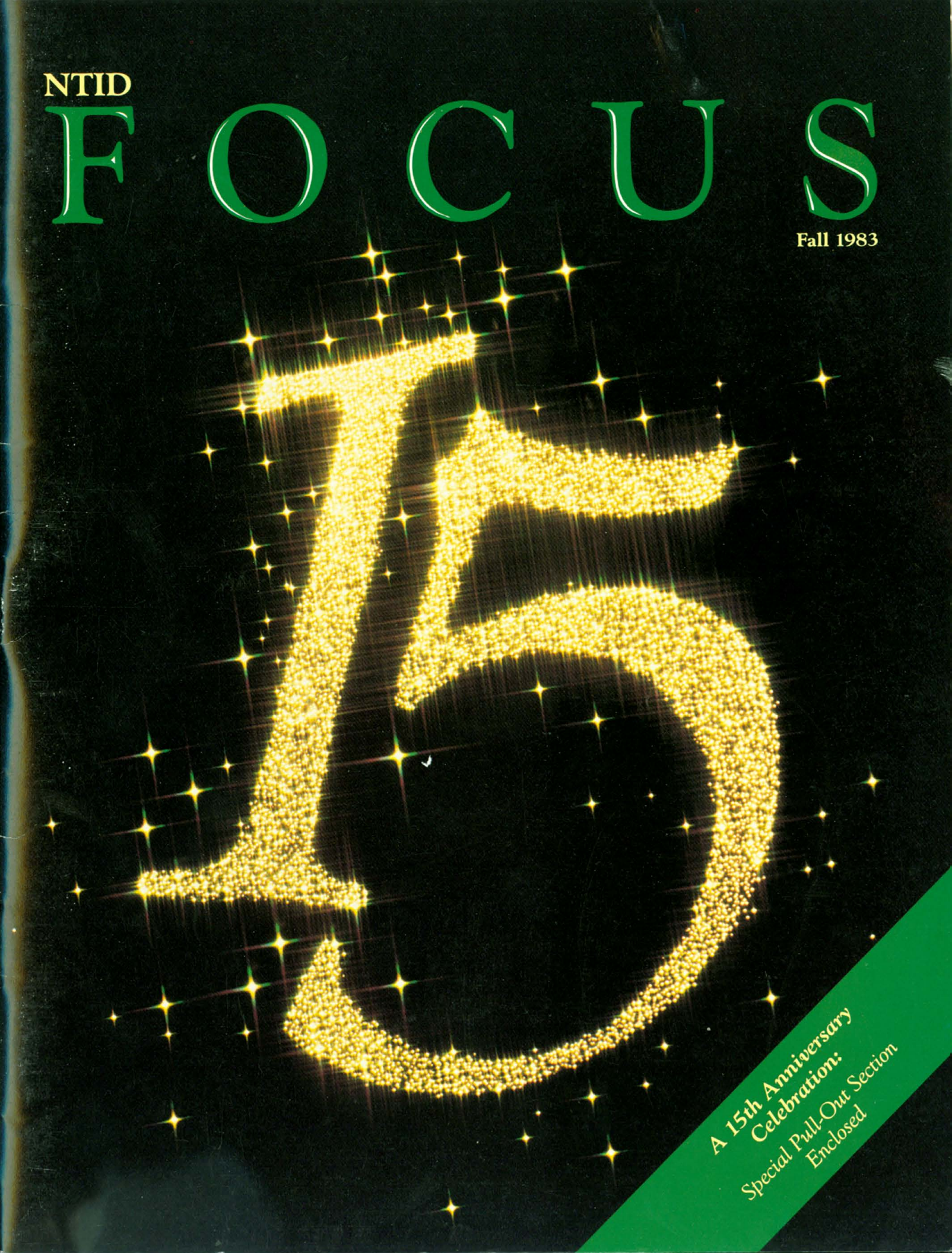
NTID

FOCUS

Fall 1983



A 15th Anniversary Celebration:
Special Pull-Out Section Enclosed

NTID
FOCUS

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Building on the Past

Looking to the Future

One of the advantages of being such a young school is that no ivy-covered traditions as yet threaten to choke the vitality of NTID. "Because we've always done it that way" is a reason seldom heard; there is no hoary always—only what was tried yesterday and how it might be altered or improved upon tomorrow.

Another benefit of NTID's youth is accessibility to its leaders, past and present. There have been two directors of NTID—the present one, Dr. William Castle, and NTID's first director, Dr. Robert Frisina. Dr. Frisina's insight is still within handy reach; he currently serves as RIT's senior vice president for Institutional Advancement.

Here, they reflect on the exciting beginnings of the Institute and a future which may prove even more so.

Dr. Robert Frisina was comfortably ensconced as professor of audiology, dean of the graduate school, and director of the hearing and speech center at Gallaudet College in Washington, D.C., when he became involved in the legislation to create a national effort in technology for deaf people.

"I was a member," he explains, "of the Conference of Executives of American Schools for the Deaf. We took action at Riverside, California, in 1964, relative to the need of vocational technical education programs for deaf people that ultimately became described as NTID."

Once RIT was selected to establish NTID on its campus, Dr. Frisina was hired as its first director in January 1967. In September 1968, RIT began accepting deaf students through NTID. But the lack of students for the first year and a half did not mean that Dr. Frisina did not have his work cut out for him.

He decided that the only way to plan the evolution of the new school was to immerse himself, for three months, in all the tapes and minutes of the hearings which had led to NTID's creation. Sequestered in the offices of the former U.S. Department of Health, Education and Welfare, Dr. Frisina pored over transcripts, his object being "to know as much—or more—as anybody else about the intent of NTID."

With that information under his belt, his next step was to hire faculty for the fledgling school. But where to find them?

"I couldn't rely strictly on existing schools for the deaf, for the fields we were planning to offer were new, both to deaf students and to educators of the deaf," he says.

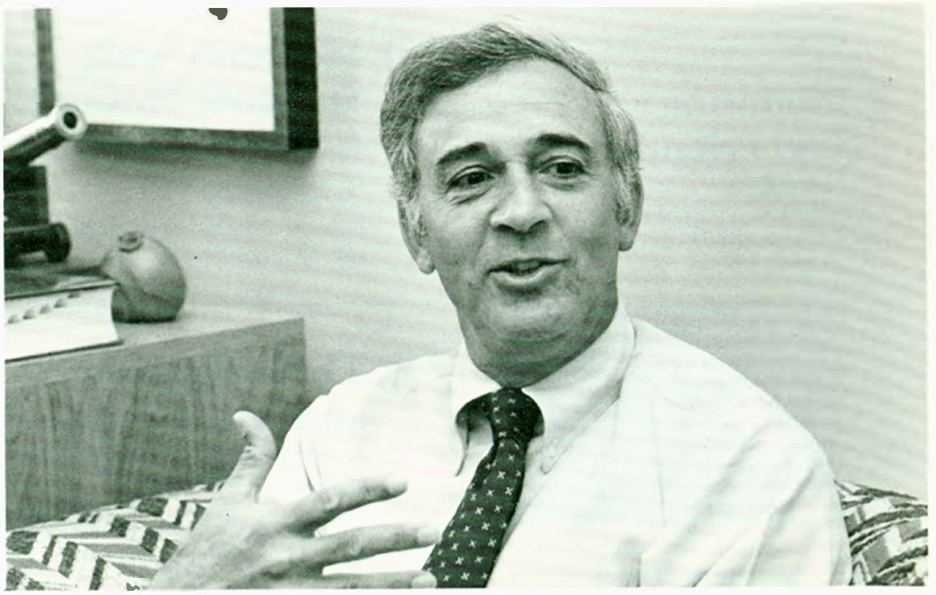
Instead, Dr. Frisina found himself on a cross-country search, ferreting out experts in a variety of technical fields who would risk leaving the relative security of their present positions.

He visited corporate settings nationwide, luring away persons willing to participate in an unknown quantity called NTID. Even today, most of the people working at NTID are from business and industry rather than from the field of education.

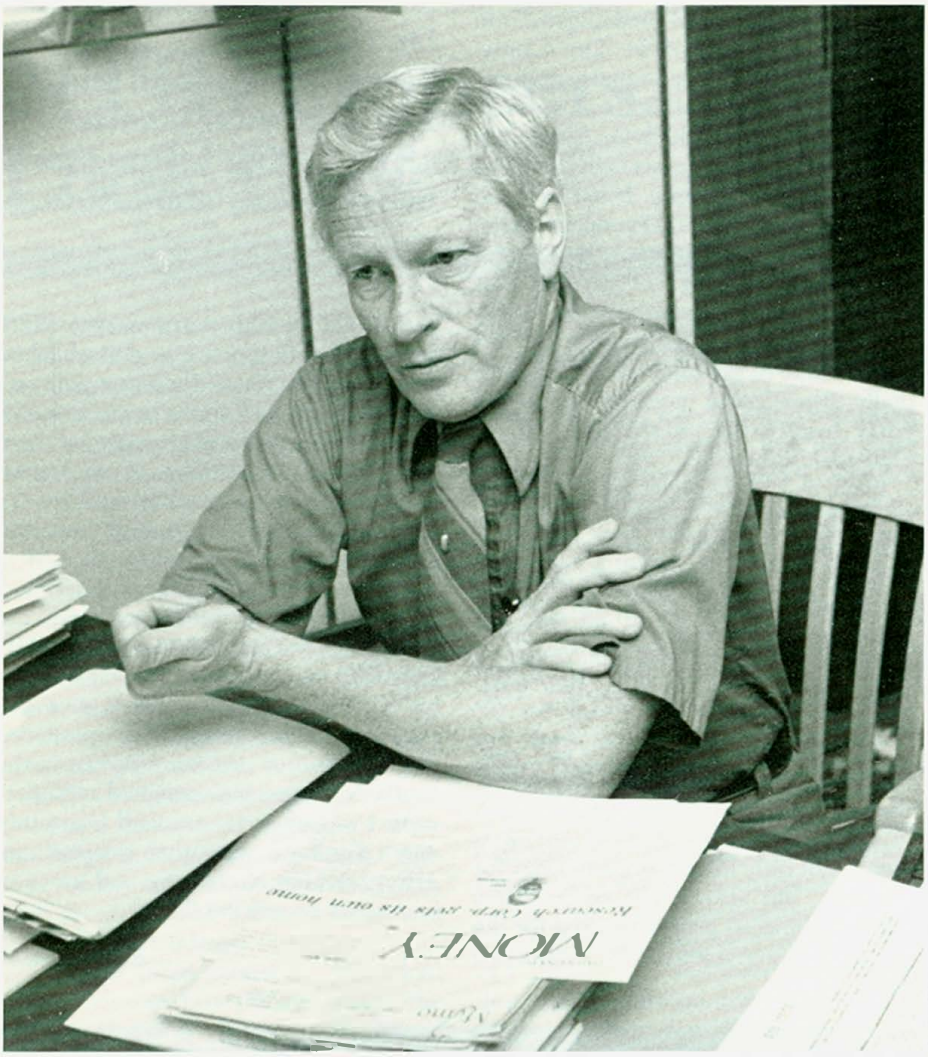
There were some deviations from that pattern.

"I needed a few people who had a knowledge of the academic community," Dr. Frisina explains. "Dr. Castle was an excellent choice for director of Instructional programs [a position later renamed dean] on several counts—his research, clinical, and teaching background in communication, his work as an associate secretary of the American Speech-Language-Hearing Association, his knowledge of Washington, D.C., and his interest and experience in higher education."

Dr. Frisina is able to rattle off a host of other names he hired in that first year,



Dr. Robert Frisina



Dr. William Castle

complete with a list of the need they would fill and their qualifications. Among those still working at NTID are Dr. Robert Panara, the first deaf professor hired, whom Dr. Frisina describes as "a great teacher of English and literature"; Dr. Ross Stuckless, director of NTID's Office for Integrative Research, who had been at the University of Pittsburgh; and Dr. Jack Clarcq, associate vice president for Technical Assistance Programs, formerly dean of students at Penn State University.

Whether he found job candidates for NTID in industry or in academia, Dr. Frisina looked for certain common qualities: "*Talent*—in whatever field the nature of their work would be; *integrity*—people who were open to being totally involved in an experiment and who would commit themselves to a risky place without fear; and *personality*—one that made it possible to work cooperatively with others."

Both Drs. Frisina and Castle assert how vital to the character of NTID it is that the school was, in Dr. Frisina's words, "established and operated within the framework of an existing college for hearing students."

"It was an experiment to determine whether deaf students, when provided appropriate education, could earn parity in the economic mainstream," he continues. "NTID was a departure from the norm because it had no models—it became the model. At the same time, we tried to avoid rituals that would confine flexibility, charting new territory with as few biases as possible."

After 15 years and in the face of overwhelmingly positive job placement statistics, it is perhaps not too rash to assume the noble experiment is a success. Indeed, Dr. Frisina reports that "it exceeded my expectations—it has been my great pleasure to watch young people bring themselves together from a fragmented personality into an integrated whole, capable of competing successfully in the open marketplace.

"NTID allowed me an unusual opportunity to express my creative abilities, both as an educator and as a scientist. I have a profound interest in education, and feel that we have here the most significant institution in the history of deaf people.

"To paraphrase Thomas Wolfe," he continues, "if a deaf person has a talent and cannot use it, we have failed. If a deaf person has a talent and uses only half of it, we have partly failed. If a deaf person has a talent and learns somehow to use the whole of it, we—and he—have gloriously succeeded, and won satisfaction and a triumph few people ever know."

If there has been an atmosphere of seamless continuity at NTID, perhaps it derives from the fact that both the present and former director were "on board" almost from the school's inception. NTID was not yet open for business when Dr. William Castle signed on; Dr. Frisina's assumption of the RIT senior vice presidency in the spring of 1977 and Dr. Castle's subsequent takeover of the NTID directorship was accomplished as one smooth progression.

As a result of Dr. Castle's longstanding tenure at NTID, he is not in a situation where he took over supervision of a curriculum already in place. Rather, it is he who was in charge of developing the curricula and has overseen the modifications, maintaining close contact with course offerings, faculty members, and students.

"All of the curricula governed by NTID have consistently been designed to deal with deaf students, except for the associate degree program for interpreter training. Even today, our faculty are at home dealing with curricula in a research mode, always asking themselves, 'How can I do this better? How can I make the teaching process more efficient, more effective? How can I do better for more deaf students?'" explains Dr. Castle. "It's a constant experimental approach to the teaching process.

"My chief challenge," he reflects, "was maintaining institutional vitality. I was also very much interested in a stronger assimilation of our students into RIT—increasing the number of

15 **1968-69**
The first class of 70 deaf students is accepted at RIT.

Dr. Frisina:
"NTID was a departure from the norm because it had no models—it became the model."

cross-registered deaf students—as a base to being more readily assimilated into society in general. Toward this end, I wanted the total Institute to be more creative about setting up programs to bring deaf and hearing students together."

One of the programs remembered most fondly by Dr. Castle was informal, a product of the way in which NTID faculty were scattered about the RIT campus before the opening of the Lyndon Baines Johnson Academic Building.

"Some of us stayed in the College of Engineering for awhile, and later moved up to the fifth floor of the George Eastman Building. Others of us were located down in the Ross Building, or in the basement structures of the Grace Watson Dining Hall; some offices were in dormitory rooms. And it was probably then that we had some of our best and most unique co-curricular activities going on. I wish it could happen again that way, and maybe it will."

Dr. Castle was particularly pleased at the interaction among NTID General Education faculty and students in the dormitories.

"I've always felt we need more adult figures in the dorms, to program activities for students which are truly developmental," he says.

Dr. Castle has put his personal stamp on certain activities he introduced or reinforced at NTID. Many of them stem from his role as director of RIT's Creative Arts in Complementary Learning program.

"Much of classroom dynamics doesn't really build interrelations among students; only particular approaches to teaching will do that. But extracurricular activities, such as theatre, athletics, and performing arts do give you an opportunity to have that occur.

"Other ways in which assimilation is promoted would be through programs such as cooperative work experiences, community services, and outdoor education."

All these have been promulgated and vigorously promoted by Dr. Castle. "Most have since become more prevalent," he modestly admits.

Another area in which Dr. Castle has had a great deal of impact is in the arena of institutional funding. It has been an uncertain road for NTID in recent years; for the first time in Institute history, the appropriation for NTID in fiscal year 1982 was less than what was requested. A supplemental appropriation bill restored some of the funds that were originally denied, but not without some gritty negotiating on the part of Dr. Castle and others.

Even in that experience, Dr. Castle sees some value: "There's something beneficial," he says, "about standing back as an institution and assessing where you're going. Personally, it has given me a good base from which to work in my continuing role as RIT's Vice President for Government Relations."

Six years after assuming NTID's directorship, Dr. Castle is confident that the institutional vitality which Dr. Frisina and he sought to maintain is intact, not only in terms of offerings for students, but also in the sense that a variety of special programs exist for the benefit and enjoyment of the faculty and staff.

Dr. Castle:
"I wanted the total Institute to be more creative about setting up programs to bring deaf and hearing students together."

On NTID's 10th anniversary in 1978, a number of traditions were established that remain in place. Each year, all persons who have served the Institute for 10 years are honored with a dinner for them and their spouses; there is an annual recognition of outstanding staff by the National Advisory Group; and the alumni reunions were put in place.

While such traditions now exist and the curricula are well-established, the basic character and makeup of the NTID staff have not changed.

"In our entire 15 years," says Dr. Castle, "the percentage of people hired whose previous position was not in the field of deafness has remained at 85 percent. I was one of those, and I certainly can't think of any other professional activity which could have had more of an impact on my life."

—Emily Leamon

Dr. Frisina escorts Mrs. Lyndon (Lady Bird) Johnson during NTID's dedication ceremonies in 1974. Behind them is the late Arthur Stern, former chairman of RIT's Board of Trustees.

NTID Pioneers Look Back

They were a special group. Most were young, had good jobs, and were starting families; some were well-established in the education of deaf students. But all had one thing in common—they were willing to leave their homes and jobs to take a chance on a new venture—the National Technical Institute for the Deaf. It had no buildings or programs of its own, and its first 70 students were due to arrive in 1968. Success or failure depended upon them.

Fifteen years later, they are older and wiser, but still enthusiastic about the "exciting experiment" of which they chose to be a part.

Today, NTID has six buildings—three residence halls, two academic/office buildings, and a dining commons; a full-time faculty and staff of more than 400, with an additional 100 part time; and nearly 1,250 students.

Some of those pioneers were asked why they came, how they felt about the early years, and what has transpired since.

"Why did you leave your previous job and come to an institute in the process of being established?"

Associate Professor Vernon Davis, a Career Development Counselor for the Division of Science and Engineering Careers, had a compelling reason. As part of a 1964 study which furnished Congress with part of the justification for a national technical institute for the deaf, Davis's job was to interview employed and unemployed deaf people.

"The memory of the many young deaf people, hopelessly lost in near sweatshop conditions, with no hope of advancement, has not faded from my memory," Davis says. "Some packed eggs, others sewed shoes, made beds in a mental institution, sanded furniture, or moved bobbins on high speed cotton knitting machinery. My most vivid memory is of one young unemployed deaf woman. When I explained the purpose of my interview, she burst into tears and signed, 'Where is NTID? I need it now.'"

Another staff member who witnessed that lack of opportunity was Associate Vice President for Planning Dr. William Williams, then assistant to the director.

"I had been working with deaf employees in industry and saw the minimal opportunities they had to become properly educated and trained; and I saw how well they responded to any training they did receive. NTID presented a chance for our nation's deaf people. There was no way I could decline such an opportunity. Fundamentally, I really thought *it would work.*"

One of the first people hired at the new Institute was Associate Professor Elizabeth O'Brien. The daughter of deaf parents, she had been teaching deaf junior high school students for five years in California. "I suddenly realized one day that I would be doing this for the next 40 years. In 1967, Bob Frisina [NTID's first director] said to me, 'Liz, are you ready to leave California and come help us get this program started?' Being an Aries and a risk taker, I saw NTID as a new venture and a breakthrough in the education of deaf students. Who could say no?"

Associate Professor Joseph Avery, chairperson of the Department of Support Service Education, echoes O'Brien's excitement at the challenge.

"I thought the place sounded marvelous. The idea of a new enterprise in education, coinciding with my own career interests, became irresistible. Despite my Southern roots, I was willing and eager to be 'transplanted' to the North to be part of this enterprise, because of the exciting prospect of what the future could be."

Interpreter Training Specialist Alice Beardsley, although hearing for a short period of time, had spent most of her life in the ranks of the hearing impaired and wanted to help. "My previous job [as sales director at a gift wrapping printing company] gave me no contact with the deaf, nor did it use my talent as an interpreter. This was my chance of a lifetime."

At least one member of the early group already had close ties with RIT—Professor Michael Kleper of the Printing Production Technology Department was an RIT graduate. "Having chosen the School of Printing as a student, it was, in turn, an honor to be chosen to be an NTID faculty member. I felt that any program which NTID started in graphic arts would have to meet the same standards of excellence that RIT has always maintained in this area."

Although most of the original group were young, some were already established teachers—and were deaf themselves. Among the first deaf faculty members hired were Professor Robert Panara, Liberal Arts Support, who had served on the Institute's original National Advisory Board; and Professor Emeritus Loy Golladay, who had taught deaf high school students for 34 years.

"All this comprised the sort of challenge I wanted," Dr. Golladay says, "and a chance to begin a new career, with time to prepare, to think, and to pursue my own ideas of how to get across to young deaf students. This has been a continuing joy to me. In a sense, the challenge was like the 'Fountain of Youth.'"

In each case, motivations were personal and keenly felt. In brief:

Florene Hughes, assistant professor in Social Work/Criminal Justice: "I felt I was needed—that I had something unique to offer."

Warren Goldmann, associate professor, Physics and Technical Mathematics, who is deaf: "The challenge seemed great and the people involved seemed enthusiastic."

James Stangarone, associate professor in Communication Instruction Department II and the son of deaf parents: "I wanted to be on the ground floor of a new program and have some of my ideas adopted."

Dr. Jack Clarcq, associate vice president for Technical Assistance Programs: "I was deeply impressed with the personal and professional quality of the people associated with NTID."

R.W.W. Taylor, associate professor, Physics and Technical Mathematics: "I

15 ***1969-70***
Certificate and diploma programs are initiated at NTID.

was an unemployed ex-graduate student, looking for a job, with no experience with deafness. I consider it one of the great strokes of good fortune in my life that I was hired by NTID and began what has proved to be such a rewarding career."

It also was the first job for Dr. Harry Lang, associate professor, Physics and Technical Mathematics, and recent recipient of RIT's Eisenhart Outstanding Teacher award.

Nicholas Orlando, professor and communication counselor: "In my previous position with a public school system the challenge was nil. I needed something—someplace—to meet my needs. After talking with Dr. Frisina, I knew I wanted to be part of this exciting venture."

The Rev. Lawrence (Butch) Mothersell, professor in the Academic Department of Human Development and chaplain, Episcopal Campus Ministry: "This new Institute was a chance to pull together my academic majors [English and special education] and my experience and personal involvement with deafness."

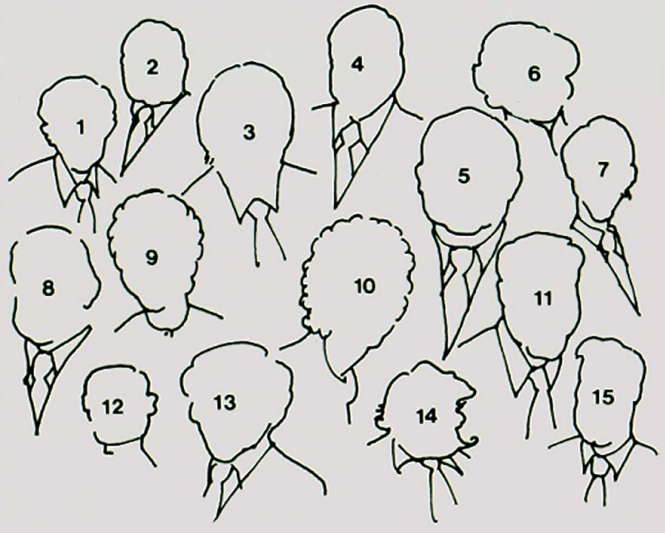
"What did you like best about being part of this new Institute?"

"NTID was a new challenge—daily and yearly," O'Brien says. "Perhaps one could say that our theme song was, 'Never a dull moment.' The excitement of growth, the new crop of students each year. It was sharing in the successes and accomplishments as well as the trials and traumas of NTID that gave one a sense of pride. Most of all," she stresses, "it was proving to a skeptical audience in the profession that NTID works for deaf people."

"It was the opportunity to enter such a scheme at the ground floor," Mothersell asserts. "Very seldom in life does one have the opportunity for such creativity and design. In short, this NTID would *become* what we made it. There were no models. Thus, we were not impaired by other people's lack of vision." He also cites the "unique breed" of colleagues he met at NTID. "While colleagues on other campuses experience rivalry, I experience teamwork."

For Dr. Williams, it was the reality of being able to make a difference. "I actually saw timid, unsophisticated youngsters come to Rochester from all 50 states," he explains. "Like swimmers putting uncertain toes into cold water, I watched them gently test; then, as though

1. *Michael Kleper* 2. *Nicholas Orlando* 3. *Harry Lang* 4. *Joseph Avery* 5. *Loy Golladay*
6. *Elizabeth O'Brien* 7. *Warren Goldmann* 8. *Jack Clarcq* 9. *Florene Hughes* 10. *Alice Beardsley*
11. *Vernon Davis* 12. *Laurence Mothersell* 13. *William Williams* 14. *R.W.W. Taylor*
15. *James Stangarone*



aware of being observed, feign a bit of boldness; and, finally, get in and splash around. Most learned to swim in that water very well, each to his or her own capabilities."

Dr. Golladay, Beardsley, and Goldmann pointed to their students as the greatest source of satisfaction. "The students, even though lagging academically, were so much more motivated than those from my previous experience," Goldmann says. Dr. Golladay adds that there was "less need to 'baby' students," and says that he enjoyed the challenge of "bringing out the best in them, as well as helping those students whose aims seemed too low for their ability level." To Beardsley, the best part was "15 years of watching students grow and succeed, and having a small part in their success."

Others cite the overall environment of the Institute. "Perhaps the single most gratifying aspect of being employed by NTID is an environment which encourages creativity," Kleper says. "This support is directly reflected by our state-of-the-art curricula and commitment to excellence." Orlando agrees, and adds that he loves "the satisfaction of accomplishment, the feeling of worthiness, and the esprit de corps—that has never changed." He also appreciates the support given by the top administration. "They make us feel that we are not working *for*, we are working *with* them."

What appealed to Taylor was "the wealth of new ideas, skills, and techniques available to be learned and applied, and the freedom to pursue personal interests down unexplored pathways."

Stangarone takes greatest satisfaction in the results. "The best part of being here is seeing graduates secure jobs after their training. This is even more important when you consider the number of companies hiring deaf people for the first time."

Viewing NTID's history from this end of the time frame, Avery is philosophical. "The years have been filled with challenges, successes, satisfaction, frus-

15 ***1970-71***
Associate degree programs are initiated and construction of NTID facilities begins.

tration and, yes, sometimes failure—just the sort of brew that keeps a person alive intellectually and spiritually. It has been a tough environment, but I appreciate it more because of its toughness. What I like best is the wide range of programs and services for hearing-impaired students. It's a cornucopia of opportunity."

"What is the biggest change you have observed over the years?"

"By far the most meaningful change is in student attitudes about themselves and their place in society," Dr. Lang asserts. "The NTID experience, as a whole, is a metamorphosis. Students enter NTID socially isolated and experientially restricted. They leave NTID prepared to deal with the working world."

Dr. Golladay agrees. "The accomplishments of NTID graduates never cease to amaze me. For example, a former NTID student recently conducted a detailed analysis of U.S. Civil Service employees who are deaf or hearing impaired."

He also sees improved acceptance of NTID students on campus, and adds that "many RIT students are learning sign language, and some are learning it very well indeed." He concludes that NTID has become a college that is accepted by the other RIT colleges, shedding the "college prep" image of the first two or three years.

O'Brien feels that people have been the biggest change and the Institute's greatest strength. "A number of terrific people have come and gone, but the uniqueness of NTID is that there always seem to be terrific people coming along to take their place. Change is healthy. New blood keeps it vital," she believes. "Perhaps NTID's greatest strength is its ability to attract caring professionals."

Programs also have grown. "The biggest change is our move from a traditional instructional delivery system to a self-paced, competency-based system," Kleper says. "Our ability to deal with students one-to-one and in small groups, has made our graduates more effective and productive workers."

Mothersell says that 15 years have brought national credibility. "As a result of my observations during meetings around the country and calls from a wide variety of people, I feel the biggest change is that NTID has grown from an 'experiment' to the leader in the field. I believe we now do what postsecondary education for deaf students is supposed to do...and, in my opinion, we do it better than anyone else."

Most of those queried were distressed by the loss of the camaraderie shared in the early days when the group was small.

"When we started," Goldmann explains, "the sense of family was strong. But as we grew, some of that spirit was lost. I feel we should somehow try to regain that spirit." Avery concurs. "We are so large, it is difficult to know everyone. When I first came to NTID, I knew all the staff and all the students. This is just not possible anymore, and it's a little sad."

Taylor sees the loss as more than just not knowing everyone. "There is much less opportunity to benefit from each other's discoveries and developments. This trend is partly counteracted by such moves as the establishment of the *NTID Apple User's Newsletter* [an internal newsletter distributed to users of Apple computers]; but a lot more could be done in this direction, both formally and informally."

Mothersell misses the economy of effort inherent in the early days. "When all of NTID was fewer than 25 people, you could have an idea *today*, discuss it, and either reject it or get it implemented by *yesterday*! Because of policies and procedures necessitated by the large faculty and staff, that whole process now takes a little longer."

Many also recognize that, with growth, new challenges emerge. "I think the greatest challenge we face is to maintain our vitality and uniqueness as an institution as the organization itself becomes older," Davis says, "and to hold off the pressures of a bureaucratic approach to individuals and problem solving." As a member of the administration, Dr. Clarcq concurs. "The key issue for NTID is to sustain its common cause and sense of direction. NTID needs to continue to be an exciting place to work."

"How, if at all, have you changed as a result of having worked at NTID?"

Almost without exception, the group mentioned how much they had grown professionally; but the changes did not end there.

"You can't walk into the buildings that house NTID without being changed," Dr. Lang says. "For me, change has been multi-dimensional. Each person I have worked with has helped shape my perspective on the education of deaf students."

Avery agrees. "There is no way anyone could be at NTID 14 or 15 years and not change personally. I think the most significant changes for me have been the result of the combined influences of work and family. I feel that I have grown in wisdom, tolerance, and humility—with a lot of growing left to do."

Stangarone feels that he is "more sensitive to the needs of the students who will be out in the work world" and Dr. Clarcq believes that he has "a keener sense of the important role that people—with varying backgrounds and a healthy respect for each other—play in achieving institutional purposes."

Beardsley says she hasn't changed in one respect: "I have the same enthusiasm and love for NTID, with a strong belief that it is the best thing that has happened to education for deaf students in many a year."

Mothersell cites a different kind of growth. "I now *belong* to a couple of 'cultures' whereas before I belonged to only one—a 'hearing dependent' culture. Also, I no longer believe in the word 'failure.'"

Many spoke of binding friendships and several were whimsical.

"Well, for one thing," O'Brien admits, "I've become more tolerant of winter, and eternally grateful for summer."

"Of course, the hair has turned white," Hughes jokes. "Who can say whether or not that's a result of being at NTID?" On a more serious note, she says she no longer overreacts to change. "Deaf students still come, we still teach, and they graduate and get jobs, regardless of who calls the shots, or how many planning reports need to be done by yesterday, and how many self-study reports are due. I love it! I love NTID, and I'm really glad we found each other."

Dr. Golladay says simply, "Condensed into one word, the experience has been EXHILARATING."

—Lynne Williams

National Advisory Group
Then and Now

Rod Reilly

Dr. S. Richard Silverman

They gather three times a year—a mixed group which includes men and women, deaf and hearing, from business and deaf education—all with the common goal of advising and counseling NTID. They are the members of the National Advisory Group (NAG).

The legislation which established NTID stipulated that an advisory board be set up to formulate the guidelines, review proposals, make recommendations about the choice of a host institution, and aid in NTID's operation. One of this board's recommendations was that a permanent national advisory group be established.

Although this group has no direct power, its influence has been felt keenly throughout NTID's 15-year history, largely due to the expertise and commitment of its chairpersons.

The NAG chairman often sets the tone for the group during its deliberations. Dr. S. Richard Silverman, former director of the Central Institute for the Deaf in St. Louis, Missouri, was chairman of the NAG from 1979-82; W. Frank Blount, current chairman, is regional vice president of American Telephone and Telegraph Company.

Dr. Silverman recalls the original board that advised the Secretary of the Department of Health, Education and Welfare on the establishment of NTID: "The members of this board represented certain elements in our society," he explains. "Among that group were people experienced in education of the deaf, and business and professional people. We also had Bob Panara, who brought a deaf perspective, lay people who were interested in advancing deaf-related issues, and, I must say candidly, those who had political contacts."

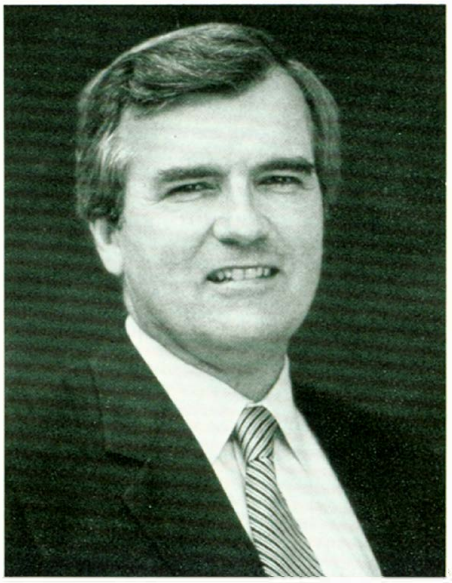
Dr. Silverman says the advisory board spent nearly a year "thoroughly, objectively, and openly" formulating the guidelines and selecting a host institution for the national technical institute for the deaf.

"The fundamental premise for the institute was the recognition that the world would be one of accelerating technology; therefore, careers should be directed there," Dr. Silverman emphasizes. "These opportunities had never been available to deaf students, so opening the world of technology, and the careers therein, was the institute's fundamental mission.

"It wasn't just a matter of giving deaf people the opportunity to earn a living, but also to help them develop self-

15 ***1971-72***
NTID hosts the Junior National Association for the Deaf Convention and a Social Work program is initiated at RIT, providing a new option for deaf students.

"Generally stated, the members want to do what they can to help with whatever activity is relevant at the time."



W. Frank Blount

esteem; or, put another way, to resist the dependency that leads to self-devaluation," he continues. "That was fundamental to the mission. There were other associated activities that were almost corollaries, such as conducting research, particularly related to employment and career choice, performance, maintenance, and advancement."

Another byproduct of this recognition of technology was acknowledging that deaf people would not be isolated from the hearing world in which they would be working. For that reason, Dr. Silverman says, the board changed the model from a separate institution to one that was part of a larger institution with hearing students and with the tradition, experience, and motivation for preparing students for technical careers. Rochester Institute of Technology met those requirements.

In its early years, the newly formed National Advisory Group dealt with the challenges of establishing a school and program without a model. With representation from education, business, industry, and the deaf community, the Group served as that referent.

"When NTID implements a program, when the staff probes and thinks its way through difficult problems, the NAG's validation of that program has been, in my opinion, a reinforcing element," Dr. Silverman says. "People who are involved in the day-to-day operation and its related problems may lose some of their perspective. The NAG furnishes staff members with that perspective, allowing them to see the mission in its broader sense, as the outside world perceives it. It also occasionally gets people away from their day-to-day tasks and asks the long-range, global questions. That's an important contribution."

Although Dr. Silverman has seen many changes in the NAG during the years he has served the Institute, some aspects remain the same.

"The NAG wants to make the same contributions," he stresses. "Generally stated, the members want to do what they can to help with whatever activity is relevant at the time. What I believe has changed is an increasing exchange of ideas between the staff and the NAG. There is a sophistication of the agenda for meetings that grows out of interaction between the two groups. The NTID staff recognizes the diversity of talents available to it within the NAG, and makes use of those talents.

"There also is a change in the agenda for the meetings," Dr. Silverman adds. "The NAG has delved deeply, more so than in the beginning, into questions that are pertinent to the times. The Group has advised about how to respond to the current financial crunch, and evaluated and given advice on the accommodations that can be made on a reduced budget—something that wasn't the case in the lush late '60s and early '70s. The members have also addressed the question of accommodating the rubella bulge [those students deafened by the 1963-65 rubella epidemic]."

The person who will help the Institute address these problems is NAG Chairman W. Frank Blount, who, although he has no training in deaf education, brings a wealth of skills to the group.

His first contact with NTID was in 1979, when he was the officer in charge of Education and Training for the Bell System. At that time, NTID was involved in a year-long project to establish the Institute's Agenda for the 1980s. As part of the project, guest lecturers were invited to NTID to share their ideas and expertise at four and five-hour symposia. Since the Bell System had such a large industrial training organization, it was asked to send a representative. Blount was chosen to conduct the symposium.

"I had never been to Rochester—never even heard of NTID," Blount admits. "I arrived late one evening and was met by Dr. William Williams, then director of Government Affairs, and Dr. Richard Cattanach, assistant to the director of NTID at that time.

"I was tremendously impressed with the quality of both those men in terms of their commitment to excellence, their dedication, and what they wanted to accomplish. I thought, 'Well, they sent me the brightest and the best from NTID.'"

The next day Blount discovered that he was wrong—they were not the exception, they were the rule. "I was overwhelmed by the quality of the people I met, both faculty and administration. Their questions were penetrating and stimulating. I probably got more out of the symposium than they did. They absolutely impressed me like no other group ever has."

When Blount was asked to become a member of the NAG, he accepted readily. "I immediately involved my company in several projects having to do with career development after graduation—trying to better accommodate deaf graduates in industry."

Last spring, as he neared the end of his four-year term, Blount was asked to become chairman of the NAG. His first request was that he be allowed to come to the Institute for two days and have access to the NTID community.

"I wanted to find out what was on the minds of people at all levels, from the dean and director to the instructors and students. I came away with the same message—there was a clear lack of understanding of the role of the National Advisory Group. Most of the people with whom I spoke thought it was basically a figurehead organization. When the NAG met on the campus three times

a year, most of the faculty and administration felt that it was a burden to prepare for the meetings and to make certain that 'all was in order' on the campus while the NAG was in attendance. The staff simply wanted more interaction with, greater access to, and additional opportunities to seek the NAG's counsel."

At the same time, he interviewed other NAG members and discovered that they, too, were interested in a format change. "We decided among ourselves to get more actively involved and, in order to do that, we had to understand more about the issues from people at all levels, not just department heads or deans or the director."

Meetings were restructured to allow in-depth study, and the group was divided into three committees: an executive committee to work with NTID's director; an academic committee for Career Development Programs; and a third for Technical Assistance Programs.

The committees' work is not limited to the scheduled meetings. They also confer by mail and conference telephone hookup. "Furthermore," Blount explains, "we have suggested that subject matter experts be involved in the discussions.

"During our upcoming October meeting, we have allotted a considerable amount of time to interact with students on two or three issues," Blount says. "We may also bring some graduates back and find out how they are doing in the world of work."

The group chooses several critical issues for each committee. "This way, members don't have to be experts across the board," Blount stresses. "They can, instead, be an expert on one or two critical issues. It is a matter of focusing." Detailed agendas, including the agreed-upon issues, are worked out by NTID's director, dean, associate vice president, and the chairman, and mailed to members for their consideration before the meetings.

"I used to feel that meetings—with presentation after presentation—were general education programs for the group. It was difficult to piece them all together and see how they fit," Blount admits. "During my first two meetings, I never opened my mouth. I didn't feel I knew enough to ask intelligent questions. I think we are in a much better position to get things done now."

Before becoming chairman, Blount discovered several issues that might be addressed by the NAG. One was what he described as "role definition," a common problem, he stresses, in a new, fast-growing organization. He also sensed some contention between the various divisions as they bid for resources.

There also was overlap in terms of who was doing what. "'Who's got the ball? I thought I had it, but someone else does.' These are the characteristics of a fast-growing organization," Blount says. "People begin picking up functions because they need to be done, only to find that someone else is already doing them. A little bit of redundancy is good because you get a better product, but you can't have a tremendous amount because you will spend too much money."

It is in this area that Blount senses an improvement in the NAG's ability to help. "The group now is regarded more as an outside consultant. An independent third party can often take some of the heat away from the deliberation process. We can say, 'Have you thought about this?' or 'I disagree with that.' I think this helps and will probably help even more as we move down the road and get more involved with these committees."

Blount feels that NTID may be moving into a new era. "The Institute is now more mature. Additionally, new trends have emerged in society—such as the recession, and the fact that we are moving from an industrial to an information-based society. NTID competes nationwide for a diminishing pool of students, and may need to focus on managing better what it has, because further resource scarcities are predicted.

"That's not saying that the administration hasn't been managing well," he stresses. "They have. They've done a good job. My point is, when you are in a rapid growth environment and you have to assimilate many things at once, sometimes it's very difficult to focus your attention on being effective and efficient."

In the beginning, the NAG was primarily concerned with the technical aspects of educating deaf students—the best way to teach them, the best way to enroll them, and the best way to work with primary and secondary schools before enrolling them in a school like NTID. These concerns were, and still are, an important function of the Group. However, he points out, the emphasis is changing.

"The NAG is going into a period where it is trying to counsel and give advice to NTID in both arenas: the technical arena of how to accommodate and teach deaf students, and also how to do it more effectively with the resources at your disposal." With the current appointments, Blount feels the Group has achieved the right balance of skills.

Both men speak fondly of their experiences with the Group, each from his own perspective: Dr. Silverman, having watched the growth of NTID from its original seed through the Institute's full flowering; and Blount, discovering it already matured and changing.

Dr. Silverman recalls, "My association with the NAG has been special not only because of the Institute itself, but because a number of people on the staff, who now hold important positions, are people I knew when they were children. It has created, for me, a personal attachment to NTID to see these people make the kinds of contributions they are making. It has shown what can be done if you create the right opportunities."

For Blount, association with the NAG has meant the excitement of discovery. "I've told Dr. Castle many times that I've never seen an organization with such resources in terms of raw talent. I universally like everybody I've met.

"I don't mean just from a personal point of view," Blount adds. "I like their style of management, the way they think, the excitement they convey, and their creativity."

—Lynne Williams

15

1972-73

An NTID film, "The Silent Drum," is awarded the "Golden Eagle," the highest honor given by the Council on International Nontheatrical Events; and a Community Interpreter Training Program is established.

Honoring an Old Friend

Robert Iannazzi

Former New York State Governor Hugh L. Carey and his wife, Evangeline Gouletas-Carey, visited NTID in 1981 as part of their honeymoon tour of New York State.

NTID's new $2.8 million academic/office building, dedicated during the Institute's 15th-year celebration in October, was named in honor of former New York State Governor Hugh L. Carey. Carey was a member of the U.S. Congress when he sponsored the 1965 legislation which created the National Technical Institute for the Deaf. He has maintained his interest in and commitment to equal education through his service to the Institute's National Advisory Group since its inception.

Governor Carey was a principal architect of the Elementary and Secondary Education Act of 1965—the first federal law to aid children in all schools. He served as chairman of the Congressional Subcommittee on Education of the Handicapped and is the author of numerous laws benefiting handicapped children.

Former Governor Hugh Carey has long been a proponent of educational programs for children, but it was a group of nuns from Brooklyn who sparked his interest in deafness.

As Governor Carey recalls, he was "inspired" by the work being done by the Sisters of St. Joseph at the St. Francis de Sales School for the Deaf in Brooklyn. He, therefore, was not surprised when a group of nuns from St. Mary's School for the Deaf in Buffalo, New York, appeared at his office one day seeking help for a "special project."

"They wanted to purchase some land for their school and asked if I could help them secure it," Carey says. "When I asked them how they would finance the property, they simply said, 'We'll find a way.' I eventually did help them acquire the property. They told me they were going to pray to St. Joseph for me, and he hasn't left me alone since!"

Even before he had St. Joseph working with him, Carey was an outspoken advocate of equal education for children, particularly those with physical and mental handicaps. He says that his interest stemmed partly from the fact that he had 12 children.

Carey recalls his role in the legislation which eventually created the National Technical Institute for the Deaf: "I was serving on the Board at Gallaudet College at the time. Gallaudet officials didn't really want to add technical courses to their liberal arts curricula, but I was excited at the prospect of academic training in the science disciplines which would offer good employment opportunities for deaf students."

On April 1, 1965, Congressmen Carey and John Fogarty of Rhode Island, and Senator Lister Hill of Alabama introduced three bills in the two houses of Congress to establish a national technical institute for the deaf. A final bill, written by Carey, was signed into law by President Lyndon Johnson on June 8, 1965.

"Thanks to a number of people, including Patria Forsythe [staff member of

"I've watched NTID grow from its modest beginnings to an internationally respected organization, and it is a tribute to those who remain."

the Senate Subcommittee on the Handicapped], Melvin Laird [a Minnesota congressman at the time], my lifelong friend Lyndon Johnson, and peer groups for the handicapped, we were able to pass many laws, including Public Law 89-36 [The National Technical Institute for the Deaf Act]," Carey says.

Although Governor Carey says that he is "thrilled" to have NTID's academic/office building named for him, he admits that he usually declines such honors unless he feels that his acceptance will "help people in some way."

"As far as I know, the only other building named for me is the United Cerebral Palsy Center in Albany, New York," Carey says. "I'm honored that NTID chose me. It will be a constant reminder of my continued responsibilities in the education of handicapped youngsters.

"I've watched NTID grow from its modest beginnings to an internationally respected organization," he continues, "and it is a tribute to those who remain. The administration, the national advisory group which nursed it along, RIT —all are responsible for its excellence."

Robert Lamarre

Dr. William Castle, director of NTID, and RIT President M. Richard Rose present posters commemorating Better Hearing and Speech Month and the International Year of Disabled Persons to the Careys during their 1981 visit.

Of his many visits to the Institute, Governor Carey says that his most memorable was in 1978, when he addressed the first alumni gathering. "I can honestly say that I've never seen such a presentable and joyous group of graduates," he says.

Governor Carey also brought his wife, Evangeline Gouletas-Carey, to the Institute during their 1981 honeymoon tour of New York State. "My wife is an educator and is very facile with communication, so she thoroughly enjoyed it," Carey says. "She was very impressed with NTID's facilities and programs; I would have to say that visiting NTID was the high point of our honeymoon tour."

The former governor says that one of the joys of working in government—"and there were many"—was working for deaf, blind, mentally retarded, and other handicapped children. He hopes to continue his involvement with these groups as a private citizen.

"The students and administration of NTID are a joy," he concludes. "I've enjoyed every visit I've made. Whatever the government has invested in NTID it has gotten back tenfold. This Institute is living proof that funding for disabled people is beneficial."

—Kathleen Sullivan

A. Stu. Wexler

The Hugh L. Carey Building

15 **1973-74**
NTID sponsors "Listen to the Deaf Week," and a deaf RIT graduate is asked to serve on the Institute's National Advisory Group for the first time.

EVOLVING CURRICULA

Backbone of a Growing Institute

"In the beginning, we had no past—only a future. We could try anything because we were new. If it didn't work out, we could chalk it up to inexperience."

That reflection from a long-time NTID faculty member speaks to 15 years of growth. Gone are the days when NTID classes were held on "the other side" of campus, before the Institute's facilities were finished in 1974. Gone, too, are the pioneers of the first class, those 70-odd students who entered the Institute in 1968.

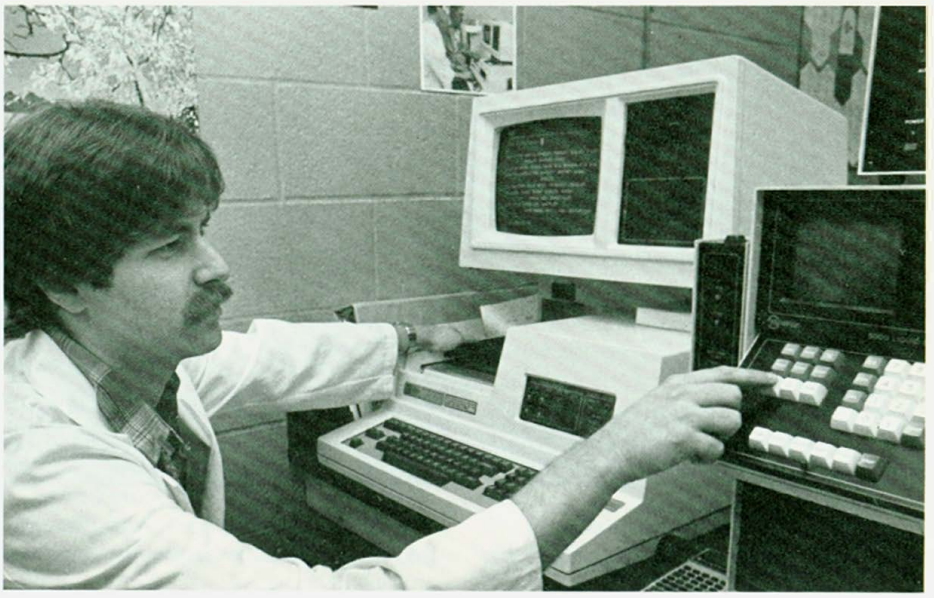
The 1983 fall quarter enrollment was approximately 1,200—more than 15 times that of the original class—and more students are expected to attend the Institute in the next few years as a result of the 1963-65 rubella epidemic. Preparations for these additional students have already been made, including the construction of a new classroom/office building and the hiring of more faculty members. At the same time, program curricula are being examined carefully to ensure that they do not become obsolete nor are too advanced to serve graduates in the working world.

The evolution of these programs is especially interesting since they, like the Institute itself, were created by an imaginative, dedicated group of planners who had no real "model" to follow in building and establishing this institute for the deaf.

In examining the current academic areas of Business, Science and Engineering, and Visual Communications, one major change which has permeated all three in the past 15 years is the use of the computer for academic instruction.

Dr. Charles Layne, assistant dean and director of the Division of Business Careers, says, "All of our majors either directly teach computer use or use computers somehow in the classroom."

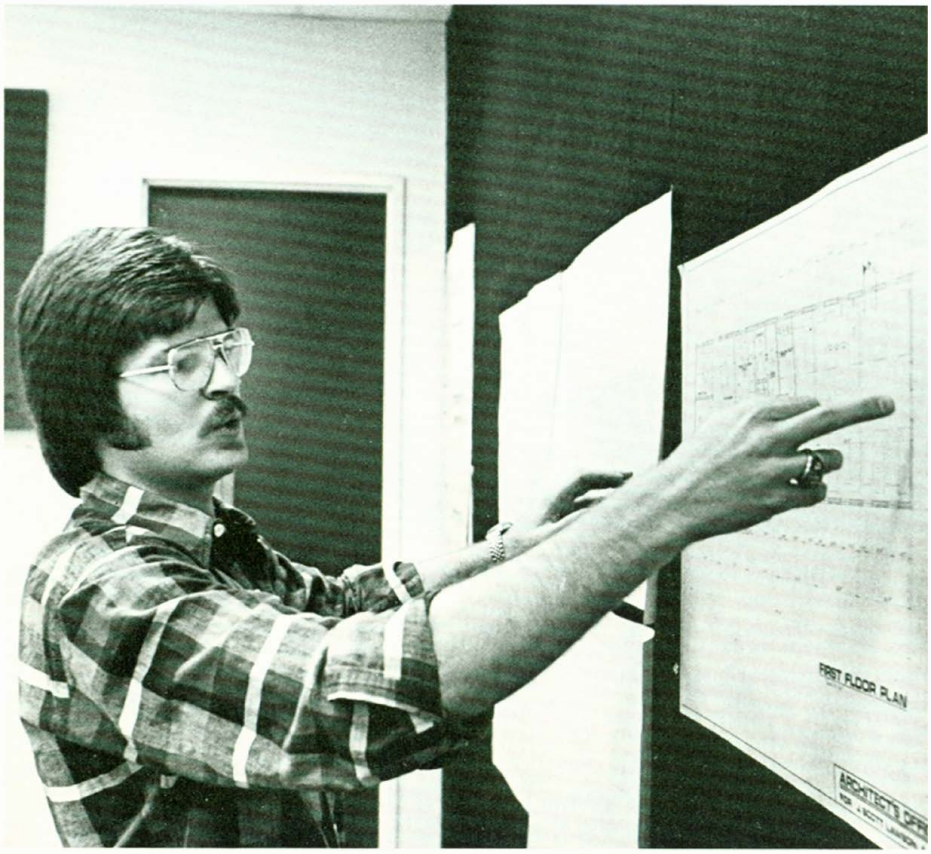
"We've entered the computer age," agrees Dr. Thomas Raco, assistant dean and director of the Division of Visual Communication Careers. "It has touched every aspect of business and industry and is increasingly evident in the visual communication field. Feedback from advisory committees and our graduates'



employers indicate that our curricula are on the cutting edge of technology, which means that our students undisputedly profit from being educated here."

Computer-assisted drafting equipment donated by Bausch and Lomb, Inc. has enhanced the creation of blueprint drawings in all areas of Engineering Technologies careers. In addition, the Manufacturing Processes program has expanded and updated the use of computer-controlled equipment in its labs.

Medical record technology students use computer technology to study, among other things, patient index files and tumor registry (the process of recording tumors for purposes of quality control and national research). The engineering curriculum includes hands-on experience with microprocessors that gives students the ability to "computer operate" other instruments.



NTID's academic offerings include, clockwise from top left, optical finishing technology, architectural drafting, visual communications, and medical technology.

With the continuation of this computer literacy trend, and the fast-paced nature of the field, faculty members must keep abreast of changes in their areas. Program advisory committees help them to do that.

These groups, made up of professionals from business, industry, and education, meet with NTID faculty members several times a year to discuss the latest trends in their fields.

Their valuable input often directly influences curriculum changes. In turn, advisory group members receive useful information from the creative confines of higher education.

"We give back to industry in a very real way," Dr. Raco says. "For instance, Assistant Professor Jere Rentzel recently developed a special filter selector system in conjunction with RIT's Technical and Education Center of the Graphic Arts. This kit is being disseminated nationally to the graphic arts industry. Research by Michael Kleper, an associate professor, includes the evaluation of existing computer and typesetting systems used by the graphic arts industry. His findings are shared with industry through national seminars and publications."

Program committees also provide advice about what's around the corner.

"The input we received regarding electronic scanning and screen printing as possible career options has led the Printing Production Technology faculty to do research and feasibility studies," says Dr. Raco. "Results of these efforts, which will include input from School of Printing faculty, will determine the need for pilot programs in these areas.

"We're also exploring the expansion of our airbrush and retouching options in the Applied Art area," Dr. Raco con-

15 **1974-75**

Construction is completed and dedication ceremonies are held in October for the NTID facilities —an academic building, three residence halls, and a dining commons.

Whether in the classroom (above left) or on the job (above right), students are prepared to compete successfully in the world of work. (Right) All students receive some instruction in computer technology.

tinues, "although program advisory committee members caution us that these fields may well be fully computerized within 10 years."

Partly in reaction to advice from its advisory committee, NTID's Business Division has shifted its emphasis from computer programming to computer operations, a newer field.

"We really listen to the input from our advisory committee," says Dr. Layne, "and we also tend to lean on the National Advisory Group for help. Particularly in the area of forecasting, these people have a real knowledge of what's going on.

"We haven't reinvented the wheel, but we have fine tuned it in terms of our programs."

"Society is cyclical," he continues. "Business graduates are in demand now, but who knows what the market will be like five years from now? I would like to see us forecasting rather than reacting to changes in business needs, and advisory groups can help us do that."

Dr. Layne is excited about BITE (Back In Touch Experience), a pilot program in the Business area that allows faculty members to work temporarily in local businesses, putting them in touch with the working world and ultimately making them more effective in the classroom.

While BITE is one visible example of an idea designed to keep faculty attuned to the changing times, a more subtle change has occurred in the Math area. It has gone from an unstructured self-paced study mode to a more structured classroom approach, and now offers specialized courses for content areas such as business math and medical record statistics.

Cooperative education has long been an important part of RIT's curricula. Co-op allows students to gain valuable, on-the-job experience during either the academic year or the summer. It also gives employers a "sneak preview" of students' skills, and often leads to full-time employment after graduation.

Hand in hand with cooperative work experiences are classroom learning situations which allow students to interact with the community in a variety of ways.

The Medical Laboratory Technology program has, through its co-op program, established a rapport with local hospitals that has benefited the Institute. Civil and Architectural Technology students have, for the past eight years, worked on projects that benefit the city and county directly.

"We haven't reinvented the wheel, but we have fine tuned it in terms of our programs," Dr. Raco says. "Students walking in the door today may not be smarter or more prepared than their predecessors, but our curricula have improved tremendously and we're able to better prepare them for cross registration into RIT's other colleges and for success on the job. We play a smarter ballgame than we used to."

—*Kathleen Sullivan*

B R E A K I N G
THE JOB BARRIER

Where do hearing-impaired persons work? Where can they work? Find out was the charge to NTID when it opened its doors 15 years ago. But NTID, in tandem with its graduates, has done more than that; it has changed the picture.

The NTID office concentrating on the graduate job scene is the National Center on Employment of the Deaf (NCED).

Robert Menchel is an NCED Senior Career Opportunities Advisor.

He and other NCED staff members recently participated in a seminar for prospective employers in the Chicago area, where he met two NTID alumni who may be the wave of the future for NTID graduates: they are the only hearing-impaired persons working in their offices, they are in non-traditional fields for hearing-impaired persons, and one of them has already been promoted.

John Croke was one of NTID's cross-registered students; he earned a bachelor's degree in Mechanical Engineering Technology from RIT's College of Applied Science and Technology in 1973. For the past two years, he has worked as an engineering aide in a regional office of the Westinghouse Electric Corporation in Schaumburg, Illinois. His job involves designing the piping systems for a commercial nuclear power plant in Byron, Illinois.

The accommodations made by Westinghouse to incorporate Croke into its work force typify the progressive attitude being taken today by many employers. Croke was hired because he is well qualified for the position he fills. He also is the first hearing-impaired RIT graduate known to be working in the nuclear engineering field.

Croke's supervisor, Robert Manz, indicates that he did wonder how Croke would fit into the piping group he manages. However, the personnel manager, who has some hearing problems of his own, gave Manz some idea of what to expect. Croke's initial training, which consisted of one-to-one contact with an experienced worker, was supplemented by written materials.

On the job, someone makes his calls "to the field." He and his fellow workers communicate orally—he talks to them and speechreads their replies. They "resort to writing notes," says Manz, when a breakdown in communication occurs.

According to Manz, Croke was hired initially because of his qualifications and because Westinghouse is an "equal opportunity employer," but his presence "has engendered in me and others a better appreciation for what it means to have a handicap. Working with John has given me a great deal of personal satisfaction, as well as other intangible rewards."

The loss of one NTID alumna to a promotion is bemoaned by her former supervisor, Rose Maul, of the United States Customs Service office at O'Hare International Airport in Chicago.

"I miss her terribly," says Maul, "but she's a great gal and I'd do anything to help her get ahead."

The alumna is Karen Huggy, who earned an associate degree in Office Practice and Procedures in 1978. She was selected from a field of 20 applicants to be moved to the Customs Service's downtown Chicago office, where she has worked since May as a customs liquidator, calculating the correct duty owed to customs on commercial shipments of foreign merchandise.

Huggy, who has been nominated for the Outstanding Handicapped Federal Employee of the Year Award, was hired for her new position before her supervisor had the opportunity to meet her.

"I must admit I was very apprehensive about what it would be like to have a deaf person working for me," says Customs Entry Officer Phyllis Rubenstein."

"Fortunately, I was able to attend NTID's regional employment seminar, which was quite informative and greatly reassuring. It also held a few surprises for me. For example, I never realized that some deaf persons might have a problem with their written English. I figured that if deaf people can read, they can write, but I've learned that's not true, at least not in the sense that all deaf persons will know how to use perfect English grammar."

Huggy turned out to be one of those persons.

"Reading some of her early notes to me was a bit of a trial," recalls Rubenstein, "but her job doesn't require written reports. She helps us understand what she's trying to say by mouthing the words as she writes them down. We can talk freely with her, because she speechreads very well. Some of the people she works with already knew a little sign language; others are starting to pick it up."

The qualities which earmarked Huggy for success are her willingness to seek out work on her own when she has finished a project, in addition to initiating experiences where she can pick up new skills.

"She has even asked me," says Rubenstein, "if there are any courses specifically designed for customs liquidators at our training center in Atlanta. I don't believe there are, but I may send her to a training session for import specialists [the people who set the guidelines for her work] so that she can better understand what they do."

NCED is taking note of all these job success factors, and is working to educate students and employers to see that the knowledge is spread. They also keep track of hiring trends.

"Clearly," says Dr. James DeCaro, director of the Division of Career Opportunities and acting manager of NCED, "engineering is one field which has really opened up for deaf graduates as a result of NTID. But, in fact, all the NTID curricula have resulted in deaf

15 1975-76

The first NTID alumni club is established in Chicago, Illinois. An In-House Co-op program is established, giving cross-registered students in RIT's Fine and Applied Arts program an opportunity to apply classroom theories and techniques.

people entering jobs not previously available to hearing-impaired persons."

Menchel recently learned of a student who is interested in being a buyer.

"It's the first deaf student I've ever known who's expressed an interest in retailing," he says, "so an employment advisor and I visited a local department store to see if the idea is feasible."

Are the highly trained graduates of NTID easier to place than unskilled deaf workers?

"Although our employment advisors are placing highly qualified deaf people with technical skills, they do so with employers and corporations who have had little or no experience with deaf people or deafness. As a result, they are often working to eliminate barriers and educate potential employers regarding the abilities of deaf people. Our employment efforts attempt to market deaf RIT graduates on the basis of ability, not disability."

Two firms with whom NTID has had much success in placing graduates are the American Telephone and Telegraph Company (AT&T) and the International Business Machines Corporation (IBM).

"It's interesting," says Dr. DeCaro. "I just finished the book *In Search of Excellence*, which cites IBM and AT&T for their progressive employment policies; that has certainly been our experience."

There is one area, even at these two firms, which lags behind the others in terms of placement—upward mobility. Research conducted at NTID has not clearly determined whether this is due to the relative youth of the graduate pool, the specialized technical training and consequent lack of transferability of skills, or to the current economic recession.

However, according to Dr. DeCaro, "our relationship with AT&T has been such that we have been able to do some case study research with them."

That research suggests that the inexperience of many supervisors in facilitating upward mobility among deaf employees may account in part for the relatively flat upward mobility among some NTID graduates.

A study conducted by two AT&T executives of nine NTID graduates employed there yielded these results: five of the nine graduates remained employed by AT&T, two had resigned to return to school, one was terminated due to reduction in force, and one was terminated due to poor performance (personal/social difficulties on the job). Only one had experienced what AT&T defined as upward mobility.

AT&T subsequently made several recommendations to NCED, which have been incorporated into NCED training programs.

The recommendations include in-depth training for supervisors, which can be offered to a company at the time a deaf RIT graduate is employed; assistance to company training organizations in adapting their training to meet the needs of hearing-impaired employees; and continued work with businesses to analyze jobs and identify accommodations that can provide advanced career opportunities for hearing-impaired employees. It all boils down, says a report co-authored by Dr. DeCaro, to "service after the sale—a strong commitment to follow up."

The training program NCED has developed for current or imminent supervisors of hearing-impaired employees is called "Working Together: The Manager and the Hearing-Impaired Employee." A second training program titled

Karen Huggy

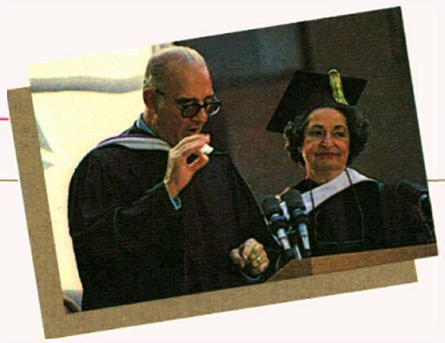
Celebration 15

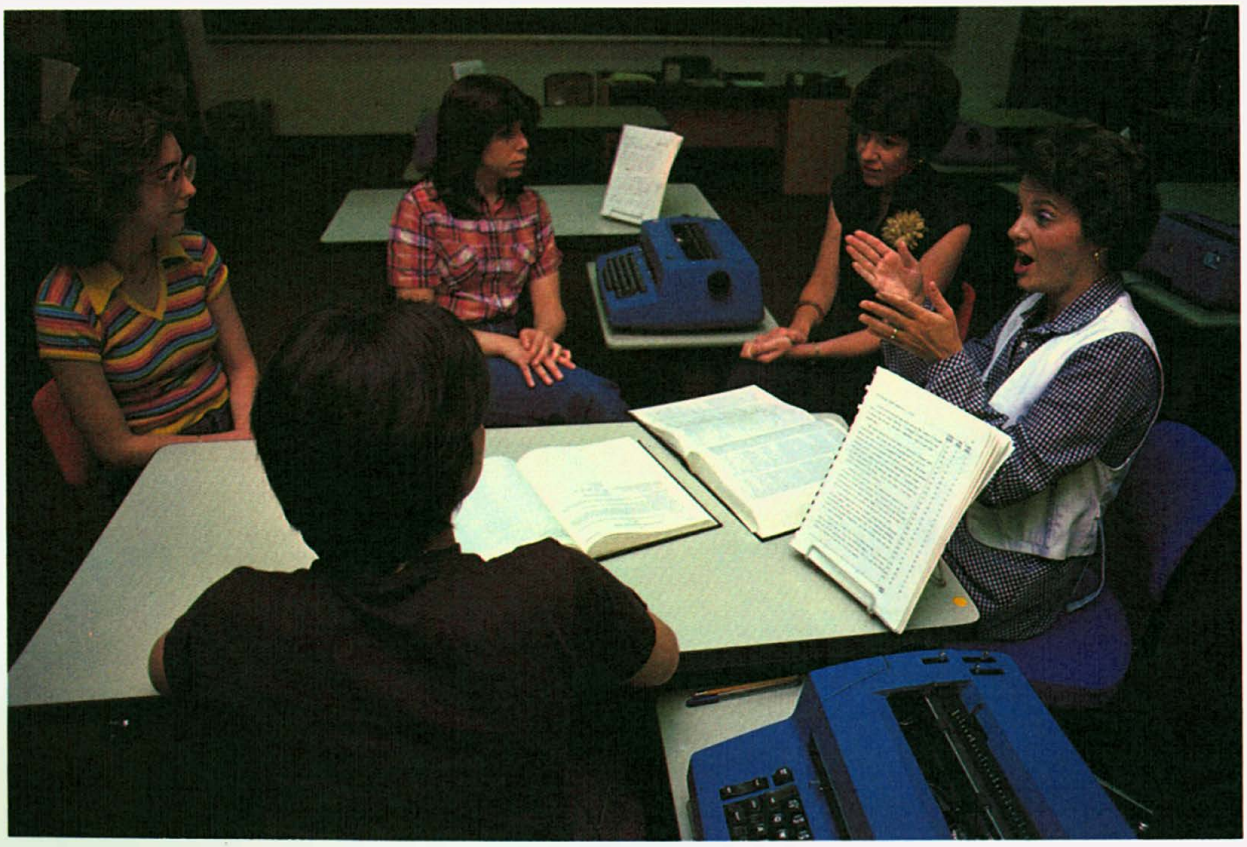
This is a success story built on a spirit of commitment and caring. NTID has never swayed from its original commitment to opening new technical and professional career avenues for qualified deaf persons. Yet, just as important is that infectious NTID spirit of caring that prompts so many of them to reach beyond the comfortable and commonplace.

The following is a potpourri of images reflecting this special spirit that typifies NTID's 15 years. These images pay tribute to the people, places, and events that comprise the rich NTID tradition, and at the same time, serve as a reaffirmation of that spirit in the coming years.

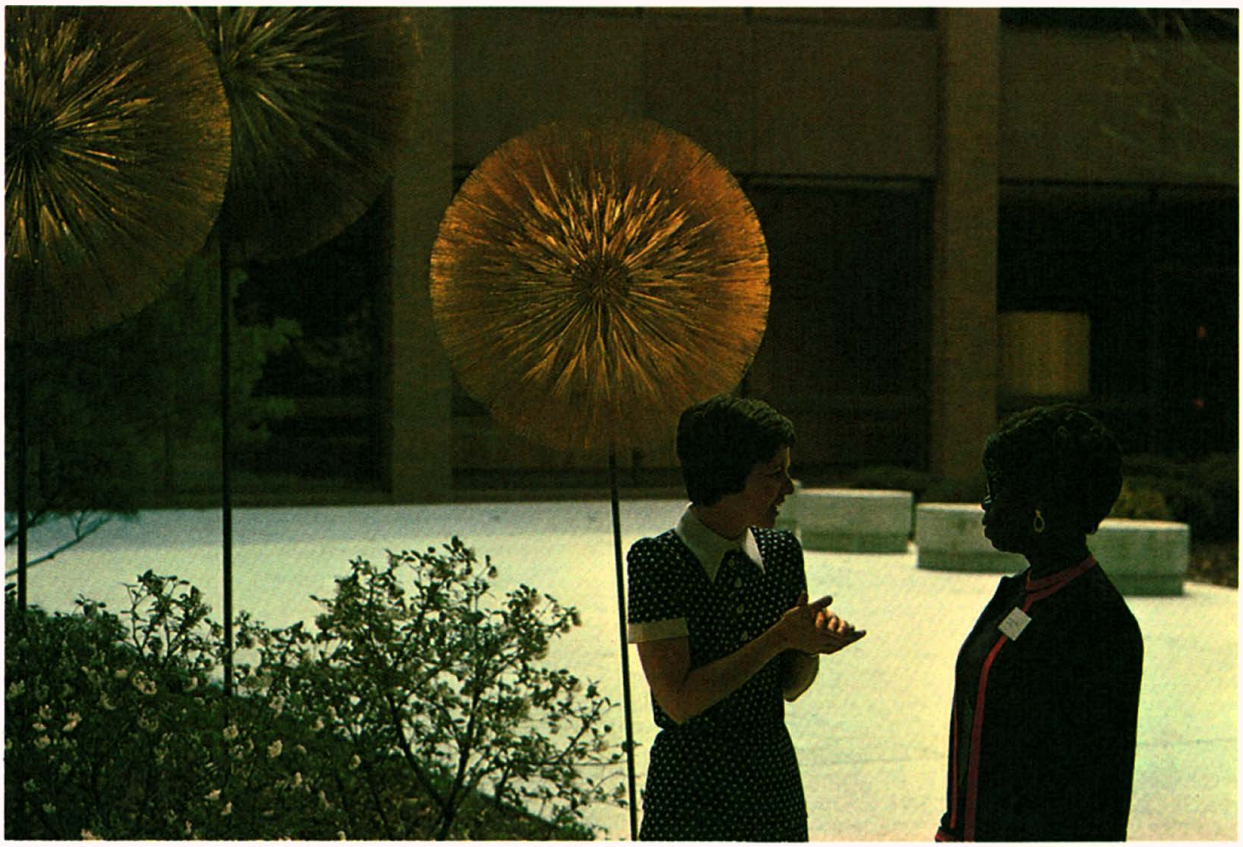
October 1983

BECAUSE it heard the silence of the heart
Its destiny was daring from the start:
Beginning with a searching eye whose gleam
Envisioned newer worlds for his kind,
It gathered to a great crusading cause
Whose faithful followers held high the torch
For ***fiat lux*** *and all the world to see.*





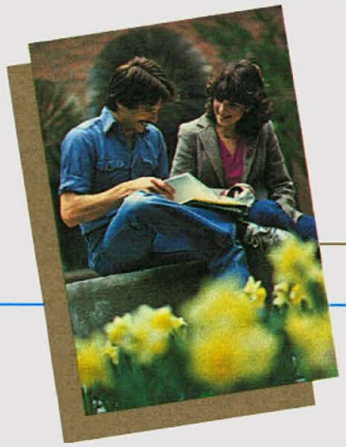
NTID! Its time and tide had come
To integrate the hearing and the deaf
In kindred studies on a common campus,
Each learning from the other an awareness
Of human needs, of unfulfilled desires,
Of breaching the divisive wall of silence
And bridging the communication gap.

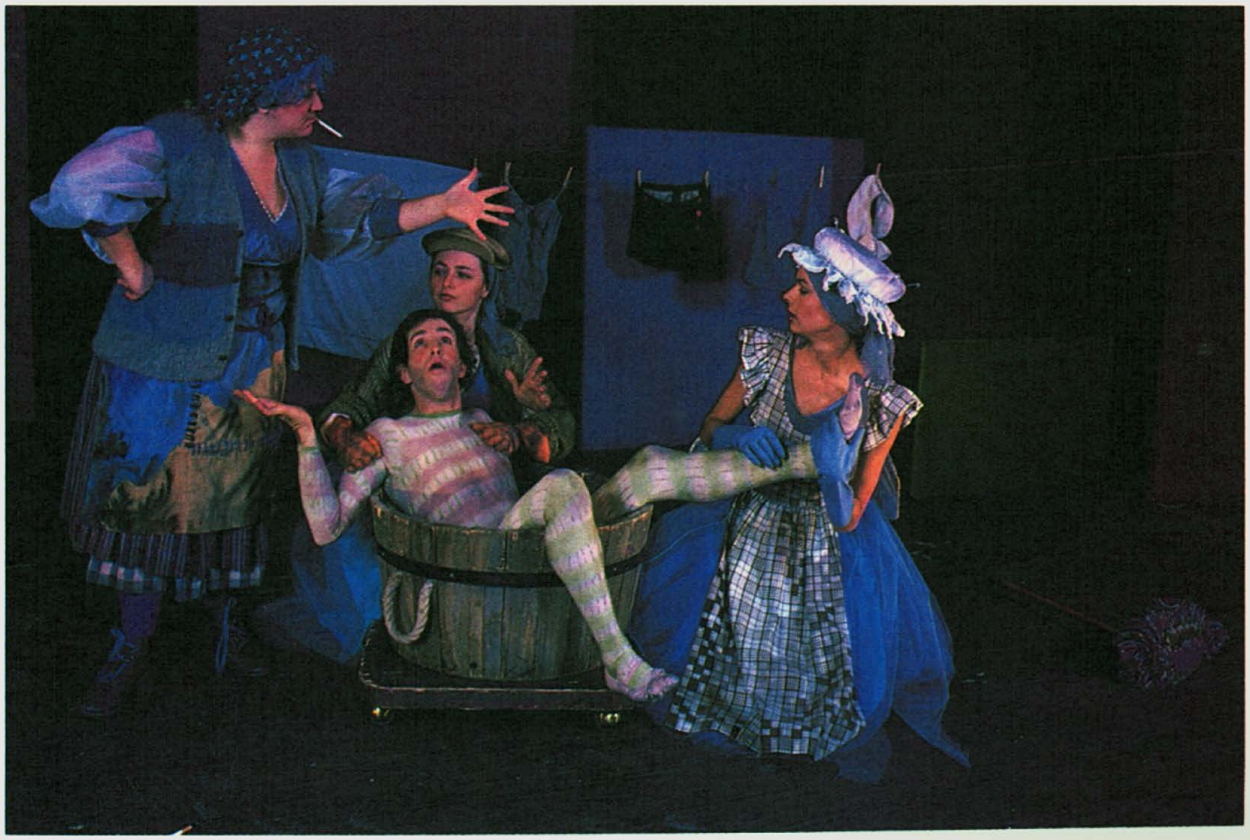


AND theirs became the challenge and the charge
To mingle with the mainstream and to master
Their little fears and hang-ups and preludgments—
Not to belittle but be big of heart.
And from the experience in their vestibule,
Where stand the many ports of destiny,
Embark upon their chosen Odyssey.

MEANING so many things to these our people,
Today we pledge to dedicate anew
The dreamers and the dream they kept alive,
The spirit and the spur of "New Frontiers,"
The promise of "The Great Society"—
Our ***open sesame*** *at RIT!*

—Robert F. Panara





Produced by the Public Information Office and Media Production Department at the National Technical Institute for the Deaf, and Communications at Rochester Institute of Technology.

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15

Rochester Institute of Technology

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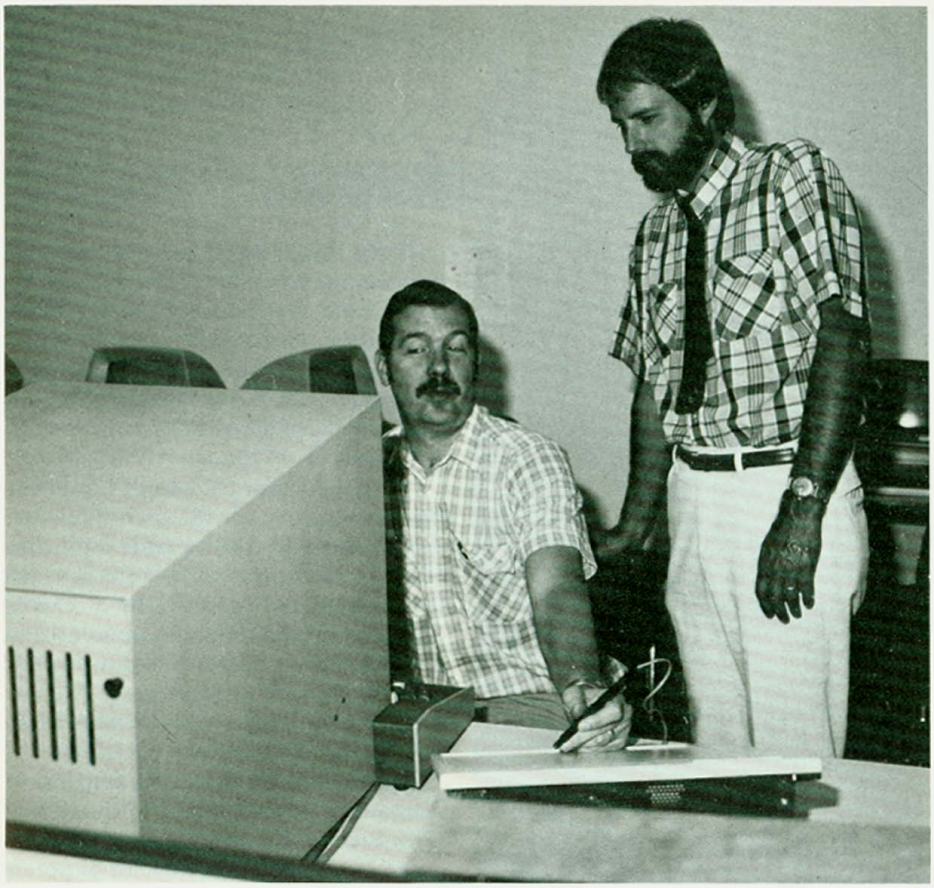


John Croke works at an interactive graphics computer terminal under the careful scrutiny of Robert Manz, manager of Typing Analysis and Design for the Westinghouse Nuclear Technology Division.

"Getting Your Job Done: An Employer Training Program" is designed for personnel managers, Equal Employment Opportunity/Affirmative Action representatives, and other policy makers within companies.

The first workshop focuses on the one-to-one relationship, while the second focuses on policy development, the interviewing and employment process, and internal company communication necessary to ensure the success of a hearing-impaired employee. Currently, NCED is in the process of packaging these programs so that they can be used by other professionals in the field of job placement with hearing-impaired students or clients.

NCED is also developing a reference book for supervisors, personnel managers, and trainers of hearing-impaired employees. The book will be a comprehensive guide containing facts and misconceptions about deafness, methods of communication, reading and writing skills, interviewing strategies, guidelines for testing, using an interpreter on the job, adapting audiovisual equipment and telephones, and telecommunication and signaling devices.

In addition, NCED's Community Support System involves consultants living in selected cities who assist NCED with employer development, training of supervisors, and monitoring and evaluating students fulfilling co-op requirements.

Despite this plethora of organized programs developed by NCED, Menchel and Dr. DeCaro assert that it is often the human element which gets students through the door at many companies. The first person contacted at IBM had a deaf son, for example. AT&T approached NCED through regional vice president Frank Blount, after he became a member of NTID's National Advisory Group, of which he is now chairman.

"They may not have had a personal relationship with deafness," Dr. DeCaro says, "but they've encouraged their own professionals to become involved in employment of deaf and other disabled people. Normally, the people who are easier to do business with are people who understand the position of an individual who's had to overcome some obstacles to employment. They are people willing to put aside their own biases and give a disabled person the opportunity to try."

—Emily Leamon

15 ***1976-77***
The first NTID Mini-Convention is held at the Institute, offering professionals from other universities and schools an opportunity to share ideas with NTID professionals.

Mentors Guide Students *Through Academic 'Odyssey'*

"In *The Odyssey*, when Odysseus returned from his troubles to seek his domain, his advisor and faithful friend Mentor stood beside him."

With this statement, Dr. Bonnie Meath-Lang begins a workshop for faculty and staff members who are interested in becoming "mentors" to NTID students.

Approximately 25 potential mentors have gathered to find out what mentors are, what is expected of them, how much time is involved, and what strategies have worked best for others who have volunteered to undertake this special role.

Although mentoring has occurred naturally since NTID was established, this group will be involved in an arranged relationship where students who need help in specific areas are paired with knowledgeable faculty and staff.

"You will notice in our opening quotation that Mentor is called the advisor and friend," Dr. Meath-Lang explains. "In that ancient meaning there was a special relationship reserved for the mentor." She asks the group what adjectives come to mind when they think about mentors who have influenced their careers. Answers came quickly. "Older, wise, confident, caring, honest, tactful, insightful, helpful, patient, resilient, supportive, successful." Placing these lofty characteristics before the group, Dr. Meath-Lang discusses how they can become "caring, supportive, wise, and insightful" mentors for a new crop of NTID students.

She points out that mentoring is an undertaking that requires intensity, commitment, and common goals. "Some of the first questions to be answered are, 'How much time can I realistically give this person? How much time can I realistically demand from this person?' If there is some misunderstanding of expectation on either side, the relationship will be disrupted," Dr. Meath-Lang says.

Rod Reilly

Janet Marventano, left, and student Lisa Nichols head for the Staff Resource Center to view some videotapes.

"This is what happens. Sometime during the first week of the quarter, this unknown person shows up at your office and tells you he or she is looking for an 'independent study.' That means a mentor."

Georgene Fritz is an energetic hearing-impaired staff member of the Division of Career Opportunities' Special Projects team. She has been a mentor for five quarters, in order to maintain contact with students.

"I had been a teacher for a long time and I missed that kind of contact, so I volunteered," she adds. "When students arrive for their independent study, they usually present you with a form which asks you to develop objectives, activities, and a method to evaluate their progress. I find out what their expectations are, what kind of help they are looking for, and how many hours per week they need. I usually call their communication advisor and ask if there is a specific project they want the student to work on or if there is a specific language or communication need."

Robin Remillard, Fritz's protegée, is an accounting major from Miami, Florida. She took an independent study in order to pass her English competency before she graduates. "My English improved faster with Georgene's help," Robin says. "She also reminded me of things I had forgotten."

A second factor Dr. Meath-Lang mentions is intensity, or the energy a person can put into the mentoring relationship. "You must consider how well the needs of the protegé are defined. If you end up having to define those needs, some time is taken from the actual relationship and what you can do. However, if you and the protegé can work out the needs together, that can be beneficial."

Dr. Meath-Lang tells participants to consider the level of sophistication of their protegé. "Is this person a first-year engineering student with a lot of potential or a third-year secretarial student who needs a specific kind of experience? Is the reason for entering the protegé/mentor relationship to help assign goals or to provide more information to an already solid knowledge base?"

Janet Marventano is an information assistant in the Public Information Office; Lisa Nichols is a third-year Office Practice and Procedures student. Mentoring is a new experience for both. Lisa sees her independent study as a good way to make the transition from the classroom to an actual work setting and wants to learn more about people relationships on the job, while Marventano wants to learn about student life and improve her sign language skills.

"Lisa and I meet twice a week for an hour to work on skills that we have agreed on," Marventano says.

Lisa is keenly interested in the office's word processing equipment—she has been trained on similar equipment and is eager to see if she can manage on these machines. For 15 minutes, she explores the capabilities of the equipment, adapting her technique and skills where necessary.

To help workshop participants understand some of the particular problems that may arise during a mentoring situation, Dr. Meath-Lang presents a case study.

> "Robert is Blake's new graduate intern. Three weeks before Robert arrives, Blake gets 'vibes' that Robert has had problems. Robert doesn't like his profession and is not competent in a number of practical areas. He's defensive when Blake offers suggestions. However, if Blake does not give Robert a good internship evaluation, Robert cannot be licensed."

In this case, Dr. Meath-Lang points out, the "vibes" centered on personality, and for that reason, Blake tried to ignore them. The problem was solved when Robert chose another mentor.

The new mentor and Robert sat down and discovered some important facts. Robert had been "pushed" into his profession by his parents and was relieved to discover that there might be an "out" —a possible change of major. Both mentors were then able to sit down and write an evaluation.

"Those people had to find Robert's strengths in order to recommend alternatives," Dr. Meath-Lang says, "which sometimes is the real trick."

Another problem-solving strategy which Dr. Meath-Lang advocates is journal keeping. "I am a strong proponent of this," she says. "It is how I make sense of experience and I think it can be useful for other people." She stresses that journal keeping must be a two-way street with both mentor and protegé. "There has to be an awareness of what you are asking a person to do. It is time consuming, it is emotionally consuming, and it works differently for different people. Some record events, others record feelings."

Since many mentors work on students' writing skills, the journal technique is not always used. "If I weren't working on writing, it would be beneficial," Fritz agrees. "But my students must bring a paper to each session and we work on that paper. Then they write something new for the next class, in addition to correcting the paper they wrote with me. Last quarter I had a student who was having problems finding a co-op job, so we worked on how to write a letter of introduction and how to write notes in answer to an interviewer's questions. While we were writing letters of introduction, we also worked on letters to her friends explaining what she was doing in school. This way, we worked on English in two areas that were important to her at that time."

Dr. Bonnie Meath-Lang, coordinator of the mentoring program, discusses problems and solutions with mentor Georgene Fritz.

A. Sue Weisler

Some workshop participants question whether journal keeping benefits students with poor English skills.

"I have found that, qualitatively, students' journals tend to be a little better than their normal writing about topics with which they are not familiar," Dr. Meath-Lang says. "Their writing skills are lower when they are struggling over lab reports or new material than when they are writing about something important to them."

She further explains that students write on many different levels as they become involved in the process. "Many write personal things they don't want me to see, so I tell them they must trust me. I suggest that they clip together those pages they prefer to keep private. Some entries may be only for the mentor, while others may be open to public scrutiny."

This also brings up an ethical problem. What happens if a student writes something in a journal that indicates serious trouble? What is the ethical responsibility of the mentor? What about confidentiality? To illustrate, Dr. Meath-Lang offers a second case study.

> "Joanne, a mentor, and Marisa, a student, keep a dialogue journal. Marisa's entries are consistent, but have grown away from the subject matter. Marisa is depressed. Joanne is upset by the entry: "Sometimes I think other people would be happier if I weren't around."

Dr. Meath-Lang suggests it be made clear to the student that confidentiality will be waived only if it involves a possi-

15 **1977-78**
Dr. William Castle becomes NTID's second director, succeeding charter director Dr. Robert Frisina, as student enrollment exceeds 700.

ble life-threatening situation or if the student indicates involvement in anything illegal, such as drug dealing.

Mentors and protegés are encouraged to share problems and solutions with others in the program. "While the nature of the mentor/protegé relationship is an individual one, focused between two people, shared experiences can sometimes lend objectivity," explains Dr. Meath-Lang. "You can have a clinic on a special topic or a social one such as, 'How are things going halfway through your experience?' This sharing lends a broader prospective to the relationship."

She points out that films and videotapes are available for mentors and protegés to see. "Both can watch a film and present their point of view, or they may want to write something separately and exchange it." She cautions mentors to get the student's viewpoint first, "because if you present yours first, the student will tend to think yours is the right way."

Lisa wants to know how to get ahead in a company after being hired, so Marventano has arranged for them to view the videotape, "It's Up to You." The film follows a young woman through her adjustment to a new job and gives advice on how to advance in the company. Lisa watches intently and nods several times as she compares her summer co-op experiences to those of the young woman. The film recommends that new employees "get to know the people," "get involved in the job," and "become acquainted with the organization." Lisa tells Marventano that she became acquainted with many of her co-workers during the previous summer, but still doesn't know too much about the organization. She now knows how to proceed.

Dr. Meath-Lang also suggests using the "escape" technique. "Sometimes, things may not be going well in the mentoring relationship. It could be that neither person has had the opportunity to see the other outside one narrow situation. Escape might mean going for a session at home, holding a session at a job site, or just meeting at another place. Sometimes distancing yourself from the environment brings out other aspects of one's experience that might not have been considered possible before."

She explains that the mentoring relationship requires a great deal of dialogue. "That dialogue can take place in informal meetings or writing, but it must continue for the mentoring relationship to succeed."

Part of this dialogue is the expectation that transformation will happen on both sides. "We must keep before us the notion that the person being helped also has insights," she stresses. "The greater the recognition of those insights, the greater the possibility for personal growth of the mentor as well as the protegé. This is the payoff of the energy and intensity that is put into the relationship."

"While the nature of the mentor/protegé relationship is an individual one, focused between two people, shared experiences can sometimes lend objectivity."

Fritz works primarily with employers, preparing and educating them to hire and accommodate hearing-impaired workers. "Even though I have daily contact with students, I don't teach and have limited knowledge about each academic department," she says. "I really enjoy having protegés because I find out from students what they are doing in their majors. I can pass that information along to employers. When I talk to them about what we offer, I have had exposure to various students and how they function."

"We've been talking about discipline-related and knowledge-related mentoring, which is the more intellectual side," Dr. Meath-Lang adds. "However, there's another side that involves lessons in survival. We must admit to ourselves that when we had 'motivated, insightful, confident, helpful' people as our mentors, they helped us not only by providing knowledge, but also by showing us 'how to play the game.' That sounds less than exalted, but it is part of the reality that all professionals in working environments find themselves—in situations where they must learn to survive. You can teach students the proper responses to certain high pressure situations—in short, how to survive at an educational institution, how to survive in a business."

Dr. Meath-Lang also suggests that students should be taught documentation. "Show them how to match expectations to accomplishments. If they can show that they were expected to do certain tasks—and have accomplished all of them—they have established documentation."

Goals and expectations also figure prominently in the final evaluations at the end of the quarter. Dr. Meath-Lang explains that mentors are bound by a grading system, and that evaluations should be narrative. She admits that this can be difficult since people may not want to face the negative aspects of the experience and don't want to hurt someone's feelings.

"The way you can avoid this is to set goals in the beginning and then match the accomplishments to those goals, giving as many specific examples as possible and making recommendations that are feasible, based on your protegé's strengths as you see them. And encourage the protegé to do the same for you."

—*Lynne Williams*

The Magic Slate & Other Tales

There is a well-known children's story called *Stone Soup*. It tells of a trio of soldiers who approach a small village looking for food, only to be told by the townspeople that they have little at their disposal. So the soldiers inform the villagers that instead they will make a huge pot of "stone soup," copious enough to serve them all heartily. They start with a cauldron of boiling water into which they drop three stones. It will be a fine soup, they say, but it would be even better if it contained a few ingredients none of them seem to have. However, one by one, the curious onlookers begin producing a singular item from their larder—a tiny carrot, a lone potato—until the soldiers have concocted a truly marvelous soup.

Of such a soup is NTID composed. With little in the way of instructional technology for deaf students to serve as a precedent, individual contributions from a variety of persons have brought forth a blend of talent and invention resulting in a wealth of innovative additions to the NTID curricula. More often than not, these projects represent a combined effort. Technological advances pioneered or evaluated by NTID in 15 years' time astonish in scope and number.

The Magic Slate

One of the more recent inventions to come off the drawing board of Applications Engineer Robert (Bob) Murray, of NTID's Division of Instructional Design and Technical Services, is a computerized classroom teaching tool he has dubbed "The Magic Slate." Originally intended as a Christmas gift this past year for a son who is in college, the Slate has evolved into a computer program, written by Murray, which can provide lessons and vocabulary study in any NTID career area.

Murray has structured the program so that teachers using it can write their own lessons without having to program the computer. Thus, a teacher with little computer experience can enjoy the benefits of The Magic Slate without the possibility of attendant headaches.

Before students see the lesson, they read a number of cleverly written "information frames" which ease them into the operation of the computer. After the lesson, they can take a test, either on the computer or on paper.

The tests are of the "fill in the blank" variety. Multiple choice questions can also be accommodated. Scores are recorded on the lesson disk and can be recalled into the computer's memory for use by the teacher.

Eight lessons can be composed and recorded on each lesson disk for The Magic Slate. Teachers who have incorporated it into their classroom instruction have helped Murray work out some of the "bugs."

One which he had to adapt immediately was the computer voice which he had built into the original design for his son. Instead, The Magic Slate now captures students' attention by flashing words on the screen at appropriate moments, a solution that Murray feels is probably better for hearing and hearing-impaired students alike, given that the

A. Sue Wetter

Dr. Henry Maher works with students on the Magic Slate.

15 **1978-79**
The National Center on Employment of the Deaf (NCED) is formed at NTID to serve as a national agency and authority on employment of deaf persons in the United States.

accuracy rate of computer-synthesized voices is not yet 100 percent.

The "computerized teacher" has captured the attention of faculty members as well. Several who have used it as a supplement to their courses note that its ancillary benefits include improving typing and spelling skills. It has been used by science teachers for the past few academic quarters, and has recently been added to the curricula of English and Visual Communication courses as well.

Dr. Henry Maher, associate professor in the Department of Applied Science/Allied Health, has used The Magic Slate in his biology, anatomy and physiology, and pathophysiology courses. His use of it evolved in much the same way that many joint projects at NTID arise: he was talking to Murray about ways in which he might improve his students' vocabulary skills, and Murray gave him a copy of the newly designed program for The Magic Slate. Since that time, Maher has written several modules for various courses which reinforce vocabulary skills in those areas.

According to Maher, The Magic Slate handles a limited number of terms, which permits close monitoring of students' progress.

Scores are recorded automatically each time students test themselves. He has found that nearly every student achieves an 80 percent mastery level on the subject treated.

Initially, Maher's students were excited by the newness of The Magic Slate. And whether or not the novelty wears off, Maher continues to be favorably impressed, particularly when he compares it to similar commercial programs, which he terms "inadequate."

Dale Rockwell, another associate professor in the same department, teaches chemistry and medical laboratory technology.

Of The Magic Slate, he says, "I find it useful in that it affords a way of drilling and practicing important terms encountered in teaching chemical formulas and names. In the past I've used it as a testing method for students, and awarded them extra credit if they passed a test."

Rockwell discovered The Magic Slate while passing by Murray's office one day.

"I saw him playing with the computer," Rockwell recalls, "and asked him if I could try it. In the process, I suggested some modifications to which he was very receptive. My students are more aware of 'computer friendliness' as a result of The Magic Slate. I've been working with computers for 10 years, and this is one of the best programs I've encountered."

A. Sue Weisler

John Panara, an adjunct faculty member in RIT's College of Liberal Arts as well as a captioning specialist in NTID's Instructional Television Department, watches a videotape he has captioned for students in a literature course.

Computer-Controlled Captioning

Since its inception, NTID has been generally acknowledged as a leader in the field of captioning—providing readable, comprehensible subtitles for films, filmstrips, slide shows, and television shows.

Providing this service had been, until recently, possible only through the use of expensive television equipment which produces "broadcast-quality" characters using a character generator (a machine which produces letters, words, or symbols for television), but at a price far out of reach of most schools for the deaf which desire captioning capability.

For the past five years, NTID had been searching for a way to produce the same quality captions (necessary for legibility at high speed), but at a cost which would make it possible for other schools to develop similar systems.

"The idea," says Instructional Television Captioning Coordinator Ruth Verlinde, "was to help the school decide what kind of equipment was needed, and then visit the school and get started with in-house demonstrations."

Providentially, a television equipment company has recently produced a new, low-cost character generator which, according to Verlinde, was designed to "interface" with a microcomputer. The ubiquitous Murray programmed the software for captioning use. Since many schools already have the small computer with which Murray worked, Verlinde expects to provide lecture/demonstrations in the near future, and NTID has begun using the system for its in-house work.

The new system also promises to help streamline the captioning process by using the computer's word processing capability to help edit scripts. It eliminates the need for re-typing when working from a paper script—all work is keyed directly into the small computer. Also, since NTID's Captioning Center has several of the small computers (as opposed to only one of the large systems), there are more workstations for the captioning editors.

"As people whose business it is to caption," says Verlinde, "it makes us feel good to be in the forefront. When we get calls asking what's available in the price range of the average person or institution, we have an answer."

Associational Cues

There is one department at NTID which develops instructional materials for deaf students. The products—filmstrips, books, overhead transparencies—may not seem very *outré*, but the knowledge of how deaf students learn that is incorporated into the materials makes them innovative indeed.

It is NTID's Media Production Department, which combines the talents of media specialists, artists, designers, photographers, and technicians. One recent project, a book called *Associational Cues*, is now being analyzed and evaluated, a procedure undergone by many departmental products.

Associational Cues was written by Audiologist Marjorie Jacobs, with assistance from Instructional Developer William Clymer. Her text was taken by a production team which included an instructional developer, an illustrator, an artist/designer, an instructional programmer, a production manager, and the department chairman, and turned into an effective teaching tool which has had many more uses than its original intent, which was as a supplement to Jacobs' speechreading course.

The task of evaluating *Associational Cues* has fallen to instructional design and evaluation specialist Robert Bowen.

"The book has been used," says Bowen, "not only for its original purpose [which was to help hearing-impaired students identify and use environmental cues to improve their communication], but as a springboard for other instruction. It is a didactic tool, but its use promotes a lot of tangential learning, such as spelling and pronunciation, which originates from questions posed by the book."

Much classroom discussion is kindled by Marie Buckley's whimsical illustrations, which are densely packed with intricate detail. They can, however, be "pulled apart" and discussed in fragments, since trying to take in everything going on at once can be dizzying for even the most practiced eye.

The book also fosters what Bowen calls "serendipitous learning"—knowing when to talk softly, for example, or when there is a need to make oneself heard; what time of day an illustration depicts, indicated by the presence of a hot dog cart; how to tell, in the book and on the street, whether a bus is running and apt to leap out at any moment (from exhaust fumes spewing out the rear).

Rehabilitation Audiologist Katherine Fragassi used the book in her speechreading courses. She believes that the book fills a valuable need for deaf students, and that the subject matter, an NTID graduate having an interview, was well-chosen, as it has more immediacy for the students than other possible settings.

"Our students have a hard time picking up the subtleties that clue us in to the dynamics of a situation," she says. "But in my view, this is only one example of the excellent instructional materials produced by NTID. In fact, I recently attended a convention for educators of the deaf where I overheard two persons commenting on the excellence of our materials. It's nice to hear them candidly appreciated like that."

Associational Cues is a book which gives a hearing person food for thought; many of us take for granted the verbal and non-verbal cues which are second nature to us, easing the course of our social interactions. But for a deaf person, they are a lifeline.

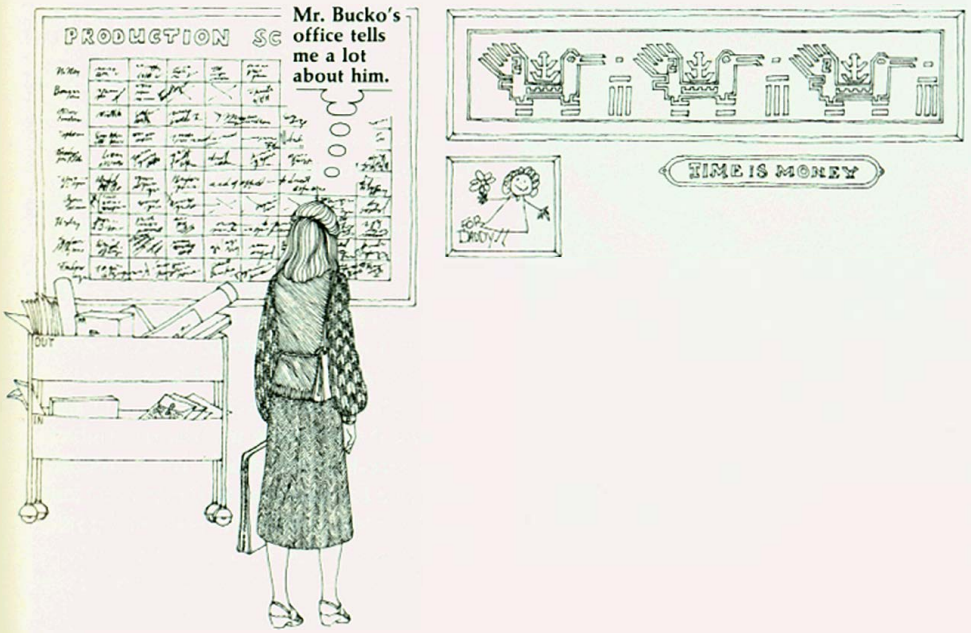
Writing While Speechreading

Another innovation springing from the fertile mind of Marjorie Jacobs is special embossed paper which allows a person who is taking notes to speechread at the same time. Jacobs does not manufacture the paper. Rather, she discovered a source who does and tried it out for her special purposes.

"At meetings, when receiving instruction, and when jotting down messages, a hearing-impaired person must write and speechread simultaneously," explains Jacobs. "Writing while speechreading has to be practiced, because the student's natural instinct is to look down when writing."

The paper Jacobs found was originally designed for visually impaired persons. She has worked with embossed notepaper, grooved fiber cards to place under regular notepaper, or magnetic "backing" cards for regular notepaper and magnetic strips. Most students prefer to use the grooved cards or the magnetic backing and magnetic place guides because they stay in place.

Jacobs begins with short items, such as numbers (telephone, room, addresses, dates) and gradually builds up to specific information written in short paragraphs. Some students, given appropriate aids, require no training, while others need practice.



One of artist Marie Buckley's illustrations from Associational Cues.

15 **1979-80**
NTID develops a program with the Graduate School of Education and Human Development at the University of Rochester to prepare graduate students as educational specialists for the deaf.

"I have found this practice to be particularly useful for poor speechreaders," says Jacobs. "The ability to write while speechreading assists students in recalling information."

DAVID

Another computer-assisted invention which has made its way into the classroom began as a research and development project produced by NTID's Communication Research Department. It is DAVID, an acronym for Dynamic Audio Video Interactive Device. DAVID consists of a color television monitor, a modified videocassette recorder, and a minicomputer.

DAVID is used mainly as the laboratory portion of communications courses which teach speechreading. It started as a project designed to add computer assistance to speechreading drill and practice, and auditory training.

Without the computer, teachers couldn't guarantee that students' speechreading was being improved by merely watching a videotape, because the students were not able to proceed at their own pace. Neither were teachers able to make use of the data gathered in testing students to make changes in instructional format. With the addition of computer control, teachers could ensure that students are drilled until they are able to produce correct answers to questions posed, as well as modify the drills.

Tamara Philips, a fourth-year medical record technology student from Montgomery, Alabama, found that practice with DAVID really paid off.

"As a result of using DAVID," says Tammy, "I genuinely feel I increased my speechreading capability."

Tammy is living proof that speechreading ability is not determined by residual hearing. Tests reveal that when relying on her hearing alone, she manages to understand only eight percent of what is being said.

With a background of early speech therapy combined with her own motivation to practice on DAVID, Tammy's score for speechreading ability alone is 47 percent. When she is able to combine speechreading with residual hearing, her score jumps to an amazing 60 percent.

Dr. Donald Sims, of NTID's Communication Research Department, has added computer control to six written speechreading lessons, one of which seems to fit the needs of most NTID students. Tammy worked mainly with sentences simulating a job interview, a potentially high-pressure situation which most students must face eventually. Other content areas involve RIT social encounters, surviving in the business world, and understanding sentences with technical language from the various NTID career areas.

DAVID, which has been in operation at NTID for five years, is the first computer/videotape combination of its kind in the world. It now can provide eight different types of drill and practice for students, depending on their hearing loss.

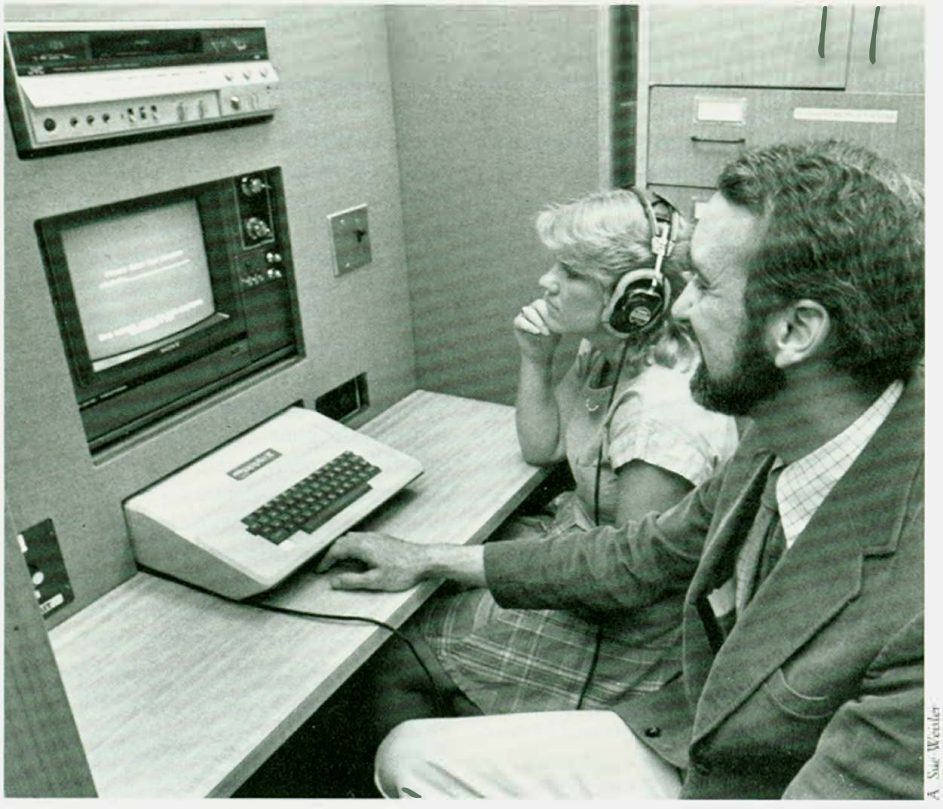
Instructional Developer William Clymer has developed an exercise for DAVID on phoneme discrimination—the difference, on the lips, between the words "wish," "fish," and "dish."

The computer can control the videotape to the point where a student can watch a portion of a videotape which sets up a situation, self-select a conclusion, and see the consequences—which is from whence the "interactive" nomenclature in the acronym DAVID derives. Several potentially dangerous or embarrassing situations and varying conclusions have been formulated into a lesson developed by Speech Pathologist Brenda Whitehead.

Recently, Communication Training Chairperson William Newell programmed DAVID for use in sign language training as well: beginning students are able to see the words they just learned in sentences and in connected discourse.

Again, rather than just playing a videotape and hoping students pick up all the signs, if students miss a word in the paragraph they have just seen, which is determined by testing, the computer offers to review the missed words, something a videotape alone could never do.

Like the new low-cost captioning equipment, the computer which operates DAVID is in the public domain and can be reconstructed by interested parties. In fact, Dr. Sims has demonstrated it at the Royal Institute of Technology in Stockholm, Sweden, and at a convention of the American Speech-Language-Hearing Association in Toronto, where it garnered prizes both for scientific merit and for excellence of presentation, based on an exhibit prepared by the Media Production Department.



A. Sue Weisler

Dr. Donald Sims works with student Tamara Philips on DAVID.

Rod Reilly

Student Roger Gregory works with Ronald Till on the PROducer.

Computer-Aided Drafting (CAD)

Thanks to a corporate contribution, conventional drafting tools such as pens and pencils, erasers, straightedges, templates, and even the drafting board itself may soon be obsolete at NTID. A computer-assisted drafting system, the "PROducer," was contributed to the school by Bausch and Lomb, Inc., and is being incorporated into the curricula of the architectural, civil, industrial drafting, and electromechanical technologies programs. It is a tool that makes designers and drafters more productive by helping them draw faster, more creatively, and with greater accuracy.

Time-consuming revisions and repetitive detail work are all but eliminated with the PROducer, and its automated capabilities greatly increase productivity. Yet, it is "user friendly"—drafters need no previous experience with computers to master its operation.

Ronald Till, an assistant professor in the Industrial Technologies program, indicates that an ongoing inquiry into the appropriateness of CAD in the NTID curriculum elicited the information, mainly from one of NTID's many Program Advisory Committees, that graduates with skills in CAD would be highly desirable. The Bausch and Lomb contribution just happened to come along at the right time.

This fall, NTID's Engineering Technologies Departments purchased three more workstations, bringing the total to four, so that there is now a "user room" devoted exclusively to CAD instruction.

The PROducer, in addition to being able to "blow up" a small portion of a drawing, can also telecommunicate drawings from place to place in minutes. All the tricks this machine can perform have attracted a cadre of highly motivated students.

To maintain student interest and ensure success, a team of individuals was formed to develop, test, and revise a set of instructional modules to be used with the system. The team effort involves Assistant Professor Dr. Michael Steve, Media Specialist Donald Lichty, and faculty members from NTID's Engineering Technologies Departments.

While manual drafting skills are still being taught at NTID, CAD will also be incorporated into any course in which drafting plays a part.

At NTID's request, Bausch and Lomb added a light cueing system to the PROducer, a minor modification which potential employers are asked to make when they hire NTID graduates. The cueing, Till feels, enhances the performance of hearing as well as hearing-impaired users.

"Potentially, there may be an associate degree program in computer graphics, but we would have to do a lot of research to make sure there's a market for that kind of graduate," Till says. "Right now, our Program Advisory Committee is saying that by the end of the decade, electronic drafting will probably replace manual drafting entirely."

15 ***1980-81***

Hearing students are offered a two-year associate degree program in Interpreting for the Deaf, which emphasizes sign language and oral interpreting skill development as well as training in delivery of other educational support services.

Computer-Controlled Special Effects

Computers are showing up in all corners of the Institute these days, as is an array of sophisticated equipment to be analyzed and put to use in the classroom. According to Assistant Dean Thomas Raco, NTID's Division of Visual Communication Careers has recently attracted approximately $250,000 worth of corporate contributions, including additional typesetting equipment, a color analyzer, and a platemaker.

Most novel was a contribution by the Marron-Carrel Company of Phoenix, Arizona, that allowed NTID to purchase one of its computer-controlled special effects production cameras for making optical slides. The microcomputer-driven machine is being used by students in NTID's Applied Photography/Media Production Department.

"This donation was a happy coincidence," says Department Chairperson Bary Siegel. "We were looking at ways to complement and update our curriculum in media production. Already we have discovered that a machine like this does in five minutes what used to take three days, but it was so inefficient and uneconomical the other way that nobody bothered to do it, so it has taken us far beyond our previous capabilities."

The equipment, which is valued at $60,000, produces 35mm slides using multicolor special effects and is used to teach basic special effects slide production as a part of existing courses. It turns out title slides, copies, and other effects from flat art work and transparencies.

The dazzling zoom effects, repeated patterns, and rotations which can be created on slides with the machine are better seen than described. Again, a Program Advisory Committee, industry contacts, and NTID alumni indicated to Siegel that this might be the wave of the future in his field, so that thought is being given to planning a whole series of courses around this type of slide production.

The machine has been in use at NTID for approximately a year; in two years' time Siegel envisions all the curricular changes being in place. The results of research already in progress will be used to determine if there indeed is a ready market for graduates with these skills.

These two optical slides were produced by Media Production Photographic Assistant Mark Benjamin.

Assistant Professor Thomas Policano attended a training session on the use of the machine and made several contacts. Consequently, RIT's Technical and Education Center of the Graphic Arts sponsored similar workshops on campus for faculty and industry

Such efforts enable faculty members to cultivate potential employers of NTID students and provide feedback for the Media Production curricula.

"One of the benefits of having the machine on hand before the curriculum is fully in place is to give the faculty a chance to become familiar with it and to 'de-bug' it; this gestation period will really be valuable," says Dr. Raco. "In addition, it provides a complement to RIT's goal of infusing computer applications into all curricula."

—Emily Leamon

PROFESSIONAL DEVELOPMENT

The Learning Never Stops

Mort Nace welcomes a participant to the "Deafness—Up Close" workshop.

No one joins the NTID staff with all the skills and knowledge necessary for total success within this special institute. New faculty and staff go through continuous growth and development, requiring some degree of orientation, education, and training.

Toward this end, one of the Institute's eight basic responsibilities is to conduct training programs, seminars, and short courses relating to deafness for RIT personnel, graduate students preparing to work professionally with deaf persons, and other special groups. It is a responsibility that is taken seriously.

"In the early years, such training focused primarily on the impact of deafness from the social, psychological, cultural, and linguistic aspects," explains Karen Hopkins, manager of the Department of Training and Media Services. "Today, we not only examine the impact of deafness, but also organizational development and personal and professional growth."

Workshops and seminars were developed based upon responses to an in-house questionnaire, and were categorized into areas such as institutional support, secretarial, managerial, and personal growth.

Today, offerings are publicized in the department's *Professional Development Quarterly (PDQ)*, and include such courses as Communication Between Hearing and Hearing Impaired in Groups; Assertiveness Training; Leadership Training; Deafness Simulation Experience; Appraisal Interview Skills for Managers; and Motivation in the College Workplace.

Last year, an Integrated Training Group comprised of personnel from Training and Media Services, Communication Training, and Teaching Effectiveness coordinated efforts to determine what functional job categories existed at NTID and what skills people needed.

A questionnaire sent to all faculty and staff identified 16 functions and four stages at which a particular skill should be mastered.

Once the findings are compiled and basic competencies are identified, the three departments then will develop curricula to help NTID faculty and staff gain the basic skills and knowledge they need to be efficient in their jobs.

One of the more recent course offerings is a program in computer literacy. "We started some programs last year which offered faculty and staff an opportunity to become familiar with the Apple Computer and its applications," Hopkins says. "In the years ahead, we will get into particular software packages in data base management, record keeping, and computer graphics that may be applicable for professional staff, as well as packages in word processing that might be useful for clerical staff."

Hopkins expects computers to be a major focus of the department in the next five years. "We have offered the 'Introduction to Computers' course to hundreds of staff members and we still have a waiting list," she laments. "This fall, we project as many as eight sections which would accommodate another 160 individuals."

The computer literacy workshop is but one of the internal training offerings coordinated by Training and Media Services.

"Many of the course offerings will be related to deafness," says Shirley Baker, program assistant. "We're changing from a broader spectrum of the training field to things directly involved with deafness."

Training and Development Specialist Mort Nace adds that they must furnish "what a person needs at NTID to be effective professionally."

In the early years, the department also offered courses to make people aware of cultural opportunities in the Rochester community. "We offered courses on the

15 ***1981-82***

Oviatt Memorial Fund develops programs to enhance relationships between deaf and hearing students, and to support the Institute's innovative educational travel program.

arts and theatre," Baker says, "strictly for personal growth. Today, however, all offerings must be work-related."

"We still have a wide range of courses," Nace stresses. "Fifty-five people attended the first session of 'Communication with the Hearing Impaired.' With a large population of hearing-impaired faculty and staff, the interest is evident. Shirley's class on 'Yoga as Stress Management' also has had a good turnout."

Baker concurs. "Stress management has a direct bearing on how people function on the job. Some people take aerobics, some take Yoga, some do both. This is a crucial part of how people deal with their day."

One of the more popular offerings is a panel called "Deafness—Up Close," which is offered at least twice a year. "The panel is made up of deaf faculty, staff, and students who tell their personal stories," Baker says. "The panel is different each time it is presented, and it is always fascinating."

Other courses offered inform people about what types of support equipment are available for hearing-impaired people. "We have a workshop on how to use TDDs," Baker says, "that is for everyone in the Institute, whether or not they personally need to use one."

Another important part of the training program is furnishing information for graduate and professional interns. Associate Professor Jane Bolduc coordinates the Internship Program for NTID. Bolduc also conducts intern seminars which orient interns to deafness and NTID's various departments.

"We try to make personal contact as soon as interns arrive and let them know what's available," Bolduc says. "No matter how long they are here, it's a good opportunity for them to get a jam-packed information package, depending upon what we are offering at the time."

NTID has hosted about 60 graduate and professional interns each year since its establishment. Many interns come from as far away as Australia and Argentina. By providing for their professional growth, the Institute has an impact on deaf persons throughout the world. "It's really exciting working with interns, knowing that they will be working with deaf people when they leave," Bolduc says.

In order to evaluate the success of the internship program, Training and Media Services surveyed several interns, asking questions such as: "Did this program have any impact on your life? Are you now working with deaf people? Are you interacting with deaf people in any way? Are you helping provide support services for them in communication? and What are you doing that occurred as a result of your coming here?"

Shirley Baker (center, in striped shirt) leads a class in "Yoga as Stress Management."

One graduate intern responded, "My internship at NTID has helped me professionally, personally, and socially. My experiences at the Institute have made me aware of the needs, of the do's and don't's of communication with deaf people, and the areas in which hearing people need to be educated concerning deafness."

Another said: "It has had a great impact on my life! The faculty and staff at NTID are efficient, knowledgeable, and caring. I gained helpful advice and continuing friendships."

According to Bolduc, the response has been positive. "Many interns credited the program with giving them an understanding of deafness, an introduction to sign language, and the necessary skills to get a job working with deaf people," she says.

In addition to these workshops and seminars, Baker and Nace offer courses such as time management for individual departments. Sometimes a group process is used with departments or groups to develop goals, leadership, and more effective teamwork in general.

"In addition," Nace says, "we also do a lot of one-on-one counseling, especially career counseling to support faculty and staff in their search for personal and professional development."

Baker points to the time and energy that presenters put into a workshop or seminar. "Presenters do vary, of course, but usually their offering for one workshop represents hours, maybe weeks of work, and sometimes—depending upon what the material is—even years of background experience."

Nace agrees with her assessment. "In some ways it is harder to make a three-hour presentation—a one-shot opportunity to have an impact on participants—than to give one that is broken down into 15 sessions," he says. "If you 'miss' on sessions 4, 9, and 11, you can always recoup in later sessions. But in a single workshop—that's it. The curtain goes up. Either you make it or you don't."

Both Baker and Nace are pleased by the increased interest being shown in research seminars. "It's exciting to see the change," Baker says. "I remember seminars where only three people showed up. Last year, when Mike Stinson [a research associate for Educational Research and Development] conducted

Rod Reilly

(Top) Peg Mikel, corresponding secretary for the Department of Training and Media Services, fits Michael D'Arcangelo, a member of RIT's Department of Student Activities, with tinnitus maskers to simulate deafness. (Above) Jo Bausch, left, chats with assistant professor Jaclyn Gauger during a workshop break.

a seminar, 55 people registered for it and *everyone* showed up."

Nace believes the increased interest is caused by "a recognition that this is one way to let others know what is going on in a particular area of work. The research department has a definite interest in spreading the word about what it is doing and what impact it has on us."

At the end of each workshop, seminar, or course, participants are asked to evaluate the offering, which Nace says "helps to give us a barometer of how people feel about the presentation."

Many training programs are no longer limited to internal audiences, but are offered to the Rochester community as well.

"We give deaf awareness workshops for librarians, special educators, even bus drivers," says Jo Bausch, coordinator of the program, "but the majority of the participants are teachers. The first workshop last year was for a group of elementary, junior high school, and high school teachers who had never taught deaf students. They were on the verge of panic and full of questions: 'How am I going to communicate? How am I going to teach these children what they need to know? How am I going to do this without short-changing the hearing children?'"

To sensitize these participants to deafness, they are fitted with tinnitus maskers at the beginning of each workshop to render them "deaf." The maskers not only shut out sound, but also create a static-type noise commonly experienced by hearing-impaired people.

"Then we set up everyday situations —a store, a hospital, a bank—where people must communicate," Bausch explains. "We tell them to stand in line and go up to the desk and follow directions indicated on small pieces of paper. At the hospital they may have to set up an appointment because they have a rash. When they try to carry on a conversation with the person at the desk, that person may deliberately frustrate them by refusing to look directly at them—something that hearing people do all the time without thinking. We point out that teachers are always looking away to write on the blackboard."

The next step to familiarize participants with deafness is to turn on a television set without the sound.

"We usually have the *Phil Donahue Show* because almost everyone is familiar with the format and they are always sure they will be able to figure out what is going on even if they can't hear it." Bausch gives a short chuckle. "It takes about six minutes for them to get totally frustrated by not being able to hear. That's when I put in a plug for captioned materials."

Bausch is pleased that "more things are being captioned all the time. I would say that 95 percent of the companies contacted agree to give us their material in an uncaptioned state. We then caption it and return it to the company for them to market, while retaining one copy for our use here."

After the silent television and captioning segments of the workshop, participants critique their experience thus far. "I go down the row and ask everybody to speak because they all need to vent their feelings at this point. They talk to me and to each other. One person will say something and another will say, 'Oh, I forgot. That happened to me, too.' They get excited about their feelings."

During the afternoon session of the workshop, Assistant Professor Jimmie Wilson conducts a workshop on tutor/notetaking and Charles Johnstone, an audiovisual specialist for Training and Media Services, instructs participants about how to purchase and use TDDs, how to caption slides, and a myriad of other useful information.

"We also give out pamphlets," Bausch adds, "and show people different types of support equipment which most people don't even know exist. Many people were amazed to discover there is a telephone number in Rochester which they can use to get in touch with deaf people who have TDDs [The Hi-Line Communication Relay Service]."

One thing which surprises Bausch as she conducts these workshops is the variety. "I thought that after I'd done one and gotten the system working, I'd get very similar reactions. Not so. It's different every time, depending upon the chemistry of the group."

She recalls one group of participants who did not know each other very well, but talked among themselves when they could hear. As they were being fitted for the maskers, "They got quieter and quieter. Finally, that whole group of about 27 people sat around and stopped talking. When we critiqued it afterward, I asked, 'What happened?' Their answers: 'I didn't think she wanted to talk to me'; 'I really thought he didn't like me.' Some said talking was just too much trouble."

Bausch surmised that, as they looked around the group and saw that others were not talking, people became increasingly inhibited. However, not all groups reacted in this fashion. "Another group I had never did give up. They talked, they shouted, and they screamed—all the time."

The workshops have been well received and the exhilaration works both ways. "When we finish conducting a workshop, we're really high," she says. "It's as if we just performed on Broadway."

—Lynne Williams

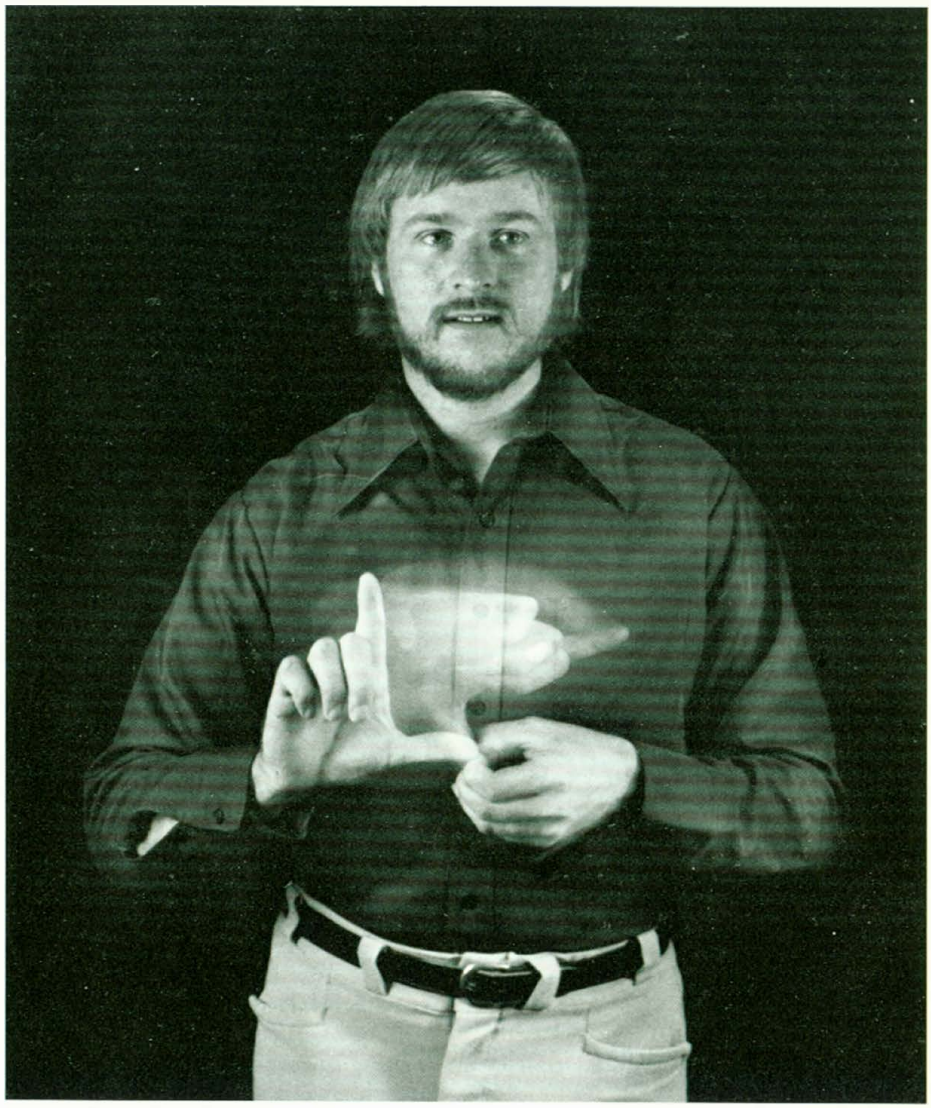
15 ***1982-83***

Groundbreaking ceremonies are held for an academic/office building named in honor of former New York State Governor Hugh L. Carey who, as a congressman, authored the legislation establishing NTID.

Research and Change

There is no doubt that research has played a vital role in the history of NTID. For the past 15 years, researchers at the Institute have dedicated themselves to learning more about deafness and its impact on a student's total education—personal, social, and academic.

Dr. Ross Stuckless, director of NTID's Office for Integrative Research, has collected these examples of research efforts which have "paid off" in tangible ways. Some of these, and several not mentioned here, are used not only at NTID, but at institutions and by researchers worldwide.



The Technical Signs Project

Educators of deaf people don't look to research to answer all their questions—it simply doesn't work that way. But if educators ignored research altogether, there would be little prospect for real progress in the educational attainments of deaf students.

By conventional higher education standards, NTID has been extremely productive in its research. Over NTID's 15-year history, researchers have published more than 200 research articles in 35 journals and presented 500 scientific papers and reports.

Dr. Ross Stuckless, director of NTID's Office for Integrative Research and an active researcher at NTID since 1967, sees these as important investments in the future of the education of deaf students at RIT and elsewhere. But he's quick to add that as important as new knowledge may be, unless it is applied in some way, it has absolutely no practical value for deaf children or adults.

"After 15 years, we should be able to point to evidence that our research has led to change," Dr. Stuckless says. "And we can."

One of the Institute's more widely used research activities is an annual follow up of its graduates. Dr. William Welsh, who has tracked NTID graduates for a number of years, says that its general purpose is to monitor how graduates are faring career-wise and to use this information for broad institutional evaluation. He credits the cooperation of alumni for making this ongoing project possible.

Dr. James DeCaro, director of NTID's Division of Career Opportunities, says, "We are pleased to be able to report high employment rates and other indications that our graduates are doing well, but it's just as important—no, even more important—to find out where the trouble spots are for our graduates and to use both the good and the bad news constructively."

Dr. DeCaro cites numerous examples of how this research is used, including employers' and supervisors' seminars and workshops which NTID conducts regularly around the country. Dr. DeCaro also says that the graduate follow up should have its most immediate benefits in shaping NTID's curricula and support programs, such as job placement.

Dr. Thomas Raco, assistant dean for Visual Communication Careers, has used 10 years of "feedback" from graduates in the printing, photography, and applied arts areas in a number of ways, including some additions to the curricula. Graduate follow up also has helped him to identify several graduates who now sit on NTID program advisory committees.

Research efforts at NTID often go directly to the field for information about whether new curricula should be developed or whether ongoing ones should be revised or phased out.

"Our curricula, especially in technical areas such as optical finishing and civil technologies, are reviewed regularly, and our occupational outlook research is part of this," says Dr. Jack Clarcq, associate vice president for Technical Assistance Programs.

Over NTID's 15-year history, researchers have published more than 200 research articles in 35 journals and presented 500 scientific papers and reports.

Instructors and educational researchers at NTID work closely together. One of the numerous tangible outcomes of such collaboration is a "Learning Strategies" course developed by members of the Department of Educational Research and Development and instructors from the General Education Programs.

Researcher Michael Stinson says that NTID researchers had learned a good deal about how students process text material, while fellow researcher Gary Long had been able to demonstrate how "networking" helped students understand what they were reading in textbooks.

Dr. Stinson and Dr. Fred Dowaliby had also done research on learning styles, test-taking strategies, and the like. Educational researchers, therefore, "jumped at the chance" to put together a course for students which brought a lot of this research together.

"Most important," Dr. Stinson says, "is that students say they are finding this course useful in helping them with their studies. They seem to be picking up on these strategies for reading, studying, and taking tests in other courses."

Dr. Stinson has prepared a teacher's manual which instructors now use in a variety of courses, a clear indication that research on learning can be applied by both teacher and student.

The "networking" research used by Dr. Stinson in the "Learning Strategies" course is also being used in another way to teach reading. Dr. Long's work on networking has been adapted by English Instructor Stephen Polowe-Aldersley to encourage his students to analyze text in a more logical way. Polowe-Aldersley says, "My students have responded very positively to this approach and they tell me so in their evaluations of the course."

A considerable amount of NTID's research involves measurement, and this has had many applications for students. Working with teaching faculty, Educational Research and Development Chairperson Dr. Barbara McKee and staff developed an instructional rating survey to enable students to evaluate courses for the benefit of instructors and future students. Today, these evaluations are used by 70 faculty members in 150 courses.

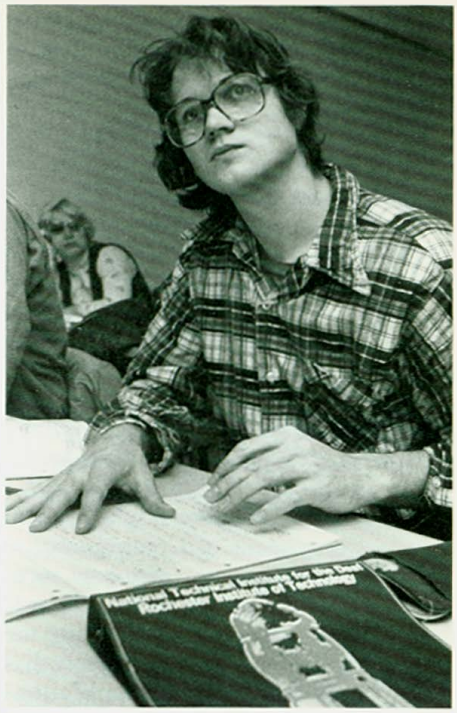
"There's no doubt in my mind that this kind of feedback from my students has helped me become a more effective teacher," says Associate Professor Michael McMahon of NTID's Communication Programs.

The primary value of measurement research is for assessing the skills and progress of students. "When the first class of students entered in 1968, in some respects we were flying blind," says Dr. Stuckless. "We knew where we wanted to go, but the only assessment information we had was what was in the students' application folders. It's next to impossible to tailor instruction to meet a student's needs unless you have several trustworthy measures of the student's educational strengths and weaknesses."

Much attention has been given by researchers to designing or adapting assessment tools in both the academic and communication areas. Dr. Kathleen Crandall, associate dean for Communication Programs, says, "Our entire curriculum and the placement of students in communication courses stems from assessment and what we call the NTID Communication Profile. This traces back to a Communication Profile Task Force which was organized in 1970. The combined talents of researchers and teachers have brought our Communication Programs to where they are today."

Dr. Peter Pere, dean of NTID, stresses the importance of the researcher and the instructor focusing together on the same problems.

Says Dr. Pere, "We don't expect all our research to lead to change, but we try to keep the odds as favorable as we can. And part of this is keeping our research in tune with NTID's basic objectives."



The Tutor/Notetaking Program

Some research blends in closely with the development of instructional materials and technology. The first of these actually preceded the arrival of NTID's charter class in 1968. Dr. Stuckless says, "In 1967 we began to think about support services that needed to be in place before our first students arrived. One of these was the need for students to obtain notes in courses throughout RIT. So we developed a system, evaluated it with 20 deaf students and their hearing classmates at Rhodes High School in Cleveland, Ohio, and had it ready for our students when they arrived in September 1968." Dr. Stuckless adds, "Today it's obsolete, at least at NTID, but it served a useful purpose for the first few years until a better system was devised."

Another need evidenced early on by the Department of Communication Research and students, instructors, and interpreters, was the need for signs to express many of the technical concepts encountered in courses. Out of this has grown the Technical Signs Project, coordinated by Research Associate Dr. Frank Caccamise.

The intent of the project isn't to invent new signs but to select those already being used by skilled signers in

various academic and career environments here and elsewhere. They are then evaluated, recorded, and shared throughout the country.

From 1,500 technical signs collected to date, 800 have now been packaged in 22 videotapes and five manuals.

Dr. Harry Lang, coordinator of the NTID Physics Learning Center, has a particular interest in signs for scientific concepts. "By its very nature, science requires a precise language," Dr. Lang says. "A need for precise and meaningful signs has been identified by several national associations of science teachers concerned with enhancing science learning by handicapped students."

Dr. Robert Whitehead, chairperson of the Department of Communication Research, looks to new technology, most of it not even on the drawing boards when NTID began, as accelerating the rate at which communication research is being translated into useful applications for deaf students. One example he cites is DAVID.

Dr. Donald Sims of Communication Research, working with a number of his colleagues, has developed a highly interactive system for instructing students in communication skills. This system, called DAVID (Dynamic Audio Video Interactive Device), blends computer and video technology. But as in all computer-assisted instructional systems, the key is in the instructional component, or "software." (For more information on DAVID, see p. 26.)

According to Dr. William Castle, director of NTID, the vision of deaf students historically has been given far less attention than their residual hearing. In 1976 he learned from several instructors that some students seemed to be encountering academic difficulties because of vision problems, and in several other instances, vision problems had influenced job placement efforts of graduates.

Dr. Castle appointed a Visual Problems Task Force which was asked to produce a practical set of procedures for identifying the incidence and types of vision problems among NTID students. Today, every student entering NTID is screened for acuity and color vision, and a visual history interview is conducted.

It is evident from these few examples that research has contributed substantially to what NTID has to offer its students. Under the leadership of Dr. Robert Frisina (NTID's first director) and now of Dr. Castle, researchers have been urged as a general principle to apply their research first at NTID and to demonstrate that the application works before encouraging its use in other programs. But that is an important next step.

Vision screening process for incoming students

Virtually all of the examples cited here are being implemented in other programs. The graduate follow-up system, for example, is an ongoing project of NTID and CEASD (The Conference of Educational Administrators Serving the Deaf), with more than 20 secondary-level programs for deaf people using the same procedures to follow up on their graduates.

Dr. Donald Johnson coordinates research for the Institute's vision screening program. He indicates that the incidence of vision problems among NTID students is about two and one half times higher than that of the general student population, with about one in five students screened being referred for further opthalmological attention and correction.

Among these students are some, including those with retinitis pigmentosa (which leads to progressive legal blindness), who will continue to require support services which are coordinated by Susan Brannen, an NTID specialist in the education of the visually impaired.

Says Dr. Johnson, "When we realize how dependent deaf children and adults are upon their eyes for communication and maintaining contact with their environment, this project, which began as research, points out the need for programs for the hearing impaired to have a mechanism for assessing students' vision when they first enter the program."

Says NTID's Dr. Judy Egelston-Dodd, manager of this project, "It's now in its fifth year, and next year more than 10 new programs will be joining the network. It's apparent that they consider it important."

"We have reason to be pleased with what has been accomplished due to research," Dr. Castle concludes. "Over the past 15 years, we have always been able to support our research commitment with the resources needed to address important questions related to deafness on a fairly wide front.

"We will strive to remain strong in supporting these efforts. We are convinced that research will continue to be essential to NTID's ability to meet its obligations to its own students and to deaf people throughout the nation."

Hettie Shumway:

One Woman's Vision

Hettie Shumway

The cliché says that behind every great man is an equally great woman. And behind a great school?

A glance at the roster of RIT's Board of Trustees would scarcely reveal the name of the person responsible for the genesis of NTID at RIT. She is neither chairman of the board nor its most vocal member. But NTID was once a bee in her bonnet, and she alone can claim responsibility for originating its placement on the RIT campus.

She is Mrs. F. Ritter (Hettie) Shumway, a member of RIT's Board of Trustees since the late 1950s. The former Hettie Lakin met Shumway, a Rochester native, when they were each living in Greenwich, Connecticut. They were married there in September 1930.

On the eve of their marriage, the Shumways embarked for Europe so that Shumway might complete his studies at Oxford University. After receiving his master's degree there early in 1932, they returned to the United States, where Shumway was ordained as a minister. He took a job as assistant pastor at the Larchmont Avenue Presbyterian Church in Larchmont, New York.

After two years in the active ministry, Shumway realized he was urgently needed in the family business, the Ritter Company, so the couple moved to Rochester in the fall of 1934.

Shortly before the move, Mrs. Shumway made a personal discovery that sparked her lifelong interest in deafness —she learned that she is totally deaf in her right ear.

While the information came as a surprise, it served to elucidate the frustrations of an educational past peppered with inexplicably poor grades. When she sat in the rear of a classroom, Mrs. Shumway realized, her marks suffered. Still, she harbors no bitterness that her plight was not discovered sooner.

"Why should I?" she smiles, "I had a marvelous childhood."

Once back in Rochester, Shumway began work as a clerk with a salary of $20 per week. After many years he became chairman and chief executive of

Sybron Corporation, which he was instrumental in creating through a merger of the Ritter Company. He retired in 1971, although he maintains an office in one of the corporation's buildings.

Meanwhile, Mrs. Shumway involved herself in the life of the city, actively participating in a variety of community organizations. Hearing of her partial deafness, she was asked by officials from the Rochester School for the Deaf (RSD) to serve on their board in the 1940s, a position she has held ever since.

Her memories of education for the deaf in those days leave much to be desired. ("Forty little girls herded into one room and 40 little boys into another.")

"They didn't mean to be unkind," she amends, "but they hadn't the facilities to do otherwise."

Mrs. Shumway soon became a member of RSD's building committee, and modestly admits that "we did quite a lot of building down there." Her work with the committee enabled her to learn more both about the special needs of the deaf and about blueprints; she already knew something about the latter as a result of helping her husband build their house in 1937.

Through her involvement with the Rochester School for the Deaf, Mrs. Shumway learned of the intent to establish a national technical institute for the deaf.

At that point, RSD was looking for a new headmaster. One of the candidates, Ralph Hoag, was invited to stay at the Shumway home while in Rochester. He was serving as staff director of the National Advisory Board set up to advise the federal government's Department of Health, Education and Welfare on the establishment and operation of the new institute.

Hoag informed Mrs. Shumway of the plans afoot; she immediately sprang into action. She called her friend Dr. Mark Ellingson, then president of Rochester Institute of Technology, and asked if he would see her. She then hurried to his office in downtown Rochester, for these events occurred just before RIT was to move to its new suburban campus.

"I just heard about a wonderful thing I think we should have at RIT," she told him. "Here we have this opportunity with a brand new campus to take this on."

"I guess I've always been a 'doer.' Sitting back is not for me."

A. Sue Wetsler

Ellingson, impressed with his friend's characteristic enthusiasm, agreed that attempting to have the institute placed at RIT was a fine idea. He enlisted Harold Kentner, at the time associate director of RIT's College of Continuing Education, and George Forbes, who was then RIT's director of publications, to write a proposal reinforcing Mrs. Shumway's recommendation. And, after a lengthy and competitive screening process, RIT was chosen as the host campus.

Asked what gave her the temerity to march into Ellingson's office to present so novel a proposal, Mrs. Shumway expresses mild surprise.

"I guess I've always been a 'doer,'" she muses. "Sitting back is not for me. I don't enjoy raising money, so this is my way of contributing."

Other ways include serving for many years as a hospital volunteer, on the Council of Social Agencies, the Community Chest, heading Rochester's city volunteer office, and as a member of the Junior League.

She doesn't believe in relying on her husband to make contacts for her, either. Perhaps therein lies the secret to the longevity of her marriage, which will be 53 years old in September.

"I'm a person who does things for myself. I'm perfectly happy to be alone, too; I do a lot of reading."

Mrs. Shumway reflects with a certain degree of satisfaction on a career spent in public service, and raising a family that includes three children, 15 grandchildren, one great-grandchild, and two more on the way. Today, there is a building at NTID named after her, the Hettie L. Shumway Dining Commons.

What does she think when she visits the campus—in either her capacity as a member of the Board of Trustees, as part of NTID's National Advisory Group, or as a member of RIT's Student Life Committee—and sees a cluster of buildings alive with students and activity?

"I care very much for young people," she says with quiet determination. "I only wish I had more occasion to see them. But I can't take credit for NTID. I only thought of the idea of having it at RIT—others put it into practice."

—Emily Leamon

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A Final Word...

This is an occasion on which the vision and superb leadership of some of the individuals responsible for NTID should be noted. In the first nine years, Dr. Robert Frisina and a dedicated staff were the intellectual and physical architects of the Institute. In the past six years, Dr. William Castle has brought NTID to even higher standards of excellence and further into the center of the academic and community mainstream of RIT. Finally, the vision of Mrs. Hettie Shumway, an honorary member of our Board, as well as the leadership of former presidents, Dr. Mark Ellingson and Dr. Paul Miller, were driving forces in breathing life into this vital institution. Generations unnumbered will benefit from the vision and work of these individuals, those who assisted them, and those who now work with the National Technical Institute for the Deaf.

I share the pride I know you feel. The whole RIT community joins me in this 15th anniversary celebration of NTID.

Dr. M. Richard Rose
President
Rochester Institute of Technology