americans with Disabilities Act. Too often, the temptation is to allow DS providers and educators to make decisions about accommodations or compensatory strategies for students without consulting with the student. This must be avoided for two reasons. First, students should be a part of the interactive process under the ADA<sup>14</sup>. Second, people with disabilities have often encountered unexpected situations that have required imagination and creativity to navigate. Their experience is often invaluable to assuring a thorough and thoughtful interactive process.

## **2. Provide Clear Expectations and Feedback**

Clear expectations articulated at the beginning of a course benefits students. An optimal vehicle for communicating expectations is to document them in the syllabus. Expectations articulated should include class participation, tests and exams, papers, outside activities related to the course, in-class activities, and grading rubrics. During the course, students should receive regular feedback on their performance, including mid-term updates.

In UID discussions, the focus of feedback is typically on the students' performance. What often is neglected is feedback on the accommodation process. One of the great benefits of feedback regarding student performance at regular intervals is that it provides an opportunity for discussion on the student's and educator's experiences with the accommodation(s) being provided. Oftentimes, dialogue is spurred only at the invitation of the educator because his/her inquiry signals that s/he is willing to work with the student to improve the learning environment. This creates opportunities for dialogue about what is working and what is not working well for the student, the educator and the accommodation provider(s). Furthermore, all parties are usually motivated to modify his/her practices once they receive concrete feedback about the challenges/barriers that are faced in the learning environment.

The following is a story told by a faculty member on how language used in a presentation created barriers for a deaf student and how she changed her practices to improve the student's learning experience.

...[W]ith a deaf student, I tried to limit my use of vague terms and pronouns, such as “this” and “that.” The deaf student needed to use an interpreter. When I pointed to something and said “this,” I was usually pointing to something else or nothing at all by the time the deaf student understood the interpretation. By being more specific, the student had a better understanding of my references, and I'm sure the specificity was beneficial to the rest of the class.<sup>15</sup>

This faculty member also recognized how removing a barrier for one student benefited all students.

### 3. Incorporate Natural Supports For Learning

“Natural supports are non-accommodation-based supports that are built into a course to promote more universal access to key course components. Using natural supports will make a course accessible to all students, disabled or nondisabled.”<sup>16</sup> The two components of Principle 3 are: “natural supports” and a subset of natural supports referred to as “cognitive supports.” Principle 3 generally focuses on strategies that provide clear guidance and directions in a manner that benefits all students and usually leads to students producing better outcomes. The elements of natural supports are:

- *Divide Tasks into Parts*: Break tasks into smaller units and give step-by-step information.
- *Make it Basic*: Consider what information the listener needs at this time.
- *Model Problem-solving Steps*: “Here's what I'd do.”
- *Supplement Verbal Instructions*: Convey Information using more than one method.
- *Direct Questioning and Response*: “Tell me what you're going to do.”<sup>17</sup>

Cognitive supports focus on how information is conveyed and reinforced by strategies to ensure understanding. The key strategies are:

- Find out what the individual knows.
- Provide an overview of issues.
- Provide clear goals.
- Model strategies for problem-solving.
- Summarize major issues.
- Provide transitions between issues.
- Check for understanding.

Examples of these strategies include:

- Creating electronic archives of lecture notes makes participation by students with visual disabilities, hearing impairments, sick children, or unreasonable bosses more fully possible.
- Including instructions for important assignments in the print syllabus, explaining them orally, and reinforcing them individually ensures that all students' strongest sensory mode is addressed.
- Teaching key course concepts by lecture, discussion, reading, and group work, accommodates a range of learning styles.

- Holding office hours face-to-face, as is traditional, but also through e-mail, phone, or real time on-line chat ensures access for all students.<sup>18</sup>

Though these strategies are usually very heavily associated with students with learning disabilities, attention deficit hyperactivity disorder and some types of psychiatric disabilities, they are also extremely helpful to students with hearing loss. First, conversations structured as recommended by Principle 4 make it much easier for accommodation providers to convey information, either in a printed or signed context. With cognitive supports, if the process is engaged fully, it becomes a tool for the student with hearing loss and an educator to assure that the information was conveyed and understood accurately, especially when sign language interpreting is used. By conveying information in a scaffolded way, there is less room for an error in the interpretation. There will also be more opportunities for the student and educator to check for understanding if the student is primarily relying on lip reading. Lastly, the actions recommended in this principle facilitate and support understanding, particularly when cultural and/or linguistic diversity exists in the classroom. Checking for understanding assures that the language and cultural barriers have not interfered with the receipt of information.

#### **4. Provide Varied Instructional Methods**

As the CTAD Workshop Facilitator's Guide<sup>19</sup> explains:

Providing students with different ways to access material creates an accessible environment for all students. Some students thrive in lectures; others obtain information effectively from text, while still others learn best through visual media such as diagrams, illustrations, charts, or video.

For example, by utilizing alternative means of representation, a course module on homelessness could be taught through a series of lectures, through multimedia and videos, and through completing field trips or service-learning projects with local homeless shelters.<sup>20</sup>

For students with hearing loss, each of these activities needs to be analyzed to understand how they may provide greater access for these students and how these activities can be improved to assure access. For example, when using or referring to PowerPoint slides, or other forms of written text, the speaker must allow time for reading (without speaking) so that users can look at an accommodation provider (e.g., interpreter or captioner) and follow along. Too often, speakers present text, then immediately speak from it and about it, without allowing the student time to read the text involved. This usually causes the student with hearing loss to struggle to multitask to get information from different sources simultaneously. This almost always results in the loss of information and, frequently, confusion. The tool discussed later in this manuscript provides strategies for assessing the learning environment to prevent these types of experiences for students with hearing loss and other students.

Other considerations include ensuring that films, videos and DVDs are captioned in advance of class and that the equipment has the capacity to show captioning. In addition, developing multiple strategies to represent, express and engage information will reduce the isolation of students with hearing loss because it encourages greater levels of participation in ways that are more creative and engaging for all students. In all cases, it is imperative to take into account accommodation needs for different types of activities, such as making sure there is room for



more than one interpreter, if two will be present, and ensuring that there is a seat for a captioner and space for a laptop for the student

## **5. Provide For A Variety Of Ways Of Demonstrating Knowledge**

This principle is described best in *Creating Curb Cuts in the Classroom, Adapting Universal Design in Education*:

One benefit of Universal Instructional Design is that the model addresses individual learner differences by providing alternative methods of...expression, and engagement (CAST)...By providing multiple means of expression, students are given a choice in how they will demonstrate their knowledge of course content. For example, one student may choose to demonstrate knowledge of cell biology via a research paper, whereas another student may choose to give an oral presentation. By providing multiple means of engagement, instructors seek the right balance in how students are engaged in the learning process.<sup>21</sup>

In short, in any learning environment, information should be presented in multiple ways; students should have multiple ways to interact with and respond to curricula and materials; and there should be multiple ways for students to find meaning in the material and thus motivate themselves.<sup>22</sup>

With regard to evaluation of students, particularly those with hearing loss, educators should consider the modes of testing or evaluation that are preferred and the rationale for those particular modes. How do they affect different types of students, including students with hearing loss? Are they inherently biased toward students with particular skills in expression and representing knowledge? Educators and DS offices should discuss with students with hearing loss the different types of testing and evaluation strategies that have been effective for them. This should be part of an interactive process so that opportunities to engage different strategies can be explored (provided the willingness is present for all parties). In addition, educators and DS offices should explore the preferred modes of testing or evaluation in different disciplines and examine if there are other testing modes of testing or evaluation that may achieve equal, if not more effective, results in assessing student learning and performance.

## **6. Use Technology To Enhance Learning**

It is important to acknowledge the potential of technology in providing access and learning opportunities for all students, while at the same time recognizing that it is not a panacea. Great strides have been made in the last decade to make information technology more accessible to people with disabilities. Experience with UID has shown that technology may be the key to increasing flexibility in courses. Putting materials on-line, arranging for course listservs, and selecting software that is compatible with screen readers may assist all students in accessing materials in their own time in a manner that is accessible to them. The key is to not exclude students by using technology that is not accessible.<sup>23</sup>

DS offices should do as much as they can, in partnership with IT offices, to level the playing field for students with disabilities. UID strategies should, as much as possible, make available

accessible information technology. Such information technology should be compatible with adaptive technology and, when needed, be available in alternative formats.

With respect to students with hearing loss, particular consideration needs to be given to ensure that digitized media used on the web or computers is accessible with captioning, when auditory information is present. Whenever separate accommodations must be used for any group of students with disabilities to access information technology, take time to evaluate the disparate impact it may have on the particular student compared to his/her peers.

## **7. Encourage Faculty-Student Contact And Student-To-Student Contact**

Faculty-student contact is a key indicator for student retention. Strong evidence reveals that, more than anything else, faculty involvement with students and active self-directed learning by students contribute to measurable student success.<sup>10</sup> For students with hearing loss, the communication barrier between educators and the student may prevent them from establishing a relationship. UID strategies that focus on creating more welcoming environments may encourage students to speak with and become familiar with educators. In addition, educators need to demonstrate ease of use with accommodation providers before a student with hearing loss will be able to have meaningful conversations. After all, this relationship can become one of the student's most important assets upon graduation, especially if s/he applies for fellowships, jobs, and/or graduate school.

Similarly, because isolation is a common experience for students with disabilities, including students with hearing loss, it is important to foster student-to-student contact as well. Structuring learning experiences to encourage student-to-student contact allows students with hearing loss to build a social network and to remove barriers among students by building familiarity and reducing fear/nervousness in dealing with difference.

## **Assessment Tool To Determine Accessibility of Learning Environment**

Attached to the manuscript is an assessment tool that can assist educators, students and DS providers in evaluating the accessibility of the learning environment for students with hearing loss.<sup>24</sup> (Appendix A) It is a tool that can be used to understand how and whether UID strategies can be used to create the flexibility and customizability necessary to benefit students with hearing loss as well as for other students. It also can be used to develop an understanding of when accommodation providers such as interpreters or captioners will need to be used and what strategies can be employed to assure effective use of those services. The authors will make available on the PepNet website a version of the assessment tool that is partially completed to give the reader examples of how it can be filled out.

### ***How to Use the Assessment Tool***

**Column A: Four Environments.** The chart identifies in the left column the “four environments” in all learning environments. They are:

1. **Physical:** This is related to the concrete, physical environment. It includes things such as the room structure (e.g. shape of room, fixed furniture, high/low ceilings, lighting, carpeting, furniture, wall and ceiling qualities.)

2. **Informational:** This is related to the manner in which information is conveyed. Examples include text, verbal means, electronic (web, on-line, email) means, and signage.
3. **Policy/Programmatic:** This includes requirements that precede entering the learning environment, such as course prerequisites and financial aid, as well as requirements for participating and succeeding, such as course requirements, essential requirements for the course, and assessment tools.
4. **Attitudinal:** This is focused on the things, words, and actions that support creating a welcoming environment for all learners.

The chart identifies examples of each of these environments in the left column (although it is not exhaustive). The user of the tool needs to either select those items that apply to his/her learning environment, or expand the list to identify things that are not on it. Breaking down the learning environment into these four categories gives the user the opportunity to see how all aspects of the learning environment affect students with hearing loss as well as other students.

**Column B: Hearing: Access Achieved through Eyes---Ears.** In this column, users can identify how certain environmental characteristics and/or behaviors can affect learning for a person who can hear and see. To do this, the user can identify the experience of the person in the room who can both hear and see. “Eyes --- Ears” refers to visual and aural information. These two types of information are processed through eyes and ears. For example, related to seating arrangements, a person who uses eyes/ears has flexibility to sit in different types of seating arrangements, including rows, semi-circles, circles, or auditorium seating.

**Column C: Deaf: Access Achieved through Eyes---Eyes.** This column gives the user the opportunity to identify the experience of the person in the room who relies on eyes to process visual and aural information (e.g., lips moving, lights on a CD player). In this column, users can identify how certain environmental characteristics and/or behaviors can affect learning for a person who primarily processes information through their eyes. To keep with the example on seating arrangements, for people who rely primarily on eyes/eyes, circles or semi-circles are more ideal to foster effective communication and direct eye contact with speakers.

**Column D: Comparable? Modifications?** The purpose of this column is to assist the user in understanding the similarities and differences between the hearing and Deaf person’s experience in various environments. Once this is understood, it becomes easier to discuss options for leveling the playing field. In this column, the user (hopefully in consultation with the other partners in the interactive process) can identify strategies to create more effective access for all users. In the example with seating arrangements, the experience is not the same in seating arrangements where people are in rows or auditorium seating, but is more similar in semi-circular or circular arrangements. A modification in the case of a room with movable chairs might be to move chairs to a more accessible arrangement. If there are too many people, or if the furniture cannot be moved, it may be to place the student with a hearing loss in the best location based on that person’s preference (the front may not always be best) and where the accommodation provider (if there is one) can be feasibly located.

**Column E: Interpretable? Modifications?** This column allows the user to analyze the environment for accommodation providers like interpreters or captioners. First, a determination should be made if the particular environmental challenge is interpretable. If so, then move to the next inquiry about what, if any, modifications need to be made to ensure access. In the situation evaluating seating arrangements, assuming it is interpretable, the user might note that room for a captioner/interpreter will be needed. It may be necessary to move one or two seats or to allow for shared space with the educator on the platform.

**Column F: How will modifications benefit other participants?** The purpose of this column is to note the benefits for other participants, including students and the educator. When this is added to the analysis, the benefits of universal design strategies become more transparent to all involved. It can also be a strong motivator as it answers the question, “What’s in it for me?” for all participants in the room, including the educator.

## **Conclusion**

Our observation has been that UID has not “caught on” among providers of services for students with hearing loss. We believe some of this may be due to the lack of in-depth discussion regarding the potential benefits of UID strategies for students with hearing loss and other participants in the educational environment. We hope that the assessment tool will be useful in facilitating the interactive process for educators, students and DS providers. Indeed, this project has led us to expand this tool to evaluate the accessibility of learning environments for all students, not just based on use of eyes and ears.

## **Endnotes**

1. “Hearing loss” includes students who are hard of hearing, deaf-blind, deaf and Deaf. It assumes a wide range of students with different hearing abilities and who use different compensatory strategies (e.g., lip-reading, captioning, sign language interpreters, cued speech, etc.)
2. See, e.g., Silver, Patricia, Universal instructional design in higher education: an approach for inclusion, *Equity & Excellence in Education* v. 31 no. 2 (September 1998) p. 47-51 and Silver, Bourke, and Strehorn, Universal Instructional Design in higher education: an approach for inclusion, *Equity & Excellence in Education* v. 31 n. 2 (1998).
3. The authors thank Uriah McKinney for his additional research in this area.
4. The term “educators” is used throughout this paper and is intended to include faculty, instructors, teaching assistants and any other person who has a primary role as a teacher in a learning environment.
5. The Center for Universal Design (1997). *The Principles of Universal Design, Version 2.0*. Raleigh, NC: NC State University.

6. Center for Applied Special Technology. (2001). Universal Design for Learning. [Online]. Available: [www.cast.org](http://www.cast.org)
7. The Americans with Disabilities Act, 42 U.S.C. Sec. 12182 and Section 504 of the Rehabilitation Act of 1973, 29 U.S.C. Sec. 794.
8. In some cases, accommodations that were ‘one-time’ modifications become universally designed features, such as a ramp or elevator. In others, the accommodations are tailored to the individual and must be repeated each time the individual encounters a different environment, such as providing brailled documents or sign language interpreters.
9. See, e.g., Jehangir, Rashné R, “Charting a New Course: Learning Communities and Universal Design,” Curriculum Transformation and Disability (CTAD): Implementing Universal Design in Higher Education, Edited by Higbee (2003) p. 88.
10. The information on this and related pages is adapted from the work of Curriculum Transformation and Disability (CTAD), a collaboration of the University of Minnesota's General College and Disability Services. Curriculum Transformation and Disability was funded by the U.S. Department of Education, Office of Postsecondary Education. Project # P333A990015. *See also*, Workshop Facilitator’s Guide, <http://www.gen.umn.edu/research/CTAD/publications.htm>.
11. These principles were synthesized from Chickering and Gamson's (1987) Seven Principles for Good Practice in Undergraduate Education and North Carolina State University’s Principles of Universal Design (1997). See, e.g., Fox, Hatfield, and Collins, Developing the Curriculum Transformation and Disability Workshop Model, Curriculum Transformation and Disability (CTAD): Implementing Universal Design in Higher Education, Edited by Higbee (2003).
- 12 *See*, CTAD, *id.* at endnote 10.
13. Humphries, Tom, Communicating Across Cultures (Deaf/Hearing) And Language Learning. Doctoral dissertation. Cincinnati, OH: Union Graduate School (1977), and Lane, Harlan, The Mask Of Benevolence: Disabling The Deaf Community. New York: Alfred A. Knopf (1992).
14. *See, e.g.*, U.S. Department of Justice, Office of Civil Rights, Students With Disabilities Preparing for Postsecondary Education: Know Your Rights and Responsibilities (2005); <http://www.ed.gov/about/offices/list/ocr/transition.html>
15. Fox, Hatfield and Collins, *ibid.* at 34.
16. Fox, J and Johnson, D., Curriculum transformation and disability: Workshop facilitator’s guide. Minneapolis, Minnesota: University of Minnesota: General College and Disability Services (2000) at Slide 6.
17. Adapted from “Interventions for Students with Learning Disabilities: A Meta-analysis of Treatment Outcomes” by H. Lee Swanson, 1999.
18. *See* CTAD, *id.* at endnote 10, at Slide 6.

19. See, CTAD, id. at endnote 10.
20. See, CTAD, id. at endnote 10.
21. See, CTAD, id. at endnote 10.
22. From Bowe, Frank, 2000. *Universal Design in Education: Teaching Nontraditional Students*, Westport, CT: Bergin & Garvey.
23. See CTAD, id. at endnote 10.
24. The assessment tool was partially based on the work of Dr. Betsy Winston, who used headings in columns B, C, D and E in her work on interpreting processing. The four environments are based on the theory of meaningful access, used in the CTAD materials cited above and also developed in the work of Cordano, R.J., and Mann-Rinehart, P., related to Universal Design for Diversity 2006.

#### **How to cite this article**

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## Appendix A: Universal Instructional Design Assessment Tool for Evaluating Learning Environments for Students with Hearing Loss (Cordano & Magler)

Environment (Physical, Informational, Policy/Programmatic /Attitudinal)	Hearing: Access achieved through: Eyes---Ears	Deaf: Access achieved through: Eyes---Ears	Comparable? Modifications?	Interpretable? Modifications?	How will modifications benefit other participants? (educators and students)
<b><i>Physical</i></b>					
Lighting					
Seating Arrangements					
Flooring					
Wall Decorations					
Windows/Window Dressings					
Ability to adjust proximity to teacher as needed					
Provides appropriate breaks for students and service providers in long classes.					
<b><i>Informational</i></b>					
<b>Lecture</b> (note: be clear what language/mode will be used. E.g., ASL or English or another language or modality)					
PowerPoint					
Overheads					
Paper outline					
Simultaneous electronic notes/outline or slides on laptops					
<b>Question and answer</b> (lecture based)					
<b>Question and answer</b> (text or paper based)					
<b><i>Classroom Discussion</i></b>					
Round-robin style					
Teacher facilitated					
Random Input without signal (e.g.raising hand or voice indication)					
Input with signal					
On-line electronic discussion using laptops or other devices					
<b><i>Web-based Materials</i></b>					
Digital videos					

Environment (Physical, Informational, Policy/Programmatic /Attitudinal)	Hearing: Access achieved through: Eyes---Ears	Deaf: Access achieved through: Eyes---Ears	Comparable? Modifications?	Interpretable? Modifications?	How will modifications benefit other participants? (educators and students)
<b>Media Technology</b>					
DVD					
Video					
Audio tapes					
Online classes					
Audio features					
Video clarity					
<b>Policy/Programmatic</b>					
Syllabus statement					
Course requirements					
Essential requirements					
Assessment tools					
Course registration protocol					
Course prerequisites					
Cost of course/Financial Aid					
Time of course					
<b>Attitudinal</b>					
Opening-welcoming of all and thoughtful of differences in classroom					
Use of body language					
Body language and expressions					
Interest in dialogue					
Commitment to office hours and student contact					
Encourage and support student interaction					
Approach to accommodation service providers					
Classroom environment / decorations					
Sensitivity to different views/perspectives of students based on life experiences					
Educators capacity to explore differences in students' responses or experiences based on cultural or linguistic experience.					

\* Columns B,C,D,E adapted from work of Dr. Betsy Winston.

\* See also, Cordano, R.J. & Mann, R.P., Principles of Universal Design for Multiculturalism, 2005.

\* See, Curriculum Transformation and Disability, University of Minnesota.



# **Public...Speaking?: Charting the Road Less Traveled**

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## **Abstract**

At most college campuses, Public Speaking is a required course for all students. Comments from interpreters, direct observations by Disability Services Directors, and questions posed by professors suggest that public speaking courses raise unique questions: How can the instructor be sure he or she is evaluating the student, and not the interpreter? Are curricular materials and assumptions appropriate for deaf students? How can public speaking faculty prepare their hearing students to effectively evaluate deaf presenters, and vice versa? Through a collaborative effort, faculty from Western Oregon University's ASL/English Interpreting and Communication Studies Programs are working to develop solutions.



## **Introduction**

This paper explores two interrelated facets of a research project aimed at improving the instruction, evaluation, and interpretation of course materials and student presentations in a postsecondary public speaking course. The first facet involves consideration of the curriculum of the course, especially the non-signing instructor's and students' measures and standards for evaluation of presentations by deaf students who use interpreters. We also briefly consider dynamics of hearing presentations that may pose particular challenges for deaf student evaluators. The second facet involves the training of interpreters within ASL/English Interpreting programs. This aspect of the research also focuses on presentational contexts and addresses the demands upon interpreting services as well as individual interpreters.

## **Background**

A 1995 report of the National Center for Educational Statistics estimated that more than 20,000 deaf and hard of hearing students enrolled in postsecondary educational institutions in the United States. Most of these students are enrolled as undergraduates and most of them will not graduate with degrees (cited in Marschark, Lang, & Albertini, 2002, p. 151). There are many

reasons why significantly fewer deaf students than hearing students graduate, especially from four-year programs. Issues of access, academic preparation (including college prep courses in high school), funding (for both schools and individuals), social support, and many other factors affect undergraduate student recidivism. Some of these issues may be amplified for deaf students who experience “lags in language development and gaps in academic skills” (p. 152). Given all these barriers to success in higher education, it seems only reasonable that the core university curriculum be as accessible as possible for all students. Yet, for practical as well as ideological reasons, this is still very far from the case on most campuses.

At most colleges and universities in the United States, undergraduate students—deaf, hard of hearing, and hearing alike—are required or opt to take a public speaking course. Such courses are intended to familiarize students with the principles of the rhetorical canon while providing them with opportunities to become more comfortable delivering public address. As a teacher of rhetoric, in a course titled “Fundamentals of Speech,” I was challenged to address the question of access most profoundly the first time a deaf student enrolled in the course. At minimum, I needed to adapt the curriculum and reconsider my teaching methods and preparation. What other option did I have?

After struggling through the term and learning a little more about Deaf culture and communication, I was surprised to learn there was another option—an option I had not considered. Shortly after we began our collaboration on this essay, a discussion occurred on a listserv regarding accommodating deaf students in public speaking classes. The following points were brought out:

- The task of the class was to prepare and deliver speeches by researching, organizing, writing and demonstrating techniques of effective delivery.
- There was concern that the interpreter would be delivering all of the speeches for the student.
- A waiver of the requirement was suggested as the best solution, and was deemed by the service provider to be a reasonable accommodation.
- The waiver would follow the student to any college the student planned to attend.

### **Why not waive?**

While there are some instances where a waiver might be appropriate, is it ever advised to make this waiver standard or policy for all deaf students? Is this service provider correct in assuming the interpreter would be giving the speeches for the student? The fundamental premises that undergird the study of public speaking (or presentational communication), and the educational experiences of deaf students suggest that this recommendation, this solution to the question of appropriate and reasonable accommodation, is not ethically defensible. It is reasonable, as well as practical and probably quite common. From the standpoint of a non-signing instructor, it is completely understandable. Yet it is also deeply ethnocentric and potentially disabling.

The ensuing discussion recognized students need and deserve to be taught how to research, organize, write and deliver an effective presentation as much as any of their classmates. It also recognized that a student may be reluctant to take a course in which her grade appears to be reliant upon the vocal performance of an interpreter with whom she may have little out-of-class interaction. Her reluctance may stem from her sense that the teacher is not well-equipped to properly evaluate her presentational communication because of some of their communication

differences. Or she may be one of the millions of people who fear public speaking more than death. Clearly, though, reluctance alone is not sufficient reason for a waiver.

That the waiver would travel with the student to another university is also troubling. Not only is she being encouraged to pass on the opportunity to develop her argumentation and public communication skills but she is being protected against the future possibility of a (perhaps less ethnocentric) communication curriculum that might benefit her academically. In this case, the waiver is appropriate if the student can demonstrate proficiency, but significantly less so if it prevents her from attaining proficiency.

Finally, the claim that the student will have the interpreter give all the speeches for her is troubling both because it demonstrates a lack of understanding of the nature and purpose of rhetorical training and because it diminishes the student's role in her academic work. As educators, do we merely have the interpreter give our lectures for us? Of course not. So the problem appears to reside with the issue of delivery, which is but one component of rhetorical training, often less emphasized in such courses than quality of argumentation, organization, support, and language choice. More pointedly, if we shift the burden from the student to the curriculum, the problem appears to reside with the non-signing instructor's and students' inability to adequately evaluate and assess the quality of a deaf presenter's delivery due to their lack of understanding of ASL and deaf communication (including Deaf culture). Unlike so many of the problems facing deaf students in their struggles to succeed in postsecondary settings, this one can be resolved relatively easily. What we need is a different attitude and some foundational research to help guide further development of presentational communication curriculum, teacher training materials, and pedagogical strategies for mixed deaf/non-deaf classes.

In an essay in *NETAC Networks*, Jane Jarrow (1998) calls attention to one of the underlying problems and reasons why such a curriculum is not already well established:

Lately I have been hearing a lot of stories about faculty members who balk at the idea of having a deaf student who uses sign language involved in . . . courses that have a heavy emphasis on oral presentation. . . . Unfortunately, the majority of the hearing world still believes that the use of sign language is second best. . . .

Hearing people may be fascinated with sign language, they may envy those with facility in its use, but when it comes down to the wire, they believe that anything other than speech is a poor substitute. We have to help faculty, staff, students, and the community understand that sign language is a viable alternative to speech.

The use of sign language does not diminish either the user or the value of the communication. (Jarrow, 1998, p. 5).

Although the statement "the whole purpose of the assignment is to have the student learn to handle the pressures of standing in front of a class and making an oral presentation" (p. 5) glosses over other skills gained in public speaking courses, Jarrow is absolutely right that such attitudes can inhibit deaf students' educational pursuits. For that reason alone, our research is worthwhile.

In addition to aiding in the education and retention of deaf students, this collaboration enables us to further the professional development of faculty members and the ASL/English interpreters who work in their classrooms. Many of these interpreters will also work in contexts that require them to interpret for deaf presenters and hearing audiences. The experience they can gain in a presentational communication classroom will strengthen their ability to be effective in a

variety of communication situations. Likewise, interpreting students can gain additional experience through the videotaped interpretation of carefully crafted public discourse by both deaf and hearing presenters. Such pedagogical activities help both interpreting students and non-signing instructors understand some of the dynamics at work in presentational communication contexts involving deaf presenters and interpreters.

## **Evaluation of Presentations**

First, it is worth noting that there are numerous similarities between presentational communication delivered by English language and ASL presenters. For example, the processes of audience analysis, development of ideas, research, organization, use of style, and techniques of memory can all translate across the two linguistic cultures. Likewise, many traditional standards of effective delivery such as a slower pace, clear articulation, consideration of the audience and speaking environment, word choice, poise, composure, and consideration of personal appearance are consistent for both deaf and hearing presenters (see, e.g., Zimmer, 2000).

These similarities in evaluative considerations suggest that it is highly appropriate for deaf students to enroll in public speaking courses. Yet there are also important differences that need to be more closely examined by Deaf Studies, ASL, Interpreting, and Communication educators in order to improve our methods of instruction and evaluation. We offer a preliminary sketch of some of the necessary (re)considerations here.

The linguistic features of ASL as a language warrant attention. For instance, non-signing students and instructors should understand that formal signing tends to be slower and involves a much larger signing space than informal ASL. Formal signs are two-handed variants and are also supposed to be clearer and more fully executed than the casual signing that marks an informal conversation. This feature of ASL can be likened to the formality in language choices a hearing student might make (as opposed to the tendency toward casual, unplanned phrasing in informal communication situations) but it is also important to recognize the differences in register variation that impact ASL communication in public settings.<sup>1</sup> Other linguistic features of ASL described below, such as the use of shoulder, head, or eye-gaze shifts to mark reported speech, or the use of head nods to grammatically mark the ending of a thought or transition to a next point, also differ from the standards frequently assumed for non-signing presenters.

Perhaps predictably, the preparation and delivery of the speech differs for non-signing and ASL presenters, particularly those who rely upon the services of interpreters to communicate with their audiences. ASL presenters who are addressing non-signing audiences need to use facial expression to communicate what is generally termed vocal variation in most public speaking curricula. Hearing students also use facial expression, as well as gesture and body movement to convey their ideas and emotions to audiences but the situation is slightly different for ASL presenters. For the deaf presenter, effective delivery may involve the appropriate level of projection of signs, the holding of a sign or use of head nods to communicate an ending or transition, the use of directional shifting of the torso to communicate dialogue, two-handed signs and sign variants to indicate formality, and possibly even distinguishing communication with the interpreter (from communication directed to the audience) by signing lower on the body in a less formal register. ASL presenters may also have to divide their eye contact between the audience and the interpreter, and the necessity of this practice for audience comprehension should be explained to non-signing audience members in the context of the public speaking curriculum.

Non-signing students who are conducting evaluations can be quickly and easily informed of some of these differences, as well as more basic considerations such as looking at the presenter, not the interpreter, and applauding in a manner customary among deaf people. Student evaluators may even offer additional insights into effective public communication practices by ASL presenters, allowing their feedback to reflect much more than just the comprehension of the interpreted language choices. More importantly, non-signing instructors need to be familiar with some of these differences to adequately assist their deaf students with the development of their presentational communication abilities.

In addition to the educational training of deaf and non-signing students in the presentational context, there are also institutional constraints and considerations to contemplate. For instance, interpreters should be provided with outlines or texts of the students' speeches in advance. In places where students have chosen particular kinds of phrasing for rhetorical effect (such as a metaphor, alliteration, or use of rhythmic devices), the text should be marked with quotation marks so the interpreter knows that this phrasing warrants special consideration and can prepare appropriate signs or English translations in advance. Also, interpreters are often only paid for their in-class interpretation time, not preparation time or practice time, which might be even more important when the presentation is being evaluated. The ASL presenter should have the opportunity to address with the instructor any errors that may have been made by the interpreter, but absent from the delivered presentation.

Finally, when preparing the deaf student to be an evaluator of non-signing student presentations, parallel considerations should be made. Here, institutional constraints can also be problematic. In the case of our institution, a single interpreter is assigned to public speaking courses in which 10-15 students might be delivering speeches in a single class period. Such failures of funding and scheduling not only make for extremely difficult work on the part of that interpreter, but can actually limit the students' learning if the interpreter is physically unable to keep up with each presentation. Brenda Chafin Seal (2004) touches on some of these problems as they affect interpreters in her "Case of the Final Semester Presentation" (Chafin Seal, 2004, pp. 188-189).

## **Genesis of Service Learning**

The ASL/English Interpreting program at Western Oregon University has been working on integrating Service Learning (SL) into the curriculum since the spring of 2004. At that time, a request was made to the campus community offering a forum for presenters to practice their presentations in the safety of the interpreting classroom, thereby providing the opportunity for interpreting students to practice interpreting in a risk-free setting. Several presenters took advantage of this opportunity and the live speakers/signers greatly enhanced the student interpreters' learning experience.

We solicited source material for translations. The most viable project to date was a request by a university faculty member who wanted to have three ASL videotapes translated for an ASL Literature course offered to ASL teachers, interpreters, and other interested students. Students worked collaboratively to develop written English translations of the ASL source material. The teacher who requested the translations successfully incorporated them into her literature course.

We received an additional request for ASL translations of three student speeches in spoken English that accompany a textbook for an introductory public speaking class. This project proved to be challenging and not as beneficial to the instructor making the request. The translations were

longer than the original speech in spoken English and the instructor goal of having translations that include both effective and ineffective public speaking practices was not achieved. These challenges, in many ways, motivated the present study and a SL brochure project.

In this SL project, students in an introductory course on the interpreting profession developed a brochure. Students conducted research to identify materials that were already available and found that materials containing the basics of working with an interpreter exist in libraries, Disability Services offices, and on the Internet. Yet there was very limited information available that addressed working specifically in classes where presentations are required. After their initial research, the students interviewed deaf and hearing students, faculty, and staff interpreters to identify effective and desirable educational practices. The project culminated in a brochure for faculty who teach deaf or hard of hearing students who rely upon signed language interpreting services.<sup>2</sup> This brochure may be found at <[www.wou.edu/rred](http://www.wou.edu/rred)> under the link “Resources.” The brochure offers some preliminary advice on teaching deaf students effectively and evaluating deaf students’ presentations.

## Conclusion

Many more considerations are warranted, and further studies should expand on the communication similarities and differences that impact public speaking curriculum for mixed deaf/non-deaf classes. The purpose of this preliminary conversation is to chart a road into underexamined territories and to ponder the ways collaborative efforts across disciplines can improve postsecondary educational opportunities for all students, deaf and hearing alike. After all, hearing students who feel they can competently understand and respond to a deaf presenter are more likely to take advantage of opportunities to attend presentations by deaf speakers. Likewise, deaf students who have been effectively trained in public communication are more likely to use those skills to express their ideas and insights in public settings such as conferences, lecture halls, rallies, and meetings. By including interpreters, individuals training to become interpreters, instructors, deaf students, and hearing students in the research process, we are better positioned to consider multiple dynamics and facets of presentational communication education in mixed classrooms. The service components and cross-disciplinary approach enriched our discussion and expanded the applicability of our findings.

In closing, we turn to an inspiring anecdote about a high school senior whose favorite class was public speaking. A 2003 issue of the *Hillsboro Free Press*, a Kansas newspaper, includes a story about a highly accomplished deaf student named Tomi McLinden. The article states, “She found she enjoyed giving the speeches and demonstrations that were part of the class” and indicates that McLinden plans to take public speech, along with a full load of other introductory courses at Butler Community College the following fall (Hamous, 2003). This student’s story reminds us of the importance of encouraging deaf students to become proficient public communicators. Public speaking, as it was conceived by the ancient Greeks and Romans and as it is promoted by contemporary communication scholars, is part of a broader civic duty that we all share. Such encouragement also helps educators and administrators address issues of access, curricular adaptation, and accommodation more effectively and with greater empathy.

## Endnotes

1. For more on formal and informal registers, see RRCD (1997) *Language use in ASL: Register*. Interpreter Education Center. Monmouth, OR: Western Oregon University.
2. It is important to note that this brochure is not intended to supplant the more detailed resource manuals and tip sheets available online and in most Disability Services offices. Rather, we intend the brochure as an easily accessible, cursory introduction for faculty who may not yet be familiar with the more extensive materials available on their campuses.

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# Positive Connections: Working Together to Prepare Well in Advance

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## Abstract

At the start of each new term, a typical support services program gets a lot of hurried requests and demands for accommodations from students with disabilities. Preparing well in advance is essential to be able to provide support services and other accommodations for the students at the same time as having other departments educated on taking part in helping the student earn an education and life-building skills. Working with other departments on campus will bring effective collaborative results in providing accommodations to students with disabilities. Cross-training should help all departments be well-informed about each other, speeding up the process of sending an individual to the appropriate department. Marketing techniques, workshop and luncheon hosting, and other relevant material to help promote positive connections will be presented with a perspective of a former student using accommodations who is now a professional providing accommodations.



## Objective

Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has. —Margaret Mead (1901-1978)

Teaming up with other departments to bring effective collaborative results in providing accommodations to students with disabilities—*ahead of time*—means more than just educating and working with other departments. According to the quote, our “small group” of DSS must consider what to do to make a difference. DSS should start making changes by organizing and representing our office before proceeding to engage in collaboration activities.

## Perspective

This manuscript has its own perspective, combined with both personal and professional experiences. The personal experiences mentioned are based on my college and graduate school years, and the professional experiences stem from my work for DSS at Jacksonville State University (JSU). Using personal and professional experiences may give some insight on what works effectively for a college student with a disability to be cognizant of what to do and where to ask for assistance on campus. Proceeding from my perspective, it is considerably important for any office of disabilities to be organized within its department and market its services conscientiously—in order to be approachable to students and other departments. By being approachable, the office of disabilities is to have a perspicuous vision in contributing to the university and assisting students.



## Personal Perspective

- Auburn University
  - B.A. in English with double minor in Business & History
  - M.Ed. in Higher Education Administration
- Registered with Auburn's Program for Students with Disabilities (PSD)
- Accommodations included transcription, course substitution, notetakers, copies of faculty notes, extended time for exams, films to be captioned/transcribed, and having faculty face the audience while lecturing

## *Experienced Freshman Year*

- As a freshman, I experienced feelings of bewilderment while applying for college and residential dorm, figuring out what to do for financial aid and how to handle scholarships, registering for classes, requesting accommodations, and adapting to independent living
- Wish list for a better freshman year:
  - *student handbook* for using support services that explain in detail the ADA/504 guidelines and type of accommodations offered
  - *checklist* for all things to be done as a student
  - *other essential information* such as deadlines, working with Vocational Rehabilitation Counselor, knowing what and where to ask for accommodations, go see an academic advisor before registering during Priority Registration
  - *Quick Reference sheets* on all major departments with email addresses and phone numbers (i.e. Financial Aid, Registrar's Office, Bursar's Office) and links to college and support services websites

*(Note: Remember this is my personal experience from college. PSD now utilizes the Auburn University website to assist students become better oriented to the services they provide.)*

## Professional Perspective

- Hired August 2005 as Disability Specialist, Generalist
- Using all education earned from Auburn University to work within another college setting: Jacksonville State University
- Applying all experience as a college student with a well-rounded background, including having a disability
- Job duties include: departmental PR/Marketing, conduct ADA/504 compliance surveys, update/create forms & SOPs, coordinate programs such as College Prep, ACT Prep, & support services, help with support services billing

## *Experiencing First Year as a Professional*

- Seeing how and what students, particularly freshmen, need guidance in to get around on campus
- Educated wish list for students with disabilities
  - *Vocational Rehabilitation*: what does it really do for the student and who is eligible

- *Orientation to support services packets and handbooks* to give to students, faculty, and perhaps administration
- *Scheduling support services* in timely manner
- *Train faculty* to have more understanding of and communication with students with disabilities
- *Update website* with all integral information and forms available
- *Market the office* through promotional pieces and frequent appearances and maintain good hospitality politics
- *Office approachability*

## **Strategies**

Successful collaboration with other departments calls for one or more strategies, and there are three main strategies listed here. These strategies are to guide the office of disabilities in getting started. Each strategy is explained in detail as to why and how it would help the office of disabilities collaborate well with other departments.

- I. Marketing Techniques
- II. Office Organization
- III. Office Representation

### ***I. Marketing Techniques***

There are four main components of marketing techniques to keep into consideration:

1. research
2. interviews
3. review and then update/create promotional material
4. availability of information

Research is gathering information from different sources and putting together a concept that supports the points being made. Sources include watching videos, reviewing other postsecondary institutions' marketing materials, and networking. To deepen the research process, frequent interaction with students, faculty, and departments is recommended. This allows the DSS to absorb details essential to catering to unspoken needs and wants through mediums of in-person reception, promotional pieces (i.e. newsletters, brochures, handbooks), website, lunch/party hostings, interviews, and many more. Have interviews with persons who are either directly or indirectly affected by the way the office of disabilities operate. The more persons interviewed and the more relevant the questions are asked, the more unthought-of possibilities and useful, detailed feedback that will help determine how to market the office.

Once the research and interviews are done, take the time to carefully review latest promotional pieces. Keep in mind that not updating or revising promotional material, forms, SOPs, and other documents will most likely lead to miscommunication. People asking for information probably do not take the time to read or look for the revision date (that is, if the revision date is on there in print or online) or, for example, note that a particular form has not been revised since the '90's. There may be some information missing that prod the same questions to be asked over and over again; this is unnecessary if the answers asked for are available somewhere—on paper, online, or in person.

Make updated changes and revisions and/or create new promotional material, along with forms and documents. The updated/created promotional material, forms, and documents should always be available by having plenty of copies in the reception area, individual offices, other departments, and online. Comprehensively, the four main marketing techniques established will help any office of disabilities in a long way with more understanding, better communication, and increased availability of information.

## ***II. Office Organization***

Credibility is based on action rather than words. The office of disabilities shows its credibility by first being organized within. Students, other departments, and the institution as whole will note the actions the office of disabilities has taken to organize. By organizing the office, the roles and duties of each person on staff from student worker to director are to be specifically outlined and defined. The promotional pieces should include information on the staff and their respective roles and duties. Some examples:

- a flowchart helps illustrate the staff
- a staff directory is designed as quick reference for contact information on each staff member
- a layout map of the office helps guide any individual to an appropriate office
- the forms should be updated and corrected by every staff member, because each staff member has experience from which can be used to determine how the forms will help all the office, students, other departments, and the institution as whole (i.e. accommodations, equipment reservation and sign-out, contractual agreements on having read the rules and will abide by them, request for support services, and cancellation of support services)
- the website is part of the advanced process of giving out information and should be updated often. The website not being updated may inadvertently send a message that the office is not quite organized or reliable.

Each staff person should have substantial knowledge of what is going on around the office, what support services are offered, and what policies and procedures are to be followed. Weekly staff meetings, or at least on a regular basis if not weekly, should help the staff be knowledgeable and more in tune with the latest mission pursued within the office. Moreover, having quick facts/references sheets on hand at front desk and in each staff member's office will definitely increase communal knowledge. The state of organization within the office will be acknowledged by students and other departments when they come for assistance and/or collaboration. Other departments will likely have more respect for the office of disabilities when they observe how exceedingly the office operates thanks to its organization.

**Organization Effort Example: Faculty Verification Form.** Accountability is an integral factor in tracking the success of collaborative efforts put forth by the office of disabilities. To verify that the student with a disability has given his accommodation letter to the instructor, a form is to be signed by the instructor, indicating that the accommodation letter has been received, read, understood, and would allow the student use appropriate accommodations to further his education. There has been some debate over the issue of verification letters. There are pros and cons.

The universities and colleges who support the accommodation letter verification have developed systems that work to the point of satisfaction of everyone involved. One example is an

email system of “checks and balances”, starting with a prior email to faculty with an approved list of accommodations for a specific student proceeding with the student to print out a copy to give to the instructor (in case the instructor does not check email) in order to discuss accommodations in person. A second example is having the student come to the office and fill out a request form asking for certain number copies of accommodation letters to give to faculty. The accommodation letters are prepared accordingly, with instructions for the student to meet with faculty to discuss accommodations in person. The last example is the use of the website system where a student can go on-line to make accommodation letter requests, which will go through the approval process before sending a notification email to respective faculty about the student’s approved accommodations. Among institutions using these systems, the return rates of signed verification forms average between 70-75%. This statistic shows how useful verifying the accommodation letters are when it comes to having proof of dated signatures—especially when accountability conflicts arise such as student asking for accommodations too late (like right before a test to ask for extended time test-taking) or an instructor denying of receiving any letter notifying that the student is qualified in requesting for specific accommodations.

On the other hand, there are other institutions not supporting the accommodation letter verification. Their arguments include unnecessarily adding to worry and stress over retrieving or not retrieving the verification forms, more paper waste, decreasing of student’s independence, and wasted “legal” efforts. The main point is to let the student decide, and the office of disabilities should focus more on being there to provide accommodations and not worry about making things easier for the student. Both pro and con sides have valid points on the issue of verifying accommodation letters, and it is up to the office of disabilities to discern the need to have such verification due to the atmosphere and size of the institution. (“Accommodation Letters”, 2006).

**Organizational Effort Example #2: Orientation to Office of Disabilities Packet.** What student does not want to have some kind of orientation in order to make adjustments less stressful and quicker? The office of disabilities should have some kind of an orientation packet to give any student who recently registers with them to request for support services. The orientation packet is to contain all information vital to surviving the beginning of being a college student with a disability. Below is a recommended list of materials to be included in the orientation packet:

- Welcome Letter from the office of disabilities (Director)
- Purpose/Mission Statement of the office of disabilities
- Legal mandates & policies
- Staff directory and each staff member’s specific role
- Office layout
- Admission Procedures
- Documentation Guidelines
- Relevant documents, forms, FAQs, and advice
- Description of available support services
- Student responsibilities once registered with the office of disabilities (handbook)

### ***III. Representation of the Office***

- A. Brief presentation at departmental meetings

- B. Opportunities to promote support services
- C. Hospitality Politics

**A. Brief Presentation.** The difficulty of having a whole department come to the office of disabilities (or any other department) for a quick training workshop prompts creativity in seeking other ways of educating a department as whole. After interviews with several persons from other departments concerning this issue, the best tool in educating a whole department is to come to them.

- Get acquainted with the departmental secretary before asking for assistance in scheduling a brief appearance during a departmental meeting
- Give a 10-minute (or less) presentation complete with visuals; keep it brief and straightforward
- Hand out promotional pieces before time is up; make sure the website address is included on the handouts
- To make a strong impact, bring a student with a disability to stand next to you. The student may say a few words to let the departmental members realize the importance of the office of disabilities' role in the postsecondary institutional setting.

**B. Promote Support Services.** There are opportunities to promote support services. Orientation days, summer orientation camps, and special campus events (i.e. Homecoming and Greek Week) are opportunities. Students, other departments, and other persons need to see the active involvement by the office of disabilities. The awareness fueled by support services being provided in places such as the graduation ceremony or a guest speaker will lead to more trust and respect.

**C. Hospitality Politics.** I have coined this term “hospitality politics” after watching how JSU-DSS maintains its place in high regard due to being hospitable to students, other departments, and visitors. We host luncheons, tea parties, and open houses in order to invite other departments to come and spend time with us. All of these activities help build approachability and awareness of what our office does for the students and the university as whole. Not only do we host these gatherings, we also go to other departmental events to give our support, which may increase their receptiveness to us. Their seeing us supporting them encourages willingness on their part to help maximize togetherness by participating in workshops we host such as web conferences, College Prep, ACT Prep, and other programs. The fact is that we do need their assistance in preparing aspiring college students fill out financial aid or housing applications, or to learn how to take notes in a mock lecture. Overall, it is crucial for the office to take initiative in bringing on the realization the proficiency of having support services available anywhere such as guest speakers, campus events, or when they have a visitor who needs support services. Hospitality politics is a fitting term to describe the “give and take” relationship of working with other departments.

## **Conclusion**

### ***Point to consider #1: Proactive versus reactive***

Take the initiative to think ahead for the benefit of all involved

### ***Point to consider #2: Benevolence versus ethical obligation***

Willing to help in any way possible as opposed as to do as mandated by law

## Resources

Auburn University – The Program for Students with Disabilities (PSD)

<http://www.auburn.edu/academic/disabilities>

- Improvements and changes have been made at AU's PSD, including such a well-detailed website that would help students, faculty, administration, and other interested persons all. This website highlights the importance of having information available and is integral to the PowerPoint presentation of Positive Connections.
- Personal experience as former PSD student both in college and graduate school is used to give a perspective to the presenting of Positive Connections.
- Thank you to Dr. Kelly Haynes for her permission to use the website and couple of forms in order to help make the presenting of Positive Connections more informative

Jacksonville State University – Disability Support Services

<http://dss.jsu.edu>

- The past year at DSS can be viewed as metamorphic due to innovative changes still in progress. The staff, location, program of providing accommodations, forms, and many other details have been and still are undergoing the process a more advanced overall program of DSS.
- Informative interviews with various departments have been conducted to get input for the presenting of Positive Connections
- Personal experience as current DSS professional is used to give a perspective to the presenting of Positive Connections

Undisclosed listserv email list. (February 2006). "Subject: Accommodation Letters"

*Email discussions concerning the accommodation letters being verified*

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# **Diverse Students, Diverse Stories: Perspectives on Postsecondary Access Issues from Students who are Deaf and Hard of Hearing<sup>1</sup>**

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## **Abstract**

What exactly does a student who is deaf or hard of hearing need for a successful education? What accommodations and strategies work best? Whom do we ask to find out? This session featured a panel of students with different backgrounds from a variety of postsecondary settings. They are individuals with common issues, but perhaps unique needs. They shared their experiences in how to be successful and reach their goals. This discussion allowed conference participants insight into the students' thoughts, opinions, and experiences.



## ***Andy Firth***

Good afternoon everyone, and welcome to the closing session of the 2006 PEPNet conference. You've all had a wonderful time sharing a lot of valuable information this week. I have also learned a lot of new information, and I really have enjoyed meeting the various individuals who are here for the first time.

This week we have heard many, many different issues being discussed. We've had a variety of educational professionals here, so it's nice to share the information from the different areas within our profession. But we always have to keep in mind the perspective of our students whom we serve. It's always great to hear from populations that we provide services to. Sometimes you can get a reality check on how we have been doing. So, what other best way is there to close this conference than to hear some perspectives from those students within those populations?

This week we have heard a lot about diversity within the Deaf and hard-of-hearing student

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<sup>1</sup> This is an edited transcript of the student panel presentation at the closing session.

community. For our closing session, we have a panel of students here with us from diverse backgrounds. We hope that they will share a variety of their experiences with us today. I'm sure you'll enjoy hearing from them. We hope to have some time for questions and answers at the end of the presentation.

I'd like to introduce my co-facilitator, Cassie Manuel.

### ***Cassie Manuel***

Good afternoon! As Andy said, we are excited to have a panel of students here to end the conference. Some of them flew in last night on short notice, so I do appreciate their taking the time to join us. We have a wonderful opportunity to hear them share their experiences with us.

The first student we have is Gary Talley, from the University of Arkansas, which is located in Fayetteville. Sitting to his left is Kim Thornsberry. She is from Western Oregon University. Brock Hansen is from the University of Wisconsin-Milwaukee. On his left is Jennifer Buckley. She is at the Rochester Institute of Technology, and she was just accepted at Michigan State University. On the end, we have Cynthia Patterson, also from the University of Wisconsin-Milwaukee.

What I'd like to do is start the panel off by asking each of you to just basically give us your background, something about your hearing loss, accommodations that you've had in college or support that you received in college... anything you'd like to share with us.

### ***Gary Talley***

I wish I had an explanation for the hearing loss. They haven't told me after three years why I went deaf. I was teaching a class in Las Vegas. I didn't have allergies or other problems; there was nothing out there. I noticed a small distortion. Six weeks later, I was deaf. I thought my life was over. I hooked up with some good people. I started sign language classes and was accepted into the Vocational Rehabilitation Counseling program at the University of Arkansas. Classes were taught in Little Rock, but it's a Fayetteville degree. This is my second Master's degree. I graduate next month, and I'm very excited.

*(applause)*

With everything that happened, things just turned out well and I was pretty lucky.

### ***Kim Thornsberry***

Hello, I'm Kim Thornsberry. I was born deaf. We have no explanation for why I was born deaf. I'm from Idaho, actually, and grew up in Michigan. I went to a mainstream program. I'm at the Western Oregon University and I'm studying in the Vocational Rehabilitation Counseling program. I'll be graduating this coming June. Before I was at that university, I went to Gallaudet with two majors, psychology and child development. I've now transferred to Western Oregon for the VR counseling program.

### ***Brock Hansen***

As they said, I go to the University of Wisconsin-Milwaukee (UWM). I lost my hearing four years ago now. It started probably sooner than that due to Neurofibromatosis-2, or NF 2 for short. To make a long story short, tumors grow on the auditory nerve. I came into college with a hearing loss in one ear, and then halfway through the year, the tumor destroyed everything else. I was completely deaf within a semester.

I know a bit of sign language. I moved from special seating to pick up stuff in my good ear,



then to using notetaking, and then to using FM systems. As my hearing went down, I kept getting more and more lost. And I finally settled on a captioning service, which I've used ever since.

I'm currently in my first year of graduate school, in the Rehabilitation Counseling program, and I'm enjoying it.

### ***Jennifer Buckley***

My name is Jennifer Buckley, and I am currently about to graduate from the Rochester Institute of Technology (RIT) in Rochester, New York. I will be going to Michigan State University (MSU) in the fall. I was born almost hearing, and I have a progressive loss. My father is deaf. It's a hereditary thing. My mom is hearing and is an interpreter. I was raised with sign language, ASL, English, and oral communication, as well. I'm cross-registered with the National Technical Institute for the Deaf (NTID) and RIT. And I think that's it. That's all the information you want to know for now? Okay.

### ***Cynthia Patterson***

My name is Cynthia Patterson, and I am currently at the University of Wisconsin-Milwaukee (UWM). I'm not sure if I was born with my hearing loss, but they discovered it when I was going to a regular school. The teachers told my mother that I had a hearing problem. I was transferred to a mainstreamed school where they used Cued Speech because my parents didn't want me to sign. Then I picked up sign language with my friends. As I got older, I was in a regular mainstreamed school. Then I attended John Marshall High School, where I got my first taste of teacher-student communication in both sign and speech. When I attended Gallaudet University, it was the same thing. After I left Gallaudet, I attended the Milwaukee Area Technical College (MATC), and that was a big change for me because there were interpreters along with the students and teachers.

It was a very confusing time for me. I left school, started to work, and came back to UWM. I attended UWM for my first semester in 2004, and I enjoyed it. I've been able to have my life experiences and apply what I learned in the hearing world. Right now, I'm a junior and an Education major.

### ***Andy Firth***

Thank you all for sharing your background information with us. We would hope you could also share some information regarding the services and accommodations you use within the classroom and the laboratory setting. Maybe you can also share what types of unique challenges you may have faced in getting or using those accommodations. Also, what would you do to insure a positive result or to resolve the problem that arose in getting those accommodations?

### ***Gary Talley***

For me, at first, it was TypeWell. My biography in the program book says that I went to Gallaudet. I was at Gallaudet for two weeks in an intensive sign language class. That was the most frustrating experience of my life! When I showed up there, I couldn't fingerspell. When I left, I could fingerspell and that was it. The teacher gave me a C++. I don't know if it's just my age or what. Maybe I wasn't ready for sign yet. People told me that I needed it, and I figured I'd have to learn.

Maybe I just wasn't ready. I came back to Memphis and started speechreading classes. When I started college, it was strictly TypeWell. I didn't think I would ever learn to sign. I started ASL

1. But as far as accommodations for learning, it was strictly TypeWell. I needed it written down.

One of the challenges I had was to learn not to watch every word. When you see every word pop up, you miss a whole lot. You have to look away for a minute and read whole sentences and paragraphs.

I was also again lucky with that. Pamela Barnes, the transcriptionist in my first class Deaf Culture, was wonderful. She was right on the money and right on target and it helped me so much. Any of the challenges I had, it had to do with skill level. I had one service provider that the school fired. She was just bad. She just couldn't keep up. Of course in that particular class, anybody would have had trouble. Dr. Williams was vision-impaired. His class was via a teleconference from Fayetteville, and the man talked so fast it was unbelievable. The problem with this transcriber was that she didn't show up twice, and that was the rule.

*(laughter)*

If anybody has challenges, you've got to let them know. You can't keep it to yourself. After a while you figure, "Well, this is just my problem." But, no... if it's not working for you, you've got to let them know.

### ***Kim Thornsberry***

I think what I'll do first is explain more about my background. I went through an oral program and did speechreading. I didn't know any sign language at all growing up. I had notetakers in my classes; some of my classmates who were hearing also would write down quick notes to clarify what point the teacher was speaking about if I wasn't able to catch it right away. I went to speech therapy, as well.

When I graduated from high school, before I entered Gallaudet, I went to a community college. It was a public college, and what a difference that was! What a change that was for me. I didn't have accommodations set up. And I wasn't quite sure how to approach the teacher, because I was the first Deaf student that they had seen.

I actually had to do some thinking about who I was and figure out what my identity was. I spoke with my VR counselor, and we discussed the different options that were out there, including other universities and colleges that had services set up for Deaf students, like NTID, Gallaudet, and RIT.

The VR counselor was able to explain to me the different options that were out there. I visited some of the different colleges, like Gallaudet, which was quite a different experience for me. I didn't know sign language, and so many people, of course, were using sign language. I felt overwhelmed in that environment and wasn't sure that I would fit there. I learned, though, that some of the students at Gallaudet had grown up with the same background as I did, in an oral program.

I learned ASL for one month before I entered school in the fall. I was able to go to Gallaudet again for a month before the semester started to learn sign language for the first time. It's called the New Signer's Program – NSP -- and that is a month-long immersion program where you're able to quickly pick up the language, hopefully before the semester starts. Then all the other college students were back to college there, and what a world of difference! There was such a variety of students there. They all had different backgrounds, coming from the residential Deaf schools and mainstreamed schools.

So the first day of class when I entered, I was just ready to go home. But I decided to stay. I was very impressed that I had an instant rapport with the teacher because I hadn't had that experience growing up in the K-12 experience. But I felt a connection with the teacher, of

course, because we had direct communication. I graduated from Gallaudet within five years.

I can't really think of any challenges. I guess for me the challenge was learning ASL for the first time. But after that, I had a variety of support and felt very connected there. Again, I graduated from Gallaudet and moved to Western Oregon University, and I'm in the VR counseling program there.

Under Rehabilitation Education, there are two subgroups. There is a group that is specifically for Deaf people, and then a group working with Deaf and hard-of-hearing people. There are about 20 students combined in those two programs. It's the first time in my experience that I'm depending on interpreters in an educational setting. And that's a challenge for me because I'm so wiped out at the end of the day from watching interpreters. My eyes are tired.

So I had to figure out how to work that system, working with interpreters, getting what I needed in classes, and budgeting my energy so that I was able to get what I needed from classes. So that, for me, has been a challenge so far.

### ***Brock Hansen***

All right. If I remember I had almost the same experience as you did before I went into Gallaudet University myself.

I had a thought here. One of the first things, with accommodations and problems with that, I found out what worked for me. As I went through the hearing loss -- especially as I went from hearing to not being able to hear -- I had to focus so much that at the end of the day I was tired. If you lipread someone for about 20 minutes, even if you had a perfect night sleep the day before, you feel like could take an eight-hour nap. So I was struggling with that.

I've got to plug the UW-Milwaukee team for working with me on this one. We tried a bunch of stuff, and I settled on captioning. One, because I'm kind of a skeptic. That's kind of a joke. But I don't trust other people taking notes for me. And I couldn't take notes and focus on interpreting or anything else. So I settled on C-Print because I could go through a class and take my own notes. Or I could take notes and then scroll back through the text. I could look away for a bit, rest my eyes, and look back to catch up.

I think one of the biggest problems with people or professors is that some will work with you a lot, and some of them just don't get it... no matter how many times you explain it. I think some of them think that I drag the computer around with me everywhere I go, and that a captionist follows me around or something.

A lot of times they will try to talk to you when you are not near the computer, and they wait for an answer, and they are not looking at you, and you're thinking what?? So in that regard, to be successful, you have to really establish a reasonable amount of patience with some people. Just keep working with them. And usually, eventually, they get it. And if they don't, they weren't worth it anyway; that's my opinion.

*(laughter)*

One of the other things that I think is important to mention is having captions on videotapes, movies, or whatever happens to be shown in class. I don't know how it is at other schools, but UW-Milwaukee is the best university here. I'm sorry...

*(laughter)*

But some of the stuff is so outdated and the captions don't come up. People don't pick it up, or they just assume that the interpreter or the captionist is going to just interpret or transcribe whatever is on the film. And that's even worse, having to jump back and forth. I don't know how to make that successful, other than just to complain about getting movies that are captioned.

I'll leave it at that for now, I guess.

***Jennifer Buckley***

My background: I was born into a mixed sign/hearing family. My two younger brothers are hearing. So we all sign for communication and speak. I was put into a mainstreamed school right away. To help you understand what's it's like to have a progressive loss, you're hard of hearing and then you lose more and more hearing every year. Right now I have 120 dB loss in one ear and 90 dB loss for the other ear, so I'm effectively deaf. But I have a normal voice and that causes more problems than anything else in school. I go to RIT, and they probably have the best support services...

*(applause; laughter)*

At RIT, you can request an interpreter for any class. It doesn't mean you'll get it, but you have a high chance of getting it. You can request an interpreter for any event. If you know that there is a poetry reading or if you know that there is a concert, you want an interpreter, then you go online and click a button. It's that easy. It's easy if you know the interpreters well, so they see your name and they want to interpret for you. But ...

*(chuckles)*

But it's a large community. NTID and RIT have a large Deaf community so it's a big family feeling. It's a small world. If you network and know more people, you can get more services.

In high school and grade school, I used no interpreter and no notetaker. I had a brief, short stint with the FM system, which was very short. My parents were not happy about the shortness of that. But I had problems with the FM system; the audiologist would tell me that the FM system would be effective for me. And I said, "Well, no, it's not. It's making things louder, but it's also making them blurry." And they said, "No, you don't know what you're hearing." I know what I'm not hearing.

*(laughter)*

But I was very young. One thing that my parents taught me was to be independent and advocate for myself. Not just accept what they expected as good enough, to be able to say no. I have a right to get equal education, equal services, as a hearing person would. So when I arrived at NTID, it was odd for me to have to get an interpreter for classes. I took advantage of it. I found out yes, it was tiring on the eye, but because I was raised with sign, I was tired. But it was still an advantage to be able to understand right away at that moment while the teacher was talking, instead of having to wait until after class saying, "Well, I wasn't sure on this, this, this."

I also used C-Print for some of my classes, especially for more advanced classes where the interpreter probably wouldn't be knowledgeable with the terms; I'm a biology major, pre-vet, and the terminology can get heavy. But right now, I use hearing aids in both ears, and I still don't use an FM system. Even though I know the technology has improved, I'm still a bit guarded on that but I really appreciate the technology.

One thing that I want to advocate is broader education about Deaf culture and not just capital "D" Deaf. I mean deaf culture in understanding that we need to lipread, or understanding that when we go to a movie theater, we have to see captioning. Rochester has one of the biggest deaf communities, but we have two theaters that show one movie a week with captioning. And it tends to be the children's features so Deaf families can go. I don't mind Disney, I really don't mind it, but not every time I go to the theater. There are a lot of changes that need to happen, but I really think that RIT is really a leader in some of the changes that are happening.

*(laughter)*

### ***Andy Firth***

Well, I'm happy that you advocated for yourself. An important part of this discussion we are having is to encourage students to advocate for themselves more and more. Cynthia? Would you like to share the accommodations or any unique challenges you may have faced?

### ***Cynthia Patterson***

My biggest challenge was I wanted to go to a comedy show that UWM was having; I believe it was something related to cultural diversity. So I went to the department and I told the lady, "I need an interpreter." And she told me, "Well, we don't have the money for it." I replied, "Well, it's on the campus. I have a right to an interpreter." And she responded, "Well, we are funding it. We don't have the money."

So I ran all the way to talk to Amy (at the Student Accessibility Center), and I told them that they said that I couldn't have an interpreter. What is going on here? I thought I could get an interpreter. I was frustrated and upset because I really wanted to see this famous comedian Ricky who's very funny. Amy gave me a paper saying that I have a right and it explained that even though they may not have the money, there's other part of the UWM system that will provide an interpreter for me.

I went all the way back over to the union and let this lady know. I said, "Look, you have to provide this for me or else, because this is my right. I have a right to be involved in the college community. I have the right, whether I'm hard-of-hearing or not." She said, "Okay, we will see what we can do about it." My friend, who's hearing, came with me and we enjoyed Ricky, with all of his smiling, laughing, and silliness.

Accommodations are good for me in some ways, but it can also be bad because it's just really difficult for me. I do have a lot of hearing, and I can look at the teacher and catch a lot of what he is saying. Sometimes I miss part of it, especially if it's a classroom of 200 students. If I miss something, I can always go back to the interpreter. But sometimes I feel really bad because I'm not watching her; I'm looking at the teacher and it makes me feel awkward. But I learned that what I need from the interpreter is to catch what I missed.

I liked all my interpreters, and I try to make their job not difficult. I have to have an interpreter with a personality. I'm sorry, but I cannot have an interpreter who is just straight and it's all about work, work, work. It just makes me feel confident that we're working together as a team, and that the interpreter is not just sitting there with the attitude, "Well I'm just an interpreter. That's all I'm good for." You know, I need more than that.

*(laughter)*

I do have notetakers, but I don't trust the notes, either. So I read my book and the professor will give us outlines. I've had teachers that didn't give out the outline, but when I requested it, they gave me the outline. I would share the outlines with my interpreters so that they know what is going on. They are there for me, to help me to reach my goal of becoming a teacher for the Deaf. That's my passion. And I'm going to get it even though I'm older. Well, I'm not that old; I see some people here who are older than me, and it makes me feel like I can do it. If you can do it, I can do it, too.

*(laughter; applause)*

### ***Cassie Manuel***

Thank you all of you for sharing your experiences with us about the classroom settings. You

also added comments about experiences outside of the classroom, such as going to the movie theater. But during the conference this week, we have been talking about transition and student development, including things that happen outside of the classroom, but still within the campus environment. These might be study groups, or living in the residence halls. Can you give us a little bit of your experience and maybe some personal stories about what it is like to be a Deaf or hard-of-hearing student on a college campus, but outside of the classroom?

**Gary Talley**

One thing I can't address is the dorm. I never did that even as a freshman, back when I was a kid. At 50, I wasn't about to go into a dorm!

*(laughter)*

God, I can't imagine that. But, as I said, I went through class and there were five of us. The program is designed that so the five of us go through all of our classes together. We will finish next month. I was always the worst signer, and I was in class with a man who was culturally Deaf, a CODA, and two interpreters. After a while it started to get to me that I was always the worst signer and always would be. But they were very supportive, and the five of us were pretty close. We stay in contact, even though I'm here in Virginia now, two are in Texas, and two are back in Little Rock.

The CODA, Shane, actually went to Mexico with me last year. I go every year to Mazatlan. It was easier not to hear in a foreign language than it was in English. I don't understand Spanish. But it was nice being able to understand what was going on. All I had to do was buy his ticket. It was nice to know what was going on around me. I'm taking him again this year, and he is rearranging his schedule just to go. Not that Mazatlan is a tough assignment, but still, it's a sacrifice.

Social life in Little Rock? I don't know how big Rochester is, but Little Rock has one theater that shows captioned movies. At least there, they're first-run movies. Richmond... now it's about the same size. They have one theater, and they are showing the stuff that no one wants to see. I haven't been to the movies since I moved to Richmond because they haven't shown anything first-run at all. It can be very isolating. The older you get, the more isolating it can become. I moved back to Virginia where I have family. My younger brother and sister are starting sign language classes. My daughter signs now. So I'm not as lost as I was three years ago.

As I mentioned earlier, three years ago, I thought my life was over. I had what I thought was the best job in the world. I was a training manager in a casino. I would tell people at new employee orientation that I looked forward to going to work every day. It was the truth. I worked with a wonderful team. It was different all of the time.

When I lost my hearing, I lost my job. At 49, I couldn't stop living. I told people if it had been five years later, the outcome might have been very different. I don't think I would have started learning sign language. I don't think I would have gone back to school. I would have done like many older people do who are late-deafened -- they just disappear. They sit at home and watch TV. I tried that; that sucks. Y'all watch TV during the day? It is boring.

*(laughter)*

And the captioning is not good.

Now, I'm the outreach program manager for the Virginia Department of Deaf and Hard-of-Hearing. The mission of this agency is to break down communication barriers between the hearing world and the Deaf world. I'm in a position where I can advocate. And God help the Virginians who get in my way now!

*(applause)*

***Kim Thornsberry***

I'm trying to gather my thoughts. I'd like to go back and explain more about my background. When I grew up, I felt isolated. I was the only deaf person in a circle of hearing people. I think I missed out a lot in my life not being able to meet people; I had to focus on myself growing up. When I was at Gallaudet, I just jumped into everything that I could get my hands on, but I was trying to fill in the gaps that I had missed in my experience growing up. I just had not had that much time or that many opportunities for growing experiences. So I just dove into everything at Gallaudet.

Of course, I made my mistakes along the way. I learned the hard way, but I was able to grow in a healthy way and start learning more about myself and my identity. And I became a self advocate as well, and I truly believe that is a key.

Growing up, I felt like I had to depend on other people, asking them to help, especially with communication. But I decided as an adult, going to Gallaudet, I wanted to know my rights and asked for an interpreter if I needed one. I didn't have that experience or felt that I could do that growing up. I felt more like I wasn't able to do things.

I truly believe that Gallaudet really helped me in so many ways, innumerable ways, especially within class and outside of class. I joined a variety of organizations. I joined a sorority. I had a job on campus. Before Gallaudet, my resume was maybe one page long, pretty skimpy. But after my experience at Gallaudet, I was able to provide a lot of work experience on that resume.

I guess that's it. Thank you.

***Cassie Manuel***

You may not already know this, but I happen to work with Brock. I'm so happy that he is here on the panel. Brock, do you remember that experience you had in the bar with the other students? Would you mind sharing that experience, please? I think it's really important part of college life.

***Brock Hansen***

I was thinking of the closed captioning thing, and I think this is what you were talking about. First off, one of the biggest things that people need to consider is awareness. That's the reason I do this stuff, because we're not all the same. But we have a common bond in hearing loss and to whatever degree that is. A lot of people think that just because you're deaf or hard-of-hearing, you automatically know sign language and you automatically can't speak for yourself. That is not true. There are so many stereotypes.

About closed-captioning, I'll get worked up, because this really bugs me. It's not just deaf people that use captioning. You go to a bar, how often do you see captions on TV? If there's at least one, is that because someone in there is deaf or hard-of-hearing? Absolutely not. It's because the music is so loud that a hearing person wants to see what is on TV. And that is no different than any of us. If you want to think that the imaginary music is too loud in the classroom, we just want to understand what is going on there. We are no different than a foreign film. A hearing person wouldn't think twice about having English subtitles. Okay. Is that what you wanted?

### ***Cassie Manuel***

Well, remember times when you were socializing with some of your friends or hanging out with your friends. Could you share an experience, like when you first lost your hearing and as you gradually lost more of your hearing, when it was harder to hang out with friends?

### ***Brock Hansen***

As I lost my hearing, my social life suffered because people didn't get it. When I meet new people, I voice for myself and try to lipread. I also should mention that I have an implant. For some people, implants work well enough to talk to the phone, but it may not help other people at all. For me, it helps with lipreading. I call it the "Charlie Brown effect" because it sounds like *whamp, whamp, whamp*.

Well, again in social situations and meeting new people, some people are okay and get it. "You want me to talk directly to you, that's cool." And they help me out. A lot of people are closet fingerspellers.

*(laughter)*

I'm not kidding. I have known some people for a year, and then all of a sudden, I see them fingerspell something. I ask them, "When did you learn that?" They tell me that they've known it since they were kids. "But why didn't you ever use it?" Sometimes it's helpful for me to get the first letter or two of a word.

Getting back to the social situations that happened about six months after I lost my hearing... I'm deaf but I lipread pretty well, so people can talk right to me. A lot of people don't get that. They look at me, and then I start talking again. I can just see the motors turning in their head. Wait. This isn't making sense, and this is where the awareness comes in. They think again that I'm deaf, but I can talk. This can't be right, so they will stop looking at me. I just say that I can't hear very well, but I can lipread pretty well. I rarely run into that problem anymore. Sometimes there's the occasional idiot (and that's being nice) who will walk away. And I'm like, "Whatever."

I'll stop now. UWM is the best.

*(laughter)*

### ***Andy Firth***

We might have to separate those two!

### ***Jennifer Buckley***

In both high school and grade school, the social isolation that happened was obvious. Kids are cruel anyway. But growing up in a small country town, I remember the first few weeks at my new school. It was fourth grade, and I was very shy. I didn't know what to do. I had an ugly FM system. Ick! I had big hearing aids and I talked funny. Some of the kids turned away from me. They didn't want to deal with me or sit with me at lunch. Then I learned if I ignored that and kept talking and meeting people, they would learn to get used to me. And because of me, Palmyra now knows how to deal with deaf people.

But I also learned that if I was active in organizations and sports, I would know more people and they would accept me more. So I was involved in everything in high school. When I went into RIT, it was almost the opposite. I arrived at RIT and, instead of having to meet the few people that might know sign, I was just overwhelmed. There were so many Deaf friends and so many services available. My social life didn't get bigger. I was serious academically, but I did



notice that there was a pull. My Deaf friends felt threatened if I spoke when I signed; my hearing friends felt threatened if I signed. They both thought that I was trying to be something that I was not. Well, I'm not hearing. I'm not Deaf. I'm hard-of-hearing. Get used to it.

I continued to sign and speak, and didn't really care. I got involved with Deaf Olympics and with my school soccer team. I also worked at the campus. And I never let anyone tell me, "No." Or if they did, I changed it really quickly.

But life outside of school is difficult. Brock said that the minute they see you can speak, they assume you're hearing. They assume you can understand them, even if you told them, "No, really I'm deaf, I'm hard-of-hearing, I can't hear a word you're saying." They still will look away, or there will be a joke and you'll miss it. It doesn't seem important. It seems trivial to the average hearing person. But when you're in a group of people and you're the only deaf or hard-of-hearing person, and someone says something, everyone is laughing, and no one takes the time to explain what was said, it gets boring for them to see you saying, "What? Can you repeat it?" They get tired of it, even if they are your best friends. They get tired of it.

Having hearing aids, speechreading, it's all good. But outside of RIT, you either have people you know that can sign, or you fake-smile a lot.

### ***Cynthia Patterson***

Let me think about my experiences outside of school. My husband is hearing, and he likes large groups of people. He wants me to come with, but I do not like large groups. He isn't embarrassed about me being hard-of-hearing. Something funny will happen and everyone is laughing, but he will take time look at me and explain what was said that was funny. He won't let me miss out on anything.

In my family, my stepsisters and brother didn't take the time for me. "Go put your hearing aid on. I know you can hear me." They'd say. It doesn't have anything to do with my hearing aid. It just makes them loud and I don't want to hear them!

*(laughter)*

I'm kind of isolated from my step-siblings. I always go sit with my mother or my father, because they are more understanding than my step-siblings. As far as my social life in school, it's kind of limited because I have children at home. I don't spend a lot of time on campus, but when I do, there are interpreters there with me. But it's more of a small group setting, and when I need them I'll let them know. Maybe I didn't understand what someone said.

Sometimes it's kind of funny when you misunderstand; sometimes it's totally the opposite meaning. People might look at me and say, "What??" I missed what they said. Nobody can embarrass me. I can embarrass myself, but I don't care because I always have a comeback. Everybody says, "Cynthia, you're so crazy; you're so silly," but that's okay. That's part of me. That's who I am.

My stepmother used to get upset with me with my facial expressions. She said, "Why do you make such ugly faces?" It's a natural thing for me, because it shows my emotions and it shows what I'm feeling. I said, "Well, mom, I'm sorry, but that's just who I am." When she and my dad got married, she didn't understand why I was always looking at her mouth. She said, "Herman, why is she looking at my mouth like that?"

*(laughter)*

And he said, "Well, baby, she is just lipreading you." I'm an expert lipreader. You cannot get past me and say anything small, because I can catch my daughter in a minute. I said, "I heard that!"

*(applause)*

Sometimes she talks behind my back and my husband catches her, so she can't get away with it, either way.

They say I've got the best of both worlds, but it's still kind of difficult to fit in with the Deaf culture and the hearing culture. In the hearing culture, everybody is talking, talking, talking, and I miss out on so much. In the Deaf culture, the majority of the people that I know are white. I love all people, but it's like being an African-American in the hearing world. Some hearing people feel this way about white people. I try to stay away from that because I feel like we all have blood running through our veins the same way.

It's kind of difficult at times. I took a class where they were talking about culture in the inner city schools, and I'd try to not say anything because I don't know, it's a conflict. It's what I hear. Now that I'm older, I can see things and understand things.

I meet people like my interpreter Liz; she is very open and there is no prejudice. It's just like we're a family. It's not about color. I used to worry about that -- it's about color... a black thing, a white thing, a deaf thing, or a hearing thing.

It was a culture shock when I went to Gallaudet. Being a Black woman, I'm supposed to stand up straight and not let anybody bother me. At Gallaudet they would walk facing each other. But the girl who is walking straight has to move over, and she didn't do that. The lady turned around and said, "Deaf way?" Hmm, if that happened in the Black community, they'd be ready to throw you down and fight.

*(laughter)*

Okay? It's so different. I have to be very watchful of what's going on in my environment. They say you have the best of both worlds, but it's difficult... whether you're hearing, Deaf, hard-of-hearing, black, white. You have to get used to it all. At the age of 34, I'm still trying to get used to all this culture stuff. I just wish it was just one big happy family with nobody against anybody else. So that's my story.

*(applause)*

### ***Andy Firth***

Thank you. We have time for one last question for our panelists. You can volunteer if you would like to respond. Here at the conference, we have a variety of people from various areas, education, students, interpreters, and speech-to-text service providers. I'm curious if you have any advice for them, for faculty members, or for disability support service staff members, based on your experience as a student with a hearing loss. What advice would you give to them?

### ***Gary Talley***

I'd say if you have questions about how to most effectively provide disability support service, call Sharon Downs at UALR. That's the truth. I wouldn't be here if it weren't for her. I went to UALR first, before I started the rehabilitation counseling program at the University of Arkansas. I took three classes at UALR. Sharon was the first person I met. She knew I didn't understand sign language, but she spoke so I could lipread her. She is the one who set everything up for me.

She told me about the program that I'm in. She has been there with me, after I moved to the University of Arkansas program. She was there for me. I don't think there was anybody else who was a stronger advocate or support for a Deaf students than Sharon Downs at UALR.

*(applause)*

If you have questions, call her.

***Kim Thornsberry***

I would have to say it's important that you have knowledge of support services available in your area. That is key... that you know the ADA, that you know the laws that are in place, and what supports and services you are required to provide as well as what students would like to have given to them to meet their needs. You need to know that there are some barriers that can be eliminated through training, through awareness, through being flexible and through patience. I think that you can become successful.

***Brock Hansen***

I'll say something quick. If you're a service provider, or a teacher, or faculty, or whatever, know your services. It's just like Kim said. Realize that there is a spectrum of hearing loss and a spectrum of services. And if you want to join the best, look for a job at UWM.

*(laughter)*

Or RIT, I guess.

*(laughter)*

***Jennifer Buckley***

Obviously, there is a reason he is so defensive!

*(laughter)*

***Cynthia Patterson***

I feel like the most important advice that I can give the faculty is to be patient. Patience is very, very important. Because someone in my situation, being hard of hearing and trying to balance, you have to be patient. Conversation and communication are very important to keep relationships going.

***Andy Firth***

At this time I'd like to give the audience an opportunity to question our panel. If anyone would like to speak, you can proceed to the microphone. Any questions? No? Okay, we will wrap up.

***Cassie Manuel***

This is your opportunity to just ask the students anything you'd like. If you prefer, you can come up to them in private after we wrap up the session here. Thank you so much, panelists, for sharing your experiences. It has just been a great opportunity and invaluable, because you come from a variety of backgrounds.

The theme of this conference is *Roots and Wings*. I know that as you were starting to think about college, some seeds were being sown and some roots were starting to grow, and you started thinking about the services that you needed and you started to place the roots more firmly. And the people in this room are all part of helping you develop your roots. Now you're beginning to develop your wings and to head out into the world and to fly off.

Thank you so much for your time today and for being part of the panel.

*(applause)*

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# **Transition Services: Proven Strategies for Preparing Transition-Aged Youth Who Are DeafBlind for Post-School Life**

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## **Abstract**

This article will target a group of students who are deafblind and who have made the successful transition from secondary education to adult life. The findings will shed light on the fact that, despite the limited history regarding research on effective educational accommodations for deafblind youths within K-12 inclusive and residential settings, many educators and adult service professionals have been able to help deafblind students navigate their way to successful post-school outcomes. The key factors that historically led to these successful education, transition and employment outcomes for deafblind students will be addressed. Most importantly, the contributions of professionals, family members, and students themselves have been gathered and will be highlighted.



## **Introduction**

Historically, there has been minimal research conducted on the successful transition of deafblind youths who have normal or gifted intelligence in K-12 inclusive and in residential settings. A number of highly publicized studies on the education of deafblind students with cognitive disabilities have been conducted; however, no such study has been completed on students with average or above average intelligence (Petroff, 1999). This article aims to share results of informal data collected over a 20-year period on a group of transition-aged students with combined vision and hearing loss. All the students profiled in this manuscript scored average to above average on intelligence testing and performed academically on level with their non-disabled peers in a majority of core classes required for high school graduation.

The underlying benefits of this article are to identify early success factors in deafblind students which lead to their successful transition from secondary programs to adult life. Emphasis will be given to effective early intervention strategies, individualized instructional support and communication access which promoted sound education, transition and employment outcomes.

## **History Revisited**

In gathering data for this article, documentation from the history of education for deafblind students from the late 1700s was compared to strategies used currently by school systems serving deafblind students. As early as 1789 documentation of successful education of deafblind students was recorded (Everett, 1902; Collins, 1995; Freeman, 2001; Gitter, 2001). From these early

educational methods came the basis for instructive ideas that are currently utilized with deafblind students.

In 1832 the Perkins Institute for the Blind was established by Dr. Samuel Howe. Five years later, Laura Bridgman became the first deafblind student to be educated at Perkins (Freeman, 2001). The instructional techniques used by Dr. Howe with Ms. Bridgman became the initial strategies and theories for educating students who are deafblind. Toward the end of the 1800s the famed Helen Keller was born and received training using the same established techniques which proved successful with Ms. Bridgman. From this foundation begun with Bridgman and Keller, the early standards by which students who are deafblind would be measured and taught were born and are continuing today. Through research and data collected by Samuel Howe, it was surmised that one-to-one instruction for students with profound deafness and severe vision loss was the most effective instructional approach (Freeman, 2001). Through such instruction students who are deafblind are afforded the opportunity to have not only immediate access to the environment, but also an immediate explanation of the events, objects and people therein (Kinney, 1972).

### **Advances in Education**

In addition, the invention of Braille, the white cane and the telephone would have great implications on the education of deafblind students. Throughout the remainder of the 1800s to the mid 1960s, few deafblind students received a formal education (Wolf-Schein, 1989; Freeman, 2001). Of the very few students who received a formal education during the early 1900s were Dr. Richard Kinney and Dr. Robert Smithdas. However, following the Rubella epidemic in the mid-1960s it became apparent that an improvement to the school curriculum to address the anticipated influx of multi-disabled students would be required (Collins, 1995). Using the techniques employed by Dr. Samuel Howe, many schools for the blind in the United States began establishing deafblind services. In 1969, one year following the death of Helen Keller, the United States Congress allocated funding for the creation of the National Center for Deaf-Blind Youths and Adults (today known as the Helen Keller National Center for Deaf-Blind Youths and Adults) to address the independent living, employment and communication needs of deafblind youths and adults (Salmon, 1970).

These services were developed following the investigational federally funded program, the Anne Sullivan Macy Project, named for the famous teacher of Helen Keller (Salmon, 1970). The name of the project portrayed the type of model that the services would follow. Using the technique established by Dr. Howe some 150 years earlier, the National Center for Deaf-Blind Youths and Adults documented the effective practices employed with Helen Keller from early childhood through her transition to college. These techniques became the basis for the education, training and adult service-support system for deafblind individuals served by the National Center. As trainees entered the National Center's comprehensive training program, services were adjusted to meet their unique needs and delivered by way of one-to-one instruction.

It was hoped that by establishing an adult service program linked to the education system, the transition from the school system to adult services of students who are deafblind would be seamless. Unfortunately, it was only after the 1990 Individuals with Disabilities Education Act which mandated transition services for all students with disabilities that school-aged students who are deafblind began receiving an individual formalized plan to facilitate entry into the adult service system. Today, all students with disabilities are required to have an IEP and by the age of

16 must have an established Individualized Transition Plan (ITP) for how they can best exit secondary programs and enter adult services.

## Demographics

In 1982 the federal government funded the first comprehensive study of the deafblind population in the United States. This study was far more inclusive and far reaching than an earlier study of the deafblind population in North America conducted by Rochealeau and Mack in 1930. Despite the fact that in 1930 the numbers of individuals in the United State were nowhere near the number of individuals that exists today; conducting such a study throughout the country must have been very cumbersome, with many individuals going uncounted. In 1930, there were a reported 663 individuals in the country who were deafblind. In contrast, when the REDEX was conducted in 1982, the population of the United States was more than triple that which existed in 1930 and thus the tally of deafblind individuals was more than 735,000. While current data collection efforts are far more superior to what was used in 1930 or even 1982, demographic data for consumers who are deafblind remains unreliable. This is due in part to the lack of understanding of what it means to be deafblind. Both Helen Keller and Laura Bridgman were completely deaf and blind. And because of these two “poster children” for deafblindness many educators, family members and even consumers falsely believed that in order to be considered deafblind an individual must have a total loss of vision and hearing. On the contrary, the definition of deafblindness simply means the presence of significant vision and hearing loss existing at the same time. Table 1 outlines the different subgroups of the population and who would most typically be represented in those subgroups and the likely support needs for each student which should be considered when drafting the IEP.

**Table 1**

<b>DeafBlindness Defined</b>	<b>Hearing Loss</b>	<b>Vision Loss</b>	<b>Support Needs</b>
Congenitally DeafBlind	Inability to understand normal conversational speech even with optimum amplification	20/200 vision or worse even with correction; visual field restricted to 20 degrees	Tactile communication system (may include sign language, Braille or object cues); may be a candidate for cochlear implant or digital hearing aids; orientation and mobility instructions one-to-one instruction or individual interpreter services initially and possibly throughout school
Congenitally Deaf, Adventitiously Blind	Inability to understand normal conversational speech even with optimum amplification	20/200 vision or worse even with correction; visual field restricted to 20 degrees	Possibility of tactile and close vision sign language and print (may also use Braille and manual communication exclusively); may be candidate for cochlear implant or digital hearing aids; orientation and mobility instruction; one-to-one instruction or individual interpreter services initially and possibly throughout school
Congenitally Blind, Adventitiously Deaf	Inability to understand normal conversational speech even with optimum amplification	20/200 vision or worse even with correction; visual field restricted to 20 degrees	Braille, tactile manual/object cue communication system (manual communication system likely to be English based); possibility for cochlear implants or digital hearing aids; orientation and mobility instruction, one-to-one instruction or individual interpreter services initially and possibly throughout education

(Table 1 continued on page 4)

(Table 1 continued)

<b>DeafBlindness Defined</b>	<b>Hearing Loss</b>	<b>Vision Loss</b>	<b>Support Needs</b>
Adventitiously Deaf, Adventitiously Blind	Inability to understand normal conversational speech even with optimum amplification	20/200 vision or worse even with correction; visual field restricted to 20 degrees;	Braille, manual communication which can be tactile or close vision, communication system may be English based (devices such as: Screen Braille Communicator, CART, C-Print), may benefit from cochlear implant or digital hearing aids, orientation and mobility instruction, rehabilitation teaching, one-to-one instruction or individual interpreter services initially and possibly throughout education
Functional Deafness and Functional Blindness	Difficulty hearing speech even with optimum amplification; or hearing so severe that it adversely impacts daily activities	20/200 vision or worse even with correction; visual field restricted to 20 degrees; or vision so severe that it adversely impacts daily activities	English based or concrete communication system, may benefit from digital hearing aids, orientation and mobility instruction, rehabilitation teaching, one-to-one instruction or individual interpreter services initially and possibly throughout school

It is important to keep in mind that most students who are deafblind have some residual hearing and vision. The largest segment of the deafblind population is reported to be individuals who have some form of acquired vision and hearing loss (Ingraham et al, 1994). This includes persons who are aging, veterans of war or other violent acts, persons who have been exposed to a serious illness or those who have experienced an allergic reaction to medication. Depending on the severity of the combined vision and hearing loss, previous educational experience and etiology, an individual student who is deafblind may be capable of functioning with complete independence while others may require constant one-to-one support to receive information, travel in the community and live independently (Kinney, 1972; Ingraham, et al, 1994; Ingraham, 2001).

### **Interpreting the Laws**

The Individuals with Disabilities Education Act (IDEA) and the No Child Left Behind law (NCLB) are two of the most powerful legislative documents for students who are deafblind. For the first time in the history of education for students who are deafblind, schools are mandated to prepare students for post-school life, and are being held accountable for post-school outcomes for all students. Students who are deafblind can benefit from a broad interpretation of both laws as opposed to a narrow prospective. By beginning with the end in mind, school systems are better able to form a transition team to work with the student to design an effective plan for how that student will access essential services and training following high school.

Coordinated transition services for students who are deafblind should be based on the individual needs, abilities, choices and interests of the student (Ingraham & Anderson, 2001). Activities included in the plan can be established as goals for the classroom or the community. Functional vocational assessments as well as independent living skills can, and should be, included in the transition plan for every deafblind student.



*Delaware student, Bryan Ward (Usher Syndrome Type I) leads his own IEP meeting using a PowerPoint presentation to explain his current and future education goals.*



## **Initiating the Process**

To begin the process of planning for successful post-school life, the transition team should contact any adult service provider from whom the student can benefit presently or in the future (Ingraham & Anderson, 2001). These providers can include: vocational rehabilitation agencies, Centers for Independent Living, agencies that focus on specific disability groups, and even the Social Security Administration. By far, linking with the Social Security Administration and the Vocational Rehabilitation Agency in the state are two of the most critical adult service partners for the student who is deafblind. Any adaptive technology required to ensure that the student who is deafblind realizes success in the classroom and in the community should be provided before the student exits the school system. This will enable the student to experiment with any critical adaptive equipment while entitlement support services are available to assist with any necessary adjustments or additional training concerns that may arise (Ingraham et al, 1994; Ingraham et al, 1998; Ingraham & Anderson, 2001).

When the student reaches his or her 16<sup>th</sup> birthday the state Vocational Rehabilitation Agency and any other appropriate adult service provider should be invited to participate in the transition plan. Again, it is best to make use of the knowledge of these professionals while the student is still enrolled within an entitlement program, rather than waiting until the student has completed education and has entered the adult service arena where services are based on eligibility (Ingraham & Anderson, 2001; NCLB Parents Guide, 2003). In many states, vocational rehabilitation services have helped fund an array of support services, assessments and even training before the student exits the school system (Ingraham et al, 1994; Ingraham & Anderson, 2001). Creative and astute vocational rehabilitation counselors will see the benefits of these early partnerships with the transition team as foundations for a consumer case that is more likely to reach successful closure status following high school. Expectations that the vocational rehabilitation counselor will have for the college student who is deafblind include the need for self disclosure, self determination and awareness of their individual support needs. These very skills can be practiced and reinforced during the transition years.

Again, creative and astute counselors who interpret rehabilitation policies more broadly will be open to exploring every possible avenue for funding outside the vocational rehabilitation system in order to reduce the financial burden on the student and family. Ultimately the goal of

vocational rehabilitation services is a successful outcome, which means competitive employment in an integrated setting. All support services, assessments, training and adaptive technology provided to the student are driven by the vocational goal documented in their Individual Plan for Employment (IPE). Post-school options available to students for which vocational rehabilitation funding can be sought include those listed in Table 2 and other creative strategies identified by the student and the counselor.

**Table 2**

The Vocational Rehabilitation “Buy In”
Postsecondary Education
Vocational Training
Integrated and/or Supported Employment
Continuing and Adult Education
Adult Services
Independent Living
Community Participation

### **Postsecondary Education**

As mentioned previously, it is imperative for students who are pursuing academic advancement beyond high school to “connect” with a vocational rehabilitation counselor before exiting the school system. To ensure success in the postsecondary educational setting it is imperative that the student be equipped with self advocacy skills, knowledge of his or her disability, knowledge of required adaptive technology and instructional support needs, transportation and travel skills, and training and identified communication preferences before graduating from high school. Prior to enrolling in a postsecondary education institution or training program, it is to the student’s advantage that most, if not all, their support issues be resolved. For students who manage to make it out of school prior to the development of these essential skills, the student and school staff can seek support from the large network of adult service providers across the country who are skilled in working with students who are deafblind <[www.hknc.org/affiliates](http://www.hknc.org/affiliates)>.

The accommodations and support services which many deafblind students receive in high school are often provided by a cadre of professionals whose duty it is to ensure that each student with a disability is properly accommodated. It is critical that professionals involve the student in the planning process to reduce dependency on outside support services which tend to hinder rather than enable the student’s ability to develop the essential skills for self identify, self advocacy or for seeking useful on- or off-campus resources. It can not be stressed enough that the vocational rehabilitation counselor is an excellent resource for the student who is seeking a clear understanding of what expectations he or she will face once college enrollment begins (Ingraham & Anderson, 2001). Also, the Office for Students with Disabilities on the college campus where the student is enrolled is another excellent resource.

## **Preparing for Emergencies**

Resources on the Internet, local community service providers and support groups are a great place for students to begin their individualized search for support services and resources. Before leaving home, it is a good idea for the student to develop a personalized resource book for the college or local community where they will be relocating. Such a reference document can include extra copies of the student's resumé, contact information for medical providers, vocational rehabilitation counselors, community support service programs, transportation resources, interpreter service agencies, and orientation and mobility instructors just to name a few. Along with resources for support services, the student's resource book should include a section on any special accommodations he or she will need in the classroom, community or at home. Extremely essential in this resource book should be an emergency preparedness section with photographs and descriptions of equipment, and a listing of local and national vendors where equipment can be repaired or purchased. Also important to include in the resource book is information regarding any special communication needs or preferences, or any known medication, or medical conditions and specific medical procedures in the event of an emergency.

With the recent heightened security concerns across the country related to acts of terror and natural disasters, it would be prudent for students to have a list of emergency contact numbers, shelter or community resource facilities and an evacuation plan for each location where the student will spend a majority of his or her time. Some communities have regular emergency evacuation drills, while others post emergency information as needed on local radio and television stations. Students who are Deafblind and are preparing for post-school life, either in an educational setting or the community, should develop an accessible network of reliable friends, professionals or sources where emergency information can be obtained, as well as a list of In Case of Emergency (ICE) contacts, whether they be relatives, friends, or service providers.

Below are several transition success stories of deafblind students who have made the successful transition from education to adult services. Along the way individualized early invention services were provided, along with critical transition services which helped to ease each student through the shift from entitlement to eligibility programs.

## **Success Stories**

Often success stories for students who exit the school system begin long before any transition plans are devised. Family members, early educators and students themselves put in long hours and hard work to make certain that every opportunity available to students who are deafblind is seized and fully utilized. The following five students have all experienced post-school success. However, this success was not achieved without a lot of long hours, hard work, determination and resiliency. Four students attended school following the passage of P.L. 94-142 and were then eligible to benefit from a free and appropriate education in the least restrictive environment. Only one student exited the school system before the passage of P.L. 101-476 which mandated that transition plans be drafted for each student with a disability by the age of sixteen. However, even though this one student did not benefit from all of the same education legislation available to the other students, this young man did have the benefit of resourceful and forward thinking professionals who in essence, began a transition process similar to that set forth in P.L. 101-476 long before he completed his educational program. A list of specific accommodations for each student is included within the individual case study. All students are now thriving and are living

independently, working in competitive settings and/or making full use of their community resource manual and service providers.

### ***Warren***

Born in 1969 with Usher Syndrome Type I, Warren attended residential schools for the deaf near his home. He is fluent in ASL and now receives information using both tactile and close-up methods. Prior to exiting the school system, Warren participated in support groups for students with Usher Syndrome. He learned a great deal about his condition and what accommodations he would need to be successful after leaving school. However, when Warren left the school system he elected to receive minimal support and training from vocational rehabilitation. As a result, he was trained to do custodial work and began living with friends. Following additional vision loss, Warren decided to re-establish contact with his vocational rehabilitation counselor who then made contact with the Helen Keller National Center regional representative. After much deliberating and failed attempts to persuade Warren to consider other types of employment, he was again trained for a job in custodial work, but only managed to retain his job for a few months before being let go due to poor work performance. In reality, Warren could no longer see the dust, dirt and grime he was required to clean. After losing his second job, Warren utilized his resource skills to locate support services from a community church. The church assisted him with locating an affordable residence, transportation to medical, employment and other required appointments, and helped him connect with other consumers who are deafblind.

With the help of the church outreach ministry, Warren was again connected with Helen Keller National Center (HKNC) and was assisted with completing his application for training. Following one year of training at the HKNC, Warren is now living independently, volunteering in his community church, lecturing on the topic of deafblindness and seeking competitive employment. His resource book has been updated to include a new section containing work experiences, extra updated copies of his resumé, contact numbers and email addresses for community resources and newly acquired problem-solving techniques.

### **What Worked for Warren:**

1. Strong educational support services.
2. Accommodations in the classroom and community.
3. Information on □ and mental health support regarding □ his etiology.
4. Post-school planning with identification of appropriate adult service resources.
5. Faith-based community outreach services to bridge the gap when coordinating services.
6. Self-determination skills and resiliency to persevere and persist even in the face of adversity.
7. Knowledge of disability accommodation needs and a willingness to share information with others on how to work with deafblind consumers.

### ***Karen***

Born in 1974, Karen was a very alert and energetic infant at birth. Soon after her birth, Karen's parents suspected that she may have some hearing loss and perhaps also some vision loss. After numerous visits to the pediatrician it was determined that she had a condition known as Leber Amaraosis. Her parents were told that the small amounts of vision and hearing that she had would soon be gone and they were encouraged to take her to an institution and leave her there. Her mother believed that Karen possessed intuitiveness and an aptitude which suggested that she was bright despite her severe disabilities. Right away, Karen's mother began using sign

language to teach her about her environment, the names for people, objects and activities, as well as how to communicate her wants, needs and desires.

At the age of three, Karen was introduced to Braille and began to read simple vocabulary words. She entered a segregated education program at the age of five and remained there until the age of eight. Soon, she was transferred to a private educational setting where she was the only student with a disability. She was provided with a one-to-one interpreter tutor, orientation and mobility instruction, Braille transcription services, adaptive technology training and access to all course work and the same electives which were available to her peers. At the private program Karen excelled and graduated with above average marks. During her transition years, Karen attended and participated in her IEP meetings. During summer break she would attend the American Association of the DeafBlind Convention and even participated in evaluation and training at HKNC during the summer of her sophomore and junior years of high school. Karen's outgoing and engaging personality really worked to her advantage as she was often paid to visit programs domestically and abroad to talk about deafblindness. Following short stints at a college for the Deaf and a junior college near her home, Karen landed at a four-year university program where she obtained a Bachelor of Science Degree in Computer Programming. She currently is seeking employment in the computer or adaptive technology fields and will be living in her own apartment soon.

#### **What Worked for Karen:**

1. Early intervention at home and in school.
2. Communication and language models at the segregated program.
3. Early exposure to literacy through Braille.
4. Ample support services in communication access, adaptive technology orientation and mobility.
5. Family support.
6. Self determination skills training.
7. Resiliency in the face of adversity.
8. Established goals that she continued to follow.

#### ***Alton***

Born in 1975, Alton was among the first group of students who migrated from segregated programs for the blind to inclusive K-12 educational settings following the passage of P.L. 94-142 and its subsequent amendments. Alton, was born with normal vision and hearing, but as a toddler was diagnosed with Retinoblastoma. Following rounds of radiation and chemotherapy, Alton's parents noticed that he was not hearing too well. It was later discovered that in an attempt to save Alton's life, the therapy prescribed to battle his cancer had also stolen much of his hearing. Until the age of twelve and left with no vision and a severe hearing loss, Alton was placed in a segregated program for children who are blind. During his educational tenure in the segregated program, Alton was exposed to Braille, adaptive technology, orientation and mobility, public transportation services, along with vocational exploration and training.

Once he arrived at the inclusive program, Alton was able not only to comprehend and convey most of his technology support needs, but also he learned how to request additional accommodations during IEP meetings and with his resource instructors. He developed strong writing skills and even worked a short time as a freelance writer for his community newspaper. Once in high school, Alton excelled and began taking advanced placement courses without the

support of an interpreter. As an alternative he used an FM system, requested notes prior to the start of class and was given preferential seating in the front of the classroom. During the summer break between his junior and senior years of high school, Alton attended HKNC for an educational evaluation. Recommendations generated from the evaluation were used to supplement his final year of high school with preparatory skills essential for living and functioning independently at the college level. Also, throughout high school Alton attended career exploration programs, camps for youth who are blind and deafblind, and also attended two of the American Association of the DeafBlind Conventions. At these conventions he was introduced to other peers and professionals who were also deafblind. His self awareness blossomed and he became more self assured. Computer technology, independent living skills such as banking, budgeting, cooking, selecting clothing for formal and casual occasions and self advocacy skills were addressed during Alton's senior year of high school. He graduated with the second highest marks in his class and was honored as class Salutatorian. Following high school, Alton attended both a four year university program where he majored in Sociology and a one year adaptive technology training program for which he received a certificate upon completion. He is now employed as an Adaptive Technology Instructor for Blind and DeafBlind consumers at a community training program near his apartment. He travels independently in the community and lives alone. Throughout Alton's various educational, employment and independent living experiences and training, the vocational rehabilitation agency was there to support him with funding of activities, location of training programs and to offer support. The state agency from which Alton received support also offers educational services to school-aged students who are deafblind. Thus, he was followed consistently throughout grade school, high school and into college by the same agency. Often, Alton was fortunate enough to have the same case worker or vocational rehabilitation counselor as he transitioned through educational programs and work experiences.

### **What Worked for Alton:**

1. Early intervention from family and school.
2. Training in adaptive technology and blindness skills.
3. Early literacy skills.
4. Orientation and mobility training which included public transportation.
5. Independent living skills training.
6. Family support.
7. Self determination skills training.
8. Career exploration opportunities.
9. Consistent support from vocational rehabilitation and other community providers.

### ***Jamie***

Born prematurely in 1982, Jamie was diagnosed with Premature Retinopathy during infancy. As a result of excessive oxygen during critical weeks following his birth, Jamie lost both his vision and much of his hearing. He received early intervention services from the local school for the blind and entered the segregated program for children who are blind at the age of four. Following several years at the School for the Blind, Jamie was transferred to his local middle school where he attended with the support of a one-to-one interpreter/tutor, the support of vision and hearing itinerant instructors, orientation and mobility instructors and educational services from the state rehabilitation agency. He excelled in middle school academically, but did not have many friends.

After moving on to high school Jamie decided to return to the segregated program to obtain updated blindness skills training and instruction in adaptive technology for the deafblind. He remained at the segregated program for a short time before returning to the inclusive high school program where he completed his secondary education. Throughout high school Jamie attended career exploration training programs, camps for youth who are deafblind and the American Association of the DeafBlind Convention. Through these contacts Jamie was able to develop self awareness as a person with vision and hearing loss, and was also afforded the opportunity to network with his peers and professionals in the field. He is now living independently in his own apartment in the community and is working part-time as an Adaptive Technology Instructor for the Blind and DeafBlind. He is actively pursuing his goal to obtain employment in radio.

**What Worked for Jamie:**

1. Early intervention services.
2. Blindness skills training in basic independent living and adaptive technology.
3. Basic orientation and mobility training.
4. Self determination skills training.
5. Supportive family.
6. Career exploration.
7. Resiliency in the face of adversity.

***Crystal***

Born in 1983 with profound deafness and legal blindness resulting from Congenital Rubella Syndrome, Crystal spent her entire educational years in inclusive programs. Crystal received early intervention support services from the local hearing and vision itinerant instructors associated with the school system. During school Crystal was given a one-to-one interpreter/tutor who accompanied her to all her classes, assembly activities and school outings. During high school she attended Transition Week Activities for the DeafBlind, career exploration programs and camps for youth who are deaf. At the age of 18, after completing her academic education at the inclusive setting, Crystal utilized her remaining years of entitlement education and attended the residential school for the Deaf. This transfer was recommended because IEP goals for language, socialization, communication, and employment exploration were not achieved at the inclusive program. At the segregated program, Crystal was exposed to a number of language and communication role models and developed key friendships with peers who are deaf and deafblind. In addition, she participated in weekly employment training and work experience activities. Following the official completion of her high school education, Crystal attended training at the Helen Keller National Center for 18 months which included an additional 18 months of follow-up employment support services.

She is now living independently in her own apartment and working part-time at a nearby pizza parlor. She utilizes the resource books she developed at the Helen Keller National Center to locate community services, resources and recreational activities. Like Alton, Crystal lived in a state which offered consistent support from the state agency both while she was in grade school as well as throughout high school.

**What Worked for Crystal:**

1. Early intervention services.
2. Language role models in inclusive and segregated programs.

3. Orientation and mobility instruction.
4. Career exploration.
5. Self determination training in school and during transition week.
6. Family support.
7. Career goals and ambition.
8. Transition support services.
9. Supportive and consistent education and vocational rehabilitation services.
10. Resiliency in the face of adversity.
11. Resource book.

## **Summary**

As can be seen with these successful students, transition services for students who are deafblind are most effective when begun early. Each student was afforded early access to the educational process and support systems in the least restrictive environment. Occasionally, it was necessary to change the education setting, level of support services and even adaptive equipment. However, each student exhibited resiliency and flexibility when change was needed. This ability to “go with the flow” helped to ensure that these students would be prepared to make any necessary adjustments later in life, but it also enabled them to acquire coping skills.

Career exploration, peer interaction and self awareness were a key part of each student’s educational experience. Not only did all the students participate in their IEP meetings and overall educational planning but also, each student was given the opportunity to develop self determination skills by speaking up and advocating for themselves. Whether the career exploration takes place through an on line search or in the community, it is vital to expose students who are deafblind to a variety of post-school employment possibilities (Folska, 2001). Often students who are deafblind are so adept with adaptive technology that they are guided into that field. However, it is crucial to remember that an individual who possesses great knowledge in a particular area may not be the best instructor on that subject. The opportunity to interact with and discuss career objectives with peers and professionals in the field was extremely helpful to these students. Often, career choices were made after meeting another deafblind adult with similar interests or skills.

Finally, it is important to ask students who are deafblind early and often what things they know about themselves and their ability to do things independently. The short checklist below is a great place to start when trying to assess whether a student is indeed ready for life after high school, or if success is on the horizon.

### **Check List for Success:**

1. Does the student know how to use an interpreter?
2. Is the student comfortable with his/her disability?
3. Does the student know what accommodations are needed and how to use them (TTY, amplified phone, relay, etc.)?
4. Can the student explain his/her own accommodation needs?
5. Does the student have orientation and mobility skills?
6. Does the student understand and value the responsibilities of employment?
7. Does the student have to deal with disincentives (SSI, over accommodating parents, etc.)?
8. Does the student have family support and transportation?



### **Developing a Post-School Profile**

1. What would you like to be?
2. Where would you like to work?
3. Does that goal require postsecondary education?
4. What kind of people do you like to be around?
5. What are your support needs?
6. Where can you go to get support or help?
7. What jobs have been your favorites?
8. What jobs were successful for you?
9. Why?
10. What are your dreams for the future?
11. What is required for you to have a successful life after high school?

### **Developing a Resource Book**

1. Personal information (address, DOB, SSN, Telephone Number, Medications, etc.).
2. Emergency contact information (parents, counselor, case manager, etc.).
3. Special accommodation needs.
4. Local and national resources.
5. Sample applications, extra resumés.

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# **Addressing the Needs of Students Labeled as Deaf and Low-Functioning or “At Risk”**

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## **Abstract**

This presentation will give professionals both conceptual and practical strategies in working with persons who are deaf and hard of hearing as well as students with additional challenges due to medical and or environmental factors in the postsecondary setting. Training offered will include identification assessment, coursework selection, support service planning, employment opportunities and follow up activities.



## **Review of Past Efforts: A Brief Stroll through the Last 60 Years**

Historically, federal funding to serve persons who are deaf or hard of hearing has been allocated mostly to programs, such as Gallaudet University and National Technical Institute for the Deaf (NTID), that serve those who have the greatest promise of success. This would include many accomplished individuals who have either completed their academic tenure at Gallaudet University, NTID, or one of many other fine institutions, and who have entered the workforce and successfully established their careers.

However, professionals and the Deaf Community have long recognized that there were a substantial number of individuals who were deaf and who had additional challenges or risk factors, who had not experienced similar success. With this recognition, a number of attempts to address the need through education, awareness efforts, and allocation of resources have taken place, mostly through the field of rehabilitation, over the years.

The field of rehabilitation began in the United States through the Smith-Fess Act of 1920, in which newly disabled veterans returning from World War I received assistance in returning to the workforce. The act was subsequently re-authorized through the Vocational Rehabilitation Amendments of 1943, of 1954, and 1965, and these amendments expanded services to persons with mental retardation and mental illness, added training and demonstration grants, and included a broader population of individuals with disabilities. Then, the Rehabilitation Act of 1973 changed the name of this legislation, mandated the priority to serve persons with the most severe disabilities, and added new “civil rights” for persons with disabilities Title V (Sections 501, 502, 503 and 504).

During the earliest evolutionary development of rehabilitation counseling and services, there was an almost immediate recognition of the need to serve individuals who are deaf or hard of hearing. Initially, individuals who happened to know some sign language or had an interest in working with this population often either volunteered or were selected to assume responsibility for the provision of services. Over time, an ongoing effort emerged to address the unique rehabilitation needs of persons who are deaf. At the same time, a paralleled effort was made to address the long-term needs of individuals who are deaf and who have additional disabilities or other “at risk” characteristics, necessitating additional environmental supports.

The first manual that focused on how to work with individuals who are deaf and hard of hearing was published in 1942 by the federal Office of Vocational Rehabilitation (now Rehabilitation Services Administration) was *Rehabilitation of the Deaf and the Hard of Hearing: A Manual for Rehabilitation Case Workers*. This manual, recognizing the unique challenges of this population, detailed how to provide speech training and job placement services.

The next publication, *Guidelines for the Establishment of Rehabilitation Facilities for the Deaf*, which first proposed regional comprehensive service centers, was not written until 1959.

After that multiple publications occurred during the 1960s and 1970s; that is, *Research Needs in the Vocational Rehabilitation of the Deaf* (1960), *The Vocational Rehabilitation of Deaf People* (1966), *Multiply Disabled Deaf Persons: A Manual for Rehabilitation Counselors* (1968), *Toward More Effective Rehabilitation Services for the Severely Handicapped Deaf Client* (1971), *Recommendations and Plans for Meeting the Needs of Low (Under) Achieving Deaf People* (1971), and *Severely Handicapped Deaf People: A Perspective for Program Administrators and Planners* (1978).

Realizing the need to obtain federal funding to create and implement a national infrastructure to work with individuals who are deaf and who needed additional environment supports, considerable efforts were made during the early 1970s to develop a legislative proposal to establish comprehensive rehabilitation centers for deaf youth and adults. In 1972, Section 412 was added to H.R. 8395 of the then proposed Rehabilitation Act that if passed, would have mandated comprehensive rehabilitation centers for deaf youth and adults “who were unemployed, had inadequate communication skills, underdeveloped work related and social skills, and/or other organic and functional deficits in addition to deafness” (unpublished document detailing the need and intent for the proposed Section 412). Proposed funding to be authorized would have been \$5 million in 1973, \$7.5 million in 1974 and \$10 million in 1975. However the Rehabilitation Act of 1973 was vetoed twice, which resulted in Section 412 being taken out prior to the passage of the final authorizing statute.

Instead, in Section 304 of the Rehabilitation Act of 1973, authorization was given for temporary funding to be set aside for the initial three-year special demonstration projects to three grantees. The demonstration sites were located in Hot Springs, Arkansas, Delgado, Louisiana, and Crossroads in Indiana. These grantees were to specifically serve the population that could not be served through the traditional approach; that is, through a vocational rehabilitation counselor who, with the use of VR dollars, sent the individual to college or assisted with job placement.

For the first time, with the special demonstration project funding, the three demonstration sites were able to develop and provide specialized direct services to deaf individuals who needed additional environmental supports, and the resulting outcome was promising. Many individuals were served and the “collective” field turned to these programs as viable resources nationally.

Predictably, however, at the end of the three-year grants, funds again became scarce and these sites were forced to limit services.

Efforts continued in the 1980s. Another publication, *Independent Living Skills for Severely Handicapped Deaf People* was printed in 1980, outlining how to provide independent living skills for deaf individuals with cognitive disabilities and mental retardation. The Commission on the Education of the Deaf in 1988 (chaired by Dr. Frank Bowe), *Toward Equality: Education of the Deaf* strongly recommended four regional comprehensive service centers.

A year later, the National Task Force on Low Functioning Deaf Adults (1989) detailed further recommendations, which lead to a second and third round of special demonstration projects funded by RSA, in 1990s. In 1990 three special Demonstration projects through OSERS to serve LFD at the Lexington Center (NY), Community Outreach Center for the Deaf, (AZ and NM) and Southwest Center for the Hearing Impaired (TX). Again, the programs were able to provide a number of needed services, which then had to be eliminated upon the end of the five-year cycle. There were no other existing funds to replace the loss of the federal funds for these services. And, there were no plans to allocate further funding to assist with this need.

In 1995, renewed efforts to generate interest in Washington in long-term, direct service dollars for LFD, lead to the *25th Institute on Rehabilitation Issues: Serving Individuals Who Are Low Functioning Deaf (LFD)* (1999). That document describes the population, the need for appropriate environmental supports, and suggestions for how these supports can be provided. The following narrative gives a brief overview of these topics.

### **Brief Description of the “Low Functioning Deaf” Population**

Of the 23.1 million individuals with hearing loss, approximately 552,000 individuals are deaf. Of the 552,000 individuals who are deaf, as many as 165,000 individuals who are deaf may have one or more disabilities in addition to being deaf.

The IDEA report to Congress states that of the 4,187 students with profound hearing loss, age 14 to 21, leaving school in the year 2000 – 2001, 2,862 students graduated with a regularly high school diploma (68.4%), 626 students received a certificate (15%), 620 students dropped out (15%), and the remaining students either aged out or died. This clearly indicates that about 30% did not earn a diploma. Less than one-half of 17 year old deaf students read at above 4th grade level (about 40%), only 12% read at or above 7th grade level; which means at mostly, only 15% of all 18-24 year old deaf and hard of hearing students are eligible for college education.

It is noteworthy that 30% of these students did NOT receive a high school diploma, and entered the adult service delivery system needing additional supports beyond traditional interpreting services. These students are the sub-group of youths and adults within the general population of persons who are Deaf or Hard of Hearing, whose skills and competencies are *significantly* below average (e.g. less than 2nd grade literacy skills). An estimate of this population ranges from 125,000 to 165,000 individuals.

Over the years, many different labels have been used, including: “Under Achieving,” “Multiply Handicapped,” “Severely Disabled,” “Minimal Language Skills,” “Traditionally Underserved,” “Hard to Serve,” “Low Functioning,” “Most At Risk,” “Deaf with Special Needs,” and “Psychologically Unsophisticated.” To date, the field has not yet adopted a commonly accepted description.

When determining if a deaf youth or adult may need additional environmental supports and services, possible risk factors to consider may include: low socioeconomic status, inappropriate

diagnosis, foreign born or English as a second language, lack of access to services, lack of family support, substance abuse, secondary disabilities, minority status, or residence in rural or low income urban settings

Identification can be made through either the traditional medical approach; that is, having a secondary or more disabilities; or the identification can be through a more holistic approach; that is environmental deprivation/ risk based, in which the individual experiences extremely limited access to environmental information, through barriers to language acquisition, barriers to skills acquisition and development, and educational deprivation. In making this assessment, the most critical barrier that is common to all individuals who are deaf and who have limited functioning, is the fluent acquisition of a native language (either spoken or signed) and communication with families and significant others.

### **Scarcity of Resources for Individuals Identified as . . . “*Low Functioning Deaf*”**

To date, no system effectively serves non-college bound deaf youth and adults. There are few available and under-funded resources. As stated previously, most resources available are focused on services to youth who can participate in postsecondary training and education programs. There is no federal funding or parallel system of financing similar to postsecondary programs. The least amount of resources is usually allocated to deaf individuals with additional disabilities and/or with other functional limitations. In addition, the average high school student who is in special education will cost approximately \$30,000 to \$40,000 per year. The average postsecondary training for a student per year is approximately \$15,000 (for tuition), and the average resources for a student labeled as “LFD” per year ranges from \$2,500 to \$6,000.

Efforts to provide services are also complicated by the fact that resources and funding for services for adults are inconsistent with no single program or funding source, with limitations on program funding eligibility (some are eligible for SSA, Medicaid, and/or Title XIX). Vocational Rehabilitation (VR) is mandated to emphasize short-term placement, and most state VR agencies use “fee for services” which is insufficient. This results in inadequate or no environmental supports being provided for employment settings, independence at home and in the community, access to appropriate educational and vocational training opportunities, socialization and recreational opportunities, health care, behavioral adjustment and mental health counseling.

A parallel issue is the assumption that full access to services and support can be provided by sign language interpreters. Often youth and adults who are “LFD” require direct communication access with service personnel for all services and supports. However, there is a severe shortage of professionals with the language expertise necessary to serve persons not using standard ASL

Consequently, without appropriate environmental and communication supports, these individuals face daily challenges just to survive. Their dream to live independently, to work, and to have control of their own lives is not achieved.

### **A “Vision” is needed to Develop A National Service Delivery Model**

In 2003, with the support of Postsecondary Education Programs Network (PEPNet), a strategic workgroup was established to develop a vision for a national service delivery system for deaf individuals at risk. PEPNet chose to lead this effort, because many individuals who are deaf and who have limited literacy skills and/or other difficulties accessing the local service delivery

system often will go to the nearby college/university disabled student resources office for services. Most colleges are not able to serve this group.

The goal of the strategic workgroup was to create and to articulate a vision for a *National Service Delivery Model* that will ensure adequate and effective environmental supports to deaf, deafblind, hard of hearing and late-deafened youth and adults identified as “Low Functioning” to achieve optimal personal independence in the workplace, in the home, and in the community. The strategic workshop almost immediately agreed that the vision needed to emphasize interaction with the environment; that is, the interaction of the individual with the environment where he/she is expected to function. This interaction with the environment will then identify what the needs are for ongoing supports or adaptations that would reduce the barriers for optimal functioning.

The components of the Model that was developed by the strategic workgroup, included: (1) Direct Service Delivery System, (2) Personnel Preparation/Training, (3) Research, and (4) Technical Assistance and Outreach. The National Service Delivery Model proposed to link the already existing direct service delivery system into a new “networked” service delivery structure that will fill in the gaps in service provision. And, the service delivery system was proposed to include a national center, regional centers and affiliate networks.

Under this model, the national center could conduct the following activities:

- Coordinate a national advisory board.
- Conduct and coordinate research.
- Set national priorities.
- Educate legislators.
- Provide direct consumer services through model program.
- Establish partnerships.
- Train professionals and paraprofessionals.
- Evaluate effectiveness of services.

The regional centers could conduct the following activities:

- Establish regional advisory boards.
- Coordinate resources.
- Provide direct services.
- Provide training and technical assistance to service providers, parents, and consumer groups.
- Collect and report information to the national center.
- Establish partnerships.
- Work with affiliates.
- Provide ongoing resource development.

And, the affiliate networks could conduct the following activities:

- Provide case finding and case management.
- Provide employment related services.
- Use staff with prerequisite linguistic and communication skills.
- Provide long-term consumer support.
- Conduct consumer evaluation for services at regional centers and national center.

- Collect and report information to regional center.
- Work with other affiliate organizations.
- Conduct ongoing resource development.

The participants of the strategic workgroup, after articulating the vision for a national service delivery system, then asked each other, “What are the steps that need to be taken to implement this vision?” The first steps are to share the vision with various organizations, communities, and other interested stakeholders, to develop collaborative networks, and to collect information on what is already occurring in the field. Researching emerging models across the country may demonstrate how the national collaborative approach might be best accomplished. The next section gives a brief overview of several emerging models.

## **Current Activities - Examples of Emerging Models**

### ***Kentucky VR Model***

The Kentucky Vocational Rehabilitation Agency has four regional Deaf/Deaf-Blind Coordinators who work with Rehabilitation Counselors for the Deaf (RCDs) in the area and who report to the State Coordinator for the Deaf (SCD). The SCD, regional coordinators, and RCDs meet regularly with a state interagency team that provides input and advice on how best to serve consumers who are Deaf-Blind and/or Deaf “at risk.” The regional coordinators and RCDs, when appropriate, use various assessment tools adapted specifically to this population, such as the “Personal Futures Planning” (PCP) and “Planning Alternative Tomorrows with Hope (PATH). Evaluations of outcomes are conducted through periodic counselor and consumer interviews and comparison of data.

### ***A Different Service Delivery Model - Dr. Neil Glickman’s Work with “Psychologically Unsophisticated” Deaf***

Dr. Neil Glickman, in his work with deaf individuals with mental illness and/or other mental health issues, has adapted a cognitive-behavioral model. This model states that individuals who are deaf and “psychologically unsophisticated” typically are not introspective or self-observing. They are often unable to identify feelings, are quick to blame others without understanding their own contributions to problems, do not understand how others may feel, have difficulty understanding others’ points of views, do not understand or value counseling, and do not see the professional as a “credible” helper.

Dr. Glickman suggests using “pre-education/pre-counseling” in which visual metaphors and pictures are used, by explaining counseling/VR simply, by the use of a pictorial menu of VR processes, and by telling motivational stories. He states that most goals can be conceptualized as a “skill” through guided self-discovery and through self-monitoring. Self-monitoring can be conducted through the use of “thumbs up or thumbs down,” numerical ratings, checklists, a diary or log, and/or drawings

Specific coping skill building can include “Sensory Management Intervention,” such as squeezing a ball, jumping on a trampoline, petting a dog or rocking in a chair. Other techniques include positive “self-talk” (think – “I Can”), specific relaxation techniques, use of prayer and meditation, learning to laugh, developing self-acceptance, visualizing a “shield” to ward off negative feedback, and use of an internal traffic light when feeling angry (RED: STOP – take



notice; YELLOW: CALM DOWN – breathe, and take a break; GREEN: THINK and ACT – positive self-talk).

### ***Another Model – “ReThinking unEmployment” Approach***

Another model that has been used with ex-cons is the “ReThinking unEmployment” approach that was adapted by the Community Outreach Program for the Deaf in Albuquerque, NM with deaf youths and adults who have experienced long-term unemployment and other significant functional challenges. The approach is a cognitive-skills-based strategy that responds to the needs of chronicity in deaf and hard of hearing youth adults, using role-play and motivational interviewing techniques to skill-build a deaf participant in moving forward in his/her personal and work lives.

This model states that cognitive skills are the skills we use to think and that thinking guides all acting. If the thinking skills are limited and faulty, then so are the potential actions. Cognitive skills produce social competency; social competency produces motivation and employment. The individual who requests services is challenged by internal ambivalence and an inability to see that that his/her behaviors are the root cause of their failure and that his or her life is out of control. This individual feels two ways about requesting services simultaneously; that is, whether to “change or not to “change.”

### ***Other Strategies***

Another emerging strategy in serving this population is the increasing use of “Certified Deaf Interpreters” (CDIs) when the communication mode of a Deaf person is so unique or idiosyncratic that traditional interpreting or direct communication is ineffective. CDIs may use gestures, mime, props, objects in the environment, and adoption or adaptation of the deaf individual’s own use of signs and gestures

George Friebohn at Lexington Vocational Services Center suggests using the “Clothesline Method,” the New Oxford Picture Dictionary, and a chart of all the countries’ flags.

### ***Other Current Activities***

#### ***NIDRR Notice of Proposed Priorities***

Published in Federal Register on Feb 7, 2006. The notice proposes in *Priority 9--Improving Employment Outcomes for the Low Functioning Deaf (LFD) Population*. (Page 18) Comments were due on March 9, 2006. The link to the Federal Register notice is at: <http://a257.g.akamaitech.net/7/257/2422/01jan20061800/edocket.access.gpo.gov/2006/06-1075.htm>.

#### ***Hofstra University – Distance Education Opportunity***

On-line training offered by Dr. Frank Bowe <<http://lfd.hofstra.edu>>.

Courses and Topics include: SSI, Independent Living, Reading and Writing/Math and Transition, In-Person Communication, Technology, and Facilities (Toolworks in San Francisco, Mill Neck Services in New York, Lexington Center in New York and Louisiana Career Development Center for the Deaf/Deaf-Blind.

### ***Training Conferences***

Texas Region IV Education Service Center sponsored: 2004 Statewide “LFD” Training Conference, 2005 Statewide “LFD” Training Conference. Plans are being developed for March 2007 “LFD” National Conference.

### ***Development of DVD***

Need for a “face” or an “icon” similar to Helen Keller for deaf-blind. Videotaping “LFD Profiles” with the theme: Those of Us Left Behind. Four profiles in three states (Colorado, Montana and Texas).

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# **PEN-International: Facilitating Deaf Education for Deaf Men and Women Around the World**

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## **Abstract**

The Postsecondary Education Network-International (PEN-International) is funded by grants from the Nippon Foundation of Japan to the National Technical Institute for the Deaf (NTID). NTID, one of the eight colleges of Rochester Institute of Technology (New York), serves approximately 1,250 deaf and hard-of-hearing students who study, share residence halls, and enjoy social life together with more than 15,000 hearing students. The PEN-International network currently consists of thirteen colleges and universities in Japan, China, the Philippines, Thailand, Russia, the Czech Republic, and the United States. PEN-International shares its expertise with international partners that, like NTID, offer postsecondary educational programs to deaf and hard-of-hearing students. PEN-International is dedicated to providing professional development to teachers of international deaf and hard-of-hearing students, facilitating the use of innovative instructional technologies in the teaching/learning environment, and furnishing its international partner institutions with state-of-the-art equipment. This paper describes PEN-International's background, goals, accomplishments, and future activities.



## **RIT/NTID Background**

Founded in 1829, Rochester Institute of Technology (RIT) is internationally recognized as a leader in career education with more than 15,000 students enrolled in its eight colleges. The students represent all 50 states and more than 80 foreign countries. The campus occupies 1,300 acres in suburban Rochester, the third largest city in New York State.

The National Technical Institute for the Deaf (NTID), the world's largest technological college for students who are deaf or hard of hearing, was formally established by Congress in 1965. RIT was chosen as the site for NTID in 1967 and officially became one of RIT's eight colleges in 1968. In its first year, 70 deaf and hard-of-hearing students were admitted into the

NTID program. One of the unique features of RIT/NTID is that deaf and hard-of-hearing students study, share residence halls, and enjoy social life together with hearing students.

NTID is an international model for educating and preparing deaf students for technology-related careers. Its mission is *“To provide deaf and hard-of-hearing students with outstanding state-of-the-art technical and professional education programs, complemented by a strong liberal arts and sciences curriculum, that prepares them to live and work in the mainstream of a rapidly changing global community and enhance their lifelong learning.”*

Of the 1,250 deaf and hard-of-hearing students currently at NTID, approximately 43% are enrolled in baccalaureate or graduate programs. NTID’s support and access services are unprecedented. During a typical one-year span, NTID logs 80,000 interpreting hours, 40,000 notetaking hours, and 20,000 tutoring hours. During the 2005-2006 academic year, 10,000 C-Print™ hours were logged, and this number is expected to rise. C-Print is an NTID-developed speech-to-text transcription system that allows deaf students to have immediate access to a teacher’s lecture. In addition, the residence halls are fully networked and equipped with strobe lights and telephone amplifiers. NTID employs nearly 500 faculty and staff members who are experts in deaf-related fields. Instructors use a variety of communication strategies including sign language, speech, fingerspelling, writing, and visual aids. On-site audiologists provide services related to hearing and hearing aids, assistive devices and cochlear implants, and speech-language pathologists offer a broad range of speech and language services. In addition to NTID having the largest interpreting staff of any college in the world, it was the first college in the world to formally educate sign language interpreters. NTID has graduated more interpreters than any other college.

## **Postsecondary Education Network (PEN-International)**

### ***The Nippon Foundation of Japan***

The Nippon Foundation of Japan, founded in 1962, provides annual grants that support PEN-International. The Foundation believes “that all people share a common duty of transcending antagonism and overcoming conflict, so that cultures of the world may establish consensus and provide assistance to each other.” The Foundation meets that challenge by sponsoring multilateral networks to improve the circumstances of disadvantaged people around the world. The Postsecondary Education Network-International (PEN-International) was created in 2001 to improve and expand postsecondary education to deaf and hard-of-hearing students around the world by sharing educational technology and conducting faculty development and training, particularly in developing countries.

### ***PEN-International Goals***

The goals for PEN-International are as follows: to train faculty for improving teaching and learning; to apply innovative instructional technologies to the teaching/learning environment; to provide state-of-the-art equipment to international partners; to promote program self-sufficiency; and to expand career opportunities for deaf and hard-of-hearing students. PEN-International’s vision is to assist partner institutions in the “move from importers to self-sufficiency to exporters of knowledge and skills within their respective home countries.” Establishing an international network was the first step in achieving this end.

### ***Partner Institutions***

The host site for PEN-International is the National Technical Institute for the Deaf (NTID) at Rochester Institute of Technology (RIT). A total of thirteen colleges and universities in Japan, China, the Philippines, Thailand, Russia, and the Czech Republic have partnered with NTID during the first five years to become part of the PEN-International network.

**National Tsukuba University of Technology (N-TUT)**, was an original member of PEN-International, joining in 2001. The Government of Japan chartered Tsukuba College of Technology in October 1987 by amending the Japan Law for Establishing National Schools. Tsukuba's Division for Hearing Impaired offers state-of-the-art programs in design, mechanical engineering, architectural engineering, electronics, and information science. Approximately 200 deaf and hard-of-hearing students are currently enrolled at N-TUT. There is also the new formation of PEPNet-Japan, a coalition of twelve universities and support centers in Japan that serve deaf and hard of hearing students. This structure is modeled after PEPNet's Northeast Technical Assistance Center at NTID/RIT.

In 2001, **Tianjin Technical College for the Deaf of Tianjin University of Technology (TUT)**, joined PEN-International. Tianjin Technical College for the Deaf is China's first technical college for people who are deaf. Established in 1991, the college enrolls more than 125 students who study technical disciplines that prepare them for productive membership in Chinese society. The college is the lead PEN-International partner in China and coordinates all activities in the country.

During the next three years, PEN-International expanded in China by adding the Special Education Colleges of **Beijing Union University (BUU)** and **Changchun University (CU)**, and **Zhongzhou University (ZZU)**.

Beijing Union University, founded in 1985, is a multidisciplinary institution offering humanities, science, social science, natural science, technological science, and management science programs to 12,000 students. The University's College of Special Education was created in 1999 and serves more than 125 deaf students who study art design, decorating and advertisement, gardening, and office automation.

Changchun University's Technical College for the Disabled was established in 1987. It is the oldest and largest postsecondary program for disabled students in the People's Republic of China, and also the oldest postsecondary program for people who are deaf in China. The college currently enrolls more than 200 deaf and hard-of-hearing students who study in the college's fine arts and graphic design programs.

Zhongzhou University, the newest member of PEN-International in China, signed a memorandum of understanding in March 2005. They serve approximately 200 deaf students, who study such disciplines as computer assisted drafting, information technology, fashion design and ceramics, and has the only postsecondary sign language interpreter training program in China with approximately ten students.

In project year two (2002), **De La Salle - College of Saint Benilde (CSB)**, Manila, Philippines and **Bauman Moscow State Technical University (BMSTU)** in Russia joined the PEN-International network.

The College of Saint Benilde was founded in 1980. Fourteen years later, in a move to expand its mission, CSB became an autonomous college in the De La Salle University System. CSB's School of Deaf Education and Applied Studies is a leader in education for the deaf in the Philippines through its academic programs, international linkages, and unique commitment to

empower its citizens by preserving deaf heritage and nurturing Filipino deaf culture. Approximately 125 students are currently enrolled at CSB.

Founded in 1830, Bauman Moscow State Technical University is an engineering and scientific university of excellence whose graduates have contributed significantly to developments in engineering and science disciplines. While BMSTU has been educating deaf students since 1934, the University in the 1990s expanded its programs and services for deaf students by establishing the Center on Deafness. Presently, approximately 250 deaf students study in various programs across the university as well as in compensatory programs.

In 2005, three more programs in Russia joined PEN-International. They are the **Institute of Social Rehabilitation at Novosibirsk State Technical University, Vladimir State University Center for the Deaf, and Academy of Management, “TISBI”, at Kazan.**

Novosibirsk State Technical University was founded in 1950, currently serving 15,000 students. The Institute of Social Rehabilitation was established in 1993 to provide high-tech education to individuals with disabilities, currently serving close to 300 deaf students. At Vladimir State University, the Center of Professional Rehabilitation of the Deaf was established in 1994, and then in 2002 became an experimental platform for providing education and social support to deaf children. They enroll approximately 60 postsecondary deaf and hard of hearing students, who study computer systems of management in industry and business programs. TISBI at Kazan has provided primarily internet-based education at the secondary and postsecondary levels to individuals with disabilities, currently serving approximately 25 deaf students.

**Charles University** in the Czech Republic joined the network in 2002 as an associate member. Charles University in Prague is the oldest university in the Czech Republic and the oldest university in central Europe. Founded in 1348 by King Charles IV, the University enrolls 41,000 students at the bachelor's, master's, and doctoral levels. Among the University's population are 120 students with special needs, including 24 students who are deaf. The University's world renowned Language Resource Centre, which teaches English to deaf and hard-of-hearing students, is a collaborative effort with several internationally recognized institutions, including NTID.

**Ratchasuda College of Mahidol University** is the first and only education institution in Southeast Asia dedicated to providing tertiary education for deaf students. The College, created in 1991, consulted with worldwide leaders in education of deaf students in formulating its curriculum. Ratchasuda College enrolls 89 students who are deaf and joined the PEN-International network in 2002 as an associate member.

### ***Training and Faculty Development***

To assure that PEN's faculty development offerings meet the needs of educators of international deaf students, PEN has conducted needs assessments in each partner institution. PEN then works collaboratively with each partner institutions to determine the solutions that meet 'their needs'.

On the basis of the needs assessments, specific solutions are developed that detail activities, goals, and outcomes. The solutions are developed collaboratively with each partner institutions. Program evaluations are used to assess the effectiveness of each solution that is implemented.

### ***Recent Accomplishments in Faculty Development***

**Instructional Technology Symposium.** PEN-International co-sponsored, with NTID and The Nippon Foundation of Japan, an international symposium entitled, "Instructional Technology and

Education of the Deaf: Supporting Learners, K-College” in 2005. More than 230 educators of deaf and hard-of-hearing learners from 17 countries shared information relative to current and future innovations and developments in the use of educational media and technology. More information can be found at: (<http://www.rit.edu/~techsym>)

**Representation at the International Congress on Education of the Deaf and Hard of Hearing.** In July 2005, representatives from PEN-International presented and exhibited at the International Congress on Education of the Deaf in Maastricht, Netherlands, which attracted close to 900 participants from around the world.

**Delegate Visits.** Throughout 2005-2006, PEN-International hosted delegations from Korea, the Philippines, Japan, Hungary and the Czech Republic. Further, PEN-International staff visited the Korean Employment Promotion Agency for the Disabled, PEPNet-Japan Partner Institutions and the Kyoto Consortium of Universities. In addition, various institutions and programs in Russia, the University of Hong Kong, Dong Nai Provincial Teachers College in Vietnam, the College of St. Benilde in Manila, and postsecondary institutions in China were visited. Training and workshops were an integral component of all the visits.

**Upcoming Activities.** PEN-International will have representation at the Deaf Studies Conference at Wolverhampton University in England, the national 2006 AHEAD Conference in San Diego, CA, and the 2006 Asia-Pacific Conference on Postsecondary Education and deafness in Tokyo. Further, PEN will hold its first ever Leadership Institute for deaf and hard of hearing postsecondary students at Herstmonceux Castle in East Sussex, England. Four students from each of PEN-International’s partner institutions in China, Japan, Russia and the Philippines, as well as NTID, will convene for a week-long training on advocacy and leadership skills development. More information can be found at: [www.pen.ntid.rit.edu/summer-institute.php](http://www.pen.ntid.rit.edu/summer-institute.php).

### **PEN-International Multimedia Computer Labs**

PEN-International recognizes the importance of instructional technology for educating deaf students. For this reason, state-of-the-art high technology multimedia labs have been constructed at partner institutions. In project year three (2003-2004) PEN-International constructed two new labs at Beijing Union University and Changchun University, both in China. The multimedia labs at Tianjin University of Technology and Changchun University were recently enhanced, and in 2006 a second lab was opened at the College of St. Benilde. These labs, used an average of about 40 hours per week for coursework, provide students and faculty with access to the World Wide Web, offer videoconference capability to the university, provide a local area computer network hub, and serve as a smart classroom for teaching and learning. Students attend classes in these environments as well as use them as general computer labs when formal classes are not scheduled. Each lab has between 12-18 student computer stations.

### **Dissemination of Network and Program Information**

One of PEN-International’s goals is to disseminate technological information worldwide to improve education and increase educational and employment opportunities for deaf and hard-of-

hearing individuals. PEN-International does this through participation at conferences, via its Web site, and through articles in various worldwide publications.

PEN-International has a well designed and accessible Web site that is widely publicized and continuously updated. The Web site includes PEN-International's goals and objectives, a list of partner institutions, a resource database, and a complete listing of all PEN-International news and events. All PEN-International and partner events are listed, and also described in detail with accompanying photographs. News and events from each year also are archived on the Web site for easy retrieval. PEN-International is in the process of revising and updating its website, which will be available during the summer of 2006.

### ***PEN-International Reporting***

PEN-International's brochure communicates the essence of the PEN-International network. The brochure outlines PEN-International's goals and mission, describes each of the partner institutions, and highlights the organization's objectives, including faculty professional development and training, implementation of multimedia laboratories, faculty and student exchanges, and research and evaluation efforts. PEN-International also provides an annual report to The Nippon Foundation of Japan. The annual report describes in detail PEN-International's goals and accomplishments for the year. Additionally, articles about PEN-International's staff members, partners, and research efforts appear periodically in publications worldwide.

### **Evaluation and Research**

PEN's research efforts aim to positively influence postsecondary education within each country. The training sequence is as follows: training is conducted in the USA, follow-up training is conducted in the targeted country, and participating faculty members train others in their home country. The vision is that the faculty training will grow exponentially throughout each country.

PEN-International activities and outcomes are evaluated utilizing both formative and summative techniques. The overall evaluation plan addresses the attainment of project goals, level of satisfaction by partner administrators and faculty, and improvement in student performance as a result of PEN activities. Additionally, the role of each partner organization as a regional and national leader is addressed.

### **Cultural Exchanges**

PEN-International supports virtual and real student and faculty exchanges between participating colleges and universities. This program strives to strengthen the knowledge and skills of individual participants as well as those of faculty and students at the host university. The cultural exchanges "strengthen each student participant's cultural and personal identity while simultaneously helping him/her develop an understanding of the diverse cultures that affect our world." Examples of cross-cultural exchanges include student visits to various partner institutions, Haiku Competition, WWW Design Competition, and faculty exchanges.



## **Conclusion**

PEN-International will continue to expand its network and train and develop faculty within each of the participating countries. PEN-International will also actively seek and expand its network to other countries. Through research and evaluation, PEN-International will continue to gauge and be able to address the needs of its partners, while succeeding in its goal to improve and expand faculty development and training throughout the world.

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# **Perspectives on Errors in Deaf College Students' Texts: Correction at the Roots**

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## **Abstract**

Responding to students' texts is an ongoing issue for those teaching English as a second language, especially to deaf students. For a basis for conversations about errors, one response model uses rules governing a Basic Variety (BV) of English. This presentation explores the differences between deaf and hearing nonnative users of English and the parallels between the BV used by these users. Deaf students' English has been traditionally characterized from an error standpoint. We argue, however, that such deviances from English are productions following rule systems in this population's interlanguage. Using student texts we demonstrate deaf students' use of an interlanguage with BV characteristics. We suggest that student texts reveal rule systems, and understanding these systems enable teachers to better guide these learners' linguistic development.



One of the hardest tasks facing English instructors is, not only knowing what to correct on students' texts, but how to correct it. With regard to the WHAT, we correct with a very light hand for reasons which we hope will become clear. The HOW part of correcting texts can be even trickier. This paper explores both the WHAT and the HOW of error correction through discussions on:

1. Deaf students as ESL learners;
2. Characteristics of the English used by deaf students;
3. Why deaf students' deviations from Standard English should not be viewed as errors but rather productions that adhere to rule systems;
4. A recently identified rule system in the field of ESL called the Basic Variety or BV; and
5. Similarities between the rule systems used by deaf students and hearing learners of English as a second language (BV).

This paper also demonstrates the use of the Basic Variety in action through a deaf student's written text and concludes that deaf students texts reveal their operating rule system and suggest that understanding these rules will enable teachers to guide these learners' linguistic development.

## Deaf Students as ESL Learners

Deaf students can be viewed as ESL learners for two reasons:

- The nature of their first and second language; and
- The similarities in nature and kind of errors shared by these populations.

### *The nature of the first and second language*

Deaf students are rarely considered native users of English because it is not acquired from their primary caregivers and because it is acquired differently from their hearing counterparts – up to 95% of deaf children are born to hearing parents. Their hearing loss impedes natural acquisition. However, ASL is not considered a native language either because it is not – at least initially – shared between caregiver and child. While many deaf students eventually use ASL or a variant, there are significant differences between ASL and many spoken languages:

- ASL has no written form.
- Deaf students have to learn to make sense of print which has no usable aural counterpart and for which there is no model in their manual language.

As a result, English is a language arrived at late and learned ‘imperfectly’ because of delayed exposure both aurally and in print. This English used by deaf students is called a “primary language” rather than a first or even a second language. Berent (1988) states that once deaf children have some functional use of English, their acquisition of English proceeds similarly to those hearing students learning English as a second language.

### *The similarities in nature and kind of errors between the deaf population and ESL students*

Errors found in ESL students' texts that occur with enough regularity to be labeled, are called developmental. These same kinds of errors can be regularly found in deaf students' writing. According to Dulay, Burt and Krashen (1982), these errors show that the learner simply has an incomplete second language rule system. These researchers believe that many, if not all, of these errors self-resolve as student's knowledge of the target language becomes more complete. These errors are: (a) omitting grammatical morphemes which do not contribute meaning, e.g., *She opened present*; (b) double marking a feature when only one marker is needed, e.g., *She didn't walked home*; (c) generalizing rules, e.g., *oxes* for *oxen*; (d) archifoms, or using one form in place of several, e.g., *Her walk with Bob*; (e) using two or more forms in random alternation, e.g., using he and she randomly regardless of the gender of the person in question; and (f) misordering items in constructions, e.g., *What you are doing?* (Dulay, Burt & Krashen, 1982).

## The English Used by Deaf Students, or the Characteristics of Deaf Students' Texts

Given the above developmental errors, then, what does the English used by deaf students look like? First – it is just shorter. Deaf students use fewer words and clauses per T unit – a group of words that function as a sentence. They use fewer words for two reasons: (1) they have difficulty understanding relationships between major parts of the sentence, and (2) they have a small English vocabulary – generally one lexical item per referent.

Another characteristic of deaf students' English is its simplicity. These students generally use unembellished agent/action forms when they express themselves in writing

A third characteristic of Deaf students' texts is its cohesion – or the way text hangs together. Studies have shown that it may differ both quantitatively and qualitatively. For example, DeVilliers (1991) found that deaf students use fewer cohesive devices than hearing counterparts. However, Maxwell and Falick (1992) found no quantitative differences, but qualitative differences – mainly that deaf students rely on *and*, *then* and *because* and attribute this limited use to the way in which deaf students are taught English out of context.

## **A Different Perspective**

What is common with both the above mentioned textual characteristics and the developmental characteristics that Dulay, Burt and Krashen (1982) identified for ESL learners is that they are all labeled as errors – that is, deviations from Standard English. We are suggesting a different view – one that is related to the nature and meaning of interlanguage.

The term interlanguage describes the language system – or grammar that is being used by second language learners. Corder (1991) believes that second language learners induce rules which are mirrored in their language production. He believes that there is evidence that these rules exist and this evidence lies in the systematic nature of the errors themselves.

What this means is that any learner – and here we are including the deaf – acquiring a language passes through a series of grammars on his way to the target language. These grammars are completely systematic even though they don't match the target language. Put another way, the learner constructs an interlanguage system with its own rules and these interlanguage principles drive his communicative production. The communicative production of a second language learner, then, should best be described as a perfect interlanguage production rather than an imperfect target language production.

The best way to help students improve their communicative production is to know what rules are driving their interlanguage. Yates and Kenkel (2002) believe that any second language learner's interlanguage system is informed by what they know about communicative organization and what they know about language.

### ***What deaf students know about communicative organization***

They know:

- Conversations follow structures and involve turn taking;
- This turn-taking varies according to the social setting;
- The static nature of speech acts;
- How information is organized for purposes of communication -- deaf students know – and use – the rhetorical organizational mode known as given/new;
- How to organize their communication. They organize visually -- they structure their texts in visual images and scenes, rather than presenting events chronologically or thematically, producing what Maxwell (1994) terms a vision-centered narrative; and
- ASL uses other ways to organize communication. Campbell (personal communication) identifies another discourse structure in ASL, one with emphatic organization, where the most important information is communicated first and increasingly obscure details follow. This is called "Discourse in an ASL lecture."

Discourse in an ASL lecture follows this pattern – the main point is introduced—details follow – the main point is stated again and then, when a new topic is introduced, the sign NOW is made.

### ***What deaf students know about language***

By around age 13 deaf students know:

- The function of nouns and verbs and their interrelation in simple sentences;
- The use of subject-verb-object (or agent-action-patient) word order;
- The purpose of simple negation;
- The use of adjectives and adverbs for embellishment and clarification;
- The function of prepositions to denote relationships;
- Question forms;
- The use of coordinate conjunctions to show relationships;
- The use of some subordinate conjunctions;
- The use of some demonstratives;
- The completion of a thought must be denoted in some way; and
- Time must be identified in some way.

Klein and Perdue (1997) found enough similarities in their subjects' interlanguage, or operating rule system to formulate what they called the Basic Variety of English. We are suggesting that the rules operating in the BV are so similar to what we have observed with deaf students' writing that this operating rule system can be used as a jumping off point for knowing HOW to correct students' texts. That is, deaf students who are not skilled in English demonstrate common characteristics in their writing that can also be found in the BV. Instructors may be better able to help students work with their texts if they understand that these are the rules that are driving the deaf students' production.

### **Deaf Students' BV in Action**

Below is a paragraph taken from a deaf student's exam and some possible changes based on what is now known about the student's knowledge of English (his use of the BV).

*Deaf college student tend to be good along with other deaf students than hearing students. Deaf students are more thrills to meeting new people than hearing students. Some of hearing people are tried to be act cool and some of them have hard time to accept cultures. However, most deaf people always want to meets new people and does not matter what are their cultures and religions preferences. Deaf students always make new friends as quickly in college while hearing do not. Hearing students tend to be isle [sic] due to their lack interest in college socials such as focus more time with computers, computer games, and television. Deaf students have many times to be isle [sic] in their home state that have lack of social with deaf students. I noticed myself that deaf students hated to be isle [sic] while hearing students do not at the college.*

The first sentence of this paragraph contains a simple error in number (student), but it also contains other syntactical problems that could be corrected in more than one way. The original text reads: *Deaf college student tend to be good along with other deaf students than hearing students*. Before offering suggestions, the teacher needs to know the student's intention. That is, did he intend to show a comparison between deaf college students and hearing college students

or to simply state the preference of deaf college students to be with their peers than with hearing students? The sentence could be corrected either way, and the student's intended meaning should drive the decision.

Correcting this sentence strictly by following the principles of English, which the writer clearly does not yet fully control, could result in several different versions.

**Possible corrections:**

*Deaf college students tend to be better/happier/more comfortable with other deaf students than with hearing students.*

**OR**

*Deaf college students tend to get along better with other deaf students than hearing students do.*

The second sentence of this example paragraph shows further evidence of this student's adherence to the characteristics of BV. The sentence reads: *Deaf students are more thrills to meeting new people than hearing students.* The error "to meeting" represents either the incorrect use of an infinitive or the incorrect use of a participial, depending on which of these rules is resident in the student's interlanguage. The absence of quantifiers (some, many, etc.) in this sentence is another feature of this student's BV. Furthermore, the absence of a verb for the second referent (hearing students) reintroduces the potential confusion encountered in the first sentence of the paragraph: whether the student writer intended to establish a comparison between deaf and hearing students or state the preference of deaf students. The error, "thrills," does not create confusion in the same way as the missing verb does.

**Possible corrections:**

*Deaf students tend to be more thrilled to meet new people than hearing students are.*

**OR**

*Deaf students tend to be more thrilled meeting new people than hearing students are.*

The next two sentences in the paragraph demonstrate additional features of the student's BV. These sentences are: *Some of hearing people are tried to be act cool and some of them have hard time to accept cultures. However, most deaf people always want to meets new people and does not matter what are their cultures and religions preferences.* Once again, we see a lack of quantifiers, specifically for "cultures" and "hard time," and we also see an overuse of prepositions ("some of hearing people"). In addition, we see a common BV feature, the use of a temporal adverb ("always"). We also see the student following his referent system in the second sentence, establishing deaf people as the first referent and new people as the second, with "their cultures and religions preferences" applying to "new people" in this student's BV.

**Possible correction:**

*Some hearing people try to act cool, and some of them have a hard time accepting other cultures. However, most deaf people want to meet new people, whose cultures and religious preferences do not matter.*

A final feature of BV is the use of specific kinds of textual organization. In this paragraph, we also see this student's use of the given/new type of text organization in his BV. He begins his paragraph by discussing the meeting of new people by deaf students. In the second sentence, he repeats information about deaf students (given information) and then provides information about hearing people in this situation (the new information).

## Conclusions

Second language learners – including the deaf – begin writing with rules they know. And we are suggesting that many of the rules coincide with the BV. As they feel more confident, they attempt more sophisticated language use and alter their interlanguage to accommodate. Eventually they may elaborate their interlanguage until it becomes almost indistinguishable from the English of native users. This is our goal as teachers and we see evidence of this process with our students.

Instructors of deaf students may wonder if their students are making progress in acquiring English. We believe that focusing on correcting grammar and taking the perspective that their grammar is wrong in a way that disregards the students operating rule system will not help the student to internalize rules that move them to more complex use of English. Students' texts reveal the linguistic knowledge they bring to the English language learning situation. These texts are a reflection of their understanding of and ability to use the English language, competently or not. Understanding their operating rule systems enables teachers to more effectively appreciate, support and guide these learners' linguistic development.

## Characteristics of the Basic Variety (BV)

1. BV is an uninflected form of English, meaning there is no marking of case, gender, number, aspect, agreement or tense. Lexical items typically occur in one form, which frequently corresponds to the stem form.
  - Pronoun system limited to references to the speaker, the hearer and a third person.
  - Limited use of quantifiers (*each, every, all, some*, etc.).
  - Single form for negation (e.g., exclusive use of *no*).
  - Limited and overgeneralized prepositions.
  - No complementizers. A complementizer is a subordinate conjunction that marks an embedded complement clause. For example, *I know that John is lazy* where *that* marks the clause used as a direct object or complement in the sentence or *I planned for my son to go with you*, where *for* marks a phrase that complements plan. The most common complementizers are *for, that*, and *whether* (Crystal, 1991).
  - Some demonstratives, but no determiner system (e.g., use of *these*, but not *those*). Determiners are words that mark nouns – articles, possessive nouns, possessive pronouns, indefinite pronouns (*few, more, all, every*), numbers and demonstratives (*this, that, these, those, such*) (Celce-Murcia & Larsen-Freeman, 1983).
2. The bare stem of a verb is most frequently used. Utterances frequently lack the copula (*to be*). The verb plus *-ing* is also used often, but without the assisting copula.
3. Temporal adverbs are frequently used. The repertoire of these kinds of adverbs includes:
  - Calendric adverbials – *Tuesday, in the morning*.
  - Anaphoric adverbials that show the AFTER relation (*then, after*) and the BEFORE relation (*before*).

- Deictic adverbials (*now, yesterday*).
  - Frequency adverbs (*often, always*).
  - Durational adverbs used as bare nouns (*two hour*) (Klein & Perdue, 1997, p. 320).
4. The referent with more control takes the head position.
  5. Some boundary markers are used which show the beginning and end of a situation (*work finish*) (Klein & Perdue, 1997, pp. 320-321).
  6. Text organization is of two types. The first is given/new, or backgrounded/foregrounded. The second structure is topic-focus.

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# **Educating Deaf Students: Is Literacy the Issue?**

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## **Abstract**

For more than 100 years, teachers and investigators have sought to improve the reading achievement of deaf students. Although progress has been made in some domains, it has been limited. Recent evidence, however, suggests that academic challenges that traditionally have been ascribed to deaf students' literacy skills, and challenges in literacy per se, may have more general language and cognitive underpinnings. In fact, several studies have demonstrated that deaf students experience similar difficulties in learning via text, on the printed page or real-time text, or sign language. Such findings suggest that literacy may not be the issue. This paper reviews what we know, what we don't know, and what we think we know (but really don't) about deaf students' reading. It is suggested that the lack of progress in promoting deaf students' reading achievement is largely the result of our having been looking in the wrong places.



## **Educating Deaf Students: Is Literacy the Issue?**

Since the beginnings of my interest in children who are deaf and deaf education, I have wondered why it is that students who are deaf have so much trouble reading and writing. With other investigators, early on I assumed that the challenge must lie in the difficulties associated with acquiring phonological codes (or phonemic awareness) in the absence of normal hearing, vocabulary in early language-impooverished environments, and/or English<sup>1</sup> grammar and discourse structure with only limited access to the language. I now realize that, with those other investigators, I have been looking in the wrong place(s). Findings from research with my colleagues over the past several years involving cognition, language comprehension, and learning by students who are deaf have convinced me that the challenges in educating students who are deaf usually ascribed to reading and writing are not literacy-related at all. It might be overly simplistic to suggest that literacy challenges of students who are deaf are a symptom rather than the cause of academic challenges – because surely less-than-fluent print literacy skills surely impede academic progress – but I believe that such a statement is more accurate than the widespread belief that reading is the villain.

Research into how students who are deaf learn via sign language interpreting (e.g., Marschark, Sapere, Convertino, Seewagen, & Maltzan, 2004a; Marschark, Sapere, Convertino, & Seewagen, 2005a; Marschark et al., 2005b) and the organization and use of their concept knowledge (Ansell & Pagliaro, 2006; Bebkö, 1998; Marschark, Convertino, McEvoy, & Masteller, 2004b; McEvoy, Marschark, & Nelson, 1999) have led to a new perspective on academic achievement by students who are deaf. Such studies have suggested that the challenges observed in deaf students' comprehension of print are closely paralleled by challenges in their

comprehension of sign language and in problem solving more generally (see Marschark, Sapere, Convertino, & Seewagen, 2005c, for a review).

Together with a much larger literature from investigators interested in the development and education of deaf children, our research with college students has led us to re-examine assumptions about barriers to print literacy and academic achievement by students who are deaf, regardless of their communication orientations and school placements. The convergence of several different lines of investigation has led us to the now obvious conclusion that if we want to understand the strengths and needs of students who are deaf in educational settings, we first have to understand the cognitive underpinnings of learning and of educational interventions (Detterman & Thompson, 1997). Instead of continuing to chase after reading for another 100 years, perhaps it is time to re-examine our assumptions and consider the possibility that the culprit lies elsewhere.

### **What We Know and What We Don't Know About Deaf Students' Literacy Challenges**

Current data indicate that about 50 percent of 18-year-old students who are deaf and hard-of-hearing read below the fourth grade level (Traxler, 2000), essentially leaving them functionally illiterate (Waters & Doehring, 1990).<sup>2</sup> This compares to less than one percent of their hearing peers being in the same situation. And, notice that it is deaf *and hard-of-hearing* students who are referred to above, all part of the normative sample of the ninth edition of the Stanford Achievement Test. If one were only to consider students who are deaf, those reading levels would likely be even lower. Then again, for those interested primarily in college students, the Traxler (2000) findings may be an underestimate, as the national samples in her report included students who were not college bound. Nevertheless, the general finding raises three issues of importance here. First, given that 80 percent of children who are deaf and hard-of-hearing are in regular public school settings, how is it that those schools are graduating students who are deaf and who (apparently) cannot read? Second, if at least half of the deaf adults in the United States read below the fourth-grade level, how can it be that deaf children of deaf parents are supposed to be better readers? And, third, why have we not made more progress in changing the situation which has plagued deaf education for decades?

### ***What Makes Some Deaf Children (but Not Others) Good Readers?***

The reading and writing abilities of children who are deaf have been the focus of attention from educators and researchers for a long time. Taken together, the results and conclusions of relevant studies provide an enlightening, if disappointing picture of deaf college students' skills, as well. Many of the errors that students who are deaf exhibit in reading and writing are the same as those made by people learning English as a second language. A variety of programs therefore have been developed to instruct teachers of students who are deaf in methods like those used in teaching English as a second language (see Schirmer & Williams, 2003). Most deaf children also come to school without fluency in sign language, and yet, for some reason, we do not have programs to teach them American Sign Language. Without either English or sign language fluency, we thus deprive children who are deaf, at the outset, of an essential learning tool and access to the full richness of the world. This may help to explain our recent findings that deaf high school and college students do understand either sign language or print as well as they (and we) assume they do (Marschark et al., 2005a; Marschark et al., submitted a). Their reading behaviors and their writing may look similar to second language learners, but they do not have a

fluent first language on which to construct a second. This means that second language learning methods may be inappropriate or only address some of deaf students' needs (Mayer & Wells, 1996).

A large portion of the effort devoted to improving deaf children's literacy has gone into trying to teach them the skills and strategies that work for hearing children, even though it is apparent that deaf and hearing children often have very different background knowledge and learning strategies (Marschark, Convertino, & LaRock, 2006). Obviously, this approach has not worked very well, and most deaf children in this country still progress far more slowly than hearing children in learning to read. This means that deaf students leaving school are at a relatively greater disadvantage, lagging farther behind hearing peers, than when they entered. At the same time, there are clearly many deaf adults and children who are excellent readers and excellent writers. What accounts for the differences?

A variety of sources suggest that deaf children of deaf parents, on average, are better readers than deaf children of hearing parents (e.g., Padden & Ramsey, 1998; Singleton, Supalla, Litchfield, & Schley, 1998). Why? Deaf children's relative lack of early language experience when they have hearing parents clearly plays an important role in their reading difficulties, and several investigations have found a relationship between deaf children's ASL skills and their reading levels (e.g., Strong & Prinz, 2000; Padden & Ramsey, 2000). These studies have all been correlational, however, demonstrating that high or low levels of performance in one of these domains are often accompanied by similar levels in the other. At the same time, other investigations have shown a similar link between spoken language and literacy skills (e.g., deVilliers, Bibeau, Ramos & Gatty, 1993; Geers & Moog, 1989), although that relationship usually reflects the link of both to more residual hearing. This suggests that it may be early access to fluent language that explains all of these results, but the situation is more complex.

Back when my interest in this field was primarily curiosity, I reviewed 30 years of studies concerning the reading abilities of deaf children of deaf parents as compared to deaf children of hearing parents (Marschark, 1993). The results were surprising because I fully expected that deaf children with deaf parents would always come out on top, due to their early exposure to language. Well, deaf children of deaf parents have been shown to be better readers than deaf children of hearing parents in some studies, but others have shown no difference. Importantly, none of the studies to date have considered the reading skills of parents, and those investigations that have included deaf parents largely have been conducted in cities known for having relatively high numbers of educated deaf adults. It therefore seems likely that any generalization about a link between children's reading abilities and parental hearing status per se will be extremely limited. Indeed, it now appears that regardless of whether their parents are deaf or hearing, deaf children who are better readers turn out to be the ones who had their hearing losses diagnosed earlier, had early access to fluent language (usually via sign language), *and* were exposed to English. At the same time, having a mother who is a good signer appears to be more important than whether she is deaf or hearing or the precise age at which a child learns to sign, as long as it is early (Akamatsu, Musselman, & Zweibel, 2000; Strong & Prinz, 1997).

There are other differences between deaf and hearing parents other than their primary mode of communication that might affect the development of literacy skills. For example the two groups may have very different expectations for their deaf children in terms of academic achievement. They also may differ in their ability to help their children in reading-related activities – at least for those parents who have good reading skills themselves – and we know that children whose parents spend time working with them on academic and extra-curricular

activities are more motivated and have greater academic success. So, parental hearing status does not seem like is a variable with a “causal role,” and we have to look elsewhere.

## **Thinking About Reading**

Earlier, I suggested that if we want to improve the reading abilities of deaf students, we have to understand their cognitive foundations. With regard to reading, in particular, there are higher-level cognitive skills shared by fluent readers that often seem less well-developed in deaf students than their hearing peers. Of current interest to me, given similar findings with regard to sign language are deaf students’ *metalinguistic* and *metacognitive* skills. Knowledge of language and knowledge about thinking are essential components for students across academic areas, allowing them to consider alternative approaches to learning and problem solving, assess their own understanding of face-to-face communication and print, and adapt to new materials and new contexts. Deaf children and hearing children who are beginning to read or who experience reading difficulties generally have relatively inefficient metalinguistic and metacognitive skills. Deaf students in particular appear to be relatively poor at assessing their reading comprehension and often consider themselves to be good readers even when they are largely unaware of what it means to be a good reader (Ewoldt, 1986). Similar findings with regard to deaf college students’ sign language comprehension skills have led us to the position articulated here: that print literacy may not be the barrier we have assumed it to be, but then where do we look?

Perhaps because of the ways we teach them, deaf students may demonstrate *instrumental dependence* in their reading strategies, looking to teachers and peers for explanations of text rather than attempting to determine figure out the meaning themselves. In at least one study, however, deaf adolescents were found to use a variety of independent (metacognitive) reading strategies, such as re-reading the text or looking up words in a dictionary, while their teachers appeared to encourage more dependent strategies (Ewoldt, Israelite, & Dodds, 1992). Parents and teachers, also, may inadvertently foster dependent strategies in young deaf readers, underestimating their reading abilities and demonstrating the over-directiveness often seen in hearing parents of deaf children.

Teachers and parents also appear prone to devoting so much time attempting to teach the fundamental skills underlying reading, that they may overlook teaching the goals of reading. Several investigators have noted that reading and writing are labor-intensive, frustrating activities for many deaf individuals, and they are thus often reluctant to engage in them for pleasure (Marschark, Lang, & Albertini, 2002; Wilbur, 1977). We know, however, that children who read more become good readers (not simply the other way around; Stanovich, 1986), creating a “Catch-22” situation for young deaf readers. By not reading and not having the desire to read more, deaf children may not spontaneously develop the literacy-related metacognitive skills easily acquired by many of their reading, hearing peers. Those skills can be explicitly taught (Akamatsu, 1988), but their durability is likely to be far less than if they were actively acquired by children through their own reading.

## **If Not Literacy, Then What?**

It will not be surprising to most readers that deaf students’ language skills expressed through sign typically are superior to their reading and writing in English. Such findings suggest that literacy skills are independent of general intellectual abilities and should not be taken as

indicators of any general language fluency or language flexibility (but see Marschark, in press, Chapter 8). Those findings thus suggest that literacy should be within their grasp. Why then have we not succeeded in making much of a difference?

Overall, deaf students' reading difficulties also do not appear to be the result of any particular orientation in their early language experience. What appears to be a literacy advantage among early sign language users may actually be the result of sign offering earlier access to the world – and thus a more rich cognitive development than spoken language – even if it does not provide a bridge to print (Mayer & Wells, 1996). Yet, our research on sign language interpreting and the use of real-time text in the classroom have been disappointing, indicating that deaf students in mainstream college classrooms only learn about 75-80% of what their hearing peers learn, regardless of which support service is provided, and even when we have controlled for prior knowledge and provided the best interpreters. Having deaf parents does not make any difference in this regard, nor for that matter does students' language orientations (toward speech or sign), their academic credentials, or a variety of classroom and variables (Marschark et al., 2004a, 2005a, 2005b).

On the other hand, we also have found that neither real-time text nor text plus interpreting provides a significant advantage over interpreting alone in high school and college classrooms (Marschark et al., submitted b). Indeed, we also obtained similar results when we investigated deaf students' face-to-face communication with each other, through sign or speech (Marschark et al., submitted a). What ties these studies together is a common thread of cognitive differences between deaf and hearing students that go beyond literacy per se. These and a variety of other studies involving reading and problem solving have demonstrated that deaf students tend not to automatically adopt processing strategies needed for information integration during language comprehension and learning. This orientation is apparent in both verbal and nonverbal domains (e.g., Ottem, 1980; Todman & Seedhouse, 1994). The issue therefore is not just one of language and literacy, even if the impact of such differences is evident in those domains. Moreover, it is now clear that this orientation is not just a result of "how we teach them," because the effects of lesser reliance on relational processing can be seen even in the early vocabulary learning of deaf children of deaf parents (Anderson & Reilly, 2002).

Findings indicating that deaf students are less aware of their levels of comprehension than hearing peers (metacomprehension) in both print and sign, and similar results indicating that their conceptual knowledge is not as strongly interconnected or well-bounded as is true for their hearing peers, all point to very different learning strategies for deaf and hearing students. This is neither good nor bad, it's just different (unless one happens to end up in an academic setting that does not match their learning styles). Nevertheless, until we acknowledge that deaf and hearing students have somewhat different academic needs, we will not be able to adapt instructional methods to best match their strengths and needs. In order to optimize our teaching – and their learning – we have to take into account "whats," "whens," and "hows" of deaf students' cognitive abilities. Whether it is differences in their lexical knowledge (McEvoy et al., 1999) or metacognitive strategies (Strassman, 1997), their motivation (Stinson & Walter, 1997) or their earlier educational placements (Stinson & Kluwin, 2003), it is essential that we recognize that deaf students are not hearing students who cannot hear.

It is time to acknowledge that we have made relatively little progress in advancing deaf students' reading and writing skills, despite decades of trying with a new "strategy du jour" every few years. To the extent that recent findings concerning deaf students' learning via sign language interpreting and real-time text (did we really expect that the latter was the answer when

we knew of their reading challenges?) indicate that neither of these is the panacea we expected, perhaps it is time to take a new tack and approach our education of deaf students from another perspective. That approach has to be an objective one, letting go of our assumptions and philosophical biases. It also has to be an empirically-driven one, building on what works, and perhaps re-examining methods previously abandoned because of our obsession with literacy as both the barrier and the solution. I honestly believe that all of this places us at a threshold – with a better chance of advancing the education of deaf students than we have had at any other time during the last century. Whether or not we are ready to take on this opportunity remains to be seen.

## Endnotes

1. “English” is used here only for convenience and refers to whatever spoken and written language is used by the community in which an individual lives. Similarly, references to “American Sign Language” could appropriately be replaced by any other sign language.
2. Note that this is not the same as saying that “deaf students graduate from high school reading at a fourth grade level,” a statement that is frequently seen.

Portions of this paper were drawn from the author’s book *Raising and Educating a Deaf Child*, 2<sup>nd</sup> Edition, © 2007, Oxford University Press (reprinted by permission).

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# **Postsecondary Education Abroad: Optimizing the International Postsecondary Experience for Deaf and Hard-of-Hearing Students**

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## **Abstract**

Study abroad is becoming more prevalent in the total postsecondary education experience for all students, including those who have disabilities. With the increasing globalization of the workforce, study abroad offers students the opportunity to learn about other cultures, languages, and employment. Providing reasonable accommodations for study abroad students who are deaf and hard of hearing can be done, with the right attitude, information and some advance planning by both the student and the university. This presentation will cover laws, court cases and Office for Civil Rights rulings which impact how and when reasonable accommodations are provided for students who are deaf and hard of hearing who wish to study abroad.



## **Introduction**

Students in higher education have access to a full range of activities and services related to enhancing their college experience. One of these activities is the opportunity to participate in study abroad programs. Whether the student participates in a short visit to study an aspect of a particular culture or a full semester of study at a university in another country, this is an experience that is unique, interesting, and irreplaceable.

Why would any student want to study abroad? The obvious answer might be “to see the world.” Yet, there are also other reasons such as enriching one’s educational experience, widening one’s horizons, improving one’s employability, and perhaps even to enhance one’s self-esteem and confidence.

Most of these issues are clear, but some people might question how studying abroad would enhance one’s employability. The reality is that today we live and work in a global society. Students who have studied abroad have a richer understanding of the world at large, the diverse cultures and languages that make up the global society. By being aware and understanding different languages, cultures and traditions, students gain skills which readily transfer to employability.

## **Types of Study Abroad Programs**

Study abroad comes in many forms. Many people think of it as simply going across an ocean to a new country to study for a year at a university. While this may be one type of experience that a student may have, there are also other forms such as “cluster programs” wherein students are taught in clusters away from the host institution’s students. In another form, international students are taught in fully integrated programs where the students take classes with host students, in the language of the host country. In still another version, students study at partner institutions for a summer, semester, or even a year. Finally, there are short stints – perhaps two or three weeks – wherein the study abroad is a component of the student’s home university curriculum and is taught by the university’s own faculty who travel abroad with the students.

Study abroad programs may be administered by the student’s institution, and course may be led by that institution’s faculty. However, there are international programs which originate as part of an organized consortium, not the student’s home institution. These third-party providers may be other schools or private companies. They may offer a greater variety of schools and countries from which to choose.

## **Laws in the United States**

There are several U. S. laws address civil rights, disabilities and access that may be applicable to study abroad programs. These laws include the Civil Rights Act of 1964, the Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990.

The Civil Rights Act of 1964 provides that “All persons shall be entitled to the full and equal enjoyment of the goods, services, facilities, and privileges, advantages, and accommodations of any place of public accommodation, as defined in this section, without discrimination or segregation on the ground of race, color, religion, or national origin.” It served as the cornerstone of future civil rights legislation such as the Rehabilitation Act and the Americans with Disabilities Act. The Civil Rights Act (CRA) Amendments Act of 1991 amended Title VII of the Civil Rights Act of 1964 and Title I of the Americans with Disabilities Act of 1990 to cover Americans employed by American-owned or American-controlled companies outside the United States. This is important because it creates precedence for the extension of U. S. laws abroad.

The Rehabilitation Act of 1973, as amended, states any institution receiving federal funding, directly or indirectly, may not discriminate against individuals with disabilities. This means that almost all postsecondary education programs must make education accessible to persons with disabilities. Federal grants to universities and financial aid to students are sufficient to qualify the educational institutions under the Rehabilitation Act. Section 504 is most frequently referenced when discussing the Rehabilitation Act.

The Americans with Disabilities Act of 1990 was signed by President George H.W. Bush on July 26, 1990. This law has been heralded as the most important law for persons with disabilities in America. The Americans with Disabilities Act of 1990 forbids discrimination against individuals with disabilities. Both private and public universities are covered by ADA, under Titles II and III, respectively. There is no mandate that the facility receive federal funds to comply.

## **Application and Interpretation of U. S. Laws**

In 1992, the Office for Civil Rights (OCR) ruled that the College of St. Scholastica, in Duluth, Minnesota, was obligated to provide a sign language interpreter to go abroad with a deaf student. The student was participating in the college's study abroad program in Ireland. In the St. Scholastica case, OCR ruled that the Rehabilitation Act applied. It went on to state that the college received federal funds and was, therefore, prohibited from keeping a student with a disability from participating in its programs, including study abroad.<sup>1</sup>

On December 3, 2001, the Office for Civil Rights ruled that Arizona State University did not have to provide an interpreter for a deaf student who wanted to participate in a study abroad program at the University College, Cork, Ireland. In its letter to the president of Arizona State University, OCR wrote that, "We have concluded that the University's refusal to provide and or pay for interpreter services for the complainant while participating in the Study Abroad Program in Ireland is not prohibited discrimination."<sup>2</sup> When OCR ruled in favor of Arizona State University, the student decided not to participate in the program. It is worthy to note that this program was actually operated by Butler University, not Arizona State University. This may have been a factor in the OCR ruling. Kanter notes that the decision only addressed a prior court decision in Equal Opportunity Employment Commission vs. Arabaian American Oil Company (Aramco) which ruled that U. S. laws do not apply extraterritorially.<sup>3</sup> Nowhere in the letter to Arizona State University was any mention made of the rights and protections provided under the Rehabilitation Act and the ADA.

The Bird vs. Lewis and Clark College case involved an American student who attended an American university's overseas program, taught by American faculty.<sup>4</sup> The courts found that since Lewis and Clark College received federal monies, the school was obligated under Section 504 of the Rehabilitation Act to provide an accessible program. The court found that even though the program took place overseas, the application of U. S. laws still applied while abroad. This decision echoed the decision made a decade earlier in the OCR ruling regarding the St. Scholastica case.

## **Providing an Accessible Study Abroad Program**

While students who are deaf or hard of hearing in the United States have come to expect accessibility to mean provision of the appropriate auxiliary services, such services may not be available in the country in which the student is studying. In some situations, for example, the provision of an ASL interpreter may be very difficult, while having a captionist or an oral interpreter in England may be feasible. It should be noted that sign language differs from country to country. More over, it can vary from region to region in the same country.

In light of differing cultural values and laws, providing auxiliary aids and services abroad must be done within a creative context. It's also important to remember that services for students who are deaf or hard of hearing are ongoing services, not one-time solutions. Auxiliary services for deaf and hard of hearing students may include interpreters, notetakers, assistive listening devices, signal systems (lights), text devices for telecommunications, captioning, speech-to-text services, extended testing time, syllabi in advance and others. What works for one student will not necessarily work for others. The important thing is to ensure that effective communication occurs.

Historically, Deaf people have always found ways to communicate with other Deaf people

from another country. However, figuring out ways to communicate in a social situation is very different than the communication necessary in an educational setting. These are some questions that should be considered by both students and institutional staff.

- Are ASL, PSE, or Cued Speech interpreters available, or can a remote connection be established? If the interpreters are from the United States, who is responsible for paying for their services, travel, lodging, etc.?
- Does the student possess the English competency necessary to comprehend speech-to-text services? If so, are speech-to-text service providers available, or can a remote connection be established?
- Are assistive listening devices available? If so, does the student have enough residual hearing and speech discrimination to benefit from these?
- Does the student know the host country's spoken/written language? If so, would speech-to-text services be sufficient to meet the student's needs?
- Are there oral interpreters available? If so, does the student have strong lipreading skills?
- Does the student know the host country's sign language?
- Are notetaking services needed? If so, how will they be provided?
- How will communication during field trips or other out-of-classroom settings be handled?
- What happens during non-classroom time? How will the student interact with his peers or host family?
- Are the electrical and internet connections compatible with U. S. electronic devices? ALDs need to be charged on a regular basis.
- How is the need for visual alerting devices addressed in classroom buildings and residence halls?
- Will the student's pager/text messaging device work in another country?

## **Roles and Responsibilities**

When working with students who are deaf or hard of hearing as they plan a study abroad program, it would be helpful to approach this as a team effort. The study abroad program advisor should encourage the student to identify priorities and issues, such as countries or cultures of interest, courses available, program cost, or languages. Flexibility in options may be a factor in a successful outcome.

In order to identify and provide appropriate auxiliary aids and services, students should be encouraged to disclose their hearing loss early in the application and planning stages. If the student does not reveal his hearing loss, there is no responsibility for the institution to arrange accommodations. Determining a student's accommodation needs and matching those with the proper international institution can prove daunting. The University of Minnesota <<http://www.umabroad.umn.edu/access/professional/index.shtml>> has an exemplary survey that can be most helpful to the advisor.

Ideally, staff from the study abroad program would also work closely with staff from the disability services office at the host university in sharing all appropriate information and planning auxiliary aids and services. The advisor should also design pre-departure information for the student; it can be shared with the host institution if the student signs a release form. In addition, it is important for the advisor to encourage the student to attend all preparatory

programming prior to departure.

## **Student Preparation**

Student advance preparation is one of the most important aspects of planning and experiencing a positive, enriching international education experience. In addition to some of the questions listed in a previous section, there are other key points for students who are deaf or hard of hearing to remember. Students should:

- Inform the study abroad office of their interest in participating in the program as well as disclose their hearing loss.
- Identify more than one study abroad program that is of interest to them.
- Provide appropriate documentation about the hearing loss. Students with cochlear implants should be sure that information is included. Keep in mind the information may need to be translated to the host country's language.

Medical issues may need to be taken into consideration when planning for a study abroad program. Health care abroad will likely vary significantly from what is available in the United States. Students should:

- Make sure to have sufficient supplies of prescription medications needed while abroad.
- Determine if testing for tuberculosis, polio, HIV/AIDS, or other disease testing and immunizations are required prior to departure.
- Verify that any necessary medications are not on the list of banned substances in the host country. If they are, the student should work with the U. S. Consulate in that country prior to departure to resolve the issue.

## **Institution Financial Issues**

As reviewed earlier, the Americans with Disabilities Act of 1990 (ADA) clearly states that an individual with a disability is not responsible for the cost of auxiliary aids and services. Institutions, however, need to address financial issues that may arise with students who are deaf or hard of hearing who are interested in studying abroad. Providing access for students who are deaf or hard of hearing is not a one-time cost, and a budget needs to be developed to reflect the various auxiliary aids and services needed by the students. Services to consider may include sign language or oral interpreters, speech-to-text services, notetaking services, etc.

In planning a budget, various scenarios can be explored. For example, what would the cost of speech-to-text services be if the services were purchased in the host country? How do these fees compare what the cost would be to send a speech-to-text staff member from the sending institution? As technology access increases, it might be worthwhile to investigate the cost and availability of using remote services via telephone or internet lines.

Since sign language is not a universal language, care should be given when arranging sign language interpreters. Although students may participate in educational programs in English-speaking countries, British Sign Language (BSL), for example is very different from American Sign Language (ASL). Consequently, it would be difficult to use a BSL interpreter in a classroom setting. The institution may consider sending interpreters from the U. S. to provide services. Some service providers are eager to have experiences abroad and may be willing reduce their usual fee for services to a lower cost in exchange for travel, room and board, etc. It may also be possible to identify qualified interpreters who already live near the host university.

Contacting the Registry of Interpreters for the Deaf may be helpful in identifying interpreters who may be able to provide services.

## **Student Financial Issues**

The student is responsible for services and activities that are of a personal nature. This may include personal travel, meals not included as part of the program fees, and entertainment expenses. For a student who is deaf or hard of hearing, additional personal expenses might include hearing aids and batteries.

### ***Supplemental Security Income***

Some college students with disabilities are able to draw Supplemental Security Income (SSI). Students who study abroad can often maintain this source of income. The Social Security Handbook (2004, § 2116) states: "A student of any age may be eligible for Supplementary Security Income (SSI) benefits while temporarily outside the U. S. for the purpose of conducting studies that are not available in the U. S., are sponsored by an educational institution in the U. S., and are designed to enhance the student's ability to engage in gainful employment. Such a student must have been eligible to receive an SSI benefit for the month preceding the first full month outside the U. S."

This may seem that the student uses SSI to pay for access. In reality, SSI and vocational rehabilitation services are ways that the student may fund college and its related expenses such as housing, food, books, etc. Students who wish to continue receiving SSI benefits must ensure that the international exchange course of study is not available in the United States and that the study abroad program is sponsored by a school in the United States. In petitioning the Social Security Administration for continuance of SSI benefits, students should emphasize that a) participation is critical to the student's educational and vocational success; b) the student is eligible for SSI for the one month immediately prior to leaving the U. S.; and c) the student will earn academic credits towards a high school or college degree while abroad.

### ***Vocational Rehabilitation***

Every state has an office of vocational rehabilitation (VR) that may provide support for students with disabilities as they pursue training or education in preparation for employment. Although policies and practices vary among states, there have been some situations in which a state vocational rehabilitation office has supported a student in a study abroad. Examples include a) tuition, room, and board for a student who is Deaf to study Spanish for one semester in Costa Rica, and for one month of summer school in Mexico; b) program fees for a student who is blind participating in a summer educational program in Costa Rica; c) rental of a golf cart for transportation for a student using a wheelchair on a large university campus in Australia; and d) tuition, fees, housing, and books for a student who has a visual impairment to study for a year in England.

Many students who are deaf and hard of hearing are the beneficiaries of vocational rehabilitation services. Some students may be eligible for vocational rehabilitation funding while studying abroad. The student should work with the vocational rehabilitation counselor to demonstrate how studying abroad is directly related to his education goals, include study abroad in the rehabilitation plan, and provide a rationale as to how studying abroad will enhance employability after graduation.

## Cultural Considerations

For all students interested in studying abroad, learning about and respecting the culture of the host country is extremely important. Each culture has its own expectations and norms. When a deaf student chooses to study abroad, she must work with her advisors to learn about the new culture and identify ways in which she can fit in.

Attitudes and cultural norms will often be different. For example, not greeting a host family verbally each morning, as is the custom, may cause the family to feel offended. For a deaf student who might not use her voice, greetings may be more visual, such as with a smile or a nod. Once a conflict like this is identified, it usually can be resolved easily.

In other situations, the ability to communicate through means other than spoken words may be an advantage to the deaf or hard of hearing student. Although some hearing students in the group may not be as comfortable using body language to communicate needs and issues, students who are deaf or hard of hearing may be able to by-pass language barriers by using gestures or pantomime to convey their wants or needs.

Students may be interested in meeting deaf or hard of hearing people from the host country. The World Federation of the Deaf may be a resource for identifying people who could become guides or supports during the stay. Other resources may include the National Association of the Deaf or the Hearing Loss Association of America (formerly known as Self Help for the Hard of Hearing or SHHH).

## Resources

While there are many resources that address the typical student planning to study abroad, relatively few consider the issues faced by students who are deaf or hard of hearing. A well-established resource for students as well as faculty and staff is the National Clearinghouse on Disability and Exchange which is part of Mobility International <[www.miusa.org](http://www.miusa.org)>. This organization strives to educate people and groups about international exchange opportunities and provides a vast array of resources and information to assist students and service providers.

Several years ago, the University of Minnesota, through a FIPSE project, developed extensive materials to help staff from the study abroad and disability services offices encourage and support students with disabilities to experience the benefits of study abroad and ensure their success. Although the FIPSE project has been completed, the materials have been maintained on the University of Minnesota's Learning Abroad Center website at <<http://www.umabroad.umn.edu/access/professional/index.shtml>>. In addition to previously-mentioned tools to assess site accessibility, the website also includes guidelines for advisors, program promotion strategies, suggestions for student advisors, an overview of roles and responsibilities, and considerations for staying with host families.

## Endnotes

1. Refer to *College of St. Scholastica*, 3 Nat'l Disability L. Rep. 196 (Sept. 15, 1992).
2. Refer to *Arizona State University*, 22 Nat. Disability L. Rep. § 239 (2001).
3. Refer to *Aramco*, 499 U. S. 244 (1991), superseded by Pub. L. No. 102-166 (1991).

4. Refer to *Bird v. Lewis & Clark College*, 303 F.3d 1015 (9th cir 2002)

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# Increasing Campus Sensitivity: Building Deaf Awareness through Media and Meetings

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## Abstract

Creating a campus environment where deaf and hearing individuals can work together effectively requires sensitivity to communication and an understanding and appreciation of cultural differences. Finding attractive ways to introduce these concepts to students and faculty who have had little or no prior exposure to deaf people is at times challenging. Designing educational strategies that provide people the opportunity to understand the needs and desires of each other has built bridges through increased sensitivity. Specifically, the use of cinema is a powerful vehicle for reaching out to these audiences. This session highlighted video clips from a film, “Being Deaf” and described how campus programs can use film to create opportunities for dialogue and learning. Additional print media, coaching practices, and interactive participation strategies that have been successful on our campus were shared.



The National Technical Institute for the Deaf (NTID) is the world's first and largest technological college for students who are deaf or hard of hearing. It is one of eight colleges of Rochester Institute of Technology (RIT), a privately endowed, coeducational university that is student centered and career focused. One of the unique features of RIT/NTID is that more than 1,100 deaf and hard of hearing students study, share residence halls and enjoy social life together with more than 14,000 hearing students. Working in the Student and Academic Services arena, we are often called upon to facilitate the interaction of deaf and hearing students, faculty, and staff. We have found that providing interactive learning experiences focused on enhancing understanding of communication strategies and developing sensitivity to deaf culture helps diverse groups function in a more effective manner.

As facilitators of deaf and hearing student interaction, we often think of ourselves as “environmental engineers.” We inspect the educational system and think about what may or may not be working. Are the bridges sturdy, do we need better foundations on the buildings? We need to think about altering educational environments to make them more conducive to student learning. When we are considering changing environments, we need to be cognizant that we do this work with and through people. Often it requires first changing the hearts of people, before you can begin to expect changes in practices and behaviors. All of this requires extra work. So as

“environmental engineers”, our role is to inspire other people to do the right thing. People want to do the right thing, but sometimes they don’t know how. Some of the examples below demonstrate strategies we use to enhance awareness and sensitivity on our campus.

As a way of demonstrating an example of the interactive learning experiences provided to students, let us highlight a sports team orientation. Before the season begins, we work with coaches to schedule a team-building session. We start the interactive program without voice, forcing people to move out of their comfort zone for a few minutes. Interestingly, the athletes manage to understand a good proportion of the presenter’s message. Questions about how participants understood the information that was presented led to insights about the importance of body language, lip movement, facial expression, and environmental context. Next team members learn the manual alphabet and some basic signs that would be used later in the workshop. An interactive activity designed to use body language and the signs they just learned in an effort to communicate without voice helped them to understand the communication challenges between hearing and deaf people. At the conclusion of the activity a discussion was held to process the experience and talk effective communication/strategies that can be used during the season. Interestingly, the increased awareness propelled many athletes to sign up for sign language classes. Coaches commented that the workshop “leveled the playing field” and that the deaf and hearing athletes were much more open with each other following the activity.

An additional strategy we have employed on our campus takes place during the new student orientation. We negotiate to have time on the orientation program to focus on deaf and hearing interaction. A film depicting deaf and hearing interaction and attitudes on the RIT campus, “Two Worlds” is shown. The film itself is quite realistic and shows that some students are open to interaction while others (including faculty and staff) are not. The film is followed by a discussion led by deaf and hearing student facilitators. Again this is an awareness building exercise and many new students then register for sign-language classes and Deaf study courses.

Another powerful media opportunity is the use of the DVD, “Being Deaf.” This film was made to inform people about aspects of deaf culture, diversity within the deaf community, traditions, values, beliefs, and Deaf pride. Deaf and hearing people share their personal experiences and views in this portrayal and celebration of their various accomplishments. Much of our PEPNET session focused on showing the DVD clips and discussing how these clips might be used in sensitivity and awareness training programs as well as other classroom applications. Controversial issues are purposefully portrayed in the film to stimulate discussion. Viewing the film can assist in enlightening and bridging deaf and hearing communities as well as taking the “dis” out of disability. Starting this fall, all incoming RIT students will view the DVD as part of the global awareness component of the First-Year Enrichment curriculum. To request a copy of the DVD, please contact Jan Strine: <JNSDHD@RIT.EDU>.

As you begin to look at how to improve access on your campus for deaf and hard-of-hearing students, you will want to cultivate your allies. Who are the influential people on your campus? Who might be open to helping improve the campus for both deaf and hearing individuals? It is often important to get administrators on-board. Look at the overall systemic efforts on your campus and where you can have an impact. Integrating Deaf awareness programs in established campus activities like Orientation, First-Year Experiences, Faculty Development, and diversity programming can be very effective.

Getting deaf awareness on the faculty’s agenda can be a challenge. Often the strategies that facilitate the classroom success for deaf students also enhance the experiences of all students. We often recommend that faculty and staff reference the Class Act web site

<<http://www.rit.edu/~classact/>> to gain additional information on facilitating learning for both deaf and hearing students.

The “Learn and Earn” program has been another successful strategy that we’ve used on the RIT campus. In this effort, our campus fitness facility student employees are paid for the hours they attend sign language class. The RIT Center for Intercollegiate Athletics and Recreation makes this a priority and budgets accordingly. When these student employees go to other deaf awareness programming, they also receive merit pay. The department is motivated to employ this strategy because when their employees use sign language it eases communication and demonstrates a commitment to deaf student access and improves the interactions deaf users have while using the fitness facilities.

In conclusion, by integrating strategies like these into established university practices, deaf and hearing members can begin the process of learning about and appreciating the contributions each has to make to the goals of the college. Initiatives for enhancing learning for deaf and hearing students do not happen by having one workshop or program. Making systemic changes takes constant vigilance and cultivation. As “environmental engineers”, we must lay the foundation properly so that each additional building block is part of our comprehensive campus design for enhanced access and understanding.

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# **The Future Starts with You – Accommodation and Students with Hearing Loss**

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## **Abstract**

Supporting students who are deaf or hard of hearing is a challenge facing many post-secondary educational environments. This paper reports the results of two research projects, *Accommodating Students with Hearing Losses in Post-Secondary Settings*, conducted for Specialized Supports and Disability Services (SSDS) at the University of Alberta, Canada and *Accommodating Learners with Disabilities in Post-Secondary Education in Alberta: A Review of Policies, Programs, and Support Services* that examined the experiences of learners with disabilities in post-secondary settings in Alberta, conducted for Alberta Learning. Research participants had an opportunity to explore what is working well for them, and to identify the gaps that need addressing in order for institutions to offer an equitable and accessible education. Service providers identified their challenges, successes, and recommendations for making the post-secondary environments accessible.



## **Introduction**

During 2004 and 2005, two studies were undertaken; one specifically examined the experiences of deaf and hard of hearing students, and the other examined the current status of accommodations for post-secondary students with disabilities. This paper summarizes the data from the *Accommodating Students with Hearing Losses* research, and where appropriate, includes data from the broader study. We begin by reviewing the legislation that propels the accommodation policies within the post-secondary system for students with disabilities.

## **Legislative Background**

In 1982, the federal government of Canada created the *Charter of Rights and Freedoms*<sup>1</sup> in which it is stated that all individuals deserve equal treatment before and under the law, and equal protection and benefit of the law without discrimination. While the Charter gives an overview of the rights and freedoms shared by Canadian citizens, each provincial government also has its own document that details the specifics of those rights and freedoms. In 1998, the Alberta government created the *Human Rights, Citizenship and Multiculturalism Act*<sup>2</sup> to foster equality for, and to reduce discrimination against Albertans. In 2004 the *Duty to Accommodate Students with Disabilities in Post-Secondary Educational Institutions* bulletin further specified that education is a service and that students with disabilities have the right to its full access.

## Research Methodology

The *Accommodating Students with Hearing Losses in Post-Secondary Settings* study was conducted at four major post secondary institutions in Alberta that are currently serving deaf and hard of hearing students. A review of the literature regarding the forms of accommodation for deaf and hard of hearing students was completed prior to conducting focus groups and individual interviews with students and service providers. A total of fifteen students participated along with four service providers. The provincial study also included deaf and hard of hearing students through focus groups conducted at 13 post-secondary institutions. A total of 142 students participated in the provincial-wide study.

Across both studies, the demographics revealed that fifty-nine percent of the participants were female and forty-one percent were male. The age range was between 18-48 years, with an average age of 26 years.

## Research Results: Students

Overall, students in all focus groups agreed that there are many aspects working to help them in obtaining their post-secondary education. Within the Disability Support Offices, counsellors do their utmost to support learners with disabilities, including offering psychological support in time management, dealing with anxiety, enhancing self-esteem, improving concentration, etc. Without these key personnel, students doubted that the institution would be able to accommodate them effectively. Deaf and hard of hearing students at the post-secondary level are aware that they can receive accommodations if they need them and are generally satisfied with the level and variety of services available. They also feel that the accommodations services they receive do not negatively affect their grades, however the participants were unsure if the supports affect their grades in a positive manner.

These students are also satisfied with their exam accommodations. Most do not use exam accommodations, and take their exams in the regular classroom using their regular communication supports. The students report that their instructors and programs are generally supportive of their accommodation needs if the instructors feel the students can be successful within their chosen field.

In terms of financial supports, the application process for Disability Resources Employment Services (DRES) has improved and there appears to be greater coordination and collaboration between post-secondary institutions and DRES. DRES can support a learner with a disability for up to \$75,000 per year, which is necessary to cover the expenses of interpreters and/or CART.

The increase in supports and the level of disability awareness has increased over the past five years partly because the *Duty to Accommodate Bulletin* provides a framework for institutions. There has been a corresponding improvement in adaptive technologies that support students, such as CART, Audi-See, and text messaging.

However, there are a number of areas within the post-secondary system that are not working well for the students. Most deaf and hard of hearing students are only generally aware of their accommodation rights, and are generally unsure of how it affects them educationally and for their future employment. It has been noted that some students are passive recipients of accommodation services and do not actively seek to understand accommodation processes unless an inconvenience arises.

Some deaf and hard of hearing students are also unfamiliar with the full range of communication technologies available to them. None of the participants mentioned using voice recognition software. This may be because traditionally it is an accommodation technology used by the visually impaired or blind. It may also be due to the fact that students don't recognize how they could use it to their benefit. While voice recognition software must be trained, it could be beneficial if the student had the same instructor more than once. Most students identified the need for wireless technologies, such as personal digital assistants (PDAs) and laptops to help them communicate with their peers and instructors through text messaging. If students want access to these specific technologies, they are expected to cover the costs.

Some students report that within certain programs, such as nursing, where it is believed that hearing is a requirement, some instructors create barriers through an obstructionist attitude and discrimination. Some programs also require field and practicum placements. Accommodations within this area are still an issue as institutions work out the details of accommodations for off-site placements.

Some institutions have eliminated the position of Disability Service Provider and are providing accommodation services through the Office of the Registrar or regular Counselling Services; however, these services do not have the specialized skills and knowledge to deal effectively with students' accommodation needs. This trend is reflected in the Delivery Centres, referred to as Canada Alberta Service Centres. Bureaucracies in the Canada Alberta Service Centres can be overwhelming to potential learners and end up providing very little support to students with disabilities. This problem is compounded by the difficult transition from high school to a post-secondary institution. As a result, students must determine how to make the transition to university or college on their own with the help of family and friends.

Added to this are the financial challenges that create systemic barriers for students who do not qualify for support through student loans. After working through layers of bureaucracy and requirements, many students report "giving up" on the goal of attaining a post-secondary education based on these barriers.

The Student Finance Board can add to this financial pressure because they will not fund a student with less than a 40% course load. They also insist that the student complete their program within five years. This can cause difficulty for a student who finds a full course load exhausting, especially if they have another disability other than hearing loss.

To receive accommodation services, many learners with disabilities must provide educational/psychological assessments. Most deaf and hard of hearing students are the exception to this rule, but occasionally they do need assessments completed if they wish to apply to DRES for funding for adaptive technologies, such as hearing aids or if they have another disability, such as a learning disability.

These assessments are expensive and at times must be paid by the student, and there are inconsistencies in wait times for assessments. Some students report a quick turn-around time; others report waiting one year. There are also too few psychologists who can perform the specialized range of assessments that are necessary to evaluate a student with disabilities in a post-secondary context. For deaf students there are limited numbers of psychologists who possess sufficient sign language skills to conduct the assessment themselves, which means using interpreters.

Finally, there is also a shortage of qualified support personnel in other areas, such as interpreters, real-time captionists, and qualified tutors in academic and/or technical areas. If students need to access other services, such as counselling, the professional is often lacking

background knowledge and/or sign language skills, and is not equipped to communicate with deaf and hard of hearing students.

## **Research Results: Service Providers**

Overall, service providers agreed that there are many aspects that are working well for students who are deaf or hard of hearing and obtaining their post-secondary education. Service providers' understanding of the needs of deaf and hard of hearing students are reflected in the fact that these students are generally satisfied with their communication and technological accommodations. Sometimes there is the need for the student to experiment with different communication and technological accommodations. But once the student decides their preference, he or she is capable of being successful in his/her program of choice.

There has also been a general increase in acceptance of learners with disabilities in the post-secondary setting and a corresponding increase in faculty knowledge of Disability Support Services, and their duty to accommodate. As more and more instructors become aware of their duty to accommodate, they try to develop inclusive practices within their classrooms and courseware. Because they have very little or no exposure to disabilities, they can become very creative and develop new and flexible ways of teaching, which can positively impact the accommodation process.

The post-secondary institutions have accommodation policies that document their commitment to supporting learners with disabilities. Every public institution either has a centre for learners with disabilities or very supportive counsellors. In the spirit of this commitment, the provincial list serve allows all service providers in post-secondary settings, DRES, and Alberta Human Resources and Employment (AHRE) to communicate with one another and share information. Bi-annual meetings allow service providers to implement research activities and applications that work well for Alberta institutions and learners with disabilities. Increased information sharing has impacted both service providers and learners with disabilities in very positive ways, leading to more student self-advocacy and community advocacy. Increased numbers of learners with disabilities are self-identifying and advocating for the supports they require in order to be successful in a post-secondary setting.

Service providers point out, however, that there are many aspects that are not working well. For example, CART is still a relatively new technology in an educational context and exactly how and when it should be used is still being studied. Some institutions in Alberta and British Columbia have conducted pilot projects on the use of remote CART. The ethics and the legal aspects of using transcripts is something that also must be further explored. Further exploration is also needed for exam accommodations. The degree of exam accommodations and when they should or shouldn't be provided is not well understood and can be a source of frustration for service providers.

Service providers also report being frustrated by financial issues. They note that there are inconsistencies in funding across provincial institutions. As a result, while all service providers would like to consistently apply the same standards to all accommodations, they are unable to do so. Generally speaking, large institutions in urban settings have the most money, meaning that accommodation services in rural and small colleges often suffer from a lack of funding. As a result, qualified interpreters or captionists are difficult to secure in rural or small post-secondary institutions. This creates barriers for students who wish to attend a rural college/university that may be the only institution offering the unique program of study that they wish to take.

Furthermore, many educational intuitions, faculty, and instructors don't understand the difference between accommodations and lowering of academic standards. Too many individuals believe that accommodations yield lowered academic standards, especially when dealing with the literacy issues that can be common for some deaf and hard of hearing students. Many instructors also do not understand how communication and technological accommodations work for the student. There is a misperception that accommodations remediate the hearing loss. There is also the misperception that online learning is assessable to all, and that accommodation services are not needed for these courses.

Unfortunately, accommodation needs for learners with disabilities have not been carefully considered in the development of these courses and software. In text-laden online courses, some deaf and hard of hearing students have issues with understanding course content and following and participating in online discussions. Most audio information is also not captioned.

The transition from high school to a post-secondary institution is difficult due to inconsistencies in accommodation standards. It creates confusion for the student and hinders the accommodation process. Students who come from the high school setting do not necessarily realize that what worked for them in terms of accommodations in high school may not be appropriate or may be unreasonable in the post-secondary setting. They can have difficulty in adapting to the expectations of independence, isolation, and large class sizes found in post-secondary settings. For example, a FM loop may not work well in large lecture halls and the student may not have had access to CART in the K-12 system, so he/she does not know to ask for it. Students may have had aides who helped them too much in the K-12 system, and as a result, they expect interpreters to provide this kind of support at the post-secondary level.

Adding to inconsistencies in accommodation services is the lack of trained support personnel such as tutors, adaptive technology trainers, interpreters, and captioners. There are also few chartered psychologists who know how to do fair, balanced, and useful assessments for learners with disabilities in a post-secondary setting; especially when working through an interpreter.

Increased demands on resources and complexity of student needs lead to inconsistencies in accommodation services and job stress, fatigue, and illness among service providers. There is a need for more funding for resources, such as assessments, adaptive technologies, and qualified staff, as well as increased resource sharing with small and rural institutions in order to deal with the needs of complex learners.

## **Recommendations**

Disability service providers need the resources necessary to manage the increased number and increased complexity of learners coming to post-secondary institutions. Where there is a need for specialized skills services for students with disabilities it could be contracted out. This includes the use of remote CART and/or remote interpreting and the need for qualified tutors who can work with learners with disabilities in highly technical and academic environments. Tutoring processes need to be streamlined so that students have access to assistance prior to "failing their first exams."

Service providers need to ensure that students with disabilities understand their rights and responsibilities regarding accommodation processes in post-secondary settings. With this understanding, students can be effective self-advocates. Exploring new technologies combined with adequate guidance from service providers can help deaf and hard of hearing students to make effective technological choices that will improve their post-secondary experience.



Increased technologies means that service providers need to educate DRES and other funding agencies about the need for PDAs and laptops that allow students to access wireless technologies on campus and use text messaging for effective communication with instructors and peers. The education of funding agencies must address the need for appropriate accommodation services for field placements and practicum placements.

Post-secondary institutions also need to educate their faculty, sessional instructors, and administrative personnel so that they can more effectively work with diverse learners. Instructors need to be given the knowledge and the tools to help them develop inclusive classrooms and courseware. For example, all online courses should be developed from the outset with universal design principles so to make the course accessible to all types of learners. Implicit within this training is the need for faculty to understand that accommodations are an attempt to level the playing field for learners with disabilities, and that they do not give the student an “unfair advantage” or alter the academic standards.

To avoid issues of unfair advantage, exam accommodations for deaf or hard of hearing students need further research to develop effective guidelines for service providers. There also needs to be guidelines established on how to manage CART while taking into account a student’s needs and the academic rights of faculty members. This should include training in ethics for service providers, and the use of transcripts among students. The use of remote CART should also be explored in order to facilitate resource sharing with the institutions that do not ordinarily have access to CART.

In the spirit of equal access, there is a need to follow the precepts of universal design in all areas. This includes ensuring that buildings, classrooms, and labs are accessible, and that safety requirements, such as mandatory flashing alarms in labs, are not neglected. It also means examining policies that are discriminatory towards deaf and hard of hearing students. Implicit within universal design is the need to recognize that access to post-secondary institutions should mean complete access, including out of class events and extra-curricular events. It is often at these events that students create networks that offer social support, lead to employment and access to other opportunities, and yet deaf and hard of hearing students rarely have access to interpreters and CART for these events.

The field of disability is complex and ever-changing, and the disability support providers who work with learners with disabilities need the specialized skills and knowledge to support these learners. Where the Registrar’s Office and/or Counselling Centres are being asked to take on the responsibility, disabled learners are experiencing great frustration dealing with service providers who lack the training needed to understand the nature of disability support and accommodation.

## **Conclusion**

In Alberta, all post-secondary institutions are guided by the *Duty to Accommodate Students with Disabilities in Post-Secondary Educational Institutions*. Despite this, there are no set guidelines that state exactly how deaf and hard of hearing students should be accommodated. Ultimately, there are ambiguities in the current policies, and the details of providing accommodations are left up to service providers. As a result, service providers are advocating for further research into this area to help them to determine best practices.

## Endnotes

1. From: [http://www.pch.gc.ca/progs/pdp-hrp/canada/guide/index\\_e.cfm](http://www.pch.gc.ca/progs/pdp-hrp/canada/guide/index_e.cfm)
2. From: [http://www.albertahumanrights.ab.ca/legislation/ahr\\_legislation.asp](http://www.albertahumanrights.ab.ca/legislation/ahr_legislation.asp)

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# **From Roots of One to the Wings of the Team**

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## **Abstract**

There has always been a need for an effective scheduling system for educational institutions. The University of Minnesota has gone from the roots of having a sole scheduler to the wings of a group scheduling process that fills that need. Utilizing a round-robin style of selection, service providers are able to set their own schedules, capitalizing on their strengths. This article describes an innovative scheduling process in full, providing detailed information about this process and how it can be applied other institutions.



## **Historical Perspective**

Historically, the Interpreter Coordinator at the University of Minnesota scheduled all assignments, both on-going and daily needs. The staff grew from only one staff interpreter in 1991 to 19 interpreters and four captioners in 2006. Is having the Interpreting/Captioning Coordinator or Scheduler distribute all the work successful? Yes, and it is probably the most predominant method of scheduling at institutions around the nation.

At the time this process was developed, the interpreters didn't feel they had ownership of their schedules. In 1991, for example, interpreters would get a call on the Sunday night before the first day of school that indicated their schedule that started the next day. Interpreters felt a need for ownership and started developing a prototype group-scheduling process on their own.

## **Process and Scheduling Committee**

After working through the initial brainstorming ideas related to the process, the interpreters asked if the administrative part of the unit would be involved as well. A committee evaluated and assessed what was occurring in the unit and how this process would impact business on a daily basis. This committee was comprised of the Interpreting/Captioning Unit administrative team (the Assistant Director of Disability Services, the Interpreting/Captioning Coordinator, and the Interpreting/Captioning Scheduler), four staff interpreters, and two captioners. Regular meetings were held during the academic year to discuss what was working well, what was still missing, and what needed to be changed in the process.

This committee discussed ongoing issues related to general scheduling concerns and work to improve policies and procedures related directly to scheduling day. The group also took on the task of distributing, collecting, and disseminating a survey related to all aspects of the scheduling day.

If everyone participates in the process of scheduling, it takes away the mystery. This method of scheduling was more palatable than giving schedules to service providers a few days or a

week before the semester began. Among the staff members, the process also created cohesion, empowerment, a sense of belonging, and ownership over their own schedules. Group scheduling encouraged teamwork and created peer accountability during the process and beyond.

Service providers found they had more flexibility in scheduling because they could choose their own starting and ending times based on the work available. By having the privilege of selecting their own schedules, satisfaction increased for the service providers, which led to greater satisfaction among deaf consumers. The process also contributed to greater accountability as the service providers became responsible for their own schedules. The interpreters or captioners knew their strengths and weaknesses to related subject areas, consumer styles, and most productive time of day.

## **Consumer Confidentiality**

In implementing this process, one big concern was consumer confidentiality. The interpreters adhere to the RID Professional Code of Conduct. The captioners adhere to the C-Print Captionist Code of Ethics. In addition, the group has an "in-house" confidentiality policy, which is included below.

University of Minnesota  
Interpreting/Captioning Unit

### In-House Confidentiality Statement

With respect to confidentiality, Interpreters must adhere strictly to the NAD-RID Professional Code of Conduct, as established by the Registry of Interpreters for the Deaf and the National Association of the Deaf. Captioners must adhere strictly to the C-Print Captionist Code of Ethics, as established by the National Technical Institute for the Deaf.

Interpreters and captioners should feel free to discuss student/consumer information with the Interpreting/Captioning Coordinator (ICC) and/or the Assistant Director (AD) of the ICU.

Issues that should be discussed include:

- Communication problems
- Difficulty meeting student/consumer needs
- On-going pattern of no-shows/absence without notice
- Any problem that the Interpreter is unable to resolve directly with the student/consumer.

Interpreters and captioners should use their professional judgment in sharing student/consumer communication preferences with another interpreter or captioner who is assigned to that student/consumer. This does NOT include the student/consumer's interpreter or captioner preferences. Information regarding the student/consumer's interpreter or captioner preferences should not be discussed within the unit other than with the AD or ICC.

As a general guideline, some issues that should be discussed with the Assistant Director or the Interpreting/Captioning Coordinator include:

- Communication problems;
- Difficulty meeting student/consumer needs;
- An on-going pattern of no shows/absences without notice; and
- Any problem that the service provider is unable to resolve directly with the

student/consumer.

When trying to determine whether or not to talk with someone about an issue, consider these questions:

- Why do I need to share this information?
- With whom should I be sharing this information?
- With whom should I not be sharing this information?

## **How it All Comes Together**

The scheduling process will now be explained from beginning to end. Much happens behind the scenes prior to the actual scheduling day. First, a letter is sent to the students and staff/faculty members soliciting their enrollment summaries and on-going needs for the semester.

Upon receipt of consumer needs, information is put in folders that are not accessible to the general public. The reason for these folders is for the service providers to see what work is available. After that, they are able to start drafting a skeleton schedule for their semester.

How many times have these draft skeleton schedules actually come true in the end? The interpreting staff members start the day with what they like and a sense of where their skills fit in with the classes offered. However, by virtue of the process used, they don't usually end up with that exact skeleton schedule. Next, the "match/not a match" list is distributed to the service providers. This process will be explained later. Basically, the list answers questions as to who is a good fit to work with which consumers, and vice versa.

Next, the committee takes on the responsibility of preparing for scheduling day. They meet as a group to identify what areas of change they will implement. They type the consumer schedules into wall signs. They gather all the needed supplies, such as pencils, markers, dice, and blue masking tape that won't peel the paint off the wall. We set up the tally board and bring campus maps for use as a reference. Tables and chairs are arranged so everyone can see each other and also see the scheduling wall. Roles for the day are established. Who will be the facilitator? Who will keep track of the tally board?

After the scheduling day is completed, the schedules are entered in 4D, a computer program that has been used for four years. This product is being developed for sale to other institutions; additional information about it is available from the staff at the University of Minnesota.

## **Matching Consumer Preferences**

We remind ourselves why we are all here, which is to meet the individual needs of the consumers that we serve to the best of our ability. The main goal of our unit is to serve our consumers. Their preferences do matter!

### ***“Match/Not a Match” List***

How are these lists developed? In the past, if there were student/interpreter issues and the student asked us to send a new service provider, the request would be honored. However, that didn't seem fair to anyone--not to the deaf consumer nor to the service provider. If we are not providing services to the consumer's satisfaction, most often it is because the expectations are not clear between the parties.

Consequently, a new process was developed in which the student could let us know

specifically about what is not working. We provide the feedback to the service provider directly. We tell the student when the feedback has been given and let them know that the service provider will be coming back into the classroom to implement the feedback. Communication is the key. In almost all situations when the service provider has been provided the feedback and given the opportunity to implement it, the problem has been solved.

As a result, the “match/not a match” list was born. The Interpreting/Captioning Coordinator keeps a master list in a confidential location. Lists are updated each semester and disseminated to the service providers. These are for individual interpreters or captioners eyes only, to use on scheduling day. They can also use the list to figure their skeleton schedule in advance. That has been very helpful. An example of this is included below; the names have been changed to maintain confidentiality.

Hilary Messner	Match	Not a Match
<b>Students-Active</b>	Amber Bkrich (Specific Spring 05-How to Be Rich)	
	Rudy Boesch-2nd Pref	Rupert Boneham (straight tactile)
	Tom Buchanan	
	Colby Donaldson	
	Elisabeth Filarski-1st Pref	
	Richard Hatch-(Spring 05 specific Firemaking)	
	Jerri Manthey	
<b>Students-Inactive</b>	Lex van de Berghe	Alicia Callaway
	Susan Hawk	
	Jenna Lewis	
<b>Staff-Active</b>	Christy Smith -1st Pref	
	Tina Wesson	
<b>Staff-Inactive</b>	Ethan Zohn	

When a deaf consumer informs us of who they work well with, their names are put in the “match” column. A name cannot land in the “not a match” column unless the deaf consumer has followed the feedback process which was previously described. A name is not added to that column without the staff person knowing. Consumers can also make specific semester preferences, indicated in parenthesis.

### ***Roles for scheduling day***

It was necessary to develop a way during the scheduling process to select assignments while adhering to consumer preferences. There are four specific roles for scheduling day: (a) facilitator, (b) assistant director, (c) coordinator, and (d) scheduler. The role of the facilitator is to manage the overall day. One of the captioners will facilitate the interpreting scheduling day and vice versa. The facilitator could also request help from the “floating” staff member who does not take a regular schedule. This person will handle all announcements, monitor the time, control

turn taking, read the wall signs so all know which assignment is being discussed, write the initials of the service provider who takes the job, and pass the wall sign on to the service provider so they can write down their information. This wall sign eventually ends up with the Interpreting/Captioning Coordinator and the Interpreting/Captioning Scheduler to cross-reference while entering information in the computerized scheduling program.

The assistant director oversees the day. This person works with all involved to make sure things run smoothly; he or she also answers questions, solves problems, oversees the master “match/not a match” list, and occasionally keeps track of the tally board.

The coordinator also oversees the day and works to make sure things run smoothly. This person informs the service providers of any specific information regarding the consumers’ language, or communication preferences, tracks the assignments filled, and oversees the “match/not a match” list. The scheduler assists the coordinator with his/her duties for the day and tracks all assignments as they are filled.

### ***Wall schedules***

The room is arranged so staff members can see the consumer names across the top of the wall, the times down the side of the wall, and the classes listed underneath the names, in time order. The photo included below shows this wall.



This is a sample of the generic wall sign:

Day(s) of week Time	Room # & Bldg. Campus
Class Name	
Consumer's Initials	1. _____ 2. _____

This is a sample of a specific class using the wall sign:

M/W/F 8:00-8:50 a.m.	30 Brown Hall East Bank
Fire making	
RH	1. _____ 2. _____

### ***Starting the day***

The facilitator starts the day with some general comments and reminders. The transcript of the video illustrates the process.

*Facilitator:* Let's start this process. Keep an open mind; keep side conversations to a minimum. Let's go through the match/not a match class list. If you are a match for the spear fishing class, when the first slot is filled, the second slot is open to anyone if you are not on the 'not a match' list.

Another unique thing is starred classes. That means that Jenna has requested specific interpreters. This class is only open to the people with a star on their match list first. You will know that you are specifically preferred for that because her name is in parentheses on your list. If the preferred interpreter is not available, it goes to the general match list, and then slot 2 is open. Questions?

Think about travel and lunchtime. Think about how many hours you have in comparison with other people and think about your comfort and skill level with this class. Suppose we start here with Heidi and we will do that until we get classes filled or break time. You can self-monitor. Also, if it's time for break, we will start over with who will go next. It doesn't matter when your turn comes up.



Let's say Stacy is interested in Spear fishing. You can say you want to go for that class, and I will read the sign. That's on MWF at 1:45 on the East Bank. At that point, it's open to bidding. Do you understand how that goes?

*Service Provider:* What if I prefer a class and I don't get it?

*Facilitator:* You can wait until you go for another class. Everyone is available to bid for anything at anytime. If there was a lecture and lab combo, we try to have the same interpreters for both. That means if there are interpreters for both lectures and labs, they get priority of they are not on the not a match list. Consistency is very important. Questions? That's all if it's a discussion or lecture and recitation.

Each interpreter is responsible for your own schedule. I will pass this around and you can write down all the information you need for getting books. That information is listed on the back. Pass the information on to the scheduler. Questions?

*Service Provider:* I'm at .75 hours. Do I need to get a full 40 hours?

*Facilitator:* If you are a 40-hour interpreter, you will go between 25 and 30 hours and you will go for 20 or 25 hours of interpreting. Keep that in mind to see who has more hours because those won't have as many. Let's get started.

End

This is one way of starting the day. It may be changed to fit other institutions.

A tally board is used to indicate the number of interpreting or captioning hours a service provider has ongoing for the semester. It will also designate who the “floaters” are for the semester and will indicate if someone is 75% time, which means they would be vying for fewer hours than someone who is 100% time.

Each semester the scheduling committee also determines a “cap” amount of hours that any service provider can take before waiting for others to catch up. The cap was implemented from feedback from the survey and designed to create equity and balance in hours.

### ***How do you build your schedule?***

Schedules are built using a round-robin style of turn taking. Starting at the left side of the room, a staff person will pick a class of their choice. The facilitator reads aloud the class information. The first slot is open to people who are on the match list only, as a means of retaining consumer preferences. The second slot, if there is one, is open to everyone on the match list, plus others who are interested and available. If there is more than one service provider interested in the same assignment, all those interested will have an opportunity to “shake” for it. Dice are used to determine who gets the job since the group decided that would be the most equitable and fair means of breaking a tie. If only one person wants the class, he/she will get the class; the process will continue until the class is brought up again for the second slot.

### ***What does this process look like?***

This may be difficult to explain in a written format; however, the transcript of the video illustrates the process.

*Facilitator:* Stacey, you are next.

*Stacey:* Richard Hatch for Hut Building on Mondays 9:05 to 12:05.

*Facilitator:* This one is over in Green Hall, room 410, over on East Bank. It is a three-hour class so we need two interpreters. Who is on his match list that is interested?

*Maria:* I have a question. Is Green Hall near the West Bank?

*Facilitator:* Yeah, it is on that end of campus.

*Maria:* Okay.

*Facilitator:* I saw Heidi and Ardis and then Stacey you on his match list? Okay, why don't you three roll for that slot?

[rolling of the dice]

Heidi: Uno. Ardis: 5. Stacey: 6.

*Facilitator:* Okay Stacey. Then we will roll for the second slot, and we will open it up anyone that is interested as long as you are not listed on his not-a-match list.

*Sarah:* I am not on the match list, but I can bid for this slot right?

*Facilitator:* Yes. We have Heidi, Ardis and Sarah. Go ahead.

[rolling of the dice]

Ardis: 6. Sarah/Heidi: 4.

*Facilitator:* Okay so it will be Stacey and Ardis. I'll pass this around.

*Sarah:* I'll get the next one.....

END

This is an example of one bid for an assignment. We would continue in this manner until all work, that can be, is filled.

***What if a consumer has a specific preference?***

The transcript of the video illustrates how this is handled.

*Facilitator:* Maria, you are next.

*Maria:* I want the Monday, Wednesday, Friday with Elizabeth Filarski -- Bug Appetizers. I am interested in that one.

*Facilitator:* This one is in Brown Hall, Room 115 on West Bank. I see a star down here. So, is the person who has the star interested in the class?

*Ardis:* I am on her preference list. I am wondering if this class was a specific request.

*Facilitator:* Does it just have her name under your match list or does it say Bug Appetizers?

*Ardis:* Oh, I see I am not on the preferred list for that particular class.

*Maria:* I have the star.

*Facilitator:* Okay, so Maria you have the class.

END

It's possible that a staff member can go in with an idea of what his/her schedule will look like and come away with nothing that was originally selected. To combat that feeling of, "I got nothing I wanted," the "yellow sticky" technique was developed. Staff members can place a yellow sticky not with their initials printed on it on the wall sign of the one class of their choice that they really, really want. The only time we would roll for that assignment is if more than one person wanted that same class as their "yellow sticky" choice. At the end of the day, we hope everyone has one class that they wanted, even if they lost the rest of their dice rolls.

When the process is complete, if coverage needs are not being met, we gather around the table as a team to resolve any requests that have not been met. The service providers belong to a union; therefore, it is essential to also follow the union contracts in establishing any new processes.

As a team, the group also discusses situations in which there are multiple consumers in the same class. We try our best to match preferences and provide teams that can meet the diversity of the student needs.

## **Benefits and Drawbacks**

The staff members have become empowered and have developed a sense of ownership over their schedules. There is better communication, and the staff members have learned how to be better team players. The staff has flexible scheduling, which can enable them to meet the needs of their personal lives. Peer accountability, a sense of belonging, being involved, and cohesion have developed among the entire unit as a direct result of this group scheduling process.

One of the drawbacks is that we need to find substitute service providers for any consumer requests made for the scheduling day. Another negative aspect is that student preferences are respected, but sometimes it isn't possible to fulfill every preference through this process. When this happens, we try hard to meet their preferences with any additional scheduling needs that they may have throughout the semester.

Loss of control was an issue for the administration when this started because service

Day(s) of week
Day

providers set their own starting and ending times. Also, many staff members wanted to work long days on Monday through Thursday to have Fridays off. We developed a “Friday-off” cap to make sure the needs of the unit were being fulfilled.

### Evaluation

After each scheduling day, staff members complete a survey to provide their feedback. Many changes have been implemented as a result. It is invaluable to fine-tune the process. In order to gather more meaningful feedback from consumers, we are also revising consumer feedback forms. Consumers are always welcome to meet with the Assistant Director and/or the Interpreting/Captioning Coordinator to solve any problems.

### Adapted to You!

This group scheduling process could be adapted to anyone, except for institutions with a very large number of service providers. This process has been used with groups that include as few as two service providers and as many as 24 service providers. It can be used with staff interpreters first and then expanded for use with contract workers.

We are very pleased and proud of our group scheduling process, and we welcome your questions. You may contact us at <ICURequests@oma.umn.edu>. Staff members from the University of Minnesota are also willing to go to other institutions to help implement this process. Consultation is available by contacting us at 612-624-7338. We think this is a wonderful process to use and would love to see more campuses trying it out!

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# Postsecondary Education Programs Network of Japan

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## Abstract

Postsecondary Education Programs Network of Japan (PEPNet-Japan), a grant program of Nippon Foundation and supported by PEN-International, is a collaborative network among pioneer universities and colleges which provide effective services to Deaf or hard of hearing individuals. It is led by National University Corporation-Tsukuba University of Technology (NTUT), which is the only university for Deaf or hard of hearing individuals in Japan, and 12 partner institutions across Japan. The mission of PEPNet-Japan partner institutions is to develop the best support model for students who are Deaf or hard of hearing, and assist other institutions using know-how developed by them.

In this paper, after the sharing current situation surrounded students who are Deaf or hard of hearing, the process which PEPNet-Japan has been taken shape is cited. Based on this information, the role and mission of PEPNet-Japan will be discussed.



## Current Situation of Postsecondary Education for Deaf or Hard of Hearing Students

In recent years, a great deal of effort has been made on enhancing accessibility to the students who are Deaf or hard of hearing in postsecondary educational institutions in Japan. More and more universities and colleges accept Deaf or hard of hearing students and provide better services. However, it is not yet enough. Before discussing the mission and role of PEPNet-Japan, it is important to consider the current situation of postsecondary education for individuals who are Deaf or hard of hearing.

In Japan, there are approximately 1,200 universities and colleges. According to the nationwide survey conducted by PEPNet-Japan, individuals who are Deaf or hard of hearing are enrolled in about 30% of the universities and colleges throughout Japan. This includes 237 institutions, or 287 institutions if we include the data for the past three years. However, only half of these institutions (132 institutions) provide support services to access information in their classes. One of the most common services is notetaking which is done by volunteer students who are trained as notetakers. In this survey, all 132 institutions that provide any kind of student service for Deaf students provide notetaking service. But interpreting and speech-to-text services are rather limited. Only 18% of institutions provide interpreting services, and only 14% provide speech-to-text services. However speech-to-text services are now expanding and we can expect that it will be one of the major services in the near future. Regarding the organization of student service systems, only 10% of universities and colleges have disability service office in their institutions, and less than five of them hire sign language interpreter.

## *Examples of student services available from institutions*

**Notetaking services.** Notetaking services in Japan are much different from those in America. It is more like text interpreting using handwriting. The notetaker provides a text message by handwriting and deriving what the instructor says by summarizing meaning for meaning. Deaf or hard of hearing students usually sit next to the notetaker and use the notes as a real-time access service. Short-term training programs for notetakers are sometimes offered by the institutions. Most of notetakers are volunteer students in their institutions who are not in that particular class. Hourly based wages might be paid.

**Speech-to-text services (laptop-to-laptop).** Speech-to-text services are now expanding in Japan. More and more institutions which already have notetaking services have been considering starting speech-to-text service as another option for their students. In Japan the most common technology in using speech-to-text services is a laptop-to-laptop service that uses IP-Talk software. In this method, text chat technology is used and two or more people can type simultaneously to provide one sentence. Three or more laptops are linked by a local LAN: one for the student and the others for the operators. One operator types the first part of the sentence which is delivered by a speaker, and the second operator types the next part of the sentence. Thus these sentences are connected together and displayed in the student's laptop. Students can get much more information than normal typing and be able to access their class easily. Two or four operators usually work together in one class, and most of them are trained volunteer students, similar to notetakers.

**Interpreting services.** Although interpreting services are very important to ensure real-time access to classes for students who are Deaf or hard of hearing, they are still very limited in this country. No university or college has an interpreter training program in Japan, and only two programs are available throughout the country: one is in a two-year technical school, and the other is in a two-year vocational rehabilitation school. Although some universities or colleges provide interpreting services for Deaf or hard of hearing students, most of them use this service only for seminars which are likely to have interactive communication, and in which having support from notetaking services would not be successful. Therefore, only a few students can access interpreting services. Most interpreters are freelance interpreters who are registered in the region agency. Most of them do not have an opportunity to take specific training courses focused on postsecondary educational interpreting.

### **Establishment of PEPNet-Japan**

Let us turn to the establishment of PEPNet-Japan. The first trigger in setting up PEPNet-Japan was the faculty development activity in April 2004 held by PEN-International supported by Nippon Foundation. In this faculty development activity, six Japanese people (three from NTUT and the others from three different pioneer institutions which provide advanced support service for students who are Deaf or hard of hearing) had an opportunity to observe the NTID support system and join the PEPNet 2004 conference in Pittsburgh, Pennsylvania. At that time, there were several institutions that had outstanding support services in Japan; some of them discussed establishing some sort of collaborative network among these institutions. But lack of communication between those institutions kept them apart and never gave them a chance to start up. That is why the attendance of delegations from different pioneer institutions had a great impact on changing the situation. After a ten-day faculty development activity, delegates from

pioneer institutions agreed to continue collaborative work to improve their practices and exchange information with each other, and then expand this connection into the collaborative network similar to PEPNet in America. As a result, they decided to establish PEPNet-Japan six months after the faculty development activity.

### **Mission and Projects of PEPNet-Japan**

According to decisions from the first business meeting in October 2004, PEPNet-Japan is a collaborative network among pioneer universities and colleges which provide effective services to Deaf or hard of hearing individuals. It is led by National University Corporation-Tsukuba University of Technology (NTUT), which is the only university for Deaf or hard of hearing individuals in Japan, and 12 partner institutions across the country. The mission of PEPNet-Japan partner institutions is to develop the best support models for students who are Deaf or hard of hearing, and assist other institutions using know-how developed by them.

After a few months of discussing and reviewing the situation surrounding students who are Deaf or hard of hearing, PEPNet-Japan has addressed three major issues that all Japanese universities and colleges should look into:

- Volunteer-based support services which are currently adopted by many universities and colleges must be introduced into all of institutions which accept Deaf or hard of hearing students. This is the most fundamental and critical issue.
- Universities and colleges which currently provide volunteer-based support services must move into the next stage which provides a higher quality of access services.
- Partner institutions which already have advanced access services have to be a good model to other institutions as they introduce high quality services and experiment with putting new technology into practice.

Based on these issues, PEPNet-Japan has decided to work on three major projects as well as offering workshops, symposia, informational guides, and consultation to help postsecondary institutions improve the accessibility of their programs.

- Development of Japanese tipsheets
  - Develop a reference booklet on support for Deaf students applicable to Japanese universities, based on the tipsheets developed by NETAC.
- Development of curriculum and materials for notetaker training
  - Evaluate notetaker training programs currently provided in postsecondary education institutions, and develop audio-visual materials and curricula for successful training.
- Development of a manual on how to create and operate student support systems
  - Develop a manual that provides the know-how to structure a support system for Deaf or hard of hearing students at each institutions, including how to set up a support office, hire interpreters, etc.

These projects are mainly focused on first issue cited above. However since notetaking services or other volunteer-based services have rapidly spread throughout the country, it can be suggested that next project for PEPNet-Japan after these might be to standardize higher quality services in institutions, such as speech-to-text services or interpreting services. In addition to this, studies on video remote interpreting, evaluation and training of interpreters, and trial training of speech-to-text providers using voice recognition technology have been initiated by

some partner institutions as practices on the third issue. Since these studies can be a key to further progress, more effort should be emphasized in the future.

## **Conclusion**

In Japan, establishing student services in each institution has been a significant issue for a long time. However volunteer-based support services have been rapidly increasing these days, and it became not impossible to make all of institutions provide some kind of student services to improve their accessibility for students who are Deaf or hard of hearing. Materials which PEPNet-Japan is developing can provide the impetus for making this a reality. However, as soon as these three projects are accomplished, the focus should be shifted into the next stage which focuses on higher quality services. Specifically, evaluation and training of interpreters is a very important issue as well as increasing number of institutions which hire interpreters as service coordinators. To address these issues, the expectation toward PEPNet-Japan has been increasing.

## **Acknowledgment**

PEPNet-Japan is supported by PEN-International, a grant program of Nippon Foundation. The establishment of PEPNet-Japan was made possible largely through great deal of corporation by Dr. James J. DeCaro, the Director of PEN-International and Ms. Pat Billies, the NETAC Project Coordinator. I would like to acknowledge here the generosity of them and these organizations.

## **Appendix: Footprint of PEPNet-Japan**

The major progresses of PEPNet-Japan are the following:

### ***Year 2004***

- April 14-25
  - The first faculty development activity at NTID and PEPNet 2004 conference
- May to September
  - Conducted a nationwide survey on student services for Deaf and hard of hearing individuals
- October 29
  - The first business meeting
- January
  - Publication of the report of American support system for students who are Deaf or hard of hearing

### ***Year 2005***

- January 4-8
  - Visited NETAC office and NETAC site in New York City
- January 28
  - The second business meeting
- March 13-24
  - Faculty development activity at NTID and NETAC New York site



- April 3
  - Exchange event for Deaf and hard of hearing students in the Kita-Kanto and Tohoku areas
- May 14
  - The third business meeting
- June 12
  - The first project operational meeting
- July 24
  - The second project operational meeting
- September 23
  - Symposium: “Toward the development of a postsecondary educational support network for deaf and hard of hearing students”
- October 7-11
  - Visited partner institutions by PEN-International board members
- October 8
  - The first PEPNet-Japan symposium
- October 9
  - The fourth business meeting
- December 16
  - Training seminar for service coordinators: “Support services in postsecondary educational institutions for individuals who are Deaf or hard of hearing:

#### ***Year 2006***

- January 28-29
  - The fifth business meeting
- February
  - Construction of new website
- February
  - Started listserv service
- March 29-April 9
  - The third faculty development activity at NTID and PEPNet 2006 conference in Kentucky

#### **How to cite this article**

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# **Combining Interpreting and Captioning to Make College Classrooms Accessible: Techniques and Technology**

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## **Abstract**

This workshop will describe how the use of interpreters to provide C-print® captioning in mainstreamed classes with Deaf/hard of hearing students at Miami Dade College has evolved over the five years since its inception. It will include information on the advantages to interpreters becoming trained as C-print® captionists; the students' perspectives on their use of the interpreter/captionist; the interpreters' perspectives on implementing both interpreting and captioning (sometimes both within the same class) and other applications of C-Print® captioning in a postsecondary institution. There will also be a demonstration of the technological enhancements now used to improve the captioning (especially in math and science classes).



When we were looking for a real-time captioning system at Miami-Dade College, Kendall Campus, we chose C-Print, because it was a system designed for Deaf students mainstreamed in hearing classrooms. It was also adaptable in its presentation. This adaptability allows the captionist to break from typing each word that is spoken (verbatim) and to condense and summarize what is spoken, using specific strategies. We found this seemed to help the students with lower reading levels and, surprisingly, to also help the literate students by taking the spoken discourse and converting it into captions that read like written discourse (as opposed to reading the text of spoken discourse). This appeared to make reading the text easier for both populations. C-Print is also relatively easy to learn and this makes it more expedient when training new captionists. It was also helpful that there has been financial support for training through PEPNet stipends.

We began by selecting our sign language interpreters to be our first trainees. Interpreters already have the processing and translation skills that are prerequisites for being good captionists. And because they can interpret, students who sign are comfortable in trying captioning services (for example, the students are not held to the service if they should change their minds or if a class is not conducive to real-time captioning). Students who sign are also free to use the captioning for receptive information and use ASL for their expressive communication (something not available to Deaf students who do not possess or do not choose to speak for themselves in class with captionists who are not interpreters).

In practice, since most of the students coming to us from mainstreamed settings have had no experience with real-time captioning in their classes, we give a demonstration of the service to all of our Deaf and hard of hearing students. Prior to receiving the captioning for the first time, we also give them choices as to what their captioning/notes could look like: outline form or verbatim-style; leave in or take out digressive comments; bolded or italicized vocabulary, assignments, announcements, etc.; headings added or not; include information written on the

board or not. We also offer them a choice as to what kind of expressive communication they will use: voice for themselves or sign and have the interpreter/captionist voice for them. Each Deaf student has the choice of interpreting or captioning for each course, as a separate decision. This gives both the staff person and the Deaf student the flexibility to switch over to the other service, should one or the other not provide the access that was anticipated. Because all of the staff are dually trained (or cross-trained) as interpreters and captionists, this doesn't pose any strain on the department coordinator should a student want to switch his/her services mid-semester.

No student is given both a captionist and an interpreter in the same class together. However, just because a Deaf student who signs has selected either interpreting or captioning for a particular course doesn't mean that they use only that one service for the entire class (or for the entire semester). As the students began to get comfortable with using the two services, they also began to be more sophisticated in their use. Responding to specific student requests, we began to combine the two services in some novel ways.

Lectures are easier to caption—because there is generally one speaker (and this makes it easier for the Deaf/hh student to follow the content in captions). In this way, even if the Deaf student signs, there may be vocabulary words or phrases that the student wants access to in print. Often the phrases and vocabulary from the lectures are what will be seen later on the tests and exams—so the captioned transcripts make excellent study tools for the Deaf students to review after the lecture.

But instructors don't always lecture for a full class period. At times, some instructors will break up the class into group discussions. Discussions are usually easier for the Deaf student to follow through interpretation. In this way, the student can follow multiple speakers and get more direct emotional feel of the discussion. If notes are desired—the student can ask a volunteer in the class to take notes on carbonless paper (or make copies of a group member's notes).

In classes with lots of information, board work, book work or computer activities, captions offer time for the students to break eye contact with the spoken information presented visually and look at the activity or problem being discussed. The student can then go back to the captions and catch up with whatever s/he may have missed by looking away.

When captioning a lecture, switching to interpreting can also emphasize the difference between information that is important from environmental sounds or asides that are not a part of the academic flow. At times the students become so wrapped up in reading the captions and trying to absorb the information that they read information such as: off-topic remarks; jokes; environmental sounds as information that is equally important. By the time they realize that this is not a part of the lecture, they can be thrown off. It is often easier to take side comments or stories unrelated to the course content and interpret them. In this way the student has access to the information but doesn't confuse it with the course content that needs to be closely attended to. In a similar fashion, courses that are vocabulary laden can have the vocabulary captioned and any lengthy explanations can be interpreted.

In courses that contain a lot of text (such as literature or history classes) that is read in class, there is no need to caption what is already in front of the student. But in these instances, interpreting offers additional modality to present what is in print, and the students do at times request that portions of the text be interpreted (even though they are receiving captioning for that class).

Other advantages to having the captionist also an interpreter are that:

1. The captions can be clarified with interpretation (i.e.: if the student has a question about something s/he read in the captions, s/he can ask the instructor and for the second presentation of the same information, it can be interpreted rather than re-captioned).
2. D/hh student's questions can be expressed with sign-to-voice interpretation
3. If the instructor repeats information; it can be captioned first and then interpreted for emphasis
4. If the D/hh student is experiencing visual fatigue from reading the captions on a laptop screen for a long period of time—the interpreter/captionist can switch to interpreting.
5. When team interpreting: captions can be used to put down technical vocabulary or assignments by the team interpreter. (And when team captioning, the team captionist can be the interpreter who interprets the environmental sounds, jokes, etc).
6. When using media (that is not closed captioned): depending on how the film/video is intended to be used in the course lesson: they can either be interpreted with notetaker or captioned. If the DVD or video contains course content, the student may want the film captioned (in which case it is easier visually to project the captions beneath the film). If the film is used to support class content or to illustrate a point (and the details are not necessarily important), the student may prefer to have it interpreted.
7. Classes using Power Point presentations already have a significant amount of the important text available on the slides. If the instructor makes the slides available to the students and the captionist, then captions can be added to the Power Point slides (we have found this is most easily done by having the Power Point presentation loaded into the captionists laptop in the "View: Notes Page" with a small separate window in Microsoft notepad; and then captioned using Instant Text software. The alternative is to interpret the comments and use the slides as notes

Since implementing the choice for students who are deaf and hard of hearing to utilize interpreter/captionists in their classrooms, Miami-Dade, Kendall has seen a noticeable increase in student retention and graduation rates and a decrease in repeated coursework. The concept has been so successful that it has found it's been accepted into my EdD dissertation proposal to be analyzed more formally.

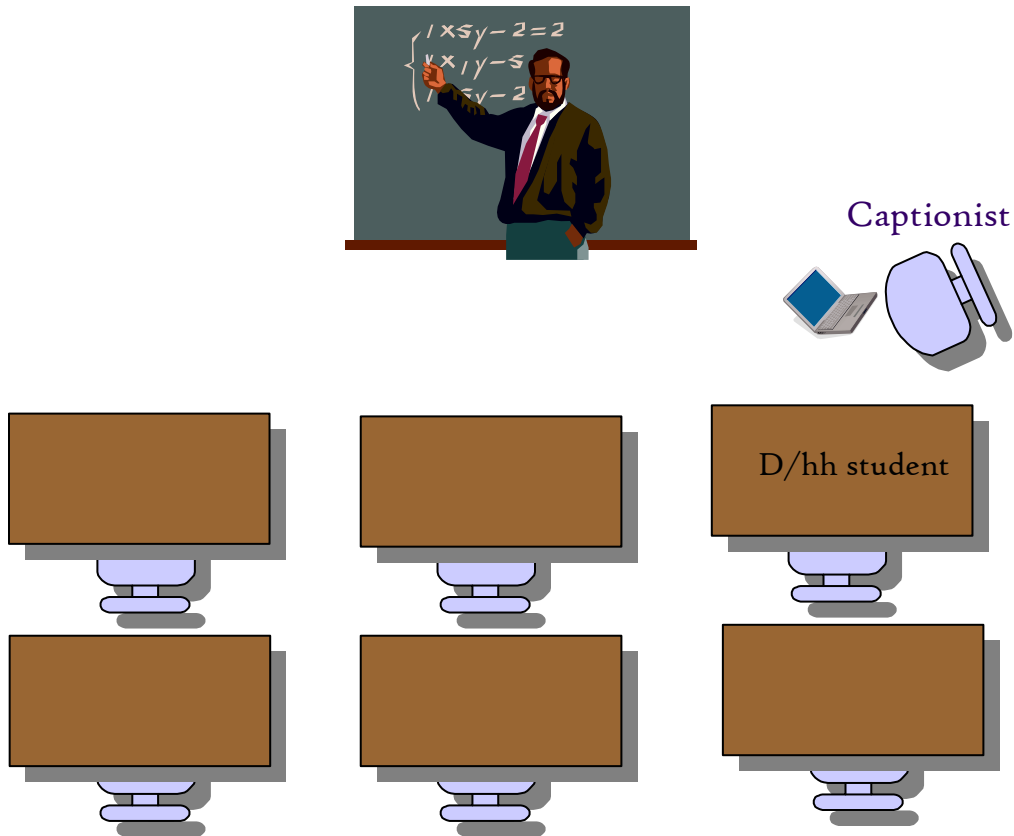
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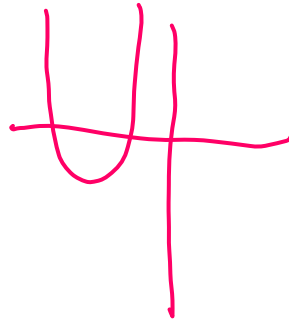
## Appendix 1: Classroom Environment



## Appendix 2: Captioning with a Tablet PC

1. Connect Tablet PC to student laptop
2. Open IT + WORD doc
3. Begin captioning
4. Graphs, diagrams or equations can be written on as you caption—

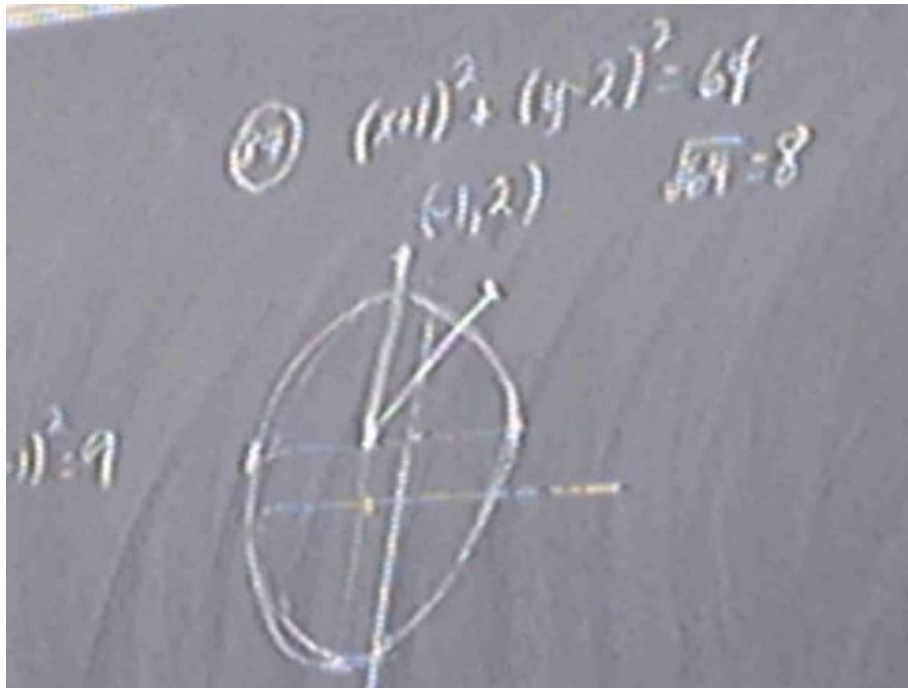
$$(2y^{\frac{1}{3}} - 3)(y^{\frac{1}{3}} + 5) = 0$$



### Appendix 3: Other Media

Adding Digital pictures:

1. Small web cam in USB port
2. Take the snapshot and insert into the notes later



Virtual captioning:

1. Log onto network/internet
2. Open chat window (AOL IM or Yahoo IM)
3. If using a web cam: hook up the web cam
4. Open IT and connect to the chat window
5. Begin captioning

## Biographical Information

### PEPNet 2006 Plenary Session Presenters

**Jennifer Buckley** is a senior at the Rochester Institute of Technology, majoring in Biology/Pre-Vet. During the 2004-05 school year, Jenny was a junior in college, trained as a member of the U.S. Women's Deaflympics soccer team, worked as a Resident Advisor, and maintained a high grade point average. She demonstrates daily how to manage life and school. Jenny was recently accepted into the College of Veterinary Medicine at Michigan State University.

**Andy Firth** serves as an Outreach Specialist for PACE and the SOTAC. Prior to joining UALR, Andy spent nine years as an attorney with the Federal Communications Commission (FCC) in Washington, D.C. At the FCC, he worked on telecommunications relay services (TRS), universal service, and "e-rate" funding issues, and was also a special assistant to the FCC's Disability Issues Task Force (now the Disability Rights Office). Throughout his career at the FCC, Andy was involved in various disability rights initiatives, including the original implementation of section 255 of the Telecommunications Act of 1996 and the addition of video relay services (VRS) and speech-to-speech service (STS) to TRS. Before joining the FCC, Andy served as the Government Affairs Manager for the National Association of the Deaf (NAD) for a brief period, and spent three years as a staff attorney with the National Center for Law and Deafness, where he worked on various ADA and Section 504 litigation and advocacy initiatives on behalf of individuals who are deaf and hard of hearing. Andy is a 1992 graduate of Notre Dame Law School, and received his Bachelor's degree in English from Gallaudet University in 1988.

**Lawrence Forestal** is an Assistant Professor of American Sign Language and Director of the ASL Teacher Education program at the University of Wisconsin - Milwaukee. He has extensive experience as a professor of American Sign Language and Deaf Studies. Dr. Forestal has a Ph.D. in Deafness Rehabilitation from the School of Education at New York University, and a Master of Science degree in Education of the Deaf and a Bachelor of Arts degree in History from Gallaudet University. Active in Deaf community activities, he has taken on leadership roles in several organizations, including the Illinois Association of the Deaf (as President), the National Association of the Deaf (as Vice-President, President-elect, and President), the Utah Association of the Deaf (as a board member), and the Valley of the Sun Chapter of the Gallaudet University Alumni Association (as Secretary).

**Brock Hansen** is a first-year graduate student at the University of Wisconsin-Milwaukee in Rehabilitation Counseling program. His undergraduate work also took place at UWM, majoring in History with a minor in Political Science. Brock had a moderate hearing loss coming into college and at about the mid-point of his undergraduate work completely lost his hearing due to complications with Neurofibromatosis Type 2 (NF2). Up to that point he used little to no classroom accommodations; after he decided on captioning services which he has used ever since. He has also been implanted with a cochlear implant (no longer used) and an Auditory Brainstem Implant, which have been useful mainly in lip-reading situations. In his free time he enjoys speaking about his experience with NF2 and his hearing loss. His love for music still exists but has been refocused on movies. After completing his graduate work he looks forward to working with individuals and families going through and dealing with similar situations.

**David LaDue**, Civil Rights Attorney with the U.S. Department of Education, Office for Civil Rights, San Francisco office. For many years David was an attorney in private practice with an office in Walnut Creek, specializing in employment law. He developed an interest in special education and disability law. He was employed at the Center for Law and the Deaf in San Leandro, California where he worked for several years as an advocate for Deaf and hard of hearing clients and organizations. At OCR he works on a team with investigators and has a special interest in resolving access complaints at the postsecondary level involving Deaf and hard of hearing students.



**Cassie Manuel** works as a Deaf and Hard of Hearing Student Advisor at the University of Wisconsin - Milwaukee (UWM) and also works with the Midwest Center for Postsecondary Outreach, mainly as the PEPNet Listserv Administrator. After Cassie's graduation from UWM with her Bachelor's degree in Social Welfare, she has also worked as a Child Care Counselor at the Wisconsin School for the Deaf and a Deaf and Hard of Hearing Specialist for the Office for the Deaf and Hard of Hearing with the Department of Health and Family Services for Wisconsin.

**Marc Marschark, Ph.D.**, is a Professor at the National Technical Institute for the Deaf, a college of Rochester Institute of Technology, and the School of Psychology at the University of Aberdeen, Scotland. He also is Director of the new Center for Education Research Partnerships at RIT ([www.rit.edu/ntid/cerp](http://www.rit.edu/ntid/cerp)). Active in research concerning deaf individuals since the 1980s, his primary interest is in relations among language, learning, and development. His current research focuses on relations of language and learning by deaf children and adults in formal and informal educational settings. He founded and edits the Journal of Deaf Studies and Deaf Education and a new book series, Perspectives on Deafness, both published by Oxford University Press.

**Cynthia Patterson** is a junior at the University of Wisconsin-Milwaukee. She is a returning adult student who also attended Gallaudet University several years ago.

**Gary Talley** was raised in Virginia. He attended schools in Matoaca, Virginia Beach, and he graduated from Dinwiddie County High School, Virginia. Gary lost his hearing during a 6-week period in the spring of 2003, and is now totally deaf. He began sign language classes at Gallaudet in July of 03, speech-reading that fall in Memphis, TN, and continued sign language classes at the University of Arkansas at Little Rock in Jan of 2004. In August of 2004, he was accepted into the Master's program for VR Counseling for the Deaf at U of A, Fayetteville. Gary has 12 years experience in Emergency Management, working for the Arkansas Dept of Emergency Management and at FEMA during then-President Clinton's first term. He has taught leadership, management, and communication courses for more than 20 years. Currently, Gary is the Outreach Program Manager for the Virginia Department for the Deaf and Hard of Hearing in Richmond, VA. He oversees the Contractors who provide services to Deaf and Hard of Hearing consumers throughout the Commonwealth. He is the father of Stephanie K. Talley, who is a nursing major at the University of Central Arkansas.

**Kim Thornsberry** is a second-year graduate student with the Rehabilitation Counseling with the Deaf program at Western Oregon University in Monmouth. Kim has had a variety of educational experiences that range from oral programs to using SEE to having note takers in classroom. With double undergraduate degrees in Psychology and Family & Consumer Studies with specialization in Child Development from Gallaudet University in Washington, D.C., Kim chose to pursue her master's degree at Western Oregon University. She is currently doing her internship as a Rehabilitation Counselor intern at the College of Southern Idaho and at the Idaho School for the Deaf and the Blind. Kim is married to Brian Thornsberry and have a daughter, Stormi.

**Karla Ussery**, Civil Rights Attorney with the U.S. Department of Education, Office for Civil Rights, Cleveland office. Karla has extensive experience in the area of disability law at both the elementary, secondary, and postsecondary levels gained during her years as an attorney with OCR. She is a frequent participant in OCR's Disability Network, which includes OCR's most experienced staff in the disability area. Prior to joining OCR, Karla co-authored a treatise on disability law for a noted on-line legal research provider and worked as a teacher and administrator at the secondary level.

## Biographical Information

### PEPNet 2006 Concurrent Session Presenters

**Heidi Adams** is the Community Outreach Specialist for the Center for Sight & Hearing in Rockford, Illinois. She has worked as a Rehabilitation Counselor and Planning Specialist/co-owner of the Communications System for Illinois' Division of Rehabilitation Services. Before becoming deaf, Heidi worked as a Speech/Language Pathologist. She holds Bachelor's and Master's degrees in Communicative Disorders from Northwestern University.

**Robb Adams** completed his Ph.D. in Counselor Education at the State University of New York at Buffalo in 2001. He was a teacher and administrator for the Deaf for eleven years before joining NTID in 1983. He currently serves as Chairperson of the NTID Department of Counseling Services.

**Jo Alexander** is a sign language interpreter and Coordinator of Services for deaf students at Oregon State University. She supervises sign language interpreters and speech-to-text service providers. Her passion for disability services began in 1974 when she became the Executive Director of the Regional Handicap Association in Colorado. Jo's first child was born profoundly deaf.

**Paul Almonte** holds a Ph.D. in English Literature from New York University. As Dean, he's responsible for a division consisting of Arts & Communications, English, Philosophy & Religion and Languages & World Cultures. Prior to coming to BCC, Dr. Almonte was an Associate Professor of English at Salt Lake Community College, where he also served as Chair of the Humanities Division. In addition to developing and teaching numerous writing, literature and humanities courses, he's also led many grant projects the most recent of which was a year-long, National Endowment for the Humanities-sponsored, faculty development seminar on "Teaching and Learning in the Humanities."

**Kristin Murphy Amey, M.A.**, Project Coordinator of the Western Region Outreach Center & Consortia (WROCC). Former Academic Adviser and Instructor of a Freshman Experience course for the National Center on Deafness at California State University, Northridge

**Catherine Andersen, Ph.D.**, is Director of the First Year Experience at Gallaudet University. In 1994, she was named Gallaudet's Distinguished Faculty of the Year. In 1997, she was selected as an Outstanding First Year Advocate by The National Resource Center on the First Year Experience and Students in Transition and in 2004 was appointed to the National Board.

**Glenna Bain** coordinates Deaf and Hard of Hearing Access Services at Central Washington University in Ellensburg, WA. She is an interpreter and certified TypeWell transcriber. Glenna serves STSN as the chair of the Membership Committee and one of the tri-chairs of the Continuing Education Committee.

**Sharon Baker** is an Associate Professor and Director of the Deaf Education at the University of Tulsa. For the past six years she has been a Team Leader for the Association of College Educators of the Deaf and Hard of Hearing (ACEDHH), Preparing Tomorrow's Teachers for Using Technology (PT3). She has been involved in several technology-focused projects including the distribution and field testing of videoconferencing technologies to university Deaf Education teacher preparation programs and the piloting of various applications of video-based technologies. Dr. Baker is the co-author of *Language Learning in Children Who are Deaf or Hard of Hearing: Multiple Pathways*, a textbook published by Allyn and Bacon. In 2001 Dr. Baker was selected to conduct a national Impact Study of the five-year Star Schools project: ASL/English Bilingual Education for the New Mexico School for the Deaf. In addition, she serves as a grant evaluator for several projects including the Gallaudet Leadership Institute. Dr. Baker holds a doctorate in Curriculum and Supervision from Oklahoma State University.

**Wanda Berry**, PASS Specialist, has 34 years experience with the Social Security Administration. The past 12 years has been working exclusively with Plan to Achieve Self Support and other important work incentives. She trains extensively throughout the Southeast and served as National Trainer for SSA PASS specialists.

**Evonne Bilotta-Burke** is a sign language interpreter at the University of Minnesota.

**Barbara Borich, M. A., CI, CT**, graduated from the University of Arizona with a B.A. in special education and rehabilitation. She earned her M.A. in Language, Reading and Culture. Barbara has been interpreting for 25 years and has worked as a Disability Access Consultant for 12 years.

**Jennie Bourgeois** is Coordinator of Deaf & Hard of Hearing Students at Louisiana State University, Coordinator for the State Outreach & Technical Assistance Center, and State Outreach Coordinator for the Captioned Media Program. Ms. Bourgeois has a BA from Louisiana State University and is a certified interpreter, and a C-Print captionist and trainer.

**Barbara Boyd** is a professor of English at California State University, Northridge. She has consulted with numerous school districts and colleges regarding the development and implementation of successful programs in writing. Two of her students and Teaching Assistants will join her in demonstrating the tasks involved in the transitioning process from high school to college settings.

**Maureen C. Brady, A.A.S., IC/TC**, Support Services/Interpreter Coordinator at the MidAtlantic Center for Deaf and Hard of Hearing Students at Camden Country College, New Jersey.

**Alton Brant** is an Associate Professor of American Sign Language and teaches ASL and Deaf Studies at Clemson University in South Carolina. He has served as teacher, lecturer, administrator, and advisor to numerous institutions and agencies in SC. He has lectured in the Czech Republic, Palestine, and Russia.

**Debra Brenner** recently joined Georgia Perimeter College as the Deaf/Hard of Hearing Coordinator following a fifteen year career at the University of Georgia, Disability Resource Center. She earned her B.A. from Hofstra University and M.Ed. from the University of Arizona.

**Pamela Broadston** currently coordinates the Deaf Education Program at the University of Arkansas at Little Rock. She received her Doctorate in Education from Texas Tech University with specialization in the areas of deafblindness and assessment. She has presented at numerous regional, national and international conferences.

**Margaret Brophy** received a master's degree in Education from the University of Rochester and came to NTID to teach English. Later, at SUNY Brockport, she managed a peer-tutoring program. After returning to NTID, she was able to utilize her skills to establish a peer-tutoring program.

**Katherine Bruni** is Georgia's Outreach Specialist, SOTAC/PEC/PEPNet. She has taught English to students who are Deaf and Hard of Hearing at Georgia Perimeter College for eighteen years. She taught children in the 1970's, has been a free-lance interpreter, Community Education Coordinator (law center), and assistant administrator for the NLTP, CSUN.

**Cindy Camp** holds a masters degree in English as well as an NAD level IV with twelve years of interpreting experience. She is currently the Disability Specialist in Deafness at Jacksonville State University in Alabama. Also, she is an adjunct instructor of English, Outreach and Technical Assistance Specialist for the PEC (Postsecondary Education Consortium) in Alabama, and Depository Manager for the JSU Postsecondary Captioned Media Library.

**Beth Case** serves as the PEC Texas SOTAC Outreach Specialist and also Disability Counselor for North Harris College in Houston. She is the immediate past president for AHEAD in Texas, and NAD Level III interpreter, and host of the Disability411 podcast. Her M.A. degree in Clinical Psychology is from DePaul University.

**Ginny Chiaverina** is currently the Program Manager for the University of Wisconsin - Milwaukee Deaf/Hard of Hearing Program and an Outreach Specialist for the Midwest Center for Postsecondary Outreach. Ginny received her interpreting training at Waubesa Community College in Sugar Grove, IL. and her master's in Administrative Leadership from UW-Milwaukee.

**Catherine Clark** is NTID's Cochlear Implant Program coordinator, and an assistant professor in the Audiology Department at NTID/RIT. Since 1986, Catherine has worked with students who have cochlear implants. She provides and coordinates cochlear implant evaluations, speechreading/listening practice, counseling and social support for the 100 NTID/RIT students who have the implants. Catherine has presented and published in the areas of speech perception, speechreading, communication technologies and NTID's Cochlear Implant Program. Her bachelor's degree in Speech and Hearing Sciences is from Bradley University and she earned a master's degree in Audiology at the University of Louisville. She also received cochlear implant training at the House Ear Clinic in Los Angeles, Calif.

**E. William Clymer, MBA, MS in Ed.,** is an Associate Professor at the National Technical Institute for the Deaf at Rochester Institute of Technology, serving as the Coordinator of the Postsecondary Educational Network - International. His primary professional focus is on the application of instructional technology and deaf education. He has served as the chair of the NTID International Symposium on Technology and Education of the Deaf in 1994, 2001, 2003 and 2005.

**Judy Colwell** was one of the founding members of STSN in 2002. She has served as Secretary and member of the Advisory Council for the last two years. Judy is the co-developer and lead trainer of the TypeWell Speech-to-Text system. She has been involved in teaching and research in the areas of communication, language, and deafness for 30 years.

**Patty Conway, B.S., CRC.** Patty is currently the Program Administrator of the Deaf and Hard of Hearing Services Branch with the Kentucky Office of Vocational Rehabilitation responsible for oversight of all services to persons with hearing loss. These services are individualized to persons who are deaf, deafblind, deaf at risk, oral deaf, hard of hearing or late deafened depending on their specific needs. Patty also serves as the State Coordinator of Deaf Services (SCD) working directly with Rehabilitation Counselors for the Deaf (RCDs) who serve individuals who are deaf and use sign language. Other programs under her management include supervision of administrators directing the coordination of Communication Specialists who provide services to persons who are hard of hearing and late deafened and the coordination of service providers working with individuals who are deafblind and deaf at risk. Patty has held her current position since 1989 and has established partnerships and linkages at the state, regional and national level to improve service delivery. Under her leadership, Kentucky Vocational Rehabilitation has become nationally known for quality, specialized services to meet the unique needs of the diverse populations within the group of individuals with hearing loss. She has been involved in numerous national initiatives and has presented on an array of topics in this area.

**Roberta "Bobbi" Cordano, J.D.,** is the Director of Disability Services at the University of Minnesota. Prior to her current position, she was a prosecutor at the Minnesota Attorney General's Office for ten years. As an Assistant Attorney General, she also served as a member of the Minnesota Supreme Court Advisory Committee on Court Interpreters from 1994-2004, which worked to increase access to the courts for Deaf and hard of hearing people and non-English speaking people. In this role, she helped develop Minnesota's Code of Professional Responsibility for Court Interpreters and drafted the rule on certification of Minnesota court interpreters. Bobbi grew up in a Deaf family and is a native speaker of American Sign Language. She graduated with honors in Sociology from Beloit College in 1986 and received her law degree from the University of Wisconsin Law School in 1990. She is a member of the Minnesota Bar.

**Gina Coyne** is a C-Print Research Captionist in the Department of Research and Teacher Education at the National Technical Institute for the Deaf. She provides speech-to-text services to students in secondary and post-secondary educational settings (research trials), and contributes to the continued research and development of the C-Print system.

**Daphne A. Hatrak Craft - CSC, CT.** Daphne Craft is the only hearing child of a third generational deaf family. Daphne received her B.A. degree in General Studies/Anthropology from Indiana University. She has been a professional freelance interpreter for 20 years working in Indiana. In 2001, Daphne became the Administrative Staff Interpreter at NCOD at California State University Northridge. She has served as the co-chair for the NCOD Symposium in 2003 and 2004. Daphne joined Sorenson VRS in the fall of 2003 as the Director of the Burbank Call center and is currently the Western Regional Director of Sorenson VRS.

**Cheryl Davis** obtained her Master's degree from the University of Arkansas while working at RT-31 and her Ph.D. from the University of Oregon in Special Education and Rehabilitation, with an emphasis in school-to-community transition. She is currently the Director of the Regional Resource Center on Deafness at Western Oregon University.

**James J. DeCaro** is the director of the Postsecondary Education Network -International (PEN-International)--a multinational collaborative network of colleges and universities serving deaf students that is funded by grants from The Nippon Foundation of Japan. Prior to holding this post he served as dean of the National Technical Institute for the Deaf at Rochester Institute of Technology for 14 academic years; two of those years as interim director and CEO. He holds B.S. and M.S. degrees in civil engineering and a Ph.D. in instructional technology. He has been a Rotary International Scholar in England and a Fulbright Senior Scholar in Sweden. He holds an honorary professorship at Tianjin University of Technology (China) and an honorary doctoral degree from Bauman Moscow State Technical University (Russia).

**Robin Demko, BA,** works for the Western Canadian Centre for Studies in Deafness. Her background includes a BA in psychology and a professional writing diploma. As a Deaf student finishing her degree in professional writing, Robin is personally aware of the challenges facing students with hearing losses at post-secondary institutions.

**Jane Dillehay, Ph.D.,** has been teaching biology for 25 years at Gallaudet University. She has served as chair of her department and for 9 years, Dr. Dillehay was the Dean of the College of Liberal Arts, Sciences, and Technologies. She established a Learning Community that focuses on bioethics, one of her areas of specialization.

**Erika Domatti-Thomas** is currently an Assistant Professor of ESOL for Deaf Students at Austin Community College. The ESOL department at ACC provides developmental reading, writing and ASL grammar courses taught in ASL specifically for Deaf students. Erika earned her B.S. in Deaf Education from the University of Texas in 1993 and her M.A. from Gallaudet University in 1995. She began her career as a high school English teacher and then later an English Curriculum Specialist at the California School for the Deaf, Fremont. Because Texas will always be home, Erika decided to move back to Austin in 2001. After a year of teaching at the Texas School for the Deaf and recognizing the need for post-secondary education for Deaf students in the state of Texas and Austin in particular, she has worked with Austin Community College to develop a program that now serves over 100 Deaf students.

**Sharon Downs** is the Specialist in Deafness at the University of Arkansas at Little Rock, SOTAC Coordinator, PI and Project Director for Project ADEPT, and a founding member of STSN. She has a Master's in rehabilitation counseling, and Bachelor's in interpreting. Sharon has presented at often at national and international conferences.

**Joyce Dworsky-Sauer** is the owner and director of Vital Signs LLC, a free-lance agency providing interpreting and speech-to-text services in Maryland and Washington, D.C. She is also an interpreter and speech-to-text service provider herself. Joyce's agency regularly provides services to colleges, businesses and government offices.

**Kathy Earp, B.S. CI, CT,** is the Program Specialist with the Center for Deaf and Hard of Hearing students at Camden County College and has worked with students since 1988. She has also been involved with NETAC technical assistance activities in NJ. Kathy will complete her MSW in May 2006.

**Donna Easton** is a C-Print Research Captionist in the Department of Research and Teacher Education at the National Technical Institute for the Deaf. She provides speech-to-text services to students in post-secondary and secondary settings (research trials), and contributes to the continued research and development of the C-Print system.

**Sarah E. Eiland, B.A., M.Ed.**, born profoundly deaf, graduated cum laude from Auburn University December 2002 with a B.A. in English, along with a double minor in Business and History. During college, her accomplishments include two major different university publication editorships and several organizational leadership positions. After college, she did a six-month internship with Southern Progress Corporation in Birmingham, where she served as Oxmoor House Promotion Intern. Once completed with the internship, she returned to Auburn University to earn another degree, this time a M.Ed. in Administration of Higher Education, and served a two-semester graduate assistantship within Student Affairs as Marketing Graduate Assistant for Career Development Services and Student Success Center. Recently employed as Disability Specialist, Generalist with Disability Support Services at JSU in August 2005, she has been doing PR/Marketing for the office meanwhile conducting ADA/504 compliance surveys and overseeing SOPs and other departmental forms.

**Kathleen Eilers-crandall, Ph.D.** has worked in various capacities at the National Technical Institute of the Deaf (NTID) at the Rochester Institute of Technology. She has been an administrator and instructional faculty. Although her primary faculty role is in the NTID Department of Liberal Studies, she has also taught in NTID's Master's program for Secondary Education of Deaf or Hard of Hearing Students and in NTID's Applied Computer Technology program. Prior to her NTID years, she earned a B.A. in English linguistics and literature and an M.A. in Deaf education at the California State University at Fresno. She earned her Ph.D. in communication sciences and disorders at Northwestern University. She has worked with Deaf people in a variety of educational settings and has authored many publications and presentations related to her work.

**Lisa B. Elliot** is a Senior Research Scientist in the Department of Research and Teacher Education at the National Technical Institute for the Deaf, Rochester Institute of Technology. Since 1996, she has been involved with the research, development and evaluation of the C-Print speech-to-text captioning system at NTID.

**Tim Fitzgerald** is an Information Technology Professional at the University of Minnesota.

**Kris Follansbee** is currently the Deaf and Hard of Hearing Specialist at Western Wisconsin Technical College (WWTC) in LaCrosse, Wisconsin. During the past fifteen years, Kris has endeavored to provide the best services possible for the deaf population both at WWTC and in the community.

**Susan Foster** is the Project Director for Project Access and a Full Professor at NTID/RIT. While her primary role at the college is as a full time researcher, she also teaches within the Master's degree program preparing secondary school teachers of deaf and hard of hearing students. She has published three books and has numerous published articles focused on mainstreaming and access for deaf and hard of hearing persons in school and at work.

**Pamela Francis** is the Coordinator of C-Print Development and Training. She holds a joint position with the Northeast Technical Assistance Center and the Department of Research and Teacher Education at the National Technical Institute for the Deaf. Pamela has had a key role in the development of the C-Print software and training for over 12 years.

**Janis Friend** has worked for the Kentucky Office of Vocational Rehabilitation for eighteen years, three years as a Counselor for the Deaf and fifteen years as State Coordinator for Deaf-Blind Services. She has also served as State Coordinator for Deaf at Risk Services for four years. Her office is in Frankfort.

**Patricia K. Graves** is president and lead writer of Caption First, Inc., a corporation that provides CART services for classes, meetings, etc. Pat holds every advanced certification in her field. She is currently chair of the NCRA CART task force, and she sits on the Board of Directors for the Colorado Court Reporting Association.

**Noel Gregg, Ph.D.,** is Distinguished Research Professor, Director of the University of Georgia Regents Center for Learning Disorders, and Director of the University of Georgia Learning Disabilities Center. A well published author on writing and learning disabilities, she is involved in international research on adolescents and adults with dyslexia.

**Wendy Harbour** is the co-project director of MCPO's FIPSE Transition E-Learning Grant. She resides in Boston, where she is a doctoral student at the Harvard University Graduate School of Education. Wendy has been active in postsecondary education, as a researcher and as a former disability specialist at the University of Minnesota.

**Julie Beth Hayden** has been a Rehabilitation Counselor for the Deaf with the Kentucky Office of Vocational Rehabilitation for ten years serving Danville and six surrounding counties. Her office is located on the Kentucky School for the Deaf campus where she counsels high school students transitioning into the workforce or postsecondary training.

**John Hennessey, Ph.D.,** is a Mathematical Statistician in the Office of Research, Evaluation, and Statistics at the Social Security Administration in Baltimore Maryland, and has been a faculty member in the Mathematics department at Loyola College of Baltimore.

**Sherry Hill,** Educational Interpreter, earned her AAS from an Interpreter Training Program in Iowa. She's worked full time at Des Moines Area Community College for 18 years and was instrumental in setting up services for Deaf students. She also freelances in the community and a private university.

**Phil Hyssong** has an undergraduate and graduate degree in education and instructional design. For the past 20 years, Hyssong has focused efforts in the area of deaf education, accessibility and management issues. Presently he is vice president of marketing and administration for Caption First, Inc., a CART and captioning provider.

**Cynthia L. Ingraham** is currently a doctoral student in the Deaf Education Leadership Program at Lamar University in Beaumont, Texas. Results of Ms. Ingraham's research on effective transition planning and post-school outcomes for deafblind youths will be published in a PEPNet web based resource for professionals, family members and consumers. Information for this research was in part gathered during Ms. Ingraham's more than 20 years of experience working with deafblind youths and adults. Currently, Ms. Ingraham is employed as a regional representative for the Helen Keller National Center for Deaf-Blind Youths and Adults in Lanham, Maryland.

**Anthony Ivankovic** is the Coordinator of the PEPNet Resource Center. He oversees both the Reference Section and the Distribution Center. He completed his undergraduate work at Gallaudet University with a major in Television, Film, and Photography. A Canadian native, he is knowledgeable in deaf-related materials all through the North American continent. He brings this experience and background to the PRC.

**Theresa Johnson, M.Ed.,** is an Educational Consultant for the Region IV Texas Education Service Center in Houston, Texas and the immediate past president of ADARA.

**Dennis Jones** earned his B.A. in Psychology from Gallaudet University in 1993 and his M.S. in Special Education from Western Maryland College in 1996. He joined the Center in December 2001 as Transition Specialist where he specializes in working with students and parents on financial aid and academic advisement.

**Diane Jones** is President of the Center for Sight & Hearing in Rockford, Illinois. Previously, she served as Vice President of Professional Services and Chief Operating Officer, and has 16 years experience in manufacturing. Diane has Bachelor's and Master's degrees from Northern Illinois University in Deafness Rehabilitation Counseling, and serves on the Advisory Board for their Department of Communicative Disorders.

**Allisun Kale** holds RID CI and CT, and a MA in Deaf Education. Allisun has taught interpreting seminars and classes for the last 7 years beginning her teaching career with the WROCC (Western Region Outreach Center and Consortia). She has taught at Saddleback College, College of the Canyons, the North Valley Occupational Center and is currently full-time faculty within the Interpreter Education Program housed in the Deaf Studies Department at CSUN. Her interpreting career includes medical school, postsecondary, freelance, conference, medical, mentoring, mentor training and interpreting for two World Games for the Deaf.

**Denise Kavin** is a Senior Project Associate with the Postsecondary Education Network-International program at NTID/RIT. Prior to coming to PEN, she was coordinator of deaf/ hard of hearing services and MCPO outreach site coordinator at Harper College in Palatine, IL. She received her doctorate degree in Educational Administration from Northern Illinois University, a master's degree from Northwestern University, and a bachelor's degree from Gallaudet University. Denise has been the President of STSN since June, 2004.

**Kelly Keane** holds an M.A. in Deaf Education from the Teachers College, Columbia University, and she is pursuing a second master's degree in literature at Montclair State University. Throughout her teaching career, she's worked extensively with Deaf students and closely with BCC's "Center for Collegiate Deaf Education." Ms. Keane has also led seminars for faculty working with the Deaf in classroom settings. She's also an expert in technology-enhanced education, has developed online versions of her composition courses, and is one of BCC's trainers for its TOPP (The Online Professor Program) initiative. Additionally, Ms. Keane is an Instructor in the English department at Bergen Community College.

**Susan Keenan** teaches writing at the National Technical Institute for the Deaf, a college of the Rochester Institute of Technology. She holds degrees in linguistics and deaf education from the University of Rochester and a doctorate in TESOL from Teachers College, Columbia University. Her academic interests include error correction in student texts and improvements in textual quality attributable to classroom instruction.

**Lauren M.B. Kinast - M.A. in Educational Administration.** Lauren M.B. Kinast is currently the Coordinator of Interpreting Services with the National Center on Deafness at California State University, Northridge. Professional experience includes coordinating services for deaf and hard of hearing students at a community college, scheduling and dispatching, job placement counseling, and teaching American Sign Language courses. Lauren is actively involved with the Coordinators Advisory Network (CAN) for Southern California and presented at previous PEPNet (Post-Secondary Education Programs Network) conferences regarding the provision of services to deaf and hard of hearing students.

**Regina Kiperman-Kiselgof** is a project assistant at NETAC in Rochester, NY. She has a BS degree in Social Work and an MS degree in Career and Human Resources Development from RIT. Regina's job responsibilities include the website and video series Achieving Goals, and monitoring the monthly reports and the Financing Your Education website. She moved from the Ukraine in 1994 and now lives in Rochester, NY with her husband Dmitriy Kiselgof and her precious daughter Serafina Lily.

**Marcia E. Kolvitz, Ph. D.,** is the Director of the Postsecondary Education Consortium at the University of Tennessee. She has over 20 years experience in working with students who are deaf and hard of hearing in K-12 programs and postsecondary educational settings. Marcia completed a doctorate at the University of Tennessee in Human Ecology (emphasis: Human Resource Development). She has a Master of Arts degree in Communication Disorders (emphasis: Counseling Individuals who are Deaf and Hard of Hearing) from Northern Illinois University.

**Katerri Krebs** is currently enrolled in the Interpreter Training Program at Eastern Kentucky University. She is doing her interpreting internship at Jacksonville State University. She plans to graduate in Fall 2006 with a B.A. in Education.



**Annette Leonard.** An RID Certified Interpreter, Annette has worked in postsecondary settings as an interpreter, instructor and researcher. With a Masters degree in Conflict Resolution she served as the Director of Disability Services at Western Oregon University. Currently Annette works for PEPNet providing outreach and technical assistance in Oregon, Washington, Idaho and Alaska.

**Ruth Loew, Ph.D.**, is a former NTID faculty member with graduate degrees in both linguistics and deaf education. She is now the Assistant Director of the Office of Disability Policy at ETS (Educational Testing Service).

**Mari Magler, RID CI & CT, NAD 4**, is Assistant Director of Disability Services for the University of Minnesota, overseeing the Interpreting/Captioning Unit. For the past ten years, Mari supervised interpreting services for a k-12 district in the Twin Cities. Mari has a BA in Linguistics from Metropolitan State University and certificates from Project TIEM.online in Teaching Interpreting/Teaching ASL and the Master Mentor Program.

**Cassie Manuel** works as a Deaf and Hard of Hearing Student Advisor at the University of Wisconsin - Milwaukee (UWM) and also works with the Midwest Center for Postsecondary Outreach, mainly as the PEPNet Listserv Administrator. After Cassie's graduation from UWM with her Bachelor's degree in Social Welfare, she has also worked as a Child Care Counselor at the Wisconsin School for the Deaf and a Deaf and Hard of Hearing Specialist for the Office for the Deaf and Hard of Hearing with the Department of Health and Family Services for Wisconsin.

**Deena Martin MEd** and PhD Candidate teaches with the Rehabilitation Services program at Red Deer College and works at the Western Canadian Centre for Studies in Deafness. She is a proud to have held the David Peikoff Chair of Deafness Studies Doctoral Fellowship; her research focuses on the experiences of communication support service users.

**Elisa Maroney, Ph.D.**, (University of New Mexico), Assistant Professor, Division of Special Education, and Coordinator, ASL/English Interpreting Program at Western Oregon University, holds a Provisional teaching certificate from the American Sign Language Teachers Association and a Certificate of Transliteration from the Registry of Interpreters for the Deaf.

**Cathy McLeod, M.S.**, is the Director of the Western Region Outreach Center & Consortia within National Center on Deafness at California State University at Northridge.

**Dan Miller** is the Director of Disability Support Services at Jacksonville State University. He has been in the field of deafness for over 30 years.

**Don Miller** is currently an Assistant Professor of ESOL for Deaf Students at Austin Community College. The ESOL department at ACC provides developmental reading, writing, and ASL grammar courses taught in ASL specifically for Deaf students. Don earned his B.A. in American Sign Language from Gallaudet University in 1999 and he will receive his M.S. from McDaniel College in the summer of 2006. In 2000, he began his career as an elementary school teacher at Maryland School for the Deaf, Frederick. After working as an outreach specialist at the New Mexico School for the Deaf, Santa Fe for two years, he moved to Austin, Texas and joined the ACC team.

**Becky Morris** is President of Beyond Hearing Aids, Inc., providing ALD solutions to professionals working with people with hearing loss. She is an international workshop presenter with extensive training experience to state vocational rehabilitation counselors and hearing healthcare providers. She specializes in utilizing FM systems and amplified stethoscopes.

**Mary Morrison**, an RID Certified Interpreter and Deaf Educator has worked in the postsecondary setting as interpreter, interpreter educator, supervisor and coordinator of disability services. Currently as Project Director for WROCC at the University of Montana she provides outreach and technical assistance to Arizona, Montana, Nevada and Wyoming.

**Jane Nickerson, Ph.D.**, has been teaching at Gallaudet University for twenty-two years. She teaches literature and film courses as well as reading and composition courses. She has recently linked her freshmen English class with a First Year Experience course.

**Jane Nunes** is the Massachusetts NETAC Coordinator at Northern Essex Community College. Formerly the Director of Deaf/ Hard of Hearing Services/Coordinator of Interpreter Services, she holds a Northeastern University Bachelor's in Education, a Boston University Master's in Deaf Studies, certification in Deaf Education and is a nationally certified interpreter.

**Todd Pagano** is an assistant professor and director of the Laboratory Science Technology (LST) program at NTID/RIT, where he has been developing the program's curriculum since his arrival three years ago. He is an active participant in functions of the American Chemical Society and winner of RIT's Richard and Virginia Eisenhart Award for Excellence in Teaching.

**Pamela J. Parker**, Special Needs Coordinator, has been employed 4 years at DMACC, working with Students with Disabilities. BA University of Northern Iowa, MA Trinity Bible Seminary. She has worked with persons with disabilities for 20 years.

**Sandi Patton** is the coordinator of the PEC Texas SOTAC. Additionally, she is the District Director of Disability Services for the North Harris Montgomery College District in Houston, Texas, where she has worked in the area of Disability Services for 20 years. She is a past president of AHEAD in Texas and has her M.S. degree in Rehabilitation Counseling from Auburn University.

**Beth Pincus, M.A.** Teacher of the Deaf, Senior Resource Accommodation Specialist, Center for Collegiate Deaf Education, Bergen Community College, Paramus, New Jersey.

**Emily Plec, Ph.D.**, (University of Utah) is an Assistant Professor of Communication at Western Oregon University. Her teaching and research areas include rhetoric, intercultural communication, media studies, environmental communication, and social justice. She has been published in The Howard Journal of Communications, Communication Teacher, Rhetoric and Public Affairs, The Southern Communication Journal, and New Approaches to Rhetoric.

**Larry K. Quinsland** is an associate professor at NTID/RIT, where he has been teaching deaf students for over 30 years. For many years he provided faculty development support for new and veteran teachers. He is a board member of the Convention of American Instructors of the Deaf (CAID) and chairs the Special Interest Group on Science and Technology.

**Khadijat K. Rashid, Ph.D.**, is a graduate of Gallaudet University, and she is currently an associate professor in the Department of Business and Economics. She teaches in economics and business. Dr. Rashid has also given numerous workshops on topics ranging from personal and career development to financial planning.

**Sharaine J. Rawlinson** has more than 27 years of experience in the field of Deafness. Deafened at age 14 as a result of contracting spinal meningitis while volunteering in a hospital, Sharaine holds a Bachelors of Science in Social Work with Honors from the Rochester Institute of Technology via the National Technical Institute for the Deaf and a Masters of Social Welfare with Honors from the University of Kansas. She has worked in Independent Living, Job Placement, Mental Health, Non-Profit, and Postsecondary Education. Sharaine is currently the owner of Sharaine J. Rawlinson Consulting, specializing in working with secondary and postsecondary educational institutions serving deaf and hard of hearing students. She is an internationally-sought motivational speaker on deafness and hearing loss, the Americans with Disabilities Act, Section 504 of the Rehabilitation Act, and cochlear implants and has spoken all across the United States and in Japan. She has been published in numerous publications.

**Annette Reichman** is the Director/Liaison for the Office of Special Institutions in the U.S. Department of Education. This office works with Gallaudet University, National Technical Institute for the Deaf, and the American Printing House for the Blind. Prior to this position, from 1999 until 2005, Annette Reichman served as Chief of Rehabilitation Services Administration - Deafness and Communicative Disorders Branch, where she supported efforts to improve and to expand employment opportunities for Vocational Rehabilitation (VR) consumers who are deaf, hard of hearing, deaf-blind or late deafened.

**Bambi Riehl, B.A. CI/CT** is an Outreach Specialist for PEPNet/Midwest Center for Postsecondary Outreach and the Project Director for the University of Wisconsin - Milwaukee PantherCom program. She also interprets in the UWM Deaf/Hard of Hearing Program. Bambi, who has worked with postsecondary deaf/hard of hearing students since 1988, received her interpreter training at St. Paul College and her bachelor's degree in English and Communications from the University of Wisconsin - Eau Claire. She is interested in video remote interpreting and captioning and the application of remote services in the postsecondary environment.

**Ellie Rosenfield** completed her doctoral work at University of Rochester in 2003 with research in student persistence. She has served in a variety of capacities on the faculty at the National Technical Institute for the Deaf for almost 30 years. Ellie is the Associate Dean for Student and Academic Services.

**Debra Russell, Ph.D.**, holds the David Peikoff Chair of Deafness Studies at the University of Alberta and is the Director of the Western Canadian Centre for Studies in Deafness. Her background includes a blend of adult education, linguistics, and educational psychology. She maintains active involvement in interpreting and a consulting practice.

**Tracey Salaway, MA**, Associate Professor, teaches art courses at Gallaudet University. She has made several films and enjoys helping her students create films. She is the screenplay writer, producer and director of a film that is currently being made for the project entitled, "A History through Deaf Eyes."

**Rosemary Saur** is the Project Coordinator for Project Access and an Associate Professor at NTID/RIT. She was formerly chairperson of the Department of Science and Engineering Support and now, as a support faculty, provides tutoring and advising to deaf/hh RIT students. She has numerous publications and presentations related to mentoring and mainstreaming.

**Nanci A. Scheetz, Ed.D, CSC**, is an Associate Professor of Special Education & Communication Disorders at Valdosta State University in Georgia.

**Sara Schley** is the Senior Institutional Researcher and Associate Professor at NTID/RIT. Her current research focuses on educational outcomes of deaf students, including working with the Social Security Administration and Cornell University on lifetime earnings and disability support; and K-12 outcomes of deaf children and their hearing siblings from a large longitudinal national database (the National Longitudinal Survey of Youth).

**John Schroedel** has 36 years of research experience on the career development, postsecondary education, vocational rehabilitation, and employment of deaf and hard of hearing persons resulting in 90 conference presentations and 60 publications. On the faculty of the University of Arkansas since 1983, he has also done research at Gallaudet University, the Rochester Institute of Technology, Louisiana State University, and New York University. Dr. Schroedel has three degrees in sociology.

**Lisa L. Seaman, RID CI & CT.**, has a BA in Speech Communication from, and has worked for, the University of Minnesota for 15 years, as Staff Interpreter and Coordinator. She has trained under Betty Colonomos for 3 years in the Integrated Model of Interpreting and Process Mediation. She is involved in mentoring both internally and to the community.

**Mayumi Shirasawa, Ph.D.** is the program coordinator of the Postsecondary Education Programs Network of Japan (PEPNet-Japan) working in the Research and Support Center on Higher Education for the Visually and Hearing Impaired, Tsukuba University of Technology, Japan. She holds Ph.D. in Disability studies by researching objective analysis of Japanese to Japanese Sign Language interpreting. She also holds a certification of Japanese Sign Language interpreter.

**Jo Anne Simon's** law practice concentrates on non-discrimination in higher education/employment. She is an ADA expert regarding higher education, high stakes testing and speaks on access/transition. Ms. Simon is a disability rights advocate, former DSS director, teacher of the deaf, interpreter, founding AHEAD member, formerly on its Board of Directors.

**Valorie Smith-Pethybridge, MS, CI & CT**, is the Advisor and Support Service Coordinator for Deaf & Hard of Hearing Students for the ACCESS Disability Services department at Miami Dade College, Kendall Campus in Miami, Florida. She is an interpreter and a C-Print Captionist.

**Bill Stark, M. S.**, has directed the Captioned Media Program (CMP) for fourteen. years. CMP is funded by the U. S. DOE and administered by the NAD. Bill also has administrative experience in residential schools, as a college teacher, and as manager of numerous government programs and projects.

**Michael Stinson** is Principal Investigator of the team that has developed the C-Print speech-to-text system. He currently directs projects to evaluate the incorporation of automatic speech recognition and special software into the C-Print system. He is Professor, Department of Research and Teacher Education, National Technical Institute for the Deaf.

**Jan Strine** has a Masters of Science Degree in Education from SUNY Brockport. Involved with deaf education for 36 years in a variety of capacities and settings, she currently provides support to deaf and hard-of-hearing students attending NTID/RIT and specializes in Intercollegiate Athletics, Health Education, and first-year students.

**David Templeton** is an associate professor at NTID/RIT, where he has been teaching deaf students in the sciences for over 25 years. He is the Science Coordinator in the NTID Department of Science and Mathematics. He has been an active participant and regular presenter at the National Science Teachers Association.

**Kim Thiessen** is the Accommodation Counselor and Deaf Services Coordinator at Western Washington University. She supervises interpreters and speech-to-text service providers, and is a staff interpreter herself. Kim has coordinated the use of speech-to-text services for several Japanese deaf exchange students, to provide access to classes, and teach English reading skills.

**Douglas Watson** has 40 years of work experience in the vocational rehabilitation, career preparation, job placement, and clinical assessment of persons with hearing loss. He has written or edited numerous publications and has made more than 250 conference presentations. Formerly an administrator at New York University's Deafness Research and Training Center, he has been at the University of Arkansas since 1982. Dr. Watson's doctorate is in counselor education.

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