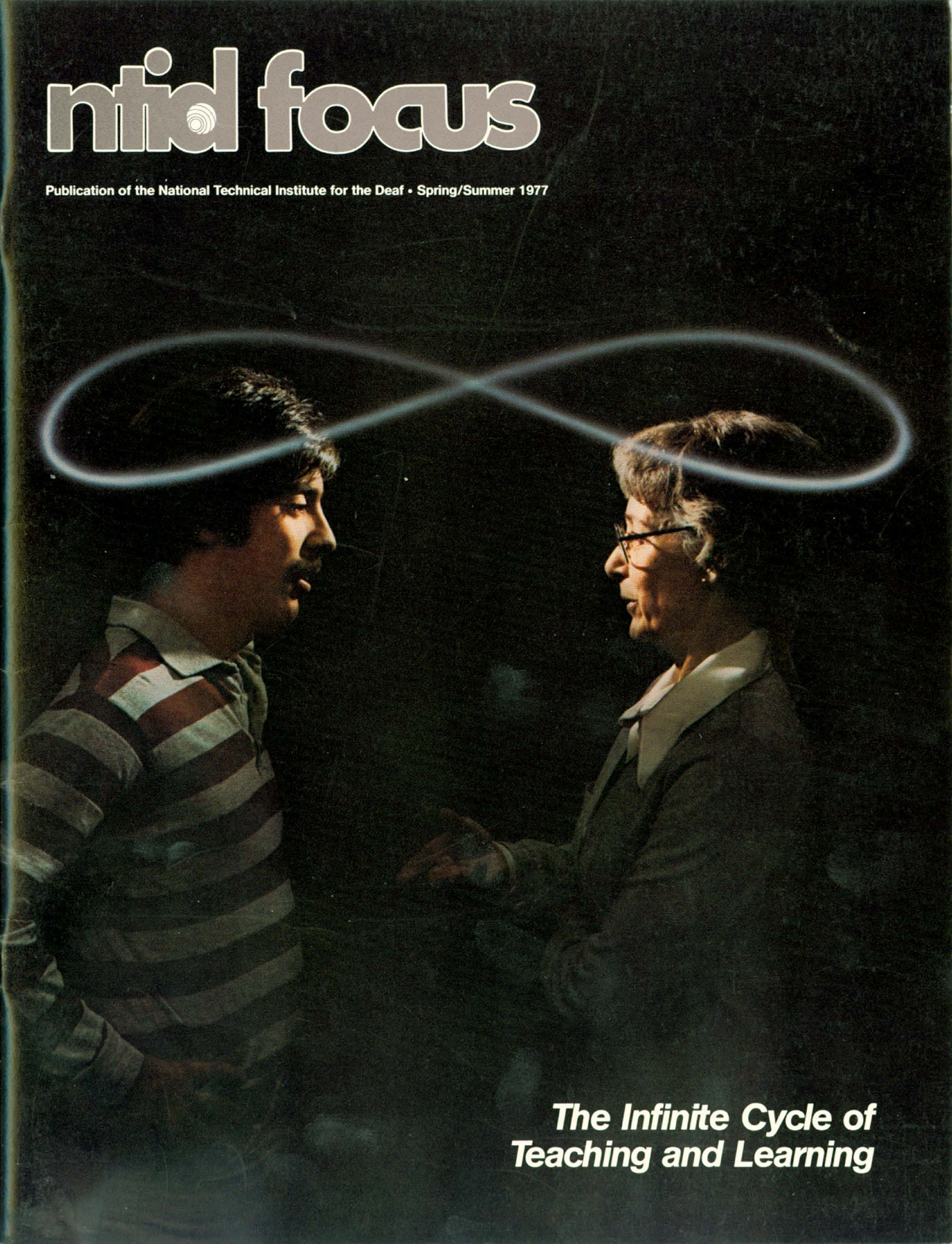
ntid focus

Publication of the National Technical Institute for the Deaf • Spring/Summer 1977



The Infinite Cycle of Teaching and Learning

An Overview

*"The skills necessary to maintain oneself in a lifelong learning experience are found in the mutual interaction and relative dominance of four basic learning units: learning to learn, learning to do, learning to care, and learning to be."**

The philosophy regarding teaching and learning which permeates NTID is very much in tune with this postulate, though the language that we use may not be so simplistic.

When we recite our interest in helping NTID students become self-generated learners, we are talking about "learning to learn" and an interest in developing inquisitiveness, curiosity, and creativity among our students.

When we say our primary purpose is to provide technical and professional education which will lead to successful employment, we are talking about "learning to do" and an interest in preparing each of our students for a gainful and productive future which will lend to that student's sense of self-worth and self-respect.

When we declare a secondary purpose for ourselves of facilitating and encouraging deaf students to achieve a high degree of personal, social and cultural development, we are talking about "learning to care" and "learning to be" and an interest in providing our students with experiences which aid them in the processes of interacting with other people and self-discovery.

All of these efforts in learning are the heart of the NTID mission, and all other efforts must bear a direct relationship to them. Therefore, as we undertake research, we do it, in the main, to find better ways of effecting learning by our students and for other deaf people. As we undertake the training of professionals, whether they be NTID professionals or otherwise, we do so with an interest in how they may be able to better assess and satisfy the learning needs of our students and other deaf persons. As we disseminate information, we do so for the most part, to impart to others what we are doing here to enhance the effectiveness and the efficiency of the learning done by our students.

If there is a primary thrust for the collective energies at NTID it is to develop the teaching effectiveness of our faculty and the learning effectiveness of our students to the levels which we willingly can have reviewed by other educational environments for the possibility that they may wish to emulate what we do.

**Postulated in a recent article in* Vital Speeches of the Day, *Bill O. Wireman, president of Eckerd College in St. Petersburg, Florida.*

William E. Castle

Dr. William E. Castle

National Technical Institute for the Deaf

NTID is the only national technical college for the deaf.

It is **national** in the sense that it was created by the federal government and was designed to provide educational opportunities for qualified students from every state in the nation.

It is **technical** because it trains students for careers in technological areas.

It is a **college** because it provides educational opportunities in a post-secondary environment.

It is **for the deaf** in that it serves people with substantial hearing impairments. Also, in order to teach this special clientele, curriculum and classes have to be designed and / or adapted with the special needs of the deaf in mind.

NTID was created because the deaf population has been underemployed or unemployed historically. It was clear that educational opportunities for the deaf were needed in technical fields; and many people felt that, if given specialized training, the deaf could succeed in many technical careers.

NTID is:

a public law—89-36 to be exact. It was established by an Act of Congress and is funded through the U.S. Department of Health, Education and Welfare.

located in Rochester, New York, on the 1,300-acre campus of Rochester Institute of Technology.

part of RIT. It is one of the nine colleges of RIT, just like the College of Business or the College of Engineering.

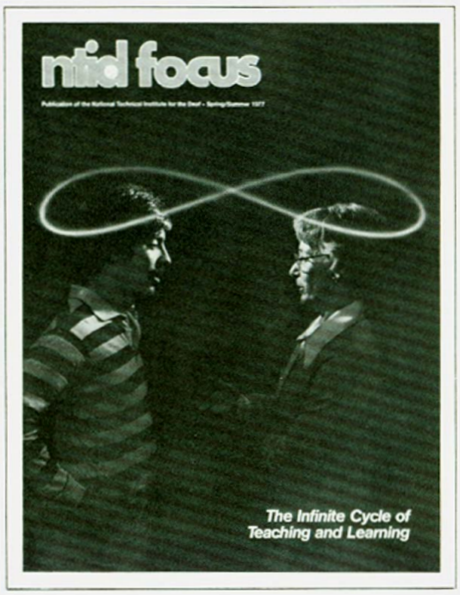
unique. Having NTID as part of RIT is the first effort to educate large numbers of deaf students within a college campus planned primarily for hearing students. It is the only one of its kind nationally or internationally.

young. It was established in 1965, and after several years of planning, programs began in 1968.

growing. The first group of 71 students enrolled at NTID in the academic year 1968-69. The 1976-77 average full time enrollment of 740 students will represent almost every state in the nation.

exciting. NTID is reversing major trends for the employment of the deaf. To date, 95 percent of NTID's graduates seeking employment have found jobs. Ninety-four percent have been hired in jobs at a level equal to their training; and 84 percent have been hired in business and industry.

searching, creative and changing. Nothing keeps a place more alive and dynamic than the energy and spirit of faculty, staff and students who are able to be creative and imaginative.



Photographically superimposing an infinity loop around the heads of a student and teacher, the cover represents the current of ideas and innovations in the educational process at NTID.

This is a publication of the National Technical Institute for the Deaf at Rochester Institute of Technology, Rochester, New York.

Produced by:
the NTID Public Information Office,
N. Phillip Weinbach, Director

Editor:
Eileen Biser
Coordinator of Public Information

Writers:
Joan Cooley
Public Information Associate
Barbara W. Brissenden
Public Information Specialist

Art Director:
John Massey

Designer:
Randall Ross

Illustrator:
Robert Chandler

Production Assistants:
Nancy Fabrize
Ruth Gardner

Photographers:
Diedre Engle
Bruce Cook
Joan Cooley
Guy Delort
Steve Maynard

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ntid focus

Spring/Summer 1977

Teaching Effectiveness Clinic

Teaching is often like giving a performance and not getting the applause.

Many teachers may *think* they do a good job, but somehow—with the mysterious and shifting nature of personalities and circumstances—they are seldom really sure.

They may have been charming and engaging or even clever and creative, but were they "effective"? Did the learners understand and integrate what was taught into an existing repertoire of skills?

Defining the Problem

Some teachers choose to answer the question of being effective or good teachers by evaluating students' test results. Others confer with fellow teachers and develop a consensus definition of good, effective teaching that either serves to reinforce or help change their teaching behaviors. Still, there are other teachers who face the dilemma that there really are no criteria to accurately define good, effective teaching.

According to extensive research on this topic there are a few identifiable variables which distinguish good teachers from poor teachers. In fact, the highest correlation between any variable and good teaching is "the desire to teach," a variable not easily measured.

But beyond this bit of knowledge about what makes good teachers, there is little for teachers who want to evaluate and improve their teaching. It would appear that they have only one alternative—to identify their own personal concept of good teaching. By examining personal values, goals, past experiences and student needs, an "ideal teaching self"—the best possible teacher a person can become—can emerge.

To become an "ideal teaching self," a teacher must be able to identify one's "real teaching self" and make them match.

NTID's Clinic to Improve Teaching Effectiveness helps do this. Sponsored by the office of Professional Development, the clinic offers a personalized program to help teachers establish criteria for improving their teaching and then integrate the ideal and real, based on teachers' own unique goals and the needs of their students.

How the Clinic Works

The clinic, organized and managed by Dr. Richard L. Curwin, coordinator of teacher supervision and a professional development specialist, solicits interested instructors who have the desire to examine themselves and participate in a process of teaching improvement. Motivations for participating range from "I was frantic for help" to "I was concerned that students weren't participating in learning" to "I felt my students didn't really like me."

By working with Dr. Curwin or one of the other two part-time teaching improvement specialists (TIS)—Peggy Quinsland and Mary Lou Basile—a participating teacher is able to:

- define his/her idea of good teaching
- collect data on his/her current teaching
- compare these data with the "ideal" teaching definition
- set up goals to improve
- develop strategies through recommendations from the TIS
- implement the strategies and receive feedback and instruction from the TIS
- evaluate changes in his/her teaching with the TIS.

Defining Good Teaching

"It was hard to identify my ideal teaching self," remarks Sheri Smith Harrington, an educational resource specialist who teaches English courses to deaf students through the General Education Support Team. "So many of my ideas were so internalized that it took a great deal to bring them out and clearly see them."

Dr. Curwin and his team have found that open-ended sentence exercises often do the trick of clarifying values and likes and dislikes in teaching:

"I like teaching when . . ."
"I feel my students like me when . . ."
"I feel my students learn best when . . ."

The final outcome is a clear definition of what each person feels is ideal for him/her. But this is meaningless without evaluation of the present teaching self.

Collecting Data

Methods of collecting data—to match against the "ideal" criteria—range from student questionnaires to self-evaluation checklists for teachers and include:

- observation by a TIS
- peer observation
- videotape or audiotape sessions
- supervisor observation
- student observation and input
- self-monitoring by the teacher.

Each teacher, with the help of a TIS, determines his/her personal program of data collection based on individual needs and availability of resources.

Comparing Data

Each teacher then tries to discover what differences exist between what "is" and what "could be."

"I found out," states Paula Spector, NTID speech pathologist, "that I needed to do a lot of things to reach my ideal. But more than anything else, I wanted to involve my students more and make them really see that what we were doing in the classroom was useful to their lives. In developmental or support classes like I teach, such as Effective Oral Communication or Interpersonal Communication, you have to convince the student that communication is just as important in doing a job as technical knowledge."

Setting Up Goals

Teachers then establish realistic goals for achieving what they have identified as priorities. Goals set by clients have included:

- increase flexibility and individualization

NTID's new faculty self-improvement program

- reduce teacher talk time
- improve sign language vocabulary and fluency
- increase student participation

Other goals were far less tangible and measurable:

- increase creative activity in class
- increase classroom trust.

This is where consultation with teaching improvement specialists (TIS) came in handy.

"I needed a lot of support and someone to talk to," says Peter Haggerty, an English specialist in NTID's English department. "My TIS and I discussed everything—things that I'd ordinarily not even focus on because teachers, especially men, aren't supposed to feel uncomfortable or insecure. My TIS really helped me sort out my concerns and wants and make them into actual goals."

Developing Strategies

Obtaining these goals is worked out between a teacher and the TIS. Strategies could include something as simple as developing and introducing a learning game or as complicated as keeping track of a classroom interaction pattern on a videotape. The strategy varies for each individual and perhaps each different class that a teacher has.

Implementing Strategies and Receiving Feedback

Some of the strategies used by teachers are actual techniques that are easy to introduce into the classroom. Others are subtleties of attitude that take time to integrate into a teaching style.

"My TIS took such a non-judgmental approach when giving me feedback,"

reports one participant. "That made me less afraid of being observed, and the trust between us grew. And with trust came the willingness to accept alternatives suggested by the TIS."

One specific strategy for most participants is to fill out a "How Did It Go?" sheet after classes. It serves as a record of activities, feelings, insights, and changes. In addition, it helps organize and bring meaning to teaching by reflecting on questions such as:

- How did you feel about yourself in today's class?
- What did you like about the class? Students? Yourself?
- What was your greatest strength in this class? Weakness?
- How did you react to students in today's class?
- How did students react to you?

Evaluating

Sitting down and comparing progress with original goals is both rewarding and frustrating since it reveals:

- areas of new growth
- areas of strength and weakness
- realms for further expansion.

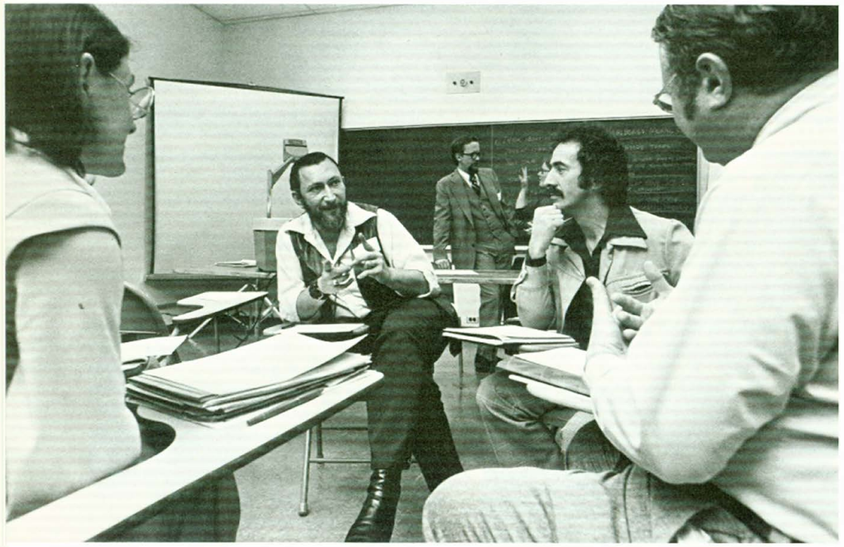
Evaluation by the clinic's participants and review of their teaching improvement is also an evaluation of the clinic itself. Comments include:

- "I was grateful for this opportunity."
- "This clinic is a wonderful part of the total opportunity for me to improve at NTID."
- "A good idea. It should be a revolving program every two years, for all instructors."
- "A valuable experience. I'm pleased to be part of an organization that is promoting employee development this way."

—by Eileen Biser

Dr. Richard L. Curwin is coordinator of teacher supervision and a professional development specialist at NTID, where he has begun the Clinic to Improve Teaching Effectiveness. The Clinic is based on principles expounded in *Discovering Your Teaching Self: Humanistic Approaches to Effective Teaching*, co-authored by Dr. Curwin and Dr. Barbara Schneider Fuhrmann (Prentice Hall, 1975).

Dr. Curwin earned his Ed.D. from the University of Massachusetts in 1972; his M.Ed. from Boston State College in 1969; and his A.B. from the University of Massachusetts in 1968. Prior to joining NTID in 1975 Dr. Curwin was assistant professor of education at State University College in Geneseo, N.Y. He also taught a seventh grade class of emotionally disturbed children in Granby, Mass.



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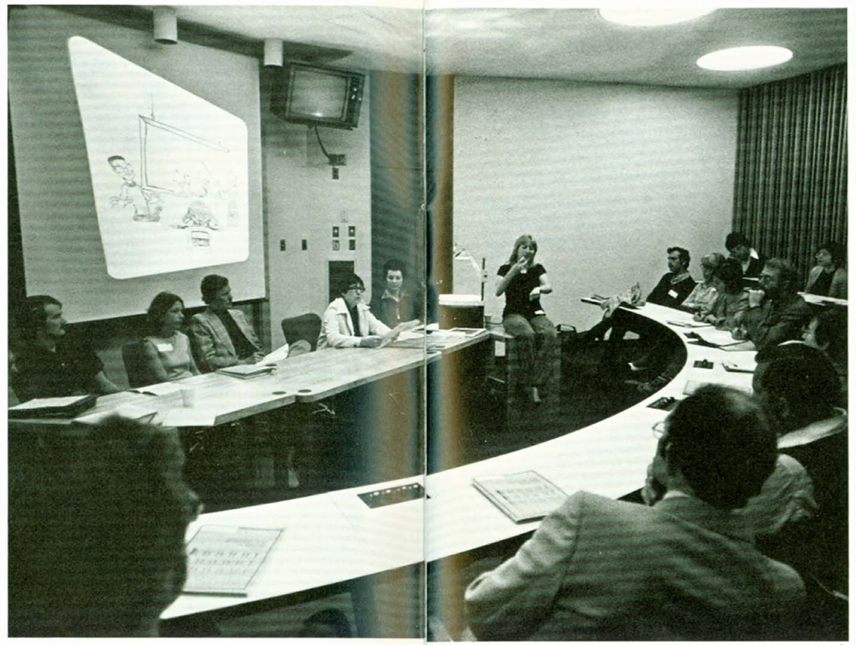


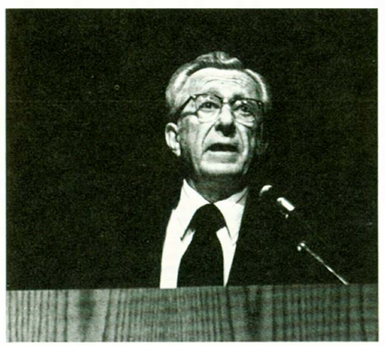
A

F

E

D

Take a look—NTID's second annual Mini-Convention:
A. A panel discussion reporting on "The hearing peer as a provider of support to deaf college students."
B. Dr. Robert G. Sanderson of the Utah Division of Rehabilitation Services delivers the opening address of the second day's events: "Equal Employment Opportunities for the Hearing Impaired."
C. An exhibit features an optical finishing student demonstrating principles learned in the classroom.
D. "Corporate Decision-Making and the Employment of Deaf Students" is the topic of this panel. Left to right: Dick Elliott (NTID's Student Placement section); Elaine King (Xerox Corp.); Bob Stevenson (Rochester Products, Division of General Motors); and Richard Holan (U.S. Steel).
E. Exhibits line the "streets" of NTID and attract interested passersby.
F. Engineering instructor Jim Jensen demonstrates a community land use game.
G. Workshop participants discuss promoting student personal/social development.



B

C

mini convention two

On May 6, 1977, the Second Annual Mini-Convention provided a forum for the staff of NTID and the other colleges of RIT to exchange information and ideas relevant to the deaf student.

People. Talking, listening, laughing, pondering, agreeing, disagreeing, learning.

People. Questioning, searching, absorbing, changing.

What are . . ?
How do . . ?
What if . . ?
Can we . . ?

People. At NTID's second annual Mini-Convention. Take a look.

A horror story told by guest speaker Dr. Robert Sanderson, coordinator of Rehabilitation Services for the Deaf in Utah. A horror story of deaf men and women learning almost too late that education may be the key to their survival in the speeding world around them.

Students and teachers in an RIT classroom. Some hearing, some deaf. Working together to design barrier-free environments for deaf people everywhere. Can we do it? Watch us, they say.

Representatives from major corporations. General Motors, Xerox Corporation, United States Steel Company. Changing decades of deaf employment history. Taking a chance on technically trained deaf workers and smiling at their own and their new employees' success. Hey, it's working, they say.

Dr. S. Richard Silverman, director emeritus of Central Institute for the Deaf in St. Louis, admiring our youth and vigor. Challenging us to be a creative force for social change but cautioning us never to lose sight of our goals in a maze of semantics and statistics.

People. More than 140 NTID staff members, guests and friends from other colleges at RIT making presentations at the Mini-Convention. Sharing ideas and thoughts, successes and failures, frustrations and joy. Take a look.

- What have we done to improve speaking and listening skills in our students?
- How do we use media and gaming in our instruction at NTID?
- What's the student view of NTID?
- How are hearing students providing support to deaf college students at RIT?
- What we're doing in research in manual communication.
- How do we plan programs and evaluate English skills in young adult deaf students?
- What are some of the variables and dimensions of instruction at NTID?
- What are learning strategies, verbal and non/verbal processing, auditory discrimination, teaching effectiveness?
- What are entering NTID students like?
- How can we improve the social and personal skills of our students? How can we help them relate to their community?

These are only a few of the questions presented at the Mini-Convention. Some had answers, some did not; but asking the right questions is the first step in the whole process of learning and teaching at NTID.

People. Students, teachers, staff.

People. Learning to learn. Learning to do. Learning to care. Learning to be.

—by Joan Cooley

you're on your own

Faculty and staff help themselves to media production facilities

TV LAB

"Do it yourself" is not a new concept. You can "do" practically anything yourself these days—from building a cabin cruiser to creating a cheese soufflé.

NTID's Instructional Television department has taken this same concept and applied it to its Television Laboratory (TV Lab)—with good results.

The TV Lab at NTID is for faculty (and sometimes students) who want to do it themselves. It offers equipment and technical guidance to NTID staff, along with the freedom to experiment with different formats, equipment, and methods in presenting videotape material. In addition, the lab enables faculty and staff to get hands-on experience using a variety of television equipment.

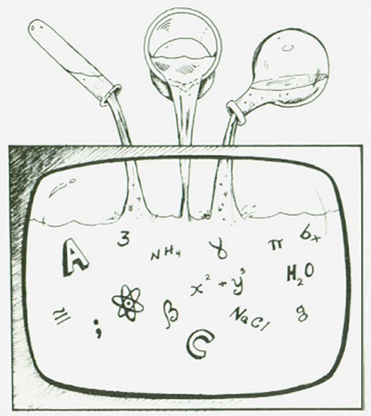
Positive results aren't always the object of the TV Lab according to Frank Argento, director of NTID's Curriculum Development and Evaluation (CD&E) division. "What's important about the TV Lab is the freedom it allows our faculty to experiment and to learn. They can follow a hunch or try something new without tying up our main production studio and a whole production crew. The faculty also benefits from learning to use the TV equipment themselves. Many of the staff are developing a progressive sophistication in what they're doing with their projects in the lab."

Historically, in education, the use of television for instructional purposes has been minimal, according to Dr. Barbara Braverman, research associate for CD&E, of which the Instructional Television department is a part.

"That's because traditional television instruction relies on getting content across through the words used rather than by the visuals. NTID is looking at the special capabilities of the television medium to convey information visually," she says.

"We must somehow turn our ideas and concepts about a subject into pictures—television pictures."

NTID has two major television facilities. The main studio approaches broadcast quality. It requires trained technicians and producer/directors to produce and operate master quality videotapes. The TV Lab consists of a



studio and control room. The studio has three color cameras with zoom lenses, lights, and connections for microphones. The control room has ¾-inch and ½-inch videotape recorders, a video switcher, audio mixer and control units for the cameras.

The TV Lab has had more than 250 uses during the last year. Most frequently it has been used with a one-camera set-up for evaluation purposes. Faculty can videotape their own teaching to critique or modify it. Instructors in the Manual Communication program videotape faculty signing and fingerspelling. The NTID Theatre brought in an expert in dramatic sign language who signed the script of a play for students to learn.

The Human Development department has used TV to videotape role-playing situations.

Dr. Richard Blasdell, a research associate for NTID's Manual Language department, has used the TV Lab with students to study what the visual impact of different linguistic forms have on a deaf person's ability to process information and what linguistic properties are involved in varying the length of visual information.

"Generally the attitude toward the TV Lab has been positive," according to Stephen Talley, acting coordinator for ITV. "However, evaluations have told us that faculty felt the need for more specific instructions on how to use the equipment and develop a TV program, more support during the actual production and more training in the overall use of the studio."

To meet this need Dr. Braverman, Mr. Talley and a team of producers from the department have designed a training package for using the Television Laboratory. The package consists of workbooks, videotaped instructions, diagrams and photos.

The training package has four components. The first one covers an orientation to the use of instructional television with deaf students and deals with concepts of visualization or "thinking in pictures."

"We must somehow turn our ideas and concepts about a subject into pictures—television pictures," the workbook explains. "We must try to avoid producing programs that are primarily 'talking heads.' Talking heads do not convey very much information to deaf viewers."

This same component also describes the strengths and weaknesses of a variety of formats, including panel discussions, dramas, documentaries, and lecture/demonstrations.

The planning and production skills component covers the steps involved in organizing and producing a television program. These include selecting a format, outlining program content, writing a treatment, selecting a script style, writing the script and preparing the production.

Equipment skills, the third component, is a videotape which demonstrates the physical operation of the equipment and the basic whys of the use of each piece of equipment. And the final component, playback skills, shows in diagrams and photos which machines in the control room are appropriate for playback and the steps involved in the process.

After faculty members have completed the training package they evaluate their skill attainment and their product, based on criteria explained in the training package.

"We hope that because of the availability of this new training package, more faculty will be encouraged to try the Television Laboratory as a new method of meeting their instructional needs," Dr. Braverman says.

YO-YO ROOM

What's Yo-Yo?

No, it has nothing to do with two rounded pieces of wood and a string. And it's not a new Chinese food. And finally no, it's not the latest dance craze.

Yo-Yo is something a lot of people at NTID do. Yo-Yo simply means "you're on your own." The concept was initiated by Frank Argento, director of the Division of Curriculum Development and Evaluation (CD&E), to help meet the instructional media needs of faculty and staff.

The Yo-Yo Workshop, part of CD&E's Media Production department, is a bright, crowded room filled with equipment, paper, pens, ink, tools and people.

The people, NTID faculty and staff, come to the Yo-Yo Workshop to fill their day-to-day instructional media needs. Instead of relying on a large number of media technicians to complete their instructional media projects, they learn to do them "on their own."

There are two media technicians and a production coordinator available in the Yo-Yo Workshop to give whatever technical guidance is necessary.

"The Yo-Yo Workshop is here for faculty and staff to generate their own solutions to their own media needs. They can experiment with different forms of media, and many times the Yo-Yo Workshop is the place where research prototypes get started," according to Tom Castle, Media Production chairperson.

An instructor can do things as simple as making overhead projector transparencies or as complicated as creating a whole modular slide show. Yo-Yo Workshop services include: loaning out equipment such as 35mm cameras and movie cameras; printing and binding books; laminating documents; captioning slides; loaning T-squares and drawing boards; and typesetting.

"CD&E is encouraging NTID staff to try different forms of visual media in their classes because of our deaf students' heavy reliance on processing information visually. It would take a huge staff of media technicians and other personnel to meet the requests for media that the NTID professionals generate," Mr. Castle says.

The interest in using visual and other support materials in the classroom is on the rise, which Mr. Castle proves by ticking off some statistics.

"During a recent three-month period the Yo-Yo Workshop was used 520 times to make 2,400 overhead projector transparencies, bind 280 books, create 85 mimeographs resulting in 20,000 copies, develop 3,650 35mm color slides, and provide extensive training to 20 persons," he said.

The Yo-Yo Workshop—helping people to make it "on their own."

dī·ə'krit·i·kəl 'märk·iŋz

For many people, the English language presents difficulties in speaking and writing because spelling often provides inadequate clues to word pronunciation.

"It is known that hearing people learn many of the rules of pronunciation through listening to others. However, for deaf people this is a complicated process," explains Dr. Joanne Subtelny, chairperson of NTID's Speech department.

Assisted by NTID Speech Pathologist Sidney Barefoot and Media Specialist William Clymer, Dr. Subtelny has developed an individualized instruction program to supplement pronunciation training.

The program is a set of videotapes which teach Webster's Diacritical Markings (WDM).

A diacritical mark is a symbol which shows the difference between individual vowel and consonant sounds. One symbol always represents one particular sound thus avoiding confusion.

Once students master the system of pronunciation, they will be able to pronounce new words and improve their speaking and possibly their speechreading skills.

The advantage of using videotape over other types of software is its ability to accommodate individualized instruction and the motion needed to show speech.

The format of the WDM tapes is to have Speech Pathologist Sidney Barefoot appear on the screen and explain what the markings are, where they are found and how they are used. Barefoot takes the student through a pre-test exercise on the second videotape and the following five learning units. Each unit deals with four or five new diacritical marks and runs approximately 20 minutes.

The need for adopting a standardized pronunciation system for NTID students grew from the fact that entering students come from a variety of backgrounds utilizing different symbol systems to show the relationships between letters and sounds. NTID decided that Webster's Dictionary, which uses diacritical marks, was probably the most accessible for a deaf person on the job.

Students are scheduled to use the tapes at a special individualized instruction lab which contains headphones and video cartridge players housed in separate study carrels.

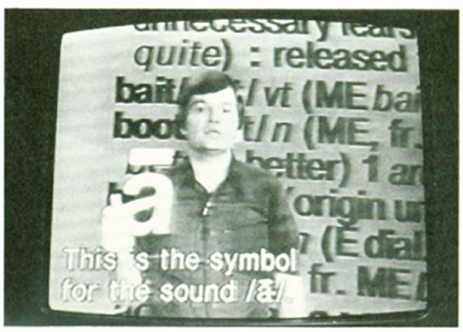
In this way students not only see the symbol and pronunciation, but they can utilize whatever residual hearing they have to hear the sounds pronounced.

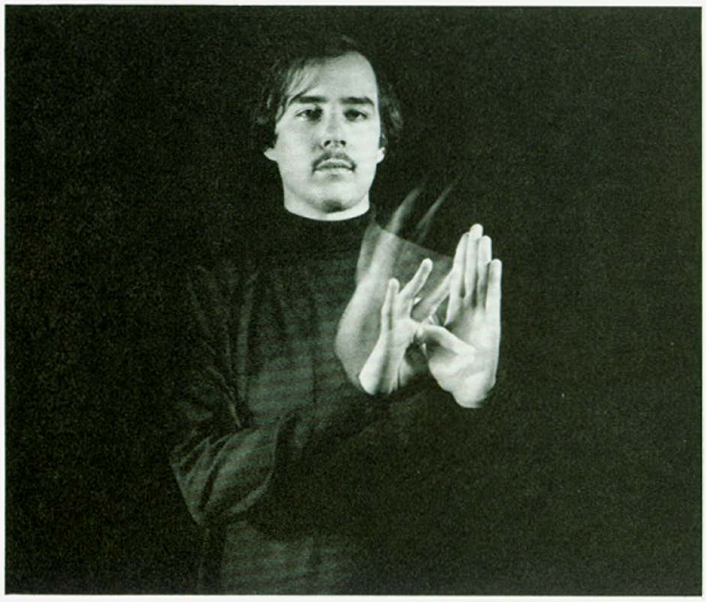
Allen Austin is one speech pathologist who uses the systems for students in his Pronunciation I and II classes to free up some of the classroom time. "WDM teaches fairly routine basics, and then reinforces the knowledge with examples and post-tests. It allows the students to progress at their own pace and assures that once they have the foundation to pronounce words correctly, they can begin to apply this knowledge to new words."

The division of Curriculum Development and Evaluation at NTID is currently evaluating the WDM tapes, following initial field testing efforts. Within the next two years, NTID plans to disseminate the tapes as part of its Educational Extension efforts.

It is hoped that elementary and high schools will show an interest in utilizing this standardized diacritical marking system to improve pronunciation and to increase competence in dictionary use before a student enters college or the job market.

(Above) Eleanor Brown, Rockland, Me., uses NTID videotapes in pronunciation. (Below, left) Instructor Sidney Barefoot demonstrates the sound "a". (Center) The sound is used to pronounce a specific word. (Right) The tape solicits oral participation from the student.





standardizing technical signs

The Importance of Technical Signs

The rapid expansion in post-secondary educational opportunities for the deaf over the past few years has led to the need for deaf people to learn and use technical vocabulary which few of them have used in the past. Since this technical vocabulary was not previously needed, signs for it are largely non-existent.

Research conducted at NTID has shown that deaf students need such a technical sign vocabulary. Studies have shown that deaf students receive information better when speech and manual communication (signs and fingerspelling) are used together as opposed to either one alone. In addition, interpreters at NTID have reported that deaf students often have difficulty reading fingerspelling in the classroom setting, and that it is difficult for some interpreters to keep pace with an instructor giving a technical lecture where many of the words need to be fingerspelled. Research conducted at NTID has also shown that deaf students understand better when signs are presented, rather than fingerspelling, in such a technical lecture situation.

NTID instructors and interpreters have begun to respond to all of these needs by inventing signs for technical vocabulary. Although such unstructured sign invention may facilitate communication in specific classrooms, in general it leads to confusion and inconsistency in communication. For example, unbeknownst to their originators, some of these "instructor-invented" signs are already existing signs for other concepts or referents, and some are being used for two or more distinct technical concepts.

A Project for Standardization and Development of Technical Signs

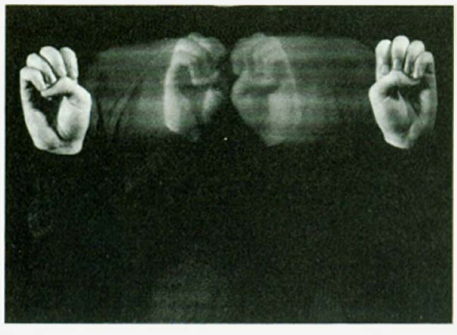
Based on the above facts, the Manual Language department, the office of Professional Development and the department of Support Services decided jointly that a project designed to provide a more structured approach to technical sign standardization and development was needed at NTID. This project is a joint effort of these three departments at NTID which are responsible for manual/simultaneous communication instruction—the Manual Language department, with deaf students; the office of Professional Development, with staff; and the department of Support Services, with prospective interpreters.

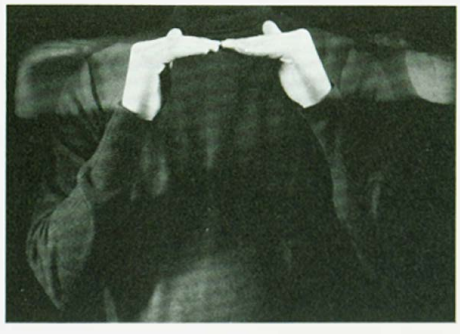
The primary goal of this joint technical sign standardization and development project is the establishment and maintenance of a technical sign resource center which can serve the technical communication needs of all post-secondary deaf students, their instructors, and interpreters. The total project is headed by a committee whose membership includes native users of American Sign Language, interpreters for the deaf, linguists, and staff responsible for communication instruction of students, staff and interpreters at NTID.

A major part of this project has been the development of a set of linguistic guidelines based on the structural characteristics of the naturally evolved signs of American Sign Language. These structural characteristics include restrictions on combinations of the basic parameters of signs: (1) hand shapes, (2) hand positions, (3) hand movements, and (4) hand orientations.

A basic responsibility of the committee is to establish a procedure for collecting important technical vocabulary and existing technical *(continued)*

(Above) Interpreter Robert Ayers demonstrates. (Below) Three existing technical signs for the word "equation" were considered for standardization. The last example (far right) has been recommended for future use.





signs, and the development of procedures for evaluating proposed signs for use at NTID. These procedures include a checklist based on both the linguistic guidelines already referred to above and evaluation by instructors, interpreters, and the students in the academic areas in which each sign is most often used.

The final objective of the committee is to facilitate and support a national effort for standardization and development of technical signs and to provide a centralized resource center for storage and sharing of technical signs.

Cooperation on a National Level

The Technical Sign Standardization and Development Project at NTID is not considered an isolated effort. Rather it is a project with national implications which must, therefore, take into account the needs, efforts and beliefs of others concerned with better meeting the communication needs of deaf students, their instructors and interpreters.

The committee is soliciting input from other programs involved in and/or concerned with sign standardization and development. This input should help NTID provide support for, and incorporate into its efforts, the work of these programs.

The committee has taken several other steps to promote a cooperative national effort in technical sign standardization and development. First, a paper on the NTID Sign Standardization and Development Project was prepared, submitted and accepted for publication by the *American Annals of the Deaf* (Caccamise, *et al.*, 1977). This paper has been sent directly to several other post-secondary programs for the deaf, to the National Association of the Deaf, to the Registry of Interpreters for the Deaf, to the Texas Statewide Project for Sign Standardization and Development, and to other appropriate programs and individuals. Second, the chairperson for the technical sign project at NTID, Frank Caccamise, has accepted a position on the Conference of American Instructors of the Deaf Committee on Sign Standardization and Development. Third, a national workshop at NTID on sign standardization and development is in its planning stages, with support and assistance for this workshop being solicited from appropriate programs and individuals across the country.

Conclusion

If done appropriately, such a technical sign standardization effort may be expected to promote the kind of organized sign standardization and development which has been recognized as an important need by Jess M. Smith, past president of the National Association of the Deaf: ". . . We still hold that some kind of standardization is overdue, regardless of who does it. Too many people and organizations are riding off in all directions. . . ." (J. Smith, Editorial in *The Deaf American*, 1975, 28, 2, p.2). Such an effort on a national level is essential to be successful in the goal of better meeting the communication needs of both deaf students and those who interact with them.

—by Dr. Frank Caccamise and Robert Ayers

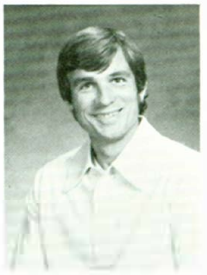
Reference

Caccamise, F.; Bradley, C.; Battison, R.; Blasdell, R.; Warren, K. N.; and Hurwitz, T. A., "Project for Standardization and Development of Technical Signs." *American Annals of the Deaf*, 1977, 122, 1, 44-49.

Acknowledgment

Members of the Committee on Sign Standardization and Development at NTID are as follows: Katherine Warren, Tracy Hurwitz, Charlie Bradley, Robbin Battison, Richard Blasdell, Anna Braddock, Karen Finch, Robert Ayers, Pat Siple, James Stangarone, Loy Golladay, Paul Menkis, Alice Beardsley, Peggy Quinsland, Liza McDaniel, Paul Peterson, Linda Reed, Frank Caccamise.

Two signs presently exist for "formula." The one at the right has been recommended by the committee.



Dr. Frank Caccamise is chairperson of the Manual Language department at NTID and has served in that position since 1976. Prior to that he was involved in residential, social, and cultural programming with NTID students.

Dr. Caccamise obtained his Ph.D. from the University of Washington, Seattle; M.S. from Gallaudet College; and B.A. from St. John Fisher College in Rochester, New York.

Before joining NTID, Dr. Caccamise was associated with the University of Texas Health Science Center in Houston as an audiologist; he was also an assistant professor of speech and hearing at Humboldt State University, Arcata, Calif.

Professional affiliations include the American Speech and Hearing Association, National Registry of Interpreters for the Deaf, International Association of Parents of the Deaf, and the Convention of American Instructors of the Deaf.

Numerous professional publications by Dr. Caccamise include a joint authorship of four educational coloring books in sign language for hearing-impaired children and their parents, and "Silent Siren," a wallet-size manual communication card and communication information sheet for law officials.

Robert Ayers is a professional interpreter with the College of Engineering Support Team.

Although Mr. Ayers has been associated with NTID since 1974, his experience with deafness and interpreting has its roots in being the son of deaf parents.

Mr. Ayers holds an associate's degree from Johnson County Community College, Overland Park, Kan., and he is currently studying for his bachelor's in electrical engineering at Rochester Institute of Technology.

His professional affiliation with the Registry of Interpreters for the Deaf (RID) has led him to the position of president of the local RID chapter—the Genesee Valley Region.

MATH EXCHANGE

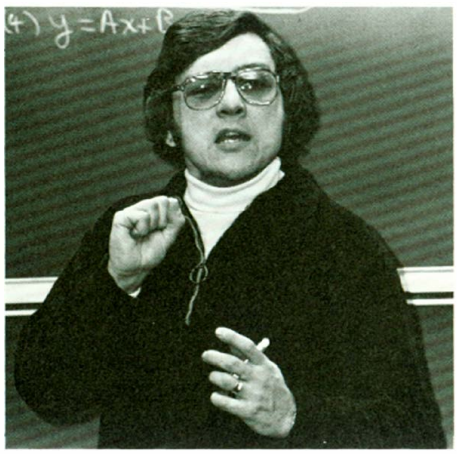
Marvin Sachs and Marilu Raman have 'gone traditional!' Allen Friedman has 'gone progressive!'

How?

Through a recent faculty exchange between mathematics instructors from NTID's Math Learning Center (MLC) and the College of Science Mathematics department.

The MLC has historically served the needs of the deaf students on campus with an individualized instruction approach, while the College of Science Mathematics department most often caters to the needs of the hearing students in the traditional lecture situation.

Marvin Sachs



Why the exchange?

"Because we are trying to foster a more equitable option for the hearing and the deaf students on campus in regards to their math needs. By offering two different learning situations—individual and group instruction, we hope to promote ease of learning for all math students," explains Marvin Sachs, coordinator of the MLC.

"Opening the MLC to the RIT students who are not as strong in math has proven a worthwhile service. To date, these students tend to do better in an individualized structure because they receive more intensive tutoring help and thus improve their self-concept in math."

Mathematics department instructor Allen Friedman, from the College of Science, participated as an instructor in the exchange because "I really wanted to see progressive education at work. Most of my educational experiences were with traditional approaches.

"After spending eight hours a week for 10 weeks at the MLC, I found that there is a great difference in the teaching techniques used in a large lecture hall as opposed to an individualized instruction situation. The one-to-one contact forces me to be more resourceful," Mr. Friedman admits.

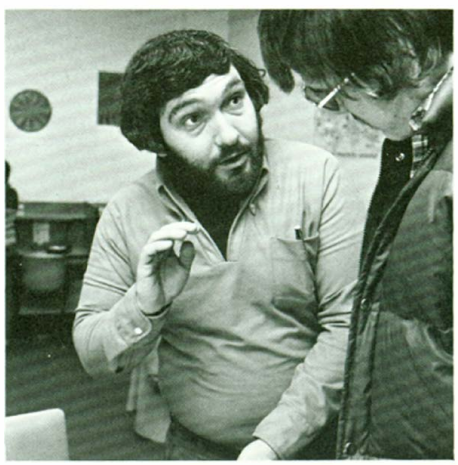
A three-year veteran of RIT, Mr. Friedman felt some apprehension at putting himself in what he referred to as a "minority setting." Without the use of an interpreter, he uses the blackboard, writes notes and relies upon a student's ability to lipread him, although he is in the process of learning sign language.

However, despite any misgivings he might have had when he began the experiment, Mr. Friedman comments that "I am already scheduled to teach again next quarter, and next quarter I'll be that much better!"

When Marv Sachs began teaching Calculus I to a class of one deaf, one blind, and 13 hearing students, he used the traditional lecture approach but added simultaneous communication. The use of sign language by the instructor deviates from RIT's usual reliance upon classroom interpreters for the deaf students.

Discussing his reactions to this atypical approach with an integrated class, Marv admits that "because many of my hearing students were unaccustomed to sign language I felt that signing for myself might be distracting, so I took a class survey to find out. I received no negative comments about the way I conducted my class, only about the time it was held—8:00 a.m.!"

Allen Friedman

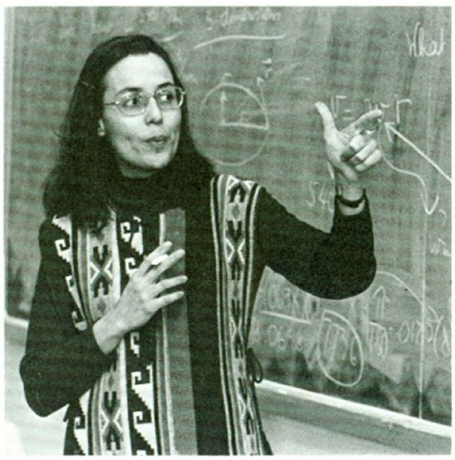


The teaching exchange has also spurred a greater interaction between the math faculties of the two colleges.

"Many of us now attend special math colloquia where everyone has the chance to exchange ideas and give presentations," Marv says.

Marilu Raman, an MLC instructor who also participated in the exchange, taught algebra-trigonometry to 27 hearing and five deaf students.

Marilu Raman

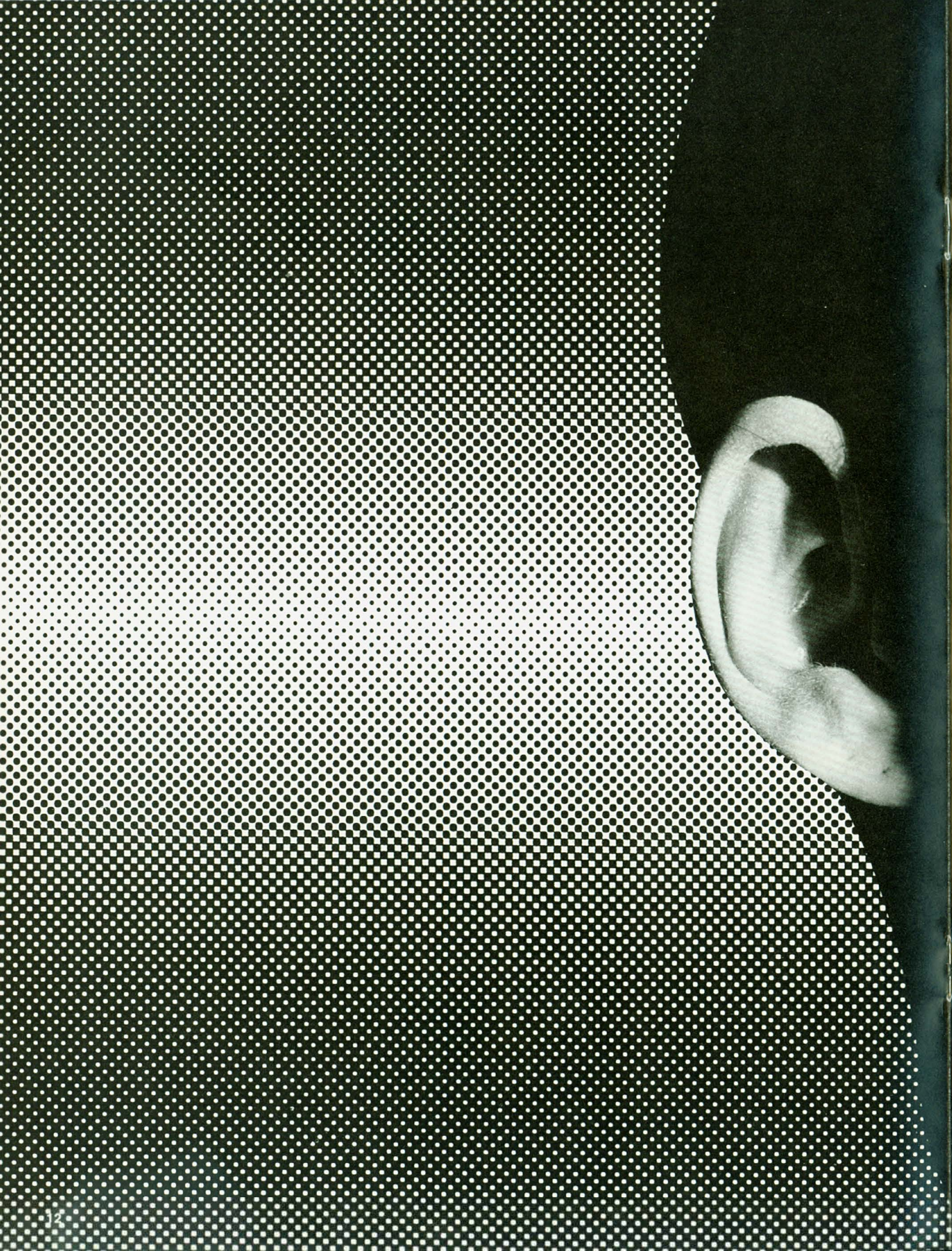


She agreed with Marv's feelings of discomfort during her first few weeks of using simultaneous communication with both hearing and deaf students. "I found myself so wrapped up in getting the point across to the deaf students, I couldn't judge or concentrate on the facial clues of the hearing students. I felt I just wasn't doing them justice."

The response to Marilu's questionnaire regarding how she conducted her class was also overwhelmingly positive. One hearing student stated that when Marilu signed for herself, she slowed the pace of the class, which made it easier to grasp new concepts.

The biggest advantage Marilu finds when teaching both hearing and deaf students is that the deaf students can feel comfortable responding to questions and participating in the classroom activity.

"As the deaf students respond, they gain a tremendous amount of self-confidence and respect from the hearing students," she states.



"WHITE NOISE"

Simulated deafness for new staff members

How would you like to step inside a deaf person's world and walk in his shoes for a day?

This is what new hearing staff members do as part of their initial training at NTID. For one mind-opening, unforgettable eight-hour day, they actually experience deafness, feeling first-hand many of the frustrations that come with the loss of hearing.

The "deafness experience," as it is called, is part of NTID's "The Impact of Deafness" course designed to acquaint new staff members with the communication and psycho-social implications of deafness.

"The aim is to sensitize staff members to the needs of the students," says Joseph Avery, coordinator of professional and graduate internships, who teaches the course. Because NTID's staff is drawn widely from industry and all areas of education, many have had little or no prior experience with deaf people.

Staff members are fitted with a body-type hearing aid which broadcasts into their ears a "white noise" or swishing sound loud enough to drown out most voices, including much of their own. The noise is produced by disconnecting the microphone of the hearing aid. This results in amplification of only the random internal noise of the hearing aid, and for all practical purposes, results in a hearing loss for speech sounds of 65 to 75 decibels, equivalent to the minimum hearing loss of students at NTID.

This unique method of simulating deafness was devised by Dr. Donald Sims, an NTID audiology research associate. Other experiments have been tried, such as plugs sealed into the ears with earmolds, which causes a mild hearing loss. But by adding the noise—which sounds like a running shower, the closeup murmur of the sea or the humming of a blank television channel—the effect is a moderate to severe hearing loss for the reception of speech. Also important for the experiment, the hearing aid wearer is easily identifiable as a "deaf" person.

Being deaf for a day is an emotional experience, one that leaves a strong, indelible mark on those who go through it.

"The only thing you can say about the day is you feel it internally and you keep reflecting back on it, recalling moments," says Carol Pepe, an NTID computer analyst and one of some 30 staff members who have taken part in the simulated deafness experience since NTID started it a year and a half ago.

Although much of what a person learns about deafness that day is already down in books, "it really brings everything home and makes sense out of what you are told," says Larry Lomaglio, an English teacher.

Staff members are urged to go through the experience in pairs "to help counteract whatever apprehensiveness, if not wide-eyed terror, many people have about the whole affair," says Mr. Avery.

The instructors urge the participants to spend some time off campus. But for their own safety, the "deafened" staff members are told to turn the hearing aid noise down while driving. "Hearing people who are suddenly deaf don't cope as well as someone who's been deaf a long time," explains Mr. Avery.

The first to try simulated deafness were Dr. Richard Curwin, a professional development specialist, and Peter Trachtenberg, a curriculum development specialist.

After a difficult morning in sign language class, during which they recall taking up much of the instructor's time, they went downtown for lunch.

"At the restaurant a lot of people were staring at us," says Dr. Curwin, "but the real insult came when the waitress literally tried to teach us what a menu was." She carefully pointed out the food selection, the prices and the special as if they had never been in a restaurant before.

"She forced the special down our throats," says Mr. Trachtenberg. "She just wanted to get us out of the way."

They went on to the Rochester School for the Deaf for a field trip, where first they couldn't find the right building and then, while on tour, got lost from their group. They also had to sit through a lecture, 90 percent of which they missed because the speaker was using all fingerspelling and no signs.

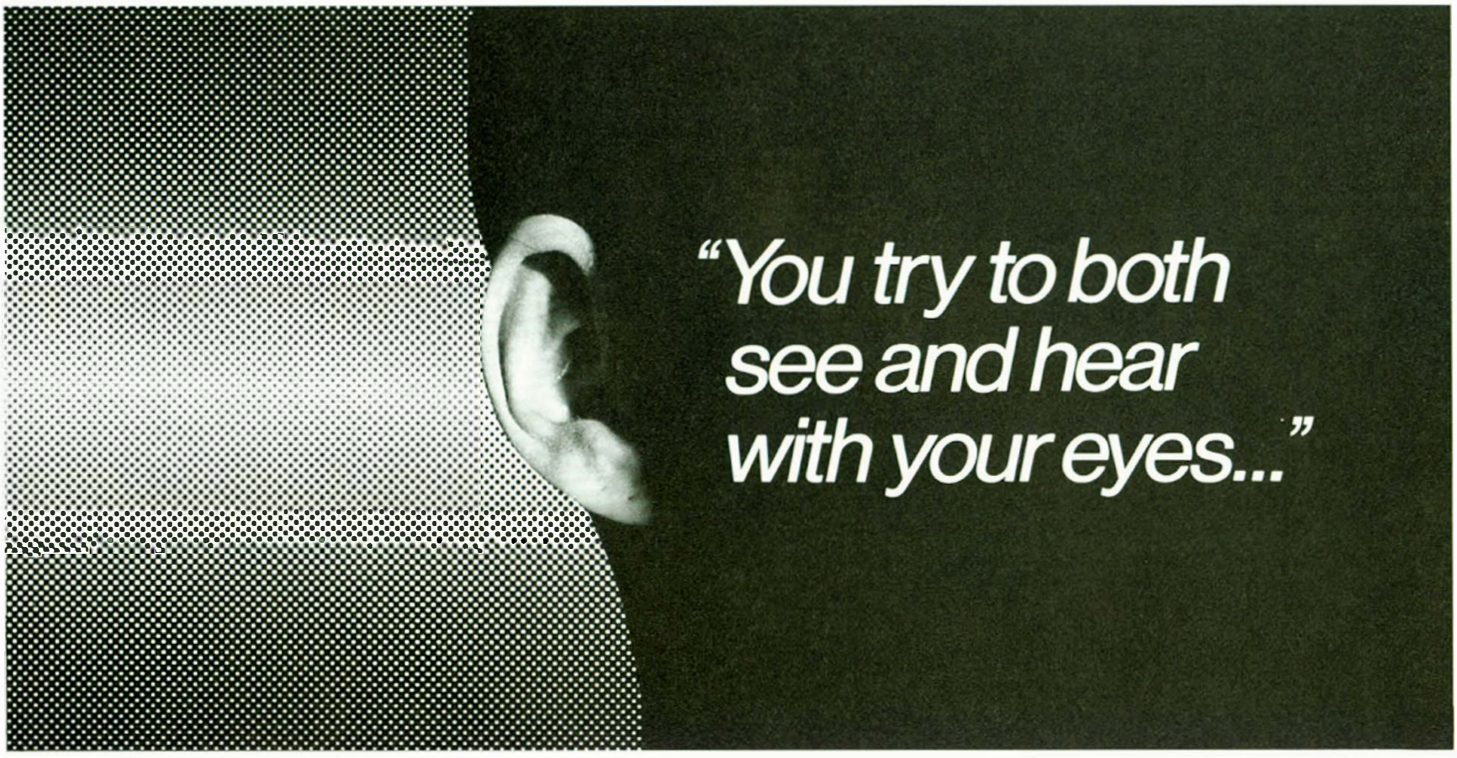
"I wouldn't interrupt even though I didn't understand most of what was being said," says Dr. Curwin. "I didn't want to show how stupid I was. Besides, I thought Pete was getting it, and I figured he could explain it to me later."

But Mr. Trachtenberg wasn't getting it either. In fact, he was fighting to keep from falling asleep.

"I learned a lot about being deaf; the complicated feelings involved," says Dr. Curwin, recalling that his own feelings were ones of "isolation, guilt and inferiority."

Both of them have integrated their experiences into their responsibilities on the job. Rick Curwin's job at NTID is to help teachers improve their style of instruction, and he now knowledgeably urges them to give every student a chance in class to show understanding. "Because students often won't say, 'Wait a minute, I don't understand,' the teacher must get feedback from each one," he says.

He also urges teachers to make sure there's communication between students in the classroom, *(continued)*



recalling that when he didn't understand something that day, it helped him to talk it over with Trachtenberg.

Mr. Trachtenberg, whose job is to help teachers improve their curriculum, feels very strongly from his experience that "if communication is uncertain, students may be losing bits and pieces as they go along, and soon there is a massive problem. That's why you need all sorts of teaching strategies lined up—so that if they don't learn it one way, you then have to try another."

Two other staff members, Peter Haggerty and Larry Lomaglio, are both English teachers and work in the classroom. They remember the boredom and eyestrain they experienced during lectures on their day of deafness.

"I found myself tuning out of lectures after 10 or 15 minutes," says Mr. Lomaglio. "I realized the importance of visuals and the need for a variety of changes in the classroom."

Mr. Haggerty remembers staring at people and being more aware of color and movement. "You try to both see and hear with your eyes, so that you wind up staring intensely, which causes a tremendous strain."

Both teachers, as a result, use color films and slides whenever possible, as well as different colored transparencies to write down class discussion and student answers.

After their deafness experience, they are also both conscious of the need for movement. "Whenever I can, I try to act things out in class," says Mr. Haggerty. He recalls once turning sideways and sticking out his stomach in an Alfred Hitchcock-like pose to demonstrate the meaning of the word "profile." But he says he also tries to cut down on extraneous movements that are meaningless and distracting.

Mr. Lomaglio and Mr. Haggerty both sensed the isolation of deafness. There is a "feeling of alienation" from your environment that forces you to be very close to yourself, reports Larry Lomaglio. This helped him understand why deaf people sometimes appear self-centered to hearing people. "I seemed to be the center of my world," he recalls.

Carol Pepe, a computer analyst, and Kathy Martin, a research assistant for Career Opportunities, both recall some of the social difficulties that go with deafness.

Ms. Martin went off campus to buy a dress at a nearby shopping plaza. "The sales clerk was so condescending, something I had never experienced before. She overexaggerated her lip movements, and there was a look of pity on her face. I just wanted to tear the thing off and say, 'I'm not deaf.'"

She also remembers the feeling of "out and out paranoia." She'd see people laughing and sometimes think they were laughing at her. It's important, she learned, to explain to a deaf person why you are laughing.

Ms. Martin, like most others, had trouble regulating the pitch of her voice. "I was not sure how I was coming across verbally; so in public places, I just didn't talk."

She also knew very little sign language and found communication impossible, particularly in groups where several conversations were going on at one time. "Since I have now learned to sign, I have become more careful to make sure communication is clear in group situations." When talking to a deaf person, she also looks for a sense of understanding. "If it doesn't come, I try to reformulate what I've said."

Carol Pepe experienced a "complete reversal" of her personality, she says. "I'm normally very outgoing. I became extremely quiet. I felt I was not seeing enough and wasn't really in the environment. I found myself turning my head a lot, just trying to grab it all."

What she missed most in deafness, she says, were the emotions and different meanings communicated through the inflections in people's voices.

She also remembers the startling effect of not being "aware of what's going on until it's physically in front of you," which she says, has made her more careful about the way she physically approaches a deaf person.

For Ms. Pepe, her deafness experience was "the turning point in opening up to deaf students." Beforehand, she avoided confrontations with deaf students, but afterwards she no longer felt self-conscious, she says.

The noise of the hearing aid was irritating to some people. Chewing also was difficult, because the presence of ear plugs magnified crunching sounds.

But everyone felt good about the experience. "For a small time, and in a small way, you were a part of the deaf student's everyday world," says Peter Haggerty.

—by Judy Cox

Resumés Applications Interviews

Getting your foot in the door of a company requires a well-written resumé and a knowledge of how to sell yourself at the interview. Resumés, Applications and Interviews (RA & I), a course being offered to NTID's third-year architectural technology students, places a special emphasis on polishing these skills.

To encourage successful job placement, the course includes a special videotaping segment of a simulated initial interview session, which is later played back to the entire class and critiqued.

"RA & I is one way of teaching the survival skills which students will need in today's competitive job market," says Carl Spoto, career counselor for the Engineering Technologies department who is coordinating the course.

This pre-employment training offers the students practice in presenting themselves in a positive way. A big plus for the course is the use of all architectural faculty members as employer role-players," Mr. Spoto explains. The teachers also assist with the resumés and application forms.

"I try to expose the students to different styles of interviewing in order to insure development of a repertoire of skills in handling different situations. In this way, they will be able to conduct their own effective job search after graduation," explains Carl.

In addition, Ron Granston, an employment opportunities specialist, team-teaches with Carl as a resource for explaining what students must do prior to seeking employment. "It's important for the students to know that much of the responsibility of obtaining a job is on their shoulders. We can offer advice and make initial contacts, but then they are on their own," emphasizes Ron.

"On top of all this, we are having a good time," says Carl. "Involvement and interest are at a high level, and even though credit isn't given, the attendance has been excellent.

"We've found the seminar technique to be great—it offers freedom to critique and be critiqued in positive ways."

An added benefit of the course has been the willingness of students in the class to share new techniques of developing slide portfolios with other classmates. This enables growth in leadership and dependency reduction, which is the first step in insuring successful job placements.

(Clockwise from top left) Architectural Technology student Raymond Kovachik of Canton, Ohio, plays the part of a job applicant in a simulated interview and presents renderings to Instructor Hugh Anderson, who is portraying a potential employer. Ray's expressions change during a replay of the videotape interview.

Invertebrates

Future students taking "Invertebrate Zoology" from College of Science Instructor Margaret D'Ambruso will find the class more entertaining because of a special project developed by three deaf students.

Tom Coughlin, New Hyde Park, N.Y., Kathy Milroy, Hamden, Conn., and Andy Baker, Westboro, Mass., took the course this past year. They are all cross-registered in RIT colleges through NTID. Tom is majoring in biomedical photography offered jointly through the College of Science and School of Photographic Arts and Sciences, and Kathy and Andy are majoring in biology offered through the College of Science.

When these three took Mrs. D'Ambruso's class, they, along with the rest of the class, had to collect, mount and classify 25 specimens of invertebrates —a huge quantity of various shells, bugs and minute life—the most spectacular of which are now enshrined in a drawer in Mrs. D'Ambruso's classroom.

Tom, Kathy and Andy decided to work together on the project.

"I figured that if we combined our skills, I could mount and photograph the specimens and the others could work on the classifications," Tom says.

And so they began tramping through the fields and marshy gullies around the RIT campus to collect specimens, which was the easy part, according to Kathy.

"The most complicated part of the project was classifying each specimen. Some of them are extremely confusing. For example, I spent a whole week trying to classify one tiny shell," she says. "And another big problem when you can't hear is trying to figure out how to pronounce some of those Latin names!"

As Tom began developing his film, mounting the color slides of the specimens and producing slides with the classifications captioned on them, the three participants became very enthusiastic about the project.

"I thought the photos were turning out really well, and we decided that we'd like to turn the finished product into a slide show that could be used as a teaching medium," Tom explains.

Tom is the first deaf student to major in biomedical photography at RIT. "I've always been interested in both biology and photography, and it was lucky that RIT offered a program that combined both my interests." Last year Tom worked as a media intern in a local hospital as part of a work-study program required for his major. He hopes to get a job in a hospital as a software media specialist.

To spice up their collection of slides, Tom and Kathy went to the Rochester Museum and Science Center to look at its collection of invertebrates. While there they talked with Robert Cooper, instructor of natural science at the Museum, who invited Tom to photograph whatever specimens he wanted.

"The specimens we got from Mr. Cooper are really fantastic because many of them are unusual examples we never could have collected on our own." Kathy says.

In order to get more unusual specimens they sent away for some, including a tarantula. "He surprised us by arriving alive," Kathy says. "So Herman the tarantula is now living in a cage in Mrs. D'Ambruso's office."

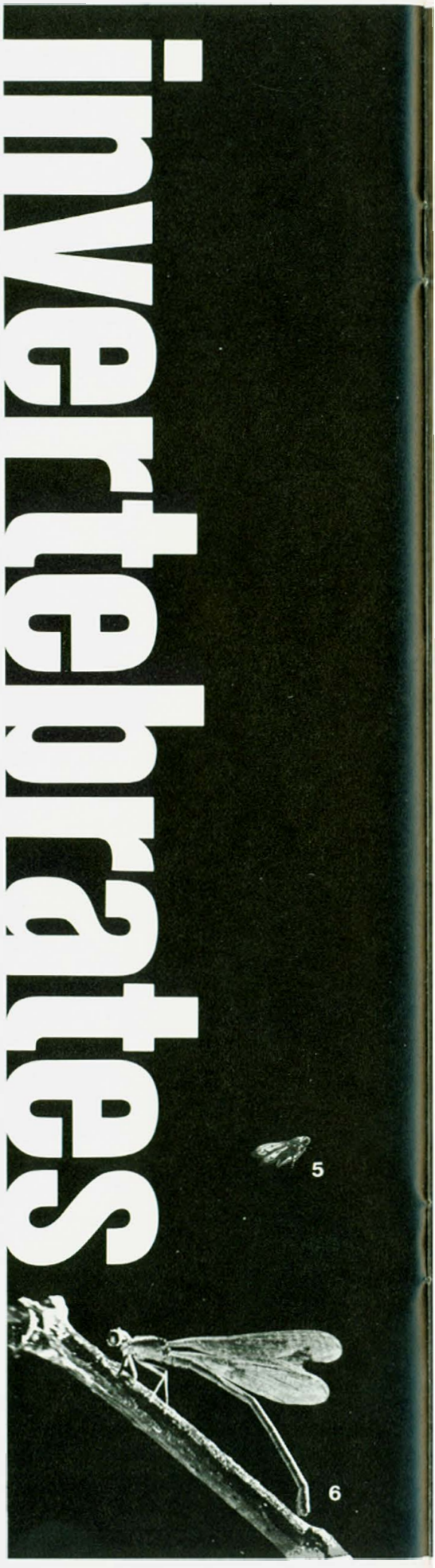
They also collected a bug they found when they were halfway through eating a box of Screaming Yellow Zonkers. They also decided to classify a Japanese beetle specimen in original Japanese with English subtitles.

It took them almost eight weeks to complete the project, and they have photographed and classified about 100 slides. The finished show utilizes four projectors with a lap dissolve unit that enables them to animate some of the specimens.

"I think they did a terrific job, and they were so enthusiastic about the project that I encouraged them to continue their work on an independent study basis," Mrs. D'Ambruso says.

The students are planning to present the slide show to Mrs. D'Ambruso for use with future classes.

"It's really exciting to see it all finally completed and to know that other students are going to learn from our work," Kathy, who dreams of working on research projects concerning animal behavior, says.



(Opposite, from top left) 1. Students Katherine Milroy and Tom Coughlin prepare for a viewing of their slide show which illustrates a wide range of specimens, including: 2a. York-Tailed Bush Katydid, b. Differential Grasshopper, c. Two-Striped Grasshopper, d. Red-Legged Grasshopper. 3. Cynthia Moth. 4. Sand Dollar. 5. Pyrgota Fly. 6. Common Bluet. 7. Two-Spotted Lady Beetle. 8. Centipede. 9. Alphabet Cone. 10. Paramecium (magnified 100X). 11. Limulus King Crab. 12. Sea Fan (detail). 13. Land Snails. 14. Eastern Crane Flies. 15. Zebra Butterfly. 16. Great Spangled Fritillary. 17. Monarch Butterfly.

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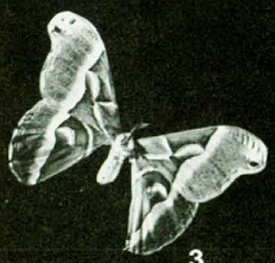

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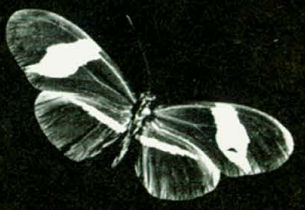

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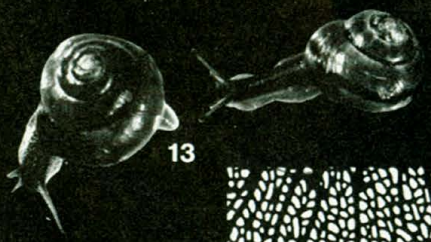

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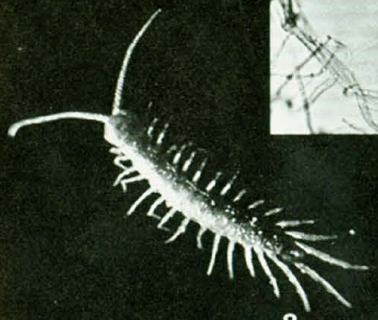

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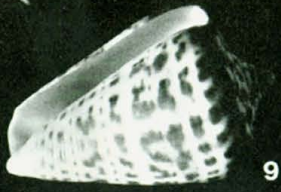

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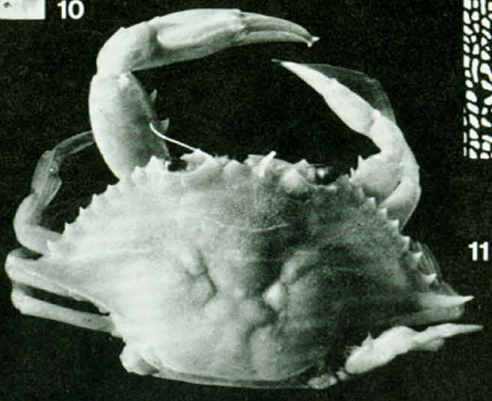


11

Ellen Wolf

"Can you come back for X-rays?"

"We'll have to do a biopsy. . . ."

"You'll need a minor operation, really nothing to worry about. . . ."

These are common doctor/patient situations which often cause anxiety and fear. People may even dread keeping appointments for routine checkups. And then if you add a potential communication barrier such as deafness to these situations, you can begin to understand the distress a deaf person feels when seeking medical help.

RIT's Student Health Center annually serves the medical needs of more than 2,000 deaf students.

In 1972, Dr. Hugh H. Butler, director of the Student Health Center, saw the need for a medically trained person who also had expertise in communicating with the deaf.

Ellen Wolf met that need. Ellen, a registered nurse who has additional training as a medical nurse practitioner and interpreter, represents a new breed of nurses—those who emphasize the importance of personally relating to a patient during an illness.

"Prior to Ellen's arrival on campus, I had trouble communicating in order to properly diagnose an illness," Dr. Butler admits. "Then when I felt I had diagnosed the illness correctly, I couldn't communicate the treatment to the patient. All of this took an inordinate amount of time, and the results were less than satisfactory for both me and the deaf patient."

For the past three years, Ellen's basic responsibilities, under the guidance of Dr. Butler, have been obtaining and evaluating clinical histories, performing physical exams, and determining medical needs of patients. Ellen capitalizes on the one luxury her job permits—medical counseling and personal interaction with the patient.

She travels to local hospitals each day to visit seriously ill students. Ellen says, "In this situation, I not only interpret for the doctor, but with my medical knowledge, I'm able to explain to my patient the doctor's rationale for asking specific questions."

Dr. Butler stresses the important role Ellen plays. "Without Ellen as a contact for the students, many of them would be completely isolated during their illness. I just don't have the time to see them nor the communication ability to explain their illness."

Professionally, Ellen has always been connected with helping people cope with health problems. She found that she is happiest making sure patients successfully adjust to changes in life style due to chronic health problems.

The interaction with patients and being able to see them as people is what really turns her on. "Oftentimes knowing how the rest of their life is going is indicative of why students come to see me at the Center," Ellen admits. "Sometimes people should just take time to talk about their health fears before they build up to a crisis situation.

"I feel that most emotional problems are common to all college students. For example, difficulty coping with academic pressure and dorm living and greater exposure to alternative life styles can cause conflicts. However, the difference lies within the deaf students' abilities to integrate these new experiences into their life styles. Because of social isolation during earlier years, their abilities to cope are often impaired," she said.

As an interested, concerned, and vehement liaison between the Student Health Center and NTID, Ellen maintains close contact with the NTID departments of Audiology, Speech Pathology, Counseling, Human Development and Interpreting Services.

When she's not seeing patients, Ellen's natural attraction to people compels her to share her knowledge of deafness with the community. She runs workshops to educate interested health care professionals about deafness, has developed a prototype slide presentation on "Emergency Needs of Deaf People," and runs an early cancer detection clinic for deaf and hearing women on campus. She is also an active member of the board of directors of the Monroe County Association for the Hearing Impaired, Rochester.

"This is the first time in my professional career that I have felt tremendously satisfied with the challenge of what I'm doing."

Traveling is one of the ways Ellen has found to meet new people. She's already conquered Europe, Great Britain and part of the Caribbean.

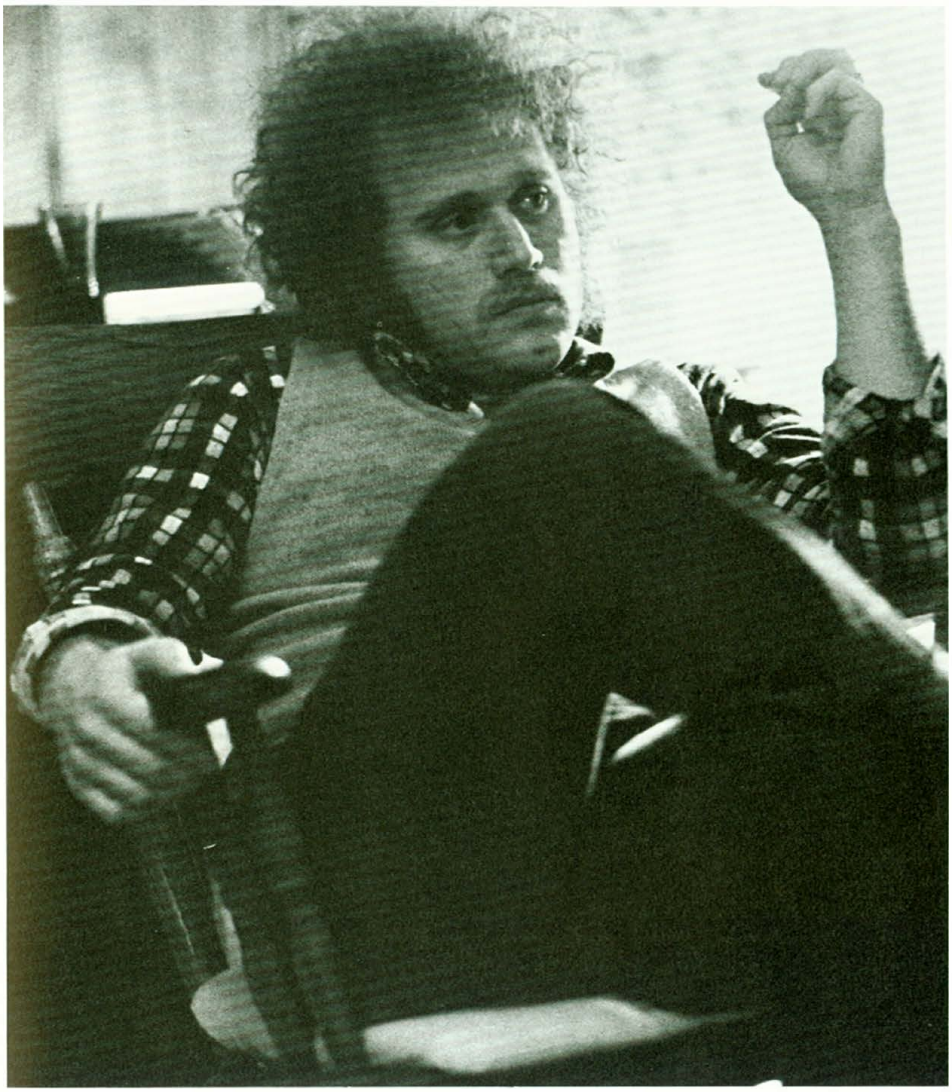
Ellen has become an avid cross-country skier. And when the weather is not fit for man nor skiing, she turns her pent-up energies to refinishing furniture. Her latest purchase along these lines is a nautical hatch cover which she plans on making into a dining room table.

During the summer months, her love for backpacking and hiking beckon her to mountains from New York to Oregon.

Who's Who of American Women has appropriately included Ellen in its 1977-78 edition as a leader in her field, and her job description has been published in a publication supported by the Department of Health, Education, and Welfare which stresses improved innovative distribution of nursing personnel.

—by Barbara Brissenden

Ellen Wolf (left) checks out medical needs of NTID student Sandra Bozoian of Manchester, N.H.



Jim DeCaro

When Jim DeCaro, a civil engineer, finished his Ph.D. in instructional technology, he was asked what he would like to accomplish next.

Go to a good culinary school, he answered.

That tells you something about the various dimensions to Jim DeCaro's life. He was the first teacher in NTID's civil technologies program and today has broadened his job to include curriculum design and research. He also is a doting father, an avid cook, an antique collector and a home remodeler, who along with his wife Pat, is restoring their 1834 home.

"To approach things competently, you have to have a variety of experiences," says Jim. "It's important to be well-rounded."

Six years ago Jim was doing soils research for the University of Buffalo, when he decided that working with "rollers, compactors and clay" was not for him. Although he had both a bachelor's and master's degree in civil engineering, he wanted to work with people, not structures, he says.

Jim was hired by NTID in February 1971 to teach in the newly formed civil technologies program, which then had only three students. Jim had no experience in deaf education, but he found his own ideas about alternative forms of instruction fit in well at NTID.

Jim soon became "intrigued about how deaf students processed information and dealt with concepts," which led him to take a year's leave of absence in 1973-74 to get his Ph.D. in instructional technology at Syracuse University.

Today Jim is a curriculum development specialist and coordinator of the civil and architectural technologies programs, which has 55 diploma and associate-degree students.

The job is "fun because it provides a pleasant mix of duties which all feed into each other," says Jim. He designs curriculum—he's currently developing a system for teaching basic lathe operations. He conducts research—such as surveying engineering and architectural firms to find out what skills are in demand. And he teaches a course—this year it is hydraulics.

Jim has had what he describes as the "unique opportunity" to watch a program grow from its inception and to grow along with it.

But as Jim says, "Work is only one-third of what life is all about." The other two-thirds are his family, friends and outside interests.

He and his wife, the former Pat Mudgett, met at NTID in 1971. She was an NTID educational specialist in RIT's College of Science at the time and is now a part-time NTID research consultant.

They were married a year later, after overcoming what they describe as "cultural confusion." Pat, who is hearing, has deaf parents. Jim's family, all hearing, is Italian. "Both families use their hands to talk," he explains, "but the sign language is different." For example, a shrug of the shoulders means "I don't know" to Jim and "I don't care" to Pat.

A center of Jim and Pat's life is their two-year-old son Jason, who hears but can sign 60 to 100 words and can read some 200 signs.

At home Jim does most of the cooking, which serves as a creative outlet for him. He has collected some 30 cookbooks, and although he hasn't made it to a culinary school yet, he definitely plans to do so someday.

Jim and Pat both admire the sound structure of their 143-year-old home and the many antiques which fill it. They also are intrigued with the history behind everything, whether it be the old bathroom they are remodeling and restoring or the wooden chair from which they removed seven layers of paint.

Jim collects old books, and Pat is into quilting and macrame. They both enjoy art and love traveling. They spent their honeymoon camping in the West, and they plan to spend four weeks in Denmark this summer.

"We sort of strive to be educated by taking in every new experience possible," says Jim. Where he'll be in five years he doesn't know. By focusing too narrowly on the future, "it's awfully easy to fall into a professional rut," he says. "Our big thrust is to have a well-rounded, full life."

—by Judy Cox

Don Boone (right) with supervisor Ed Sewell.

Don Boone

When you walk into the Naval Surface Weapons Center (NSWC) in Silver Spring, Md., you enter a world of endless labs, shops, wind tunnels, tanks, and testing facilities. You see and hear words like "tactical, strategic amphibious mine warfare analysis," "aeroballistics," and "ordnance technology." You are transformed into the reality of what goes into developing our nation's weapons for tomorrow's seapower.

Don Boone, a 1975 NTID engineering technologies graduate, is part of this mind-boggling world. He works at NSWC—the Navy's principal research, development, test and evaluation center for surface warfare weapons, ordnance, mines, and strategic systems support. It is Don's contribution as an engineering draftsman that facilitates making basic concepts into proven hardware. He translates sketches and layouts into precision drawings which will eventually be used to machine model parts and full-size prototypes.

"I work on drawings for actual hardware or electronic components," Don says. "At first I got sketches with every dimension and tolerance clearly written out. But lately I've been given layouts where I've had to work out the specifics. I like that a lot. It gives me more responsibility."

Although the engaging young NTID grad has been with the Center for only 11 months, his technical ability and potential are unquestioned especially by Ed Sewell, a veteran 35-year NSWC engineering technician and Don's immediate supervisor.

"Don does very fine drawings. But even more than that technical ability, he's always doing more than is expected. In a current job, for instance, which I call a 'bag of worms,' Don has picked up two or three mistakes that some of our old pros have missed. Now, that's what I call *good*!" Mr. Sewell proudly states.

Despite all the technological jargon, sophisticated equipment and advanced testing devices and facilities, the people are what make things tick at NSWC. And Don couldn't be richer when it comes to warm and caring individuals who are truly concerned about his success and happiness.

One such supporter is fellow worker, Art Sapienza, a mechanical designer. "To be truthful, I wasn't sure of Don at first. I was a little afraid of the communication. But you know, our communication is probably better than most now! Oh, I don't mean speech or sign language. I mean understanding and working together. He's my right-hand man. Of course his natural intelligence and sense of humor don't hurt either!"

Dick Holden, section head in the Product Design Branch of the Engineering Department, hired Don. "There is often a void of qualified applicants, but Don was competitively hired through the regular Civil Service system. He was here first as a temporary employee and then hired on a permanent basis. The highest compliment that a worker can be paid is when a supervisor doesn't want to lose him. Don was 'on loan' to Ed Sewell, and Ed said, 'Hey, can't I keep him?' That says it all," Mr. Holden explains.

Don is obviously a perfectionist, filled with determination and the desire to achieve. He hopes to someday be an engineering design technician and climb to a higher position.

Although Don is currently living with his parents in Woodbine, Md., that will change in the near future when he and Wanda Feight, a graduate of Maryland School for the Deaf, get married.

Linda Nelson

The people mental health worker Linda Nelson has helped at St. Paul-Ramsey Hospital have had problems familiar to many.

They've been lonely. They've had difficulty adjusting at school or work and trouble getting along with their families. They've had serious drinking problems.

But on top of these, they've had to deal with one more handicap—their inability to hear or hear properly.

"Many mental health professionals don't understand deafness and have no training in sign language," says Mrs. Nelson, who is deaf.

"They can't communicate with the deaf," she adds, making her point through a series of signs and words during an interview in the office of the department of psychiatry.

This problem is being dealt with through a special program at the hospital to provide mental health services for the deaf.

And it isn't just a matter of having interpreters around.

"The deaf prefer to communicate directly with nurses and doctors. They don't want a third party to be involved," Mrs. Nelson says.

That's why members of the staff providing services for the deaf are trained in sign language and working with the deaf.

In addition to Mrs. Nelson, who graduated from NTID, these include Dr. John Scanlan, program medical director; Roanne Rowan, coordinator; Kathy O'Connor, social worker; Molly Hanson, occupational therapist; and Mary Persoon, nurse.

Dr. Scanlan, for instance, and Ms. O'Connor attended many hours of sign classes at St. Paul Technical and Vocational Institute to prepare for their work.

"We're trying to provide the same mental health services for the deaf that are available for the hearing," Dr. Scanlan says.

"The deaf should have equal rights and equal services—including mental health services," Mrs. Nelson says.

Such services weren't readily available before the St. Paul-Ramsey Hospital program started, Ms. O'Connor points out.

"This created special problems. People have a hard time understanding that a person can't hear. If they raise their voice, they expect the hearing impaired to hear them," she says.

One patient, for example, had a drinking problem for a long time and had job and family trouble.

"But this patient was even more isolated because of a hearing impairment," Ms. O'Connor says.

The patient finally was referred to the hospital's mental health services for the deaf and went through a three-week drug treatment program. Now that person works as a hospital volunteer.

The program provides inpatient and outpatient care, and patients pay for services according to a sliding scale based on income.

All cases are handled in the strictest confidence, Dr. Scanlan emphasizes.

"The deaf community is a close-knit group. They know everyone else. The deaf will worry about confidentiality, but they don't have to worry," he says.

The program is funded by the St. Paul-Ramsey Medical Education and Research Foundation, the St. Paul-Ramsey Hospital and the St. Paul-Ramsey Mental Health Center.

Mrs. Nelson says the program is good for the deaf who need help and have been frustrated before.

"It's especially frustrating for the deaf when they deal with hearing people who don't want to listen," she says.

Dr. Scanlan and his staff are not only willing, but able to listen.

"We want to help as many of those who need help," he says.

NTID graduate Linda Nelson (far right) discusses mental health service for the deaf with Roanne Rowan (far left), coordinator of the program at St. Paul—Ramsey Hospital. Listening in are Dr. John Scanlan, program medical director, and Kathy O'Connor, social worker.

A 1973 graduate of the College of Business, Linda has since broadened her experiences to include the skills required for her position as psychiatric aide at St. Paul—Ramsey Hospital. Linda and her husband Gerald, also an NTID graduate, and her two sons live in a lovely, large home in Minnetonka, Minn.

This article is reprinted from a feature which appeared in the St. Paul Dispatch *of St. Paul, Minn.*

"Come with us, come back to a time
When the waters were clear and pure. When the land was rich and fertile:
To a time before the white man, and before we were forced to change.
May your knowing us, change your ways!"

So goes the last half of the welcome to the audience at the beginning of "Wenebojo," an original theater piece presented recently at NTID.

Wenebojo was a cultural hero and prophet of the Ojibway Indians, a woodland tribe of the Great Lakes region. He is known by various names in several tribes and was the basis for the character of Hiawatha in the poem by Henry Wadsworth Longfellow.

Jerome S. Cushman, assistant professor in NTID's Experimental Educational Theatre department, originally wrote and produced "Wenebojo" about four years ago while at Northern Michigan University. It is based both on Longfellow's "Song of Hiawatha," and the legends of the Ojibway Indians.

"Wenebojo" is not a conventional play. It does not have the traditional

(Clockwise from top right) a. Sheryl Palmer, Richmond, Va., introduces the audience to the story of Wenebojo. b. Michael Matter, (center) of Racine, Wisc., plays "Summer" in the Rites of Summer. c. Linda Crane, Rochester, N.Y., and Robert Cavallero, Portland, Maine, pass the peacepipe as Wenebojo becomes a man. d. Michael Matter (left) and Robert Audette, Warren, Wisc., take part in the Wedding Dance. e. Judy Warchol (left) of Palatine, Ill., Pam Giles (center), Scottsville, N.Y., and Sheryl Palmer (right) portray the Death of Minnehaha. f. Dan Ford, Superior, Wisc., makes a solemn presentation to the audience.

The article above is reprinted from the Honeoye Lake Courier, *Honeoye, N.Y., written by Sharon Hasenaur.*

WENEBOJO

plot and character structure that comprise the foundation of most plays. "It's organic ritual theater," Mr. Cushman explains.

"The drama is truly organic in that we create imagery in bodies," Cushman said. Almost everything in "Wenebojo" was in mime, although several hearing actors provided the necessary voices for the narrations, dances and songs.

The drama portrays Wenebojo through the four seasons of his life, as a child, young man, teacher and prophet. This corresponds with the four seasons of nature.

"The drama attempts to put into perspective the Indian folk legends and show the beauty of their tales and ways without resorting to any political or social stereotyping. It reflects both our concern and their concern for life and the use of things in our environment," Mr. Cushman explains.

In adapting his work for deaf actors and actresses, Mr. Cushman collaborated with several deaf experts in sign language who are members of the NTID faculty. During this process, many similarities between Indian sign language and deaf sign language were found, he says.

"When I originally wrote and produced the play several years ago in Michigan, I worked with a local Native American group to assure its authenticity in recreating Indian life and in the use of American Indian sign language," Cushman says.

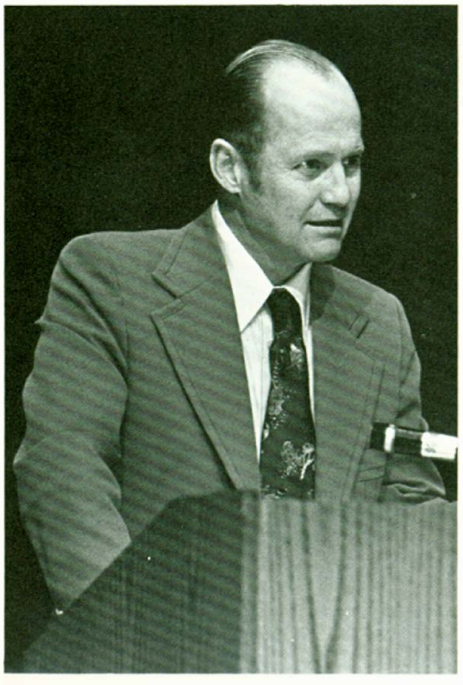
In conjunction with the play, NTID sponsored a Native American Awareness Week. Native American crafts and exhibits were on display in the NTID Academic Building lobby all week.

Senate Subcommittee Reviews NTID Progress

The Senate Subcommittee on the Handicapped recently asked NTID representatives to present the committee with information on NTID progress since Congress established the NTID Act (Public Law 89-36) in 1965. Shown (photo above, right) addressing questions to the NTID representatives during the hearing are: (center) Senator Jennings Randolph (Democrat, West Virginia), chairman of the Committee, and (left) Senator Robert T. Stafford (Republican, Vermont), Committee member. Sitting with the Senators is Mrs. Patria Forsythe, the Committee's professional staff director.

In the facing picture, Dr. Robert Frisina (center), RIT senior vice-president, and Dr. William E. Castle (left), dean and director of NTID, respond. Looking on is William H. Williams, assistant to Dr. Frisina.

Others, not shown, who presented information on behalf of NTID are: Kevin J. Nolan and Deborah Helwig, NTID graduates; Robert F. Panara, NTID professor of English and drama; Dr. Frank B. Withrow, special assistant deputy commissioner, Bureau of Education for the Handicapped, U.S. Office of Education; and Jack Smith, executive director of the White House Conference on Handicapped Individuals and former NTID public information director. Ms. Elizabeth O'Brien, NTID career opportunities specialist, served as interpreter.



Dr. McCay Vernon on Campus

Dr. McCay Vernon, a noted psychologist who has attained international prominence as a writer and researcher on the psychological aspects of deafness, was the featured speaker at a recent lecture at NTID entitled "Publications Within the Field of Deafness." As editor of the literary portions of American Annals of the Deaf *(a national professional journal for teachers, specialists and school administrators working for education of the deaf), Dr. Vernon gave an overview of existing publications within the field of deafness and then gave "pointers" to professionals interested in publishing in journals and magazines.*

Dr. Donald Johnson Becomes ARA President

Dr. Donald D. Johnson, special assistant to the dean at NTID, was recently elected president of the Academy of Rehabilitative Audiology (ARA).

The ARA is a national organization made up of professionals in the areas of audiology, language pathology, education of the hearing impaired, speech pathology and allied fields. The purpose of the organization is to provide a forum for ideas on and experiences with habilitative and rehabilitative aspects of audiology and to stimulate professional education, research and interest in such programs for the hearing impaired.

Dr. Johnson was assistant dean of the division of Communication Programs at NTID for five years. Prior to joining NTID he was research associate to the director, assistant professor of audiology, teacher of graduate courses and supervising audiologist at Gallaudet College, Washington, D.C.

He earned a bachelor's degree in speech pathology from the University of Illinois, a master's degree in audiology from Northwestern University, and a Ph.D. in audiology from the University of Illinois.

NTID Dean William E. Castle Assigned Broader Responsibilities

Dr. William E. Castle, NTID dean since 1969, has recently been assigned broader responsibilities including the directorship of NTID.

As director, Dr. Castle will continue the work begun by Dr. Robert Frisina, who was recently named senior vice president at NTID's sponsoring institution, RIT. Dr. Castle, in his new capacity, will also continue to report to Dr. Frisina.

In making the announcement, Dr. Paul A. Miller, RIT president, said, "The selection of Dr. Castle to serve as director of NTID, in addition to continuing in his role as dean, will provide important and substantive continuity for NTID in its ongoing growth and development."

As dean, Dr. Castle will continue to be responsible for internal management and direction of NTID. Additionally, his expanded role includes responsibilities for NTID relationships with other major divisions of RIT, as well as liaison with educational programs for the deaf nationally, the national deaf community, and professionals engaged in activities that deal with deafness and services to deaf people.

Dr. Castle has been with NTID since it enrolled its first students in 1968. He joined the Institute as assistant to the vice president and the following year, became dean.

President Miller said, "In the past nine years, Dr. Castle has worked closely with Dr. Frisina and others in formulating, implementing and refining NTID's programs in technical and professional education, research, and training. I am confident that, in his broadened role, Dr. Castle will continue to provide the quality of leadership and insight that is necessary to the Institute as it becomes fully operational."

Dr. Castle is widely known, both in the United States and internationally, in the fields of post-secondary education of the deaf and speech and hearing. His professional endeavors have been concerned with the deaf and deafness for the past 15 years.

Prior to joining NTID, he was associate secretary for research and scientific affairs for the American Speech and Hearing Association (ASHA). In that capacity, he served for two and a half years as project director for the Joint Committee on Audiology and Education of the Deaf—a cooperative project of ASHA and the Conference of Executives of American Schools for the Deaf (CEASD). During that period, he met with and gathered information from nearly every superintendent and many principals of schools for the deaf throughout the nation; and he worked closely with teachers of the deaf and audiologists working with deaf people. Since then, he has remained active on that committee as a member representing CEASD.

Since joining NTID, Dr. Castle has represented the Institute at several international congresses concerned with education of the deaf and with audiology. He has also represented NTID as a member of the Council on Education of the Deaf's Subcommittee on Certification for Vocational Teachers of the Deaf.

Since he entered the field of communications in the mid 1950s, Dr. Castle has directed major attention to working with people with hearing and speech impairments. He has published numerous articles and presented professional papers concerning education of the deaf, career education and employment of the deaf, and speech and hearing problems. Dr. Castle is currently a member of CEASD, the Convention of American Instructors of the Deaf, ASHA, the National Association of the Deaf, the Alexander Graham Bell Association of the Deaf and the Acoustical Society of America.

Reedy Exhibit Offers Truth, Beauty, Good

Truth, Beauty & Good, the work and collections of photographer-editor William A. Reedy, was recently on display in the gallery at NTID.

"The National Technical Institute for the Deaf was very honored to present the exhibit. The exciting coordination of photographic work and its relationship to the actual artifacts on display provided a visually appealing experience for all and especially for the large numbers of deaf persons on hand to view it. It was a pleasure to work with the College of Graphic Arts and Photography as well as Eastman Kodak Company in presenting this extraordinary exhibition," NTID Dean and Director William E. Castle said.

The exhibit, planned by C. T. Fergerson, special events coordinator at NTID, who knew Mr. Reedy, showed how Reedy's work reflected the truth, beauty and good he sought in the creation and presentation of fine photography.

Reedy, who died in 1975, was the creator and editor of the Eastman Kodak Company quarterly *Applied Photography*. Through *Applied Photography*, Reedy became nationally recognized for his high standards in photography and printing reproduction.

For further information contact:

National Technical Institute for the Deaf
Rochester Institute of Technology

Public Information Office
One Lomb Memorial Drive
Rochester, New York 14623