



THE COMPUTERWORLD HONORS PROGRAM

CASE STUDY

LOCATION:
*Rochester, New York, United
States*

YEAR:
2006

STATUS:
Laureate

CATEGORY:
Education and Academia

NOMINATING COMPANY:
IBM Corporation

ORGANIZATION:

National Technical Institute for the Deaf

PROJECT NAME:

PEN-International

Summary

The Postsecondary Education Network-International (PEN-International), a multinational partnership of colleges and universities worldwide, was created in 2001. PEN-International exists to improve and expand postsecondary education for deaf and hard-of-hearing individuals around the world by sharing educational technology and conducting faculty development and training, particularly in developing countries.

PEN-International works with talented faculty members from colleges and universities worldwide who believe in its mission of creating better career opportunities for deaf and hard-of-hearing people. Using Internet, telecommunications, instructional and information technologies, PEN-International is improving teaching and learning for thousands of deaf students.

PEN-International's program consists of three main components: faculty development and training, creation of high-technology labs at partner universities, and student exchanges.

PEN's vision is to develop an international network to enhance and maintain local capability and global networking at each of the participating institutions. As institutions' individualized programs progress, through faculty development and curriculum improvement, they develop the capability to export what they have learned to other postsecondary institutions that serve deaf and hard-of-hearing students. NTID serves as the facilitator for this international network. The other participant institutions are nodes on the international network, fostering an educational ripple effect throughout their home countries. Currently, the network includes eight partner and affiliate institutions from Japan, China, Russia, the Philippines, the Czech Republic, and Thailand.

PEN-International is funded by grants from The Nippon Foundation of Japan to the National Technical Institute for the Deaf (NTID) at Rochester (New York) Institute of Technology (RIT).

Introductory Overview

During its first four years, PEN-International selected the following institutions with whom to work: National Tsukuba University of Technology, Japan; Tianjin University of Technology, Bei-



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jing Union University, Changchun University, and Zhongzhou University, all in China; Bauman Moscow State Technical University, the Institute for Social Rehabilitation at Novosibirsk State Technical University, Vladimir State University, and the Academy of Management at Kazan, all in Russia; De La Salle College of St. Benilde, Philippines; Charles University, Czech Republic; and Ratchasuda College of Mahidol University, Thailand. These partner institutions have shown their commitment to PEN-International's mission by achieving their own program goals and conducting the work of PEN-International throughout their home countries.

PEN-International has expanded postsecondary education for deaf students by offering professional development and training workshops, constructing state-of-the-art multimedia laboratories at partner institutions, sponsoring student cross-cultural exchanges, providing partners with a platform to share experiences and expertise with other colleagues, and disseminating network and program information.

Benefits

The Nippon Foundation is a grant-making organization based in Japan that provides financial assistance for activities that they determine can improve the quality of living of people around the world. The Nippon Foundation's support for deaf education began with supporting deaf or hard-of-hearing students from developing countries to study in the United States. The Foundation's involvement with PEN-International has allowed increased postsecondary educational opportunities for deaf students in their home countries, thus expanding beyond just the "lucky few."

As a result of being awarded this grant, the PEN-International program has dramatically helped deaf and hard-of-hearing students around the world by preparing faculty members at participating institutions during workshops how to teach deaf and hard-of-hearing students. PEN's workshops adhere to the same principles used by NTID, the world's largest technological college for students who are deaf and hard of hearing and an international model for educating and preparing deaf students for technology-related careers. The curriculum at partner institutions improves to meet the specific needs of deaf and hard-of-hearing students after faculty members apply what they have learned to the classroom. Faculty members and students now have access to technology that facilitates the teaching/learning process. PEN-International also supports both real and virtual student exchanges between participating universities. This cross-culture exchange program strengthens each participant's cultural and personal identity and helps students develop an understanding of the diverse cultures that affect our world. All of these factors contribute to a better quality education for deaf and hard-of-hearing students overall.

PEN-International also invites partner and affiliate institutions to share and discuss experiences and expertise with one another through direct meetings, Web-based communication, and videoconferences. These educators of the deaf, from different cultures, are able to seek advice and communicate their program successes and challenges, and as a result, programs are implemented better and faster, diminishing typical associated learning curves.

The Importance of Technology

Instructional technology is critical for educating students who are deaf. For this reason, PEN-International constructed state-of-the-art high technology multimedia laboratories at partner



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institutions. Faculty members use them as “smart classrooms” for professional development and training, to develop curriculum, and for videoconferences. Videoconference technology allows PEN to train and educate students and faculty, further partner relations, and increase collaborative opportunities. Students not only attend classes in these laboratories, but also use the technology to help them study and/or complete homework assignments. Open lab time allows students to access the World Wide Web and send email correspondence, which are important and necessary in today’s society.

PEN-International’s Web site (<http://www.pen.ntid.rit.edu>) is the universal portal for the PEN-International project. This continuously updated site captures the latest in PEN-International network activities, lists professional development training opportunities, and shows links related to available resources. The Web site received 1,049,579 hits by 25,136 visitors from 40 different countries during 2005.

To underscore technology’s impact on college students worldwide, PEN-International, NTID and The Nippon Foundation of Japan sponsored the 2005 international symposium, “Instructional Technology and Education of the Deaf: Supporting Learners K-12.” Nearly 250 participants attended the conference, 55 of whom represented PEN partner institutions. The Symposium consisted of 2 plenary addresses, 44 formal concurrent presentations, 24 poster sessions, and 8 commercial exhibits. Each presentation, poster summary and abstract was posted on the PEN Web site as well as entire papers, PowerPoint slide shows, and captioned video streaming. http://www.pen.ntid.rit.edu/newslevel2.php?a=Techsym_2005_presenters All of this information is available to educators of the deaf around the world.

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

Quotes from Symposium participants:

“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.”

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

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

Originality

PEN-International is the first and only one of its kind in the world.

Its overarching vision is to develop an international network that will enhance and maintain local capability and global networking at each participant postsecondary institution. Overall institutions will evolve from being importers of information to being self-sufficient technology providers and then exporters of this technology to other programs in their home countries. This general model applies to all participants in the network. An institution that has a particular expertise might serve as an exporter of knowledge to other institutions while at the same time importing knowledge which it is lagging. Eventually, each participant will become the major



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exporter of knowledge within its home country.

NTID facilitates the international network by leading or sharing innovations. In effect, the network fosters an educational ripple effect.

From the outset, PEN administrators determined to address locally defined and delineated needs and to never impose solutions on participant organizations.

Each program within each university is customized. Each university is able to choose the subjects and curriculum that best meet their individualized needs and program goals. Faculty members at partner institutions receive quality training and have access to instructional tools and resources, thus significantly reducing the time it would take to implement such changes and improvements in the classroom.

Our fundamental operating principle is, "All participants will work in partnership to determine solutions that meet those needs."

Success

At the end of each project year, PEN-International submits an Annual Report to The Nippon Foundation and other interested parties. These reports reflect the developmental stages of PEN's first two years, increasing professional development of faculty at partner universities during years two and three, and continued faculty development as well as an effort to collect evaluation data regarding impact on program and students. The following snapshot of program effectiveness is taken from the recent Year Five report:

- PEN-International developed more than 30 workshops for 50 different training sessions.
- More than 1,000 educators from partner countries participated in these workshops.
- Each multimedia computer laboratory averaged more than 50 hours of use per week at each partner institution with labs.
- Bauman Moscow State Technical University became the first partner site to train large numbers of teachers of the deaf for regional colleges and higher education institutions.

Quote from PEN partner:

"I think we were 10 years behind before and now we are shortening the distance and bringing high technology into our world. Especially because we are connected with language teaching in the area we are interested in. We are now quite professional."

The network validates and supports the educational improvement efforts of its partners. The network provides the partner universities with confidence and collaboration opportunities for empowerment that speak beyond the impact numbers.

Quote from PEN partner:

"I find the project PEN-International very valuable for all its participants. Especially I like that it is all about never ending process of learning and sharing positive value with others. Sharing knowledge, sharing information, sharing experience, establishing contacts and cooperation that really works. Our American colleagues do a great job by 'making a bridge over the troubled waters' and showing the others the way. We really feel like we now are quite professional."



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As a result of their relationship with PEN-International, National Tsukuba University of Technology, Japan, spearheaded efforts to create PEPNet-Japan, a Postsecondary Education Program Network within their home country. In 2005, PEPNet-Japan held its first symposium on postsecondary education for deaf and hard-of-hearing students. Its 160 participants made the event the biggest symposium on postsecondary education for deaf and hard-of-hearing students in Japan's history.

PEN-International uses proven evaluation methods to assess its workshops and seminars. All workshop agendas, resources and evaluation data are posted on the PEN-International Web site for public access.

Difficulty

Finding universities that meet the network requirements is PEN's biggest ongoing challenge. The program requires participant universities to have a postsecondary deaf education program in which the deaf and hard-of-hearing students are mainstreamed. In addition, PEN-International takes a close look at the culture of prospective participant universities to ensure it would be one that would embrace a network and be an active, contributing partner, and one willing to help carry out PEN-International's mission. As PEN-International and partner universities work toward fulfilling the mission, the ability to find universities that meet the necessary requirements has gradually become easier. Outreach efforts transpire into more postsecondary education programs for deaf students, making the necessary criteria changes in order for the opportunity to become part of the network.

Interpreting related issues such as translating resource materials, finding quality interpreters (both spoken and sign language) for training and face-to-face interactions have also been a challenge for PEN-International, primarily outside of the United States. To address these issues, PEN-International developed a series of workshops related to interpreter training, sign language instruction, and development of sign language materials. Several partner sites have participated in this training and the feedback has been very favorable, particularly the opportunity to view NTID instruction materials and interact with NTID staff.