Evaluating Information Technology Continuing Education Workshops Offered to Deaf and Hard-of-Hearing Professionals
by Donald H. Beil and Gary Long

Introduction
This paper describes the techniques developed for evaluating week-long computer workshops offered to deaf and hard-of-hearing adults by the Applied Computer Technology Department (ACT) of NTID. The workshops are provided under the auspices of the Deaf Initiative in Information Technology (DIIT), created through a three-year award of $535,000 from the National Science Foundation (NSF).

This project, currently entering its third year, provides the following features. It:

• develops and offers workshops that provide an opportunity for deaf and hard-of-hearing information technology professionals to enhance their technical skills
• provides significant benefit for the current full-time ACT faculty, because each faculty member takes a grant-supported, scheduled leave-of-absence to complete self-study activities in a new area of technology and then offers a workshop
• provides significant benefit for our full-time NTID deaf and hard-of-hearing undergraduate students, who benefit as the materials the faculty learn and develop for the workshops are integrated into our regular curriculum

Each workshop is led by an ACT faculty member, each of whom presents his/her workshop directly in sign language; no interpreters are used in the workshop setting. All attendees are deaf or hard-of-hearing. To date, eleven separate workshops have been held, and 65 individuals have attended the workshops. Complete information regarding the technical aspects of the project is available at www.rit.edu/diit.

Proposed Evaluation Components
Our grant proposal promised that workshop evaluation instruments would include both:

• Quantitative measures – giving specific feedback on components of the training
• Qualitative measures – open-ended questions that would reflect perceptions of the impact of workshop contents on the jobs/lives of attendees, or on what can be done to improve the workshops

We promised to use interpretive research, which is gaining prominence as a method of evaluating information technology activity. Since these qualitative research methods deal–to a degree–with human experience, they would allow us to understand the social phenomena surrounding these workshops, including perceptions of their effectiveness and the impact of the workshops on the careers of those attending.

We also promised to use interviews, evaluation forms, and first-hand observation to understand the effectiveness of our workshops in examining the impact of the training within the context of the attendees’ careers. This was to include Evaluating Workshops continued on page 3

Notes of Note
Susan Fischer was a short-term Visiting Fellow at the Research Centre for Linguistic Typology at La Trobe University in Melbourne, Australia, during two weeks in August, 2002. She gave a presentation on her cross-linguistic sign language research, participated in a conference on adjective classes, and worked with a colleague, Dr. Ulrike Zeshan, analyzing videos of about eight different sign languages.

Fischer was also an invited speaker for the International Symposium held at NTID’s sister institution in Japan, Tsukuba College of Technology (TCT) on October 1, 2002. She presented her research on the importance of studying a wide variety of sign languages. Previous invited speakers from NTID have included Dean Alan Hurwitz and Professor Jerome Cushman.

During July, 2002, Frank Caccamise and Bill Newell conducted Sign Communication Proficiency Notes of Note continued on page 3
Postsecondary Education Network International For Students Who Are Deaf and Hard-of-Hearing
By E. William Clymer and James J. DeCaro

On June 29, 2001, dignitaries from the Rochester Institute of Technology, National Technical Institute for the Deaf, Tianjin University of Technology (China), Bauman Moscow State Technical University (Russia), Tsukuba College of Technology (Japan) and the Nippon Foundation (Japan) signed a formal agreement establishing a cooperative partnership to create an international network supporting the technical education of postsecondary deaf students from around the world. This network, The Postsecondary Education Network International (PEN-International), funded by the Nippon Foundation of Japan, supports the sharing of expertise among universities teaching science and technology to deaf students.

In the 16 months since the signing ceremony, PEN-International has moved quickly to realize its goals. By working closely with NTID faculty, staff and students, the PEN-International team has been able to facilitate sharing the collective NTID experience and state-of-the-art expertise in postsecondary deaf education with international partners.

PEN-International Goals
PEN-International is the first-of-a-kind international partnership of colleges and universities serving the postsecondary education needs of deaf and hard-of-hearing students. Faculty training, online learning technology, information technology and instructional technology are being used to improve teaching and learning, increase the application of innovative instructional technology, and expand career opportunities for deaf and hard-of-hearing people.

Over a five-year period, PEN-International will include up to six nations. PEN-International will enhance local capability and global networking in each participant country. Member institutions will develop the ability to export what has been learned through the project to other programs serving deaf and hard-of-hearing students in their home countries and to other countries around the world.

Implementation Strategy
Two key elements of collaboration with each PEN-International partner are central to project success: the creation of a professional faculty development model and training plan, and the design and construction of an instructional multimedia computer lab with videoconferencing capability.

• Training. PEN-International training is based upon a professional development model that begins with a needs assessment, the creation of workshops that are objective-based, web-based workshop resources and a formative and summative evaluation of effectiveness. The ultimate goal of the entire effort is to improve student learning at partner universities. The training model is based upon the successful NTID Instructional Technology Consortium (ITC) (http://www.rit.edu/~ntiditc) faculty development paradigm. The ITC is a collaborative, faculty-driven initiative for enhancing teaching and learning with deaf and hard-of-hearing students through the use of technology and related innovative teaching strategies. PEN-International depends upon successful teachers teaching other teachers about proven strategies for use with postsecondary deaf students. As with the ITC, the key component of PEN-International training is the experienced NTID and TCT faculty and staff who are willing to share their experience with their colleagues from around the world.

• Multimedia Computer Laboratory. Each PEN-International partner is establishing a multimedia computer laboratory with videoconferencing capability, which can support student learning and faculty development of technology-based teaching solutions. To design a multimedia lab that meets local needs, teachers and technical experts from each partner university consult with NTID technical experts and tour the various multimedia classroom configurations at NTID. When completed, these labs offer faculty a teaching/learning environment with the latest instructional technology. When not used for classroom instruction, the labs are generally available to deaf students for independent work. Videoconferences can also be scheduled in the labs for seminars and instruction.
NTID technical experts conduct a tour of the NTID English Lab for faculty from Bauman Moscow State Technical University and Charles University, Czech Republic.

Bill Clymer is coordinator of the Postsecondary Education Network International, and coordinator of the Educational Technology and Education of the Deaf Symposium, to be held at NTID in June, 2003. He recently served as the coordinator of the NTID Instructional Technology Consortium and was the coordinator of the 2001 Educational Technology and Education of the Deaf Symposium. For more information, he may be contacted at EWCNCP@RIT.EDU.

Jim DeCaro is research professor and immediate past dean for NTID, a post he held for 14 academic years. He is currently director of PEN-International. For more information about this project, contact DeCaro at JJD8074@RIT.EDU.

The School of Deaf Education and Applied Studies at College of Saint Benilde (CSB), De La Salle University, Manila, is the latest network member. CSB offers a bachelor’s degree in Applied Studies. The college is the first to educate significant numbers of deaf students in the Philippines. Established in 1991, initially as a small program for the Deaf, it evolved into one of the schools of the college in 1996. The School of Deaf Education and Applied Studies has a 26-member faculty, with a current enrollment of 120 students. Two administrators from the CSB have attended small group seminars conducted by administrators and faculty from NTID and TCT, in the USA and in Japan. Additionally, a member of the CSB attended the English as a Second Language workshop this past July at NTID. CSB is constructing a multimedia computer lab, which will be officially opened in January, 2003.

PEN-International is evaluating its impact using a model suggested by Guskey (2002). This model is used to measure the impact of faculty development, beginning with faculty participant reaction to training and learning, and progresses to measuring changes in student learning outcomes.

Collaborative Spirit
The goal of providing high quality education to deaf students at the postsecondary level is the unifying goal shared by all PEN-International partner faculty and technical experts. Those NTID faculty and staff who have developed and presented workshops for PEN-International modeled the collaborative spirit that is the hallmark of this program to improve the educational circumstances of students who are deaf around the world.

Additional information about PEN-International is available on its website, http://www.pen.ntid.rit.edu.

References
Professor Anthony Spiecker describes a computer component to attendees during the lecture portion of his workshop on computer hardware. For more information about the NSF-sponsored Deaf Initiative in Information Technology project, and its evaluation, see the article on p. 1.