

Use of Instructional Technologies to Train International Teachers of English to Deaf Students

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Abstract

This paper discusses the planning, development, delivery, and evaluation of a weeklong teacher-training workshop for teachers of English to deaf and hard-of-hearing students at postsecondary institutions in Russia, the Czech Republic, Japan, and the Philippines. Workshop presenters used a combination of technological resources and traditional teacher-training techniques to familiarize workshop participants with best practices in teaching English. Given the unique challenges of teaching deaf and hard-of-hearing students in non-English-speaking countries, the workshop sessions reviewed state-of-the-art methods and materials both for teaching English as a second language generally and for teaching English to deaf and hard-of-hearing students specifically. This professional development activity for university professors took advantage of lecture, print, electronic, video, and multimedia technologies. Participants accessed workshop pre-readings via the World Wide Web (WWW) from their home countries. During the workshop, presenters used combinations of lecture and discussion, PowerPoint presentation, examination of English teaching materials via the WWW, and videotapes of NTID English teachers in action. Workshop participants were also given hands-on practice with individual laptop computers in accessing English teaching resources on the WWW. A post-workshop CD-ROM containing all workshop materials to be used for international dissemination has also been produced. Participants' high ratings of the workshop reveal that the combination of technological and traditional resources contributes to highly successful teacher-training experiences. This workshop was supported by the Postsecondary Education Network (PEN) International, which is funded by a grant to the National Technical Institute for the Deaf (NTID) from The Nippon Foundation of Japan.

Introduction

Postsecondary Education Network International

PEN-International shares its expertise with international partners that offer postsecondary educational programs to deaf and hard-of-hearing students. The goals of PEN International are 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. In support of these goals, PEN-International sponsored an intensive one-week professional development workshop for teachers of English to deaf and hard-of-hearing students in July 2002. The workshop focused on English-teaching methods and materials for use with deaf and hard-of-hearing students in non-English-speaking countries. There were a total of nine participants representing four of PEN-International's partner programs: three professors from Bauman Moscow State Technical University, four from Charles University (Czech Republic), one from Tsukuba College of Technology (Japan), and one from De La Salle University—College of Saint Benilde

(the Philippines). A concurrent workshop on the use of specialized educational technologies was offered to an additional three participants from Russia and the Czech Republic.

English Language Learning by Deaf Students

As is well-known, deaf and hard-of-hearing students (hereafter, "deaf" will be used to include both deaf and hard-of-hearing individuals) often struggle to attain good literacy skills in the spoken language of the community in which they live. However, for deaf students, restricted linguistic access to auditory-based languages such as English, Russian, Czech, etc., often results in lower-than-desired levels of spoken-language literacy. These low literacy levels can have serious negative effects on the educational and career attainments of deaf individuals. In an English-speaking community, deaf learners of English have more daily exposure to forms of the spoken language and have the benefit of many support services (e.g., sign language interpreting, captioning, etc.) in their educational settings. Furthermore, knowledge of American Sign Language (ASL) can facilitate the learning of English, and English can be represented visually in some form of signed English. In the United States, and especially at a college such as NTID, deaf students also have access to state-of-the-art methods, materials, and technologies used for teaching English (and all other subjects).

The challenges are obviously greater for deaf students studying English in non-English-speaking countries. Postsecondary programs for deaf students in other countries place a high priority on students' development of English language skills because of the prominent role that English plays in the world of technology and scientific inquiry and, furthermore, English skill development is generally a university requirement for all students attending postsecondary programs in those countries. As great as the challenge is for deaf students' English language development in English-speaking countries and educational settings, the challenge is tremendously greater for deaf students in non-English-speaking countries. In addition to the universal challenge that deaf students face in developing literacy skills in a spoken language that they cannot hear, international deaf students do not have the benefit of daily exposure to English in whatever form. Instead, they will have exposure to and varying degrees of knowledge of the spoken language of their own communities. English is therefore truly a second (third, etc.) spoken language which these students are attempting to master. Furthermore, students in international programs may not have access to the kinds of support services that NTID students take daily advantage of, and they may not have access to the kinds of state-of-the-art methods, materials, and technologies used for teaching English at NTID.

ESL Methods and Materials

Given the additional challenges facing postsecondary international deaf students learning English and consistent with the goals of PEN-International, a workshop focusing on English as a second language (ESL) methods and materials was provided for the nine participants from the PEN-International partners mentioned above. The workshop, "ESL Methods for Teaching English to Deaf Students in Russia and the Czech Republic" took place July 15-19, 2002, at NTID. As the title indicates, the workshop was originally designed for teachers of Russian and Czech deaf students; however, available space led to an invitation to the two additional participants.

In view of the unique language learning challenges facing international deaf students—restricted access to spoken language input as a consequence of deafness and the fact that English is truly a second (foreign) language in their countries—the PEN-International workshop developer organized the workshop with the goal of presenting contemporary methods, best practices, and materials from the general field of teaching ESL, as well as contemporary methods, best practices, and materials used specifically for teaching English to deaf students. It was felt that this combination would expose workshop participants to the most current and most relevant pedagogical

and technological resources for teaching their students and for optimizing their students' English language learning.

Six half-day workshop sessions focused on the following English teaching topic areas:

1. Program Goals, Student Characteristics, and Instructional Approaches
2. Teacher Competencies and Academic English for Adult Students
3. Teaching Grammar and Writing
4. Teaching Reading and Vocabulary
5. The Use of Web-Based Technology for Teaching Deaf Students
6. Lesson Planning and Program Standards

Four additional half-day sessions covered supplementary educational topics:

7. What We Know About Deafness
8. Classroom Communication
9. Introduction to Online Learning
10. Pedagogical Considerations for Online Course Delivery

Selection of Workshop Presenters

In addition to the workshop developer, seven NTID faculty members were invited to develop or adapt materials and to co-present on topics within each of the six ESL workshop sessions. These faculty members were selected because of their years of experience teaching English to deaf students and because of their particular expertise in specific areas outlined for coverage during workshop sessions. An additional three NTID faculty members and one Rochester Institute of Technology professional staff member presented the supplementary sessions.

This paper focuses primarily on the combination of technological resources and traditional teacher-training methods that were used in association with the PEN-International ESL Workshop. Discussion of participants' programs, their students' characteristics, specific language teaching methods and materials, and the objectives and outcomes of Sessions 1-6 have been presented elsewhere (Berent & Clymer, 2003, and a manuscript in preparation).

Planning and Development Tools

Needs Assessment

Although many of the general challenges of teaching English to deaf students in postsecondary programs in non-English-speaking countries can be anticipated on the basis of research and practice within the fields of ESL and deaf education, it was felt that an effective ESL workshop for educators of international deaf students should be driven by the specific student characteristics, the instructional activities, and the program goals of the unique PEN-International partner programs. Therefore, during the pre-workshop planning phase, a needs assessment survey was developed and distributed to professors in the Moscow and Prague programs. A summary of the completed surveys provided valuable planning information based on participants' responses to questions pertaining to their students' characteristics, current English proficiency levels, goals and objectives of their English language programs, instructional settings, available instructional technologies, available instructional materials, instructional activities engaged in, communication methods used, and the educational backgrounds of program faculty. The survey summary

facilitated the selection of workshop topics and activities as well as the specific objectives and outcomes anticipated for each activity.

Selection of Topics and Activities

On the basis of the needs assessment survey and guided by trends and developments within the fields of ESL and deaf education, the workshop developer specified the six ESL workshop sessions listed above and outlined the subtopics, activities, objectives, and outcomes for each session. For example, the subtopics to be covered during Session 5, "The Use of Web-Based Technology for Teaching Deaf Students," included the following:

- a. Using the World Wide Web to teach English
- b. Exploring ESL web sites online
- c. Critiquing ESL web sites
- d. The use of "IdeaTools" (Ting, 2000) in teaching English to deaf students

Activities during the six ESL sessions were to include a variety of traditional and technological presentations and tasks. These activities included the following:

- a. multimedia overviews (documents, PowerPoint presentations)
- b. demonstrations
- c. videotape analysis
- d. discussion (small groups and full group)
- e. hands-on activities
- f. critiques of ESL methods and materials
- g. development of ESL lesson plans

Review of Methods, Materials, and Research

Once the workshop sessions were outlined and the activities, objectives, and outcomes were specified, a review of current methods, materials, and research in the fields of ESL and deaf education was conducted. The purpose of this review was to identify appropriate resources to be used within each workshop session and to identify areas where original materials would need to be developed. For some sessions, published ESL books were identified and obtained. Examination of these books revealed that several books published by the professional organization Teachers of English to Speakers of Other Languages (TESOL) could be adopted or adapted for use during the ESL workshop. For example, several books from TESOL's *New Ways* series were determined to be appropriate for use in developing Sessions 2-4. Examples of these books are Freeman and Cornwell (1993), Nation (1994), and White (1995).

The books in TESOL's *New Ways* series contain hundreds of short lessons, exercises, surveys, and other activities for teaching all ESL skill areas, for teacher training, for addressing the needs of different kinds of learners (e.g., adult learners), and for discipline-based ESL (e.g., content-based instruction). The ESL workshop developer enlisted the assistance of an NTID student temporarily employed by PEN-International in selecting specific lessons from the *New Ways* books that seemed appropriate for use during workshop sessions. That is, as part of the workshop development process, it was felt that a deaf student would be the most valuable resource for selecting specific activities that in her estimation would be manageable, meaningful, and relevant to the needs of deaf students learning English.

For each workshop session, presentation materials were developed from existing ESL and other English-teaching resources as described above, and in other instances original materials were

produced. For example, original materials consisted of special forms for participants to use in critiquing ESL materials, forms for critiquing ESL web sites, a checklist for ranking problematic English structures, worksheets for developing lesson plans, and so on.

Presentation Tools

The ESL workshop materials were developed for presentation and use by participants using a variety of presentation tools, both traditional and technological. This section describes the forms in which the various materials and media were developed, presented, and utilized by participants.

Classroom Teaching Technologies

The ESL workshop sessions were presented in a "high tech" classroom at NTID that was equipped with a PC computer, a document camera, an LCD projector and screen, and a VCR with a TV monitor. The classroom also included traditional teaching tools—a white board with dry-erase markers and a flip chart with markers.

Print Materials

Print materials used at the ESL workshop consisted of documents produced with word processing software (e.g., Microsoft Word) and materials photocopied from published materials for one-time use during the workshop. Some originally produced and photocopied materials were scanned, converted to pdf files using Adobe Acrobat software, and posted electronically on the Rochester Institute of Technology library web site. Documents posted electronically could be accessed by workshop participants through the use of a password.

PowerPoint

Many of the workshop materials were produced and presented using PowerPoint presentation software. Most PowerPoint materials and other print materials were distributed to participants in hard copy for easy reference and future use. All such materials were contained in workshop notebooks that also included the complete workshop schedule, participant information, maps, information on planned excursions, and other useful information. All workshop materials were also posted on the World Wide Web.

Videotape

Because the PEN-International ESL workshop occurred during the month of July, NTID classes were not in session. Therefore, participants did not have the opportunity to observe NTID teachers and students in their actual classrooms and laboratories. To compensate for this situation, ten NTID English instructors and their students were videotaped in actual classroom settings during spring quarter 2002. These instructors taught English reading, writing, and literature courses at a variety of English proficiency levels and using a variety of teaching methods and styles. The workshop developer studied these videotapes and selected illustrative samples from each videotaped class, which were combined to produce a 30-minute videotape.

Accordingly, workshop participants were able to observe NTID teachers and students in action during Session 1. At that session, the chairperson of the NTID Department of English commented on the videotaped segments and pointed out specific teaching approaches and styles, types of English-teaching activities, teacher-student interactions, and classroom communication and dynamics. This videotape presentation and discussion were valuable to participants in illustrating a

real context for considering applications of methods and materials presented during the workshop and for comparing NTID English instruction with English instruction in participants' own programs.

Web-Based Tools

The computer in the workshop high-tech classroom was Ethernet-linked to the World Wide Web. Web-based presentations occurred during workshop Session 5 and included an overview of "IdeaTools" (Ting, 2000), an instructional development tool developed at NTID for course building and management; demonstration of ESL web sites that have potential use for teaching English to deaf students; and demonstration of an NTID-developed web site (Berent, 2003) designed as a professional development resource for teaching English to deaf students.

During Session 5, participants also had the opportunity to work individually on laptop computers that had wireless Internet connections. Their task was to locate ESL web sites and to evaluate them for their potential usefulness with deaf students in the participants' own programs.

Another web-based tool that could be accessed by participants was the PEN-International ESL Workshop web site, which posted all essential information about the workshop, the workshop schedule, and links to workshop materials. Participants had access to an NTID computer lab during periods of free time, when they could view online materials at their convenience.

Archiving and Reference Tools

Access to Workshop Resources

A unique feature of the PEN-International ESL Workshop was the online posting of (a) pre-workshop, (b) during-workshop, and (c) after-workshop readings and links to relevant web sites. The URL to these postings was provided to workshop invitees during the pre-workshop planning and development period. The postings were associated with each of the six ESL sessions. The three categories of postings allowed participants to come to the workshop prepared with background information, to have online access to all materials used during the workshop and for later reference, and to have access to materials determined to be relevant to topics covered during the workshop and posted at a later time after the workshop. Such archiving keeps the ESL Workshop experience alive and active for participants as they consider how to incorporate what they learned within their own programs. It provides an in-depth review and opportunities for extended learning.

As examples of the three categories of postings, in association with Session 1, "Program Goals, Student Characteristics, and Instructional Approaches," pre-workshop resources included the document summarizing the English programs at Bauman Moscow State Technical University and at Charles University. Reading this document before attending the workshop would allow invitees to examine for accuracy the information that they had provided in the needs assessment survey and also to compare the goals, student characteristics, and instructional activities of their separate programs. In association with Session 2, "Teacher Competencies and Academic English for Adult Students," an example of a posted during-workshop reading is a PowerPoint summary explanation of English for Academic Purposes. As noted, most of the during-workshop materials were also contained in hard copy in participants' workshop notebooks. In association with Session 3, an example of posted after-workshop readings is a selection of exercises from *New Ways in Teaching Grammar* (Pennington, 1995). Access to these published samples requires a password and the materials are unable to be printed from the web site.

Videotaped Presentations

During the workshop planning and development stage, as the seven invited NTID faculty presenters planned and prepared their presentations, PEN-International staff videotaped their presentations. These videotaped versions were not used during the workshop. They were produced for archiving purposes and as back-ups in case of unforeseen circumstances that might prevent an individual from presenting at the workshop during the week of July 15, 2002. These videotapes are now available for possible use by PEN-International in providing on-site or online professional development for partner institutions.

Photography

During the ESL workshop and during planned social events and excursions, PEN-International staff took hundreds of digital photographs. After each morning workshop session, photographs of participants and presenters taken during that session were printed and posted in the workshop classroom for participants to peruse before their afternoon sessions began. These colorful images provided a visual and often humorous recounting of the day's activities and contributed to the motivation of the already highly motivated workshop participants. The photographs, some of which are posted on the PEN-International web site, constitute a visual archive of the total workshop experience. These photographs were also copied onto compact discs and mailed to all participants after the workshop.

CD-ROM

A comprehensive CD-ROM of all workshop materials has been produced. This CD-ROM is yet another archiving and reference tool associated with the ESL workshop. This CD-ROM can also be used to provide professional development training to PEN-International's partner institutions.

Workshop Evaluation

The workshop developer created evaluation forms for each ESL session as well as a final workshop evaluation form. Workshop participants completed the relevant forms immediately after each session. In every instance, workshop staff emphasized the importance of being totally honest and critical so that major improvements could be made in future workshops. Participants were told not to respond out of gratitude or respect but to be as candid as possible. A partial summary of the workshop evaluations is provided below.

Individual ESL Sessions

Evaluations from the six individual ESL sessions were combined and an average score was calculated for each response category. These percentages, based on the responses of the nine participants, are provided in Table 1.

Table 1
Averages for Individual Sessions 1-6 by Response Category for Each of the Six Questions

For each item below, please check the response that best describes your opinion.

SA = Strongly agree A = Agree N = No opinion D = Disagree SD = Strongly disagree	% SA	% A	% N	% D	% SD
1. The content of this session was well-organized.	91	9	0	0	0
2. The presentations were clear and understandable.	85	15	0	0	0
3. Information from this session will help me in my teaching.	85	15	0	0	0
4. The use of media, materials, and handouts were effective in supporting the information presented in this session.	91	9	0	0	0
5. The pacing and amount of information covered in this session were just right.	69	29	0	2	0
6. I felt comfortable asking questions and interacting with the presenters and the other participants.	89	9	2	0	0

Table 1 reveals that participants' average responses associated with the six ESL sessions were quite high, with most responses falling within the "strongly agree" or "agree" categories. The highest average responses pertained to questions #1 (well-organized content) and #4 (use of media, material, and handouts), followed by #6 (comfort asking questions and interacting).

The lowest average response occurred in association with question #5 pertaining to pacing and the amount of information covered. The workshop developer made a conscious decision to cover a large number of English-teaching topics in order to expose participants to as many trends and developments within the fields of ESL and deaf education as possible. The thought was that follow-up workshops could provide more detail on a fewer number of topics that participants would identify as the most critical and relevant in this initial ESL workshop. The relatively lower response to question #5 suggests that it might be prudent to target a smaller number of English-teaching topics in future workshops.

Final Workshop Evaluation

Table 2 provides a summary of the nine participants' responses to one section of the final workshop evaluation.

Table 2
ESL Workshop Final Evaluation

For each item below, please check the response that best describes your opinion.

SA = Strongly agree A = Agree N = No opinion D = Disagree SD = Strongly disagree	% SA	% A	% N	% D	% SD
1. This week-long workshop was a very positive professional development experience for me.	100				
2. This workshop covered an appropriate number of English-teaching topics.	100				
3. Most of the objectives and outcomes listed in the workshop schedule were achieved.	89	11			
4. The English-teaching methods, materials, and technologies that I learned about this week can be used to teach deaf students in my own program.	56	33	11		
5. Based on the knowledge I have learned from this workshop, I will make some changes in my teaching.	78	22			
6. The before-workshop readings and web sites listed on the PEN-International web site provided helpful background information.	89	11			
7. When I return to my country, I intend to review the materials from this workshop on the PEN-International web site and to read some of the after-workshop readings.	89	11			

The percentages in Table 2 reveal that workshop participants were very positive in their overall evaluation of the PEN-International ESL Workshop. Attention is drawn, however, to the slightly lower percentages associated with questions #4 and #5. These questions pertain to using the methods, materials, and technologies covered in the workshop in participants' own programs and making some changes in one's own teaching. These lower percentages might reflect the fact that some participants feel that it is difficult to make changes in their own programs either because of currently limited resources or because it is always difficult to modify existing curricula and long-standing traditional approaches to education in one's own country.

Responses to one of the open-ended questions on the final workshop survey (How could the workshop have been improved?) sum up participants' recommendations that should be taken into account in providing future PEN-International workshops.

Table 3
How could the workshop have been improved?

1. More practical instruction in working with computer: e.g. WWW ELT pages, etc.
2. If we could have longer time slots for subjects that we are weak in (technology aspect of the workshop). Maybe less on extra-curricular activities so we could devote more time to the "real stuff"?
3. Some sessions or presenters would deserve and need more time (e.g., web based technology, teaching reading and writing and vocabulary).
4. Workshop itself has been perfect.
5. A week is certainly not enough. We should have been given longer time.
6. One week is not enough.
7. It could not have been better. Believe me.

Responses 1 and 2 are a request for more time devoted to practical instruction pertaining to educational technologies, and responses 2, 3, 5, and 6 suggest that more time is needed to cover topics generally. As discussed in regards to Table 1, these comments might also indicate that future workshops should target fewer topics to allow more time to be allotted to each topic. However, participants responses to #2 in Table 2 indicate that the workshop covered an appropriate number of topics. Planning for future workshops must further consider what an appropriate number of topics is and guarantee that sufficient time is allotted to each one.

Continued Success

Evidence of the continued success of the PEN-International ESL Workshop initiative is evident through several ongoing actions. First, workshop participants have continued access to the ESL Workshop link through the PEN-International web site. Second, the ESL workshop content is available to and has been shared with other PEN-International partners. Third, workshop content is available through the production and distribution of a CD-ROM. Fourth, PEN-International staff continue to visit and provide on-site training to partner institutions. And finally, PEN-International has installed new laboratories at partner institutions that contain high-tech, state-of-the-art educational technologies and equipment.

In conclusion, the participants' overall high ratings and positive comments regarding the July 2002 PEN-International professional development workshop for teachers of English to deaf and hard-of-hearing students confirms that the combination of technological and traditional educational resources contributes to highly successful teacher-training experiences.

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