

Taking Stock of our Present and Projecting the Future

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It is a great honor for me to be invited to address the 2002 PEPNet conference here in Kansas City. Throughout my professional career I have taught and managed at all program levels, from elementary school to graduate programs. I have especially enjoyed my work at the college level, but also deeply appreciate the heavy responsibility that we share to prepare young deaf and hard-of-hearing persons to meet the challenges of a world that is being transformed at warp speed. Last year in an address to the Conference of Educational Administrators of Schools and Programs for the Deaf (CEASD), Dr. Robert Frisina, the first director of NTID, quoted Darwin and said, "It is not the strongest of the species that survives over the most intelligent; it is the one that is most adaptable to change." I cannot think of a better way to describe our responsibility to the current and future generations of deaf and hard-of-hearing students.

Unfortunately, in the face of today's overwhelming challenges, education of the deaf, centuries after its recorded beginning in Europe, is still struggling to find answers to many of the problems and issues facing deaf persons. This same system of education which gave me the opportunities to learn English as a second language, acquire speech in English, obtain a quality education, and develop into a self-sufficient, productive, and independent adult has not been as successful with the larger majority of deaf persons. The question we have been investigating this week is, "How can we achieve successful transition from school to college and from there to the world of work and service in the community for the larger number of our students?"

For more than 165 years following the founding of the first school for the deaf and the subsequent development of a national network of residential schools, education of the deaf in the United States effectively functioned as a self-contained, free-standing system, relying neither on general education nor on any other special education system to discharge its responsibilities to deaf and hard-of-hearing children and youth. In fact, it was the only special education system with its own higher

education and teacher preparation systems, early childhood and parent support programs, vocational and career education components, and a professional workforce numbering approximately 15 thousand certified teachers, of whom about 20 percent were deaf. The emergence of revolutionary national policies that were fueled by the civil rights movement of the '60's, has created promising, but controversial, changes in the educational infrastructure serving deaf and hard-of-hearing children and youth.

Over the past 50 years, more significant changes have taken place in American schools, the workplace, and in society than during any comparable period of our nation's history. The same is true for the rest of the world. Two important developments took place in rural America following World War II: urbanization and the incredible speed of advances in technology. The development of a national highway system in the 1950's contributed to the rapid urbanization of America. Urbanization created the logistical possibility of educating deaf children closer to home. This materialized several years later in the form of national legislation aimed at inclusion and a diminution in the role of the traditional residential school system serving deaf children.

Second, to all intents and purposes, universal higher education was established through government support of the GI Bill of Rights for the returning 11 million World War II veterans. This, in turn, fueled scientific activity and its resulting technologies nationwide. These activities contributed to air transportation, telecommunication systems, computers, space travel, food production, and health care. At the same time, manufacturing was joined by service as primary employment opportunities. Hence, the need for literacy and technical training became paramount to the future lives of deaf children and youth. That is why the National Technical Institute for the Deaf was created in the 1960s: as a national model for access to higher education with the goal of inclusion in the economic sector in ways not previously attainable.

The monopoly of residential schools began to crumble when U.S. Public Law 94-142, the Education of All Handicapped Children Act of 1975, was enacted. The core requirement of this law was that, to the fullest extent possible, children with disabilities were to be educated in the least restrictive environment; that is, in inclusive settings with their non-disabled peers. Educators of the deaf, supported by the leadership of the deaf

communi-ties of the nation, fought this mandate with a passion. Some saw this as a temporary pendulum shift that would swing back when it was recognized that deaf children could not be “mainstreamed.” Others saw more long-term threats to Deaf culture and the social fabric of the deaf community. Few saw any redeeming value in this public policy and feared it would result in the dismantling of the traditional residential school-based system.

Today, 27 years later, the good news is that the worst fears of many have not material-ized. But neither have all the expectations of the framers of this landmark legislation been realized. This law basically was a civil rights law that guaranteed the right to an education in the least restrictive environment to every child with a disability. For the majority of these children, the goal of integration with non-disabled children largely has been fulfilled. However, if we accept the axiom that a person in society cannot be truly independent unless he or she is self-sufficient, then we need to realize that mere access to education is insufficient.

The ultimate goal of education is to provide individuals access to knowledge and to prepare them to express their creativity. We need to be concerned with the educational outcomes that derive from the total school experience including the years they spend in college; that is, a young person, regardless of his or her disability, should be able to leave school with independent living skills, employment readiness, and a set of “learning how to learn” skills (Norman, 1993). For many persons with disabilities, these goals remain the ultimate, but unrealized, dream. Many deaf children, especially those with additional severe disabilities, leave school unprepared to live and function independently. We are aware of the data reported in the most recent Americans with Disabilities Act report card which reveal that more people with disabilities are presently unemployed than before the ADA became law.

By contrast, evidence exists that deaf persons have made tremendous strides in upward mobility and in accessing heretofore closed employment fields. Some deaf children are thriving in mainstreamed programs; unfortunately, others are floundering. There is an abundance of quality support services in some programs and a dearth in others. Teacher and interpreter quality may vary from program to program. Communication philosophies and policies also may vary. In spite of issues and problems that persist, there is no evidence that deaf and hard-of-hearing children are worse off than before the inclusive movement became the law of the land. Seventy percent of all deaf and hard-of-hearing children are now being educated in inclusive settings (Moore, 1996). This is the complete reverse of the placement distribution that existed prior to 1975. We may have to wait another generation to determine the long-term effects and outcomes of the mainstreamed placement of deaf children.

There are three contentious trends in education of the deaf: the movement toward full inclusion; the continuing debate over communication philosophies; and the challenges presented by the world economy’s demands for greater intellectual knowledge and capacity by workers of the future. However, educators of the deaf are a very resourceful group and have a history of responding well to such changing demands.

During the 1963-64 worldwide rubella epidemic, almost twice as many deaf children were born than in any previous two-year period. Many of these children were born with additional disabilities. Our profession responded admirably to the challenge posed by these so-called “rubella children.” We learned quickly how to cope with the issues of learning and accommodation that they presented. And we also learned that many of these children differed only slightly from other deaf children in terms of their educational, social, and cultural needs.

In a number of countries, including the United States, governments recognized the seriousness of the epidemic’s impact and appropriated increased funds for new school construction, more teachers and support personnel, increased vocational training and career preparation, and expanded post-school and employment placement services. In the United States, increased federal support resulted in the expansion of Gallaudet College in Washington, DC, to university status and a four-fold increase in student enrollment. Coincident with this elevated interest was the establishment of the National Technical Institute for the Deaf, a college of Rochester Institute of Technology, in Rochester, New York, which notably has served as a model for similar institutions in other countries.

Additionally, national demonstration elementary and secondary schools were established to carry on programs of research and development and to disseminate the outcomes of their efforts throughout the country. Although the rubella epidemic was seen initially as a formidable challenge, if not a calamity, over time it proved to be a blessing in disguise. The epidemic revitalized the profession and gave it the “shot in the arm” it needed to move ahead with new energy and purpose. This successful experience is what fuels my confidence in the future of our profession.

Protest At Gallaudet Sets Off the Empowerment Movement

In the past 40-50 years, **empowerment** has become a precious word as well as the goal for people who yearn to determine their own destinies. The civil rights movement initially targeted ending the segregation of African-Americans, but also ignited the battle for equality among other minority groups, including women, people with alternative living styles, and persons with disabilities.

Persons with disabilities united in their efforts to ex-

pand their political base by forming coalitions to speak with a unified voice. And it paid off. The Americans with Disabilities Act (ADA) was enacted into law in 1990. It is considered to be the most sweeping civil rights law in history. Chapter IV of the ADA, along with provisions in other sections, mandates access to communication on the telephone and to public services for deaf people by requiring 24-hour telephone relay services and the provision of interpreters or captioning in public places.

If the battle for the ADA was the Armageddon for Americans with disabilities, the Deaf President Now protest at Gallaudet University in 1988 was a major turning point for deaf people throughout the world. It certainly was one of the most catalytic events in the history of deaf people's struggles to access improved economic opportunities through quality education and career preparation.

The question repeatedly has been asked over the years, "Did the Gallaudet protest open doors to opportunities for deaf people elsewhere?" Although it is difficult to trace the specifics of progress to this singular event, this question has to be considered in the context of expanded educational and career preparation opportunities that have been created in the United States and in an increasing number of countries throughout the world. Seventeen American schools for the deaf have appointed qualified deaf persons as chief executive officers in recent years. Advances made by deaf persons in business and industry also have been promoted by expanded study opportunities at programs like NTID/RIT, CSUN, and the PEPNET network. The Gallaudet protest signaled that deaf persons also had grievances in need of resolution, and legislative and professional entities took this as their cue to pay more attention to the needs of deaf and hard-of-hearing persons.

There is no question that change is taking place; it is being fueled by more positive and broader public awareness of deafness and higher educational attainment by deaf persons. A 1994 government survey of colleges and universities in the United States reported that close to 25,000 deaf and hard-of-hearing students attend regular postsecondary educational institutions and receive support services that include interpreters, both sign and oral; notetakers; tutors; and speech and hearing services (National Center for Education Statistics, 1994).

What makes education significantly different in the United States is that we have made secondary and postsecondary education practically universal for all deserving and qualified deaf and hard-of-hearing persons. To be sure, exceptional deaf persons always have been able to attend college. The 25,000 deaf and hard-of-hearing postsecondary students reported in the survey I mentioned previously are attending more than 2,000 American colleges and universities. And this total does not include students who are attending NTID or Gallaudet University.

For the American deaf community, which now includes doctors, lawyers, engineers, entrepreneurs, researchers, technicians, software designers, teachers, psychologists, social workers, counselors, and administrators, among many others, higher education is what has made the difference. A quality education leading to a good career choice levels the playing field and creates economic parity between deaf persons and their hearing peers.

We Are Still a Long Way from Reaching Our Goals

As encouraging as the increase in higher education opportunities for selected deaf persons may be, we must remember that deaf and hard-of-hearing students attending universities worldwide are a very select group and represent only a small percentage of our school populations. In fact, even in the USA, the overall picture remains murky and it is worrisome because the majority of deaf students are still not receiving adequate support and assistance. We are reminded at times like this that the 1988 Commission on Education of the Deaf reported that 79 percent of community college students did not receive their associate degrees. Furthermore, the COED also reported that only three out of ten bachelor's degree candidates actually received their degrees. These figures are astounding and there is no evidence that there has been significant improvement over the past 14 years. Even when we rationalize that not all college-enrolled deaf students are matriculated in pursuit of degrees or that there are redeeming benefits from the college experience even when a degree is not obtained, three out of ten is not very defensible, regardless of how we explain it.

Assessment and placement of deaf children and adults in appropriate programs, staffed by trained and caring professionals using effective communication, is a battle that has not been won. In spite of the progress I have described, communication issues remain unresolved.

In this new millennium, we can take pride in the accomplishments of our best and brightest students, but we must also temper the enthusiasm that derives from the success of a few to remind ourselves that much remains to be done. We must be mindful that the greater majority of our students are still facing a very uncertain future. I hope that during this Conference we will establish the networks of information and contacts that will enable us to share our knowledge and expertise with each other on a continuing basis. This is the only way that progress can be achieved for all.

Effective Transition to Postsecondary Pursuits Remains Elusive

In 1990, when I was serving as Assistant Secretary of the Office of Special Education and Rehabilitation Services (OSERS), the Individuals with Disabilities Education Act, P.L. 101-476 (IDEA), was reautho-

rized. The hallmark of this reauthorized IDEA was the inclusion of the requirement of Individualized Transition Plans (ITP) for students with disabilities who are at least 14 years old. The introduction and inclusion of a transition service did not change the appearance or structure of the Individualized Education Plan (IEP), but rather attempted to strengthen it. It stated that post-school activities would include postsecondary education, vocational training, integrated employment, continuing and adult education, and independent living or community participation.

We at NTID support those worthwhile goals through our nationally recognized Career Awareness Program, a self-exploration and career awareness program for high school students who are deaf or hard-of-hearing. To support students' transition to college, we have additional programs designed to enhance their First Year Experiences and to assist them in making adjustments to college life. A comprehensive orientation program and academic credit-bearing Freshman Seminar are modeled after the groundbreaking work of Dr. John Gardner and the Students In Transition Programs from the University of South Carolina. From the national research, we know that students who have weaker skills and/or are unsure about their career goals are at greater risk of dropping out of college before they complete a degree. Students who have strong communication skills, understand themselves, and have clear goals are most likely to be successful in college.

Dr. Michael Stinson, a researcher at NTID, has completed a significant body of work with Dr. Thomas N. Kluwin from Gallaudet and others related to social orientation toward deaf and hearing peers among deaf adolescents in local public high schools. The results indicate that the deaf adolescent who has a sense of himself or herself in both cultures is most likely to succeed. Hence, the student's confidence in his or her ability to communicate with others regardless of their hearing status is important. Students who are preparing for the world of work will need to be confident in their ability to read and write English, and also feel comfortable interacting with both deaf and hearing persons if they are to contribute their talents and fully participate in our society.

Utilizing Emerging Technologies to "Level the Playing Field"

Emerging technologies already affect the teaching and learning processes in classrooms throughout the country. It took 38 years for radio to achieve 50 million users; personal computers took 16 years, and television took 13 years. However, it took the World Wide Web only four years to reach 50 million surfers (Porter, 2000). Technology now permits us to bring the entire world into the classroom. Just about any conceivable concept can now be illustrated and taught using the World Wide Web.

Computer networks are natural media for people who are deaf and hard of hearing because vast reservoirs of data and information are accessible for viewing on monitor screens. Unlike sound motion pictures or radio or early television, which by virtue of their reliance on sound were not interactive for those who could not hear, the Internet is almost completely accessible. Of course, we hope this will not change as technology continues its rapid development. We recognize that automatic speech recognition is making rapid progress and fear we could face a future dominated by "talking computers." That could be quite a setback.

Notwithstanding the powerful dominance of telecommunications and Internet technologies, interpreter services are among the most direct and effective services that will always be in demand. There can never be enough interpreters to meet the needs of persons who need their support. No machine can duplicate the skills of an efficient interpreter. In fact, interpreter quality now is being harnessed through a developing technology called video relay interpreting (Bailey, 1997). This system employs a remotely located interpreter who can be accessed through a regular telephone line connected to video equipment. The equipment required to access this remote service becomes more cost effective when more than one consumer shares it. The system is already in place in a number of rural locations throughout the United States.

Many advances in science and technology have benefited the work of professionals in deafness. The invention of the vacuum tube in 1917, for example, led to the invention of radio, television, and hearing aids. The vacuum tube was replaced by the transistor in the 1940's and paved the way for miniaturization, resulting in smaller, wearable hearing aids and more precise measurement devices, such as audiometers. Early diagnosis of deafness resulted from such advances. With the advent of semi-conductors, or microchips, we have seen a revolutionary shift from electromechanical to electronic technology, which increased speed and reliability of computers. Hearing aids that fit entirely in the ear and cochlear implants are improving because of these developments.

The operating microscope in the 1950s revolutionized middle ear surgery and provided relief from otosclerosis for millions of people. The newer electronic microscopes have enabled studies of individual cells and their performance and have made possible advanced hearing research.

In the future, we can predict that genetic research will result in the prevention and cure of many diseases. Human genome research, now complete, will lead to development and testing of vaccines, therapeutic drugs, and diagnoses that will aid in the prevention of deafness. Advances in DNA analysis and gene therapy will lead to the identification and replacement of defective genes (Robert Frisina, personal communication, May

15, 2000). This could lead to ensuring in the distant future that every baby born will be a “perfect baby.” Clearly, there will be some complex ethical issues that will need to be resolved.

Would this eradicate deafness completely? Not in the foreseeable future and not until the issues related to ethics are resolved. The greatest concern in the world today relates to the economic disparity between the developed and developing countries. Health, education, food, shelter, safety, employment, and protecting the environment continue to be among the world’s most pressing problems. Terrorism has most recently been added to these lists as a high-priority concern.

Our proud profession has responded to a number of crises over the years. Developments over the past century that were intended to make life easier and work more efficient inadvertently created problems of accommodation for people who cannot hear. In the new millennium, we are challenged once again to refine the knowledge and skills that deaf people must possess if they are to function independently with confidence and ability. This Conference is an excellent starting point for a new beginning.

References

Americans With Disabilities Act of 1990 (42 U.S.C. §§12101-12213) (1990).

Bailey, J. (1997). New technology for the professional interpreter and service provider: Video remote interpreting services—the future of interpreting is here. *Proceedings of the 15th National Convention of the Registry of Interpreters for the Deaf* (pp. 31-40). Silver Spring, MD: RID.

Education of All Handicapped Children Act of 1975 (Pub. L. No. 94-142, 89 Stat. 773 (1975) (current version at 20 U.S.C. §§1411-1419) (1997)).

Fernandez, M. E. (1998, March 12). Gallaudet recaptures spirit of historic '88 march; On anniversary, protesters follow same route to press new concerns for the deaf. *The Washington Post*, p. B3.

Johnson, R. C., & Cohen, O. P. (1994). *Implications and complications for deaf students of the full inclusion movement*. Washington, DC: Gallaudet Research Institute, Gallaudet University, Conference of Educational Administrators Serving the Deaf.

Johnston, R., Lidell, S., & Erting, C. (1989). *Unlocking the curriculum: Principles for achieving access in deaf education*. Gallaudet Research Institute Working Paper 89 (3). Washington, DC: Gallaudet University Press.

Judy, R. W., & D’Amico, C. (1997). *Workforce 2020*. Indianapolis, IN: Hudson Institute.

Lang, H. G. (2000). *A phone of our own: The deaf insurrection against Ma Bell*. Washington, DC: Gallaudet University Press.

Moore, D. F. (1996). *Educating the deaf: Psychology, principles, and practices*. 4th ed. Washington, DC: Gallaudet University Press.

National Center for Education Statistics (1994). *Deaf and hard-of-hearing students in postsecondary education*. Washington, DC: U. S. Department of Education.

Norman, D. (1993). *Things that make us smart: Defending human attributes in the age of the machine*. Reading, MA: Addison-Wesley.

Porter, J. E. (2000, May). *Learning and teaching: Making sure we put the emphasis where it belongs*. Paper presented at the annual meeting of the Conference of Educational Administrators of Schools and Programs for the Deaf, Cambridge, MA.

Scouten, E. L. (1984). *Turning Points*. Danville, IL: Interstate Printers and Publishers, Inc.

Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996).

Television Decoder Circuitry Act of 1990, Pub. L. No. 101-431, 104 Stat. 960 (1990).

Uchida, D., Cetron, M., & McKenzie, F. (1996). *Preparing students for the 21st century*. Washington, DC: American Association of School Administrators.