

ntid FOCUS

Publication of the National Technical Institute for the Deaf

Rochester Institute of Technology

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Speech Program Vital

Communication Center Supports Total Student Development

Many students are being taught to use voices they will never hear.

The improvement of verbal skills is an important part of the Communication Center program in the National Technical Institute for the Deaf's total mission of student development.

"We are determined to help each NTID student develop those basic communication skills necessary for his successful employment," stated Dr. Donald D. Johnson, director of the Communications Center, of which the Speech and Hearing program is a vital part.

Unfortunately, the most difficult aspect of the effort is selling the importance of the program to students.

"Some students can't understand why they must take courses in speech and hearing," Dr. Johnson explained. "But we know a deaf student's communications skills must be developed to their fullest in order to take active leadership roles in both their jobs and in the community."

A few students, on the other hand, already have discovered the value of improving their speech.

Steve Schultz, a senior from Brighton, N.Y., is one example. Schultz found his speech to be a valuable asset during recent cooperative education employment with Marine Midland Bank of Rochester, N.Y.

"Now I'm thankful for the hours I spent working on my speech," Schultz stated. "It played a part in my successful employment."

Dr. Johnson pointed out that each student differs in the potential to develop certain communication skills. "Some students will become highly verbal while others will continue to be less so when they leave NTID. Whatever level of communication a student reaches at NTID, it is the job of the Communications Center to help develop it to its most effective level."

Some deaf students are becoming involved in overall program planning through participation on a student speech committee. Some communication courses are required for all NTID students, while still others are available upon student request or as recommended by the Speech and Hearing staff.

NTID takes a multiple approach to communication. An Audiology Program and Interpretive Services are two additional facets of the Communications Center.

The program is highly individualistic. First there is the initial evaluation of overall communication skill level. Formulation of the individual student's communication training placement follows.

"One of our major objectives at the beginning of a student's program is to help the student better understand himself and his potential to develop additional skills," stated Nick Orlando, supervising speech pathologist.

All departments within NTID cooperate in supplying information on the communication needs of students. That information helps strengthen existing speech programs and plays a part in the formulation of new ones.

Existing courses include an introduction to hearing and speech and the technical aspects of deafness, practical uses of speech in public speaking, individual speech therapy, practical uses of language in technical vocabulary and the language of idiom and slang, an independent study of speech and hear-

ing that includes speech conservation, and the basic language of signs used in the simultaneous approach.

Dr. Johnson revealed that there are long-range plans for credit courses in public speaking and conference techniques in conjunction with College of General Studies and College of Business requirements.

The Communications Center hopes to train students to organize and project their thoughts in group and/or leadership situations. A course in conference techniques, for example, will aid students in business situations.

"Re-evaluation and counseling of each student will be an on-going process," Dr. Johnson says. "Our objective will be to help a student reformulate goals in light of new evidence. The Communications Center hopes to contribute to the technical and social skills that will make each deaf student highly employable. Our job is made somewhat easier by the fact of the hearing college environment in which the deaf participate."



INDIVIDUALIZED INSTRUCTION — National Technical Institute for the Deaf student John Hardel of Berlin, Wis. uses a desk hearing aid as he receives special instruction in a Hearing and Speech class from Nick Orlando, supervising speech pathologist.

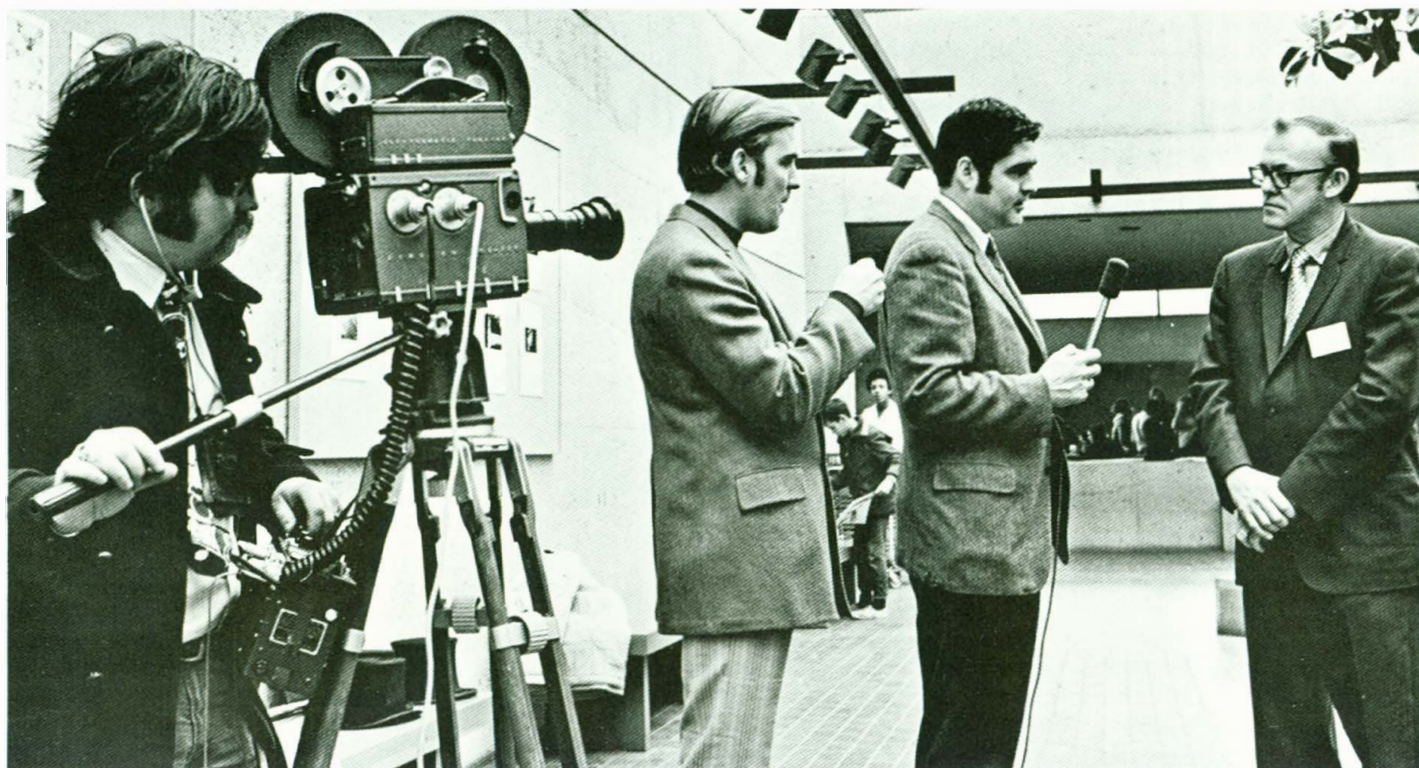
OBSERVE TECHNIQUES — Communications Center Director Dr. Donald Johnson explains speech reading and auditory training techniques to Brockport State College seniors (from left) Leslie Bowers, Sue Valore, Sandy Bullock and Kitty Wilson. As part of their education, the Speech and Hearing majors observed the program implemented at NTID.



VISUAL SOUND — Supervising speech pathologist Nick Orlando (left) and NTID student Gordon Miller of Poughkeepsie, N.Y. use a Vowel Indicator as a tool to improve speech.



WORK ON SPEECH — NTID students Judy McClain of St. Clair, Mich., and Ronald Rozynski of Fairfield, N.J. improve their speech skills under the guidance of speech pathologist Dennis Perez.



NEWS MAKER — Malcolm Norwood (right), newly appointed liaison officer from the U.S. Department of Health, Education and Welfare to the National Technical Institute for

the Deaf, is interviewed by Ron Robitaille of WHEC-TV, Rochester, N.Y. James Stangarone, coordinator of NTID's interpreting services, interprets for Norwood who is deaf.

H.E.W. Names Norwood Liaison Officer

The U. S. Department of Health, Education and Welfare has named Malcolm J. Norwood liaison officer for the National Technical Institute for the Deaf.

The appointment was announced by Dr. Edwin W. Martin, Associate Commissioner of the Bureau of Education for the Handicapped in H.E.W., who is Project Officer for NTID. Martin said that Norwood would represent him by serving as a liaison between that department and NTID.

NTID, which is in its third year of operation, is funded by Congressional appropriations and administered through H.E.W.

"Our immediate objective is to find necessary construction funds that will make NTID fully operational," Norwood stated.

The National Institute, under the direction of Dr. Robert Frisina, started with 70 students in 1968. Enrollment has expanded to 324 deaf students for the current year.

"There are many changes being made in the field of education of the deaf," Norwood added. "NTID is developing advanced educational concepts as well as offering strong technical and vocational opportunities that will make deaf persons employable in our highly technical society.

"I hope to aid the NTID program by maintaining effective lines of communication between NTID and the government," Norwood stressed.

Norwood, who himself has been deaf since the age of five years from back-to-back illnesses of measles and scarlet fever, also will continue to serve as assistant chief of Media Services and Captioned Films in the Office of Education.

A graduate of the American School for the Deaf in West Hartford, Conn., Norwood, 43, earned a B.A. degree from Gallaudet College in Washington, D.C. in 1949 and a M.Ed. from the University of Hartford in 1957.

He has taught in the Texas School for the Deaf in Austin, Tex., the American School for the Deaf in West Hartford, Conn., and the School for the Deaf in Romney, W.Va. Norwood was director of curriculum and supervising teacher of the intermediate and advanced departments for seven years in Romney, W.Va. before joining the Office of Education in 1960 as a program specialist.

"Norwood has been responsible for a major federal effort in securing Hollywood films and educational films for later captioning and distribution to deaf Americans," said Martin. "He has made an outstanding contribution to education of the deaf, and has been a leader in securing recognition that deaf citizens can play key roles in American government and business," Martin pointed out.

Norwood, his wife Marjorie, and their five children reside at 8307 Donoghue Dr. in New Carrollton, Maryland.

Skiers Falter in Olympics

Three skiers representing the United States and the National Technical Institute for the Deaf failed to place in the 1971 Deaf Winter Olympic Games in Adelboden, Switzerland in January.

One of the three, Ronald Borne, 22, of Hanover, Mass., did not compete after he sprained an ankle in practice. Neither of the other two — Jarlath Crowe, 22, of Northampton, Mass., who competed in the slalom and Susan Mozzer, 19, of Manchester, Conn., who entered the cross country race — placed in the games.

Deaf Student Earns Printing Management Degree: 1st in Nation

William C. Davidson, a native of Seattle, Washington, has become the nation's first deaf person to receive a college degree in printing management.

Davidson, who recently graduated from the federally funded National Technical Institute for the Deaf, is now employed as a printing management trainee with the Navy Publications and Printing Service, Naval Supply Systems Command, U.S. Navy Department, Washington, D.C.

"For years the printing industry has employed deaf persons, but not to serve in a supervisory capacity," said Dr. Robert Frisina, director of NTID. "But if it hadn't been for the government, Davidson would be qualified for a management position, but unemployed."

Davidson, 31, reports that the doors of private industry were shut to him through extensive nation-wide interviews.

"The big companies told me to first prove myself with a small company," Davidson said. "The small companies told me I would have a better chance going with a big firm. At times the whole thing was really frustrating. They never met a deaf person before and didn't know what to do with me."

Dr. Frisina admits that Davidson will be a test case for admitting other deaf persons into the printing management program at Rochester Institute of Technology, the home of NTID.

"In addition to Davidson's success, we need to educate all of industry to the valuable resource we have in our technically skilled deaf citizens," Frisina stressed.

"Although Davidson is an expert at reading lips, he is unable to use the telephone. In some cases, industry must be willing to make special arrangements if the deaf are to be given equal opportunity.

"Overall, however, the National Technical Institute for the Deaf is remaining flexible to the employment needs of industry when establishing its curriculum," Frisina added.

"I realize that what I do could help others, but it is still the responsibility of each deaf person to earn opportunities through his or her own efforts," Davidson stated.

Married and the father of a three-and-one-half year old daughter, Davidson graduated from W. F. West High School in Chehalis, Wash. in 1958. He attended Gallaudet College in Washington, D.C. from 1959 to 1963 and again from 1965 to 1966. Prior to enrolling in NTID in 1968, he studied a year at Seattle Community College in Seattle, Wash.

Davidson's work experience includes counseling and coaching at the California School for the Deaf in Berkeley, Cal. (1963-64), counseling and coaching at St. Mary's School for the Deaf in Buffalo, N.Y. (1964-65), inventory clerk with the Boeing Company in Seattle, Wash. (1966-68) and negative assembly stripper at Ridgway Litho Company of Seattle (1968).

Davidson cites the "excellent support" of counseling, interpreting and tutoring services of NTID with enabling him to compete with hearing students at Rochester Institute of Technology as well as finding a "responsible" position in industry.

"We are confident that Bill Davidson will make an extremely valuable employee," Dr. Frisina evaluated. "He, like most of our deaf students, is highly self-motivated."



NTID's Jorjan Neri Cited Upstate Magazine Choice

Classic beauty and personal charm earned Jorjan Neri the honor of "Upstate's Choice" in the Democrat & Chronicle newspaper of Rochester, N.Y.

But the second year student at the National Technical Institute for the Deaf insists that the only beauty that counts is the kind that comes from helping others.

"We have a responsibility to help each other," says the philosophical 21-year-old. "I love life and try to show that in all my actions."

The medical laboratory technology student is active in NTID's Drama Club. A native of St. Charles, Ill., she is an avid sports fan and reader of non-fiction.

She is not hung up on the women's liberation movement. "The right attitude, not demands, will give women both independence and respect," she insists.

Placement Called 'Mission Possible'

NTID is calling it "Mission Possible."

The National Technical Institute for the Deaf is gearing up to hurdle its greatest challenge — that of placing its deaf graduates in jobs throughout the country.

Director Robert Frisina points out that NTID, now in its third operational year, has reached the age of accountability.

"Placement of technically and socially competent deaf students in industry is the basic purpose for the development of this institution," he says. "We are stressing to all segments of NTID that every faculty and staff member bears a responsibility for the outcome of their collective efforts."

NTID is calling placement the culmination of efforts in its career development process. It begins with admissions and carries through program sampling, research on career development, training programs, classroom, counseling, and cooperative work experience to the actual placement of a deaf student in industry.

"Unlike most colleges and universities, NTID cannot afford to leave employment to chance," Dr. Frisina adds. "Our specific mission and professional commitment is to prepare each deaf student for a responsible role in the hearing world of work. But our placement will only be as good as our preparation. Everyone in NTID will participate in our nationwide job placement effort. Anything short of a comprehensive program will not succeed."

NTID expects to have about 24 students qualified for employment this spring. Some, however, will go on to further study within NTID and Rochester Institute of Technology, the home of NTID.

"Since we have had only six students placed in industry

so far, we have a limited history of placement to fall back on," stresses Dr. Jack R. Clarcq, assistant dean for technical education. "History of underemployment, unemployment, and job frustration of deaf workers demonstrates the need for a selective, individualistic job placement effort. Unfortunately, deaf students do not fall into neat packages any more than do their hearing peers. You can't just lump deaf students together by career objectives the way you might with hearing graduates. To insure long-range occupational success, placement must be highly individualized. It means placing the right student in the right job according to his or her personal skills."

How will NTID go about its placement effort?

It will begin with exposing deaf students to many career possibilities early in their postsecondary educational experience. In addition to their ability to teach the deaf, faculty are being selected because of their experience and knowledge in particular fields. NTID maintains flexible programs by keeping abreast of the trends and needs of industry.

NTID also is utilizing the cooperative work-study program to evaluate deaf students' progress. Under the co-op system, a student spends one or more quarters of his or her education in industry, applying what has been learned in the classroom. Rochester Institute of Technology has a long history of success in the co-op field. NTID also is able to test students' skills on a limited basis in co-op jobs within the National Institute and RIT.

"Our total educational objective is to give each student realistic attitudes toward work," Dr. Clarcq says.

While many of the co-op jobs are located in the Rochester,

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The 70 Pioneers: Where Are They Now?

They were called the 70 pioneers — the original group of students who enrolled in the National Technical Institute for the Deaf when its doors first opened in 1968 on the hearing college campus of Rochester Institute of Technology.

A report on the original 70 was part of NTID's presentation to its National Advisory Group in late January. Now in its third year of providing postsecondary technical education for the deaf, the National Institute boasts an enrollment of 330.

NTID prefers to discuss its first group of students in terms of a three year development program.

Dean William E. Castle explained that the first group of students were selected because of their potential for success in curricula offered by the colleges within RIT. The second year saw the development of Vestibule programs as NTID's admissions requirements were broadened.

Successful completion of Vestibule programs, which are remedial and preparatory in nature, enable deaf students to move into more advanced programs of study, including Certificate, Diploma and Associate programs which were established by NTID during the present academic year.

"We learned many important lessons from our first group of students," said Dean Castle. "Most of them had serious communication problems as well as educational gaps that had to be bridged."

"Most young deaf people do not have personal career objectives, which is another important reason for the establishment of Vestibule programs. These programs aid the upward mobility of deaf students through the participation of program sampling."

Through NTID's division of Research and Training, a student evaluation system has been developed in the areas of aptitude, vocational interest and communication. The com-

posite results of a student's profile enable NTID to provide individualized advice and counsel.

"Without NTID's full range of support services in counseling, tutoring and communication aids, a student's opportunity for success would be greatly reduced," said Dr. Robert Frisina, director of the National Institute. "But the public should be made aware of the cost involved in remedial work, career exploration and support services."

Malcolm Norwood, the U.S. Department of Health, Education, and Welfare's representative to NTID, stressed the importance of "preventive medicine" by secondary schools for the deaf. "Deaf young people must be exposed to career possibilities at an early age," he said.

The National Institute is playing a role in that objective by sharing its educational research at professional meetings of educators of the deaf and by conducting career development workshops for the nation's educators in this field.

Dr. Castle reported that of the original 70 deaf students, 45 are still enrolled in NTID programs. Twenty-seven of the 45 are cross-registered into RIT courses; 18 students are enrolled in NTID's Certificate, Diploma, or Associate programs. Twenty-six of the original 70 are no longer at NTID. Eight have graduated from baccalaureate programs; three from diploma programs, and one from an associate program. Six have been placed in jobs and the nine remaining students changed their career objectives and transferred to other educational institutions based on individual needs.

"Learning is so dependent on auditory signals that deafness becomes a tremendous obstacle to learning," Dr. Frisina concluded. "To overcome this enemy there must be complete cooperation by all educators of the deaf. Anything short of a comprehensive program will not succeed."



THROWS HER DEAN — National Technical Institute for the Deaf student Patty Vogel of Woodside, N.Y. prepares to throw Dr. Robert H. Johnston, dean of the College of Fine and Applied Arts at Rochester Institute of Technology. Miss Vogel, who is enrolled in the School for American Craftsmen, assists Dean Johnston in teaching a class in judo.

Judo Students Toss the Dean

There probably isn't another judo class like it in the country.

First of all, the judo instructor is Dr. Robert H. Johnston, dean of the College of Fine and Applied Arts at the Rochester Institute of Technology, the home of the National Technical Institute for the Deaf. He's a gentle sort of man, despite his six-foot plus, 200 pound plus build.

Dr. Johnston is a widely known archeologist and lecturer (he's been on digs in Turkey, Greece and Afghanistan) and has taught art at high school and college levels.

Why did such a refined man get involved in judo? Because, the dean says, judo is a refined sport — an art. He first learned judo in the Marine Corps, but became interested in it as a sport about seven years ago.

Johnston doesn't teach alone; he has two assistants.

His first is 22-year-old Patty Vogel, a second-year student in the School of American Craftsmen at RIT.

The other is **Eric Van Hying**, also 22, who's studying electrical technology. Both are deaf, and both are students at the National Technical Institute for the Deaf (NTID) at RIT.

Eric and Patty are dedicated to judo and Johnston says having them as assistants is a definite advantage. Deaf people tend to have greater powers of concentration, "and when you're minus one sense, you pick up another. Knowing judo gives them a greater sense of confidence which they pass on to the other students," says Johnston.

The students both learn and teach in the class, assisted by another RIT student, Margie O'Jea, who acts as their interpreter.

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TEACHES TOO WELL — NTID student Eric Van Hying of Puerto Rico becomes a victim of his own good teaching as he is thrown in judo class by Rochester Institute of Technology student JoEllen Sparling of Williamsville, N.Y.



ENGINE LATHE — National Technical Institute for the Deaf students Richard Clark (left) of Painted Post, N.Y., and Russell Olson of Bainbridge Isle, Washington, will become skilled in the use of the LeBlond Engine Lathe.

Deaf Machinists Technically Competent

Keeping abreast of technological trends in industry is expected to play a major role in the successful employment of deaf students now enrolled in the National Technical Institute for the Deaf's engineering technologies.

NTID anticipates sending its first group of machinists into industry this spring. According to Dr. Jack R. Clarcq, assistant dean for technical education, industry will find NTID students technically competent and highly self-motivated.

"It is our objective that no student will graduate until we feel he is qualified to meet the demands of industry," Clarcq said. "And those who qualify and desire to go on to advanced study, will be encouraged to do so."

NTID is informed of the latest technical advances in engineering technologies through local industrial committees that serve as advisors, and through direct contact with industry. The National Institute also receives advice on its overall program from its National Advisory Group, a committee composed of leaders from industry, education and government. A key member of NAG is Fred J. Purcell, General Vice President, International Association of Machinists and Aerospace Workers.

Engineering technologies are among the programs offered at NTID. There are 31 programs of study available to deaf students. These do not include other programs within the seven other colleges at Rochester Institute of Technology, or the remedial and support studies available in NTID's Vestibule programs.

In engineering technologies, students study for certificates, diplomas or associate degrees.

The diploma program in numerical control programming will prepare students to be numerical control programmers, junior draftsmen, tape control machine operators, apprentice machinists, and machine draftsmen.

The diploma program in machine tool operation is designed for students who will seek employment upon graduation as

machine operators. A few of the typical jobs they could fill are those of lathe operators, milling machine operators, machinist helpers, tool repairmen, tool-room machine operators, tool grinders, tool-maker apprentices, tool-maintenance men, experimental machinists, assemblers and bench fitters.

The student may also be prepared to continue into a second year of machine shop practice, developing into specialties such as those of tool and die technicians, instrument makers, quality control men, model makers, technicians in numerical control, all-around machinists, automatic screw machine operators, or group leaders.

In machine tool operation, for example, deaf students are prepared to operate basic machines used in tool and die shops throughout the country. Recognizing trends in industry helps in program planning.

"Some students desire to go on to advanced tool and die work, and that will be arranged," said George McCoy, assistant professor in the engineering technologies department. "Still others will be placed in apprentice programs or hired by industry for specific jobs."

"While some students may be highly skilled in one particular area, all will have a good working knowledge of all machines," McCoy added. "The sense of feeling by the deaf persons and their instincts around machines is often much greater than many hearing students."

As part of their education, deaf students make some of the tools they will use in class. They also learn to read blueprints and take courses in technical mathematics.

In the area of electronics, students learn to handle all of the more sophisticated equipment. As a result, NTID will turn out good technicians.

"When students graduate," said Dr. Robert Frisina, director, "one part of our mission will be completed. But we still need to educate industry to the valuable resource we have in our technically skilled deaf citizens."



BENCH WORK — Deaf student Albert Dial of Mentor, Ohio works on a layout project as part of his Machine Tool Operation class.

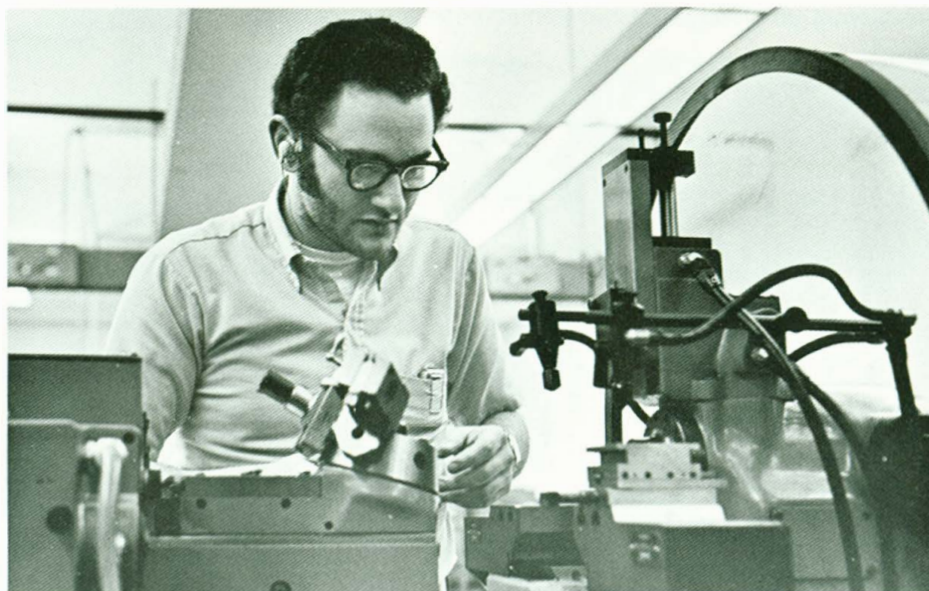


SPEED LATHE — Instructor George McCoy (right) explains to NTID student James Sweeney of South Hadley Falls, Mass. how to operate a Hardinge Speed Lathe.

TOOL MASTER — David Narkaus, a National Technical Institute for the Deaf student from Salem, Oregon, becomes technically skilled in the use of the Le-Blond Tool Master with a tracer attachment.



SCREW MACHINE — Allan Karp of W. Long Beach, N.J. works with the ASM-5 Hardinge automatic screw machine which is air and hydraulically operated.



NTID Makes Giant Strides In Critical Areas of Integration

Can deaf students be helped to integrate into a hearing world by studying within a totally hearing college environment?

The federal government thought so when it launched its grand experiment of the National Technical Institute for the Deaf at Rochester (N.Y.) Institute of Technology in 1968.

NTID and RIT administrators are dedicated to the success of the postsecondary technical program and an assimilation of deaf and hearing that never before has existed anywhere. They reported on the progress of integration at a recent meeting of NTID's National Advisory Group.

"NTID is having a profound influence on the entire campus," said RIT President Paul A. Miller. "We're feeling the growth thrust of this national program. It is teaching us to be more sensitive to others and helping us examine what we mean by teaching and learning."

The National Institute, now in its third year, has grown in enrollment from 70 to 330.

"Basically we have the same objectives," said Dr. Robert Frisina, director of NTID. "that of developing students' social and technical competence. We don't pretend that all the problems of integration are solved, but we are making headway in some critical areas."

More than 100 deaf students, for example, are cross-registered into RIT classes for hearing students. The deaf students, however, do receive NTID support services of interpreting, notetaking and tutoring.

Deaf and hearing also interact in housing, the use of facilities on campus, intramural athletics and RIT's intercollegiate athletic program.

In athletics, NTID student Bob Backofen recently was named captain of the RIT cross country team. He was the first deaf student so honored. In swimming, RIT boasts one of New York's finest teams, thanks to six outstanding deaf competitors.

Hearing students formed a Free University in the evening in order to learn about subjects of personal interest not available at RIT. Nearly 100 hearing students elected to learn sign language.

For each of the past two years 50 RIT students have volunteered to become interpreters in order to assist their

deaf peers in both classroom and social situations. As a result of working with the deaf and having deaf roommates in the dormitory, four RIT students have decided on careers in deaf education; 40 others have expressed more than a casual interest in similar careers.

Dr. Frisina pointed out that deaf students from all parts of the nation are learning from other deaf students as well as from their hearing peers. NTID students represent 39 states and Puerto Rico.

"Sometimes we forget that this is not the first experience of integration for many deaf students. Half of our deaf students attended hearing high schools," Dr. Frisina said. "Perhaps the full bloom of integration will not be completed here. But we are taking giant strides in making both the deaf and hearing more aware of the implications of deafness."

RIT has announced plans for a program in social work. President Miller feels we must "teach humans to be humane."

Dr. Roger L. Riffer, an NTID sociologist, said the new social work program will bring on campus students with characteristics not typically found in many technical programs.

"What we have to remember is that people tend to like other people with similar characteristics," Riffer remarked. "Therefore it shouldn't surprise us that deaf like to associate with deaf and hearing with hearing."

"Generally you find that young people are not very tolerant of diversity. And when times are bad, people look for others to blame. Pressures in the world, such as lack of jobs, don't help the hearing identify with minorities like the deaf. And due to the characteristics of deafness, there will always be inconveniences placed on the hearing college world in both the dormitory and classroom."

"Our studies indicate, however, that hearing and deaf students both favor integration," Riffer added.

NTID is attempting to educate its students to implications of deafness through a course titled "Psychology of Deafness". The course includes counseling, lectures and discussions with hearing students.

"What we discover about integration and the technology of learning should benefit all deaf persons as well as other disadvantaged groups," Dr. Frisina concluded.



GETTING INVOLVED — Rochester (N.Y.) Institute of Technology student Margie O'Jea (second from left) of Newburg, N.Y. uses sign language to communicate with (from left) Dave Sakowski (RIT) of Herkimer, N.Y.; Gregory Roche, a National Technical Institute for the Deaf student from East Hartford, Conn.; and deaf student Diane Langworthy of Buffalo, N.Y. Hearing students are aiding integration by serving as interpreters for their deaf peers in classroom and social situations.

Cross Country Standout

Backofen Voted RIT Captain

Robert G. Backofen, Rockville, Conn., is unable to hear the starting gun and seldom finishes first, but nevertheless ranks as Rochester Institute of Technology's cross country leader.

Backofen, a sophomore enrolled in the National Technical Institute for the Deaf at Rochester (N.Y.) Institute of Technology, is the first deaf runner to be named captain of an RIT athletic team.

"It may be a first, but we don't feel it is strange," said Coach Pete Todd. "Deaf runners have become important members of RIT's track and cross country teams. Bob has displayed the leadership ability that all of our runners respect. That is why they voted for him."

Backofen, 21, on the other hand, isn't captain of just any ordinary cross country team. Todd's Tigers were 13-3 last

year, 31-7 over two years and 73-30 since Coach Todd took over the program six years ago.

NTID was established at RIT in 1968 and is the world's first attempt to provide a postsecondary technical education for the deaf in a hearing college environment. Coach Todd is determined to make integration successful in athletics.

"Coach Todd and the team have made me feel at home from the very beginning," the architectural drafting major pointed out. "They tried to communicate by learning sign language and finger spelling and Coach Todd worked harder than anyone."

The affable young coach spent eight weeks of his summer vacation last year learning sign language. His effort was a labor of love.

"This was the first time I had ever coached a deaf boy, which is true of all of RIT's coaches," Todd explained. "At first I didn't know how I was going to be able to communicate. Bob Backofen, like many deaf students, reads lips well — but I talk so fast I don't think anyone could read my lips. People that hear me can't understand me."

"So I took the eight-week summer course to be more effective as a coach," he continued. "I feel it is my responsibility as a coach to take an interest in a boy's personal life in order to get him to produce his maximum. Learning sign language was one way to get closer to the deaf athletes."

Through Coach Todd's encouragement, Backofen moved from eighth and ninth place finishes as a freshman to third and fourth place finishes last year. But times, Todd points out, are relative. If Backofen had been running at RIT four years ago, he would rank number one according to his times.

"I know I don't have a lot of natural ability," Backofen said realistically. "I have to constantly push myself. In my freshman year captain Dave Kosowski often slowed down his pace just to give me confidence. Now I'm in a position to help other runners the same way."

Backofen, the son of Mr. Charles Backofen, 85 E. Main St., Rockville, Conn., thrives on the practical jokes that go along with being a team member. He will never forget an incident during his first cross country season at RIT.

"When a deaf runner is on a new course it often becomes difficult because he can't hear the directions," Backofen explained with a grin. "One day in practice the team decided to take a new off-campus course. But as a joke they all ran far ahead and when they came to an intersection, turned off and ducked out of sight."

"Naturally I continued straight ahead and went almost two miles before I realized I should have turned off. It was my first time off campus and if I hadn't seen the top of the RIT buildings I might still be running."

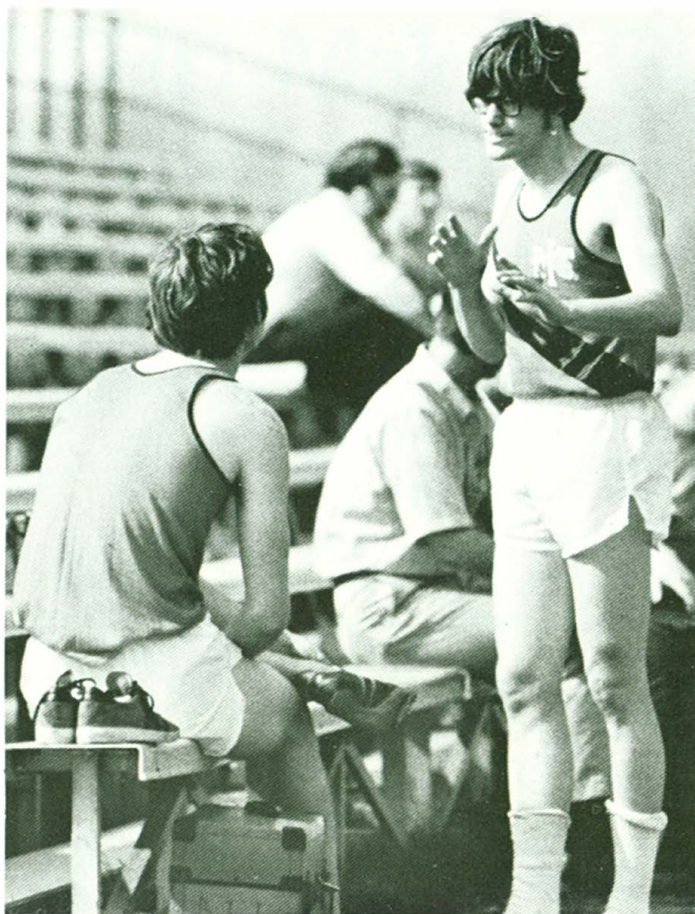
Then there was the time at Houghton College two years ago where the weather was 10 degrees and Backofen was the only runner who forgot his gloves. His hands were almost frozen and that hurts when you need nimble fingers when using sign language. His teammates told Coach Todd that Backofen was "at a loss for words." As another practical joke last year, Backofen was named "Public Speaker of the Year" at the team's annual post-season banquet. It is this kind of humor that makes the extroverted runner know he is an accepted member of the team.

But there are times when it is inconvenient that Backofen can't hear. Take, for example, an incident at the National

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KEEPING PACE — Newly elected cross country captain Bob Backofen of Rockville, Conn. keeps pace with his coach, Pete Todd.



EXPLAINS STRATEGY — Bob Backofen, Rockville, Conn., explains strategy of a race to teammate Albert Dial of Mentor, Ohio. Both NTID students compete for the Rochester Institute of Technology varsity track team.

Backofen Voted

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Collegiate Athletic Assn. cross country championships last year in Chicago, Ill.

Backofen's roommate, Fred Bertoni, a hearing student, decided to slip from the motel room in his pajamas to wake up the rest of the squad. There were six inches of snow on the ground as Bertoni, who had forgotten his key, pounded on the door to get back into his room. Backofen, of course, continued his sound sleep without hearing the pleas for help.

Backofen's hearing also is a handicap when nearing the finish line. Most runners can hear an opponent coming and it helps provide an extra spark, Todd insists. Special signals from the coach could help solve that problem.

But then special signals also could help another deaf runner, sophomore Tom Schejbal, as well as NTID students Albert Dial, a hurdler; Conrad Galuk, a long jumper; and Tony Speiker, 440; who compete on the RIT track team.

Although Backofen played football, basketball and ran track at the American School for the Deaf at West Hartford, Conn., his primary interests now are track and cross country.

His long-range goal is to break the world deaf 1500 meter record in the 1973 Deaf Olympic Games. Coach Todd feels the time of 3:55.7 set by Italy's Francesco Chiesurin in 1965 is well within reach of NTID's 1969-70 Athlete of the Year.

"Bob is a self-motivator," Coach Todd evaluates. "He has had to put out more than most hearing students to get this far. While Bob Backofen benefits from his individual successes, RIT's cross country team will benefit from having this deaf athlete as captain."

Judo Students

(Continued from Page 7)

For Eric, there's nothing funny about judo.

"It's a very serious thing," he says through the interpreter. And he doesn't think of it as self-defense, just "as pleasure and as competition." He has tried out for the Pan American games through the Puerto Rico judo competition. Each time he places in the matches, it increases his chances for a higher belt. He holds a low degree black belt now, but doesn't wear it because "I would rely on it too much for success. I work harder if I don't wear it."

There is no Olympic judo competition for deaf people, but Eric would rather compete with hearing people anyway. "I want tough competition," he says.

Patty, on the other hand, doesn't take it quite as seriously. "It's fun. I have a good time with judo," she says.

Patty, who hates to be called Pat, began judo instructions in her hometown, Queens. Her family lived across the street from a judo school, and Patty decided to try her skill at it.

"I like the action, and the feeling I get from practicing it is great. I found it was automatic to think and move fast. And it's not at all silly or unfeminine. I just can't sit still," she says.

Patty started her own judo class at RIT last year. She laughs about the class: "All the people who signed up expected a big girl. When I walked in and said, 'Okay, line up,' they were surprised." (Patty is 5 feet, 5 inches tall and weighs 120 pounds.)

This year, Dean Johnston heard about Patty's class, and the two joined forces.

Patty has never used judo as a means of self-defense, "but I could use it to protect myself if I have to, but never unless I have to."

Dean Johnston, Patty and Eric all have common goals for the class. One is to undo the false idea many people have about judo, an idea gained mainly from television.

"Television always gives the idea that judo is for destroying people. That's not our philosophy," Dean Johnston says. "It's not a killing thing. It was started by people who were opposed to killing. They only wanted to subdue their opponents."

Karate, often confused with judo, is "more lethal," he says. "Its purpose is to strike out and kill something. In karate, you're not fooling."

Learning judo is also applicable in everyday life. By learning to fall without harming himself, the pupil learns how to take normal falls (down stairs, on ice) with less injury to the body.

As for Dean Johnston's rapport with his judo students, there's no problem.

"It's personal contact in a nice way," he says. "A student doesn't often get to throw a dean on the floor."

(Editor's Note: The preceding article was contributed by Nancy Shaw, former reporter with the Democrat & Chronicle newspaper of Rochester, N.Y.)

Placement

(Continued from Page 6)

N.Y. area, students also are placed in industry near their homes. NTID feels that successful co-op experiences could lead to permanent employment.

Pressure on NTID's nationwide placement effort will increase steadily over the next two years. Forty to 50 deaf students will qualify for their co-op experience and another 50 to 60 are expected to complete their study and be ready for direct employment.

Dr. Frisina predicts that NTID's individualized placement program could be a forerunner of placement efforts throughout postsecondary education.



CAREER GAMES — Barbara Hanner, a senior research assistant in NTID's division of Research and Training, explains "career game" procedures during a recent Career Development Institute. Receiving instructions are (from left) Jerome W. Freeman, principal, Louisiana State School for the Deaf; George A. Zook, vocational guidance director, Illinois School for the Deaf; John Rybak, assistant vocational director, St. Mary's School for the Deaf, Buffalo, N.Y.; and Raymond Butler, director of the vocational department, Florida School for the Deaf.

Career Institute Focuses on Realities

By DAVID W. LACEY, Ph.D.

Providing administrators with a more complete understanding of developmental vocational planning for deaf students was the primary objective of a Career Development Institute sponsored by the National Technical Institute for the Deaf Dec. 6-10.

NTID, convinced that the process of career development for each deaf student should become increasingly realistic, asked educators of the deaf to view vocational selection as an on-going process extending years and not as a single event.

This primary objective for the Institute was further broken down into these three sub-objectives:

1. To study the value of career orientation and occupational preparation in vocational planning for deaf students;
2. To develop familiarity with new concepts, models, and techniques in career development for deaf students; and
3. To stimulate the application of these concepts, models, and techniques in developing programs to orient deaf students to the world of work and to the expanding opportunities in the educational and labor market places.

Since these objectives underlie the development of meaningful and manageable career development programs by educators of the deaf, approximately 70 persons attended the Career Development Institute for deaf students. Fifty-eight persons represented schools for the deaf, postsecondary programs, and research institutes; 12 persons represented NTID.

Schools for the deaf from these 18 states and Canada were represented.

Some participants represented the postsecondary programs of Delgado College, Gallaudet College, and St. Paul Technical Vocational Institute; and the research and training centers of New York University (Center for Research and Advance Training in Deafness Rehabilitation) and American University (Development Education and Training Research Institute).

The structure of the Career Development Institute was built upon general sessions and task force groups. The small task force meetings furnished participants with a much needed opportunity to "chew on" information that had been presented in the larger general sessions. Furthermore, during these task force meetings participants engaged in problem-solving tasks that were concerned with the need for sound career development programs in their schools.

At two of the general sessions I presented papers — one titled "A Theory of Career Development for Deaf Students" to keynote the Career Development Institute, and a second paper titled "Implications of Vocational Developmental Tasks for the Vocational Counseling and Work Adjustment of Deaf Students."

The first paper emphasized the concept of vocational choice as a developmental process. This concept stresses that changes in vocational behavior over time should follow an orderly pattern, they should not be random and unsystematic for development to occur. Changes in vocational development should be interrelated and conducive to an end product: gainful and meaningful employment for the deaf person through development and utilization of his unique competencies, and these changes in the deaf person's vocational development should proceed in certain sequences and according to established principles.

In the second paper I developed a list of vocational activities for those involved in the career development of deaf students — personnel in schools for the deaf, parents, and the deaf student himself.

If I would assess the impact of these papers, as well as the total program of the Career Development Institute on the participants, I must do so in terms of the Institute's three stated objectives. First, each participant studied in depth the value of career orientation and occupational exploration in planning a career development program for his students.

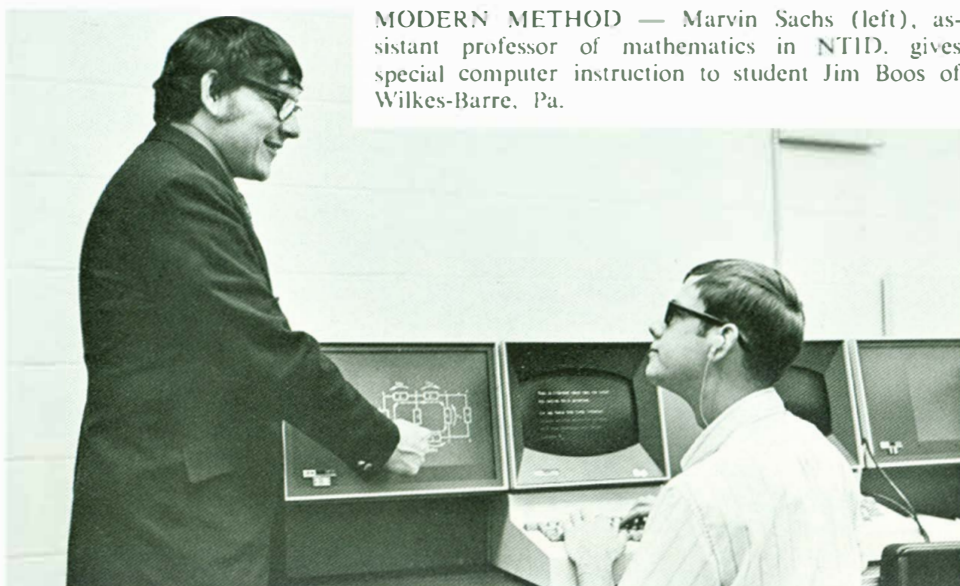
Second, each participant familiarized himself with new and innovative methods for facilitating the career development of his students.

Third, at this point it is impossible to evaluate whether or not participants from schools for the deaf will implement, in a career development program, those concepts, models, and methods introduced during the Institute. However, I am optimistic that this Institute stimulated much debate and discussion that will hopefully lead to sound career development programs for deaf students.

During the coming months NTID will plan its post-Institute commitment to a career development program. Through a series of meetings NTID will determine the kind of career development activities that NTID should pursue internally and externally. As a result of this Career Development Institute, I am confident that this kind of planning will be duplicated in schools for the deaf.

(Editor's Note: Dr. David W. Lacey is a research associate for career development in NTID's division of Research and Training.)

Computers Aid Instruction In Mathematics



MODERN METHOD — Marvin Sachs (left), assistant professor of mathematics in NTID, gives special computer instruction to student Jim Boos of Wilkes-Barre, Pa.

Computer-assisted instruction is helping deaf students at the National Technical Institute for the Deaf prepare for college-level technical studies. The course is also providing useful data on computer teaching methods for the deaf.

A major benefit of the technique, according to Dr. Dennis Barnes, director of NTID's Computer-Assisted Instruction program, is that each student interacts with the visual instructional material on an individual basis. While the student progresses at his own pace, the computer, an IBM 1500 instruction system, compiles data on his performance for future analysis.

More than 50 students have completed a course in mathematics. Additional courses in thermodynamics, biochemistry, and electronic circuit analysis are under development.

Ron Gelden, an industrial engineering freshman, estimated that he learned as much in three months with the computer as he did in six months with standard teaching methods.

"I wouldn't have advanced to calculus this year without it. It has helped all aspects of my math study. I like it because there is not the pressure of a classroom situation."

The students work at ten terminals linked to the IBM computer, which has been programmed with course material in mathematics. Each terminal has a television-like screen, a keyboard resembling a typewriter, an image projector for displaying photos or drawings, and a 'light pen'.

Lesson material and test questions are flashed on the screens and the student responds by typing on the keyboard or touching parts of the image on the screen with the light pen.

If a student has difficulty with a particular concept — simplifying fractions, for example — the computer presents progressively simpler problems. Through his responses, the computer analyzes the student's strengths and weaknesses. If special help is indicated, a message is typed on a terminal near the central computer and a teacher responds with individual assistance. The computer may also refer the student to text books or work sheets for special help.

Dr. Barnes said the technique, which he prefers to describe as "computer-managed instruction", is still very much in the development stage.

"The program is designed to determine a student's educational abilities and deficiencies and — to a certain extent — to supply remedies in conjunction with the teacher. We expect to enlarge the computer's remedial role as we gather more data. We are also analyzing the instructional process in great detail with the object of designing effective teaching methods," he said.

Dr. Barnes believes the method is a potentially powerful teaching device, although it is too early to draw definite conclusions. He noted that the mathematics course, originally aimed at deaf students, is equally applicable to students with normal hearing.

IT'S A KICK — NTID faculty and staff prove to be "good skates" during a Christmas party sponsored by Rochester Institute of Technology, the home of the National Institute.



O'Brien Digs Helping Others

She digs Mae West, W. C. Fields, bridge, shoes, dancing and refinishing furniture. Nevertheless, personable and unpredictable Elizabeth (Liz) O'Brien ranks as one of the National Technical Institute for the Deaf's most capable professionals.

An educational specialist in the College of General Studies at Rochester Institute of Technology, Miss O'Brien is responsible for arranging courses of study for deaf students and providing support services needed in notetaking, counseling, tutoring and interpreting.

She has been selected to appear in the 1971 edition of "Community Leaders of America", a book that honors individuals who contribute to a better America by building better communities through service. In addition to her work at NTID, she is a member of the American Instructors of the Deaf, Professional Rehabilitation Workers with the Adult Deaf, corresponding secretary of the RIT Women's Club and a member of Zonta International.

An expert interpreter, Miss O'Brien teaches sign language in programs offered to RIT and the Greater Rochester communities.

"She is so good at signing that we're thinking of nominating her for 'Laugh-in's flying tickle finger of fate award,'" said Jim Stangarone, NTID's coordinator of interpreting services. "Seriously, few hearing people have a better understanding of the feelings and problems of the deaf."

"Unless you are deaf you can never fully understand all of the complications and problems deafness presents," answered the hearing daughter of two deaf parents. "From the time I was old enough to walk, my father, who is a teacher of the deaf, took me with him to school. The children I played with used sign language and finger spelling; it became a part of my everyday life."

Dr. Robert Frisina, director of NTID, feels that few professionals could be more sensitive to the problems of deaf students.

"Liz is making significant contributions to the post-secondary technical education of the deaf," Dr. Frisina stated. "As a liaison between NTID and RIT, she is helping to bring about a better understanding of deafness on the part of the hearing and deaf."

"I want to be sensitive to the needs of the deaf," she responded. "It's exciting to see deaf students develop technically and socially."

The 30-year-old extrovert seems to enjoy a multitude of activities. She has a passion for loud music and dancing, something she says seems to be characteristic of children of deaf parents.

"Maybe it's because as a child I could play music loud without having my parents complain," she said smiling. "I love to dance anytime — anywhere. Even one drink seems to go to my feet."

Speaking of feet, Liz has a passion for shoes. She claims ownership of 25 pairs — not counting sneakers, loafers and boots which she considers medicinal in nature.

As for steps in the future, Liz is uncertain of her direction. The daughter of Mr. and Mrs. John G. O'Brien, Bellevue, Washington earned a bachelor of science degree in education from Marylhurst College (1962) in Marylhurst, Oregon; and



ELIZABETH (LIZ) O'BRIEN

a master of science degree in education from Gallaudet College (1963) in Washington, D.C. Prior to joining NTID in 1968, she taught at the Indiana School for the Deaf and the California School for the Deaf in Riverside, Cal.

Liz is considering returning to college to take additional courses in counseling and guidance. "I would love to work some day with younger deaf children and parents — helping to guide them to career selections."

Money will never be a factor in Elizabeth O'Brien's own career choice. "I just want enough money to keep me in shoes."

Robert Klafehn Appointed Department Chairman

Robert N. Klafehn, Henrietta, N.Y., has been promoted to department chairman of the Certificate-Diploma-Associate programs in engineering technologies in the National Technical Institute for the Deaf.

For the past seven months Klafehn served as an assistant professor in NTID's engineering technologies programs.

"Mr. Klafehn's extensive teaching experience in mechanical and electrical technologies will be valuable in helping to chart the course of study for deaf students in those two areas," said Dean William E. Castle in making the announcement.

A native of Hilton, N.Y., Klafehn was a counselor and coordinator of engineering graphics in Rochester Institute of Technology's College of Continuing Education for two years prior to joining NTID.

A graduate of Hilton Central School in 1954, he earned his bachelor's and master's degrees in industrial arts from S.U.N.Y. College of Education at Buffalo, N.Y.

Klafehn's teaching experience includes Eastridge High School of Rochester (1961-64), John Marshall High School of Rochester (1964-66) and Hilton Central Schools (1966-68).

NTID Drama Club Stages Command Performance

ntid FOCUS

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Address Correction Requested

A "Command Performance" of the NTID Drama Club of the National Technical Institute for the Deaf was staged Tuesday, Jan. 26 in the Ingle Memorial Auditorium at Rochester Institute of Technology, the home of NTID.

The performance was planned especially for the National Advisory Group, a committee from government, education and industry that reviews the NTID program and provides advice and counsel.

The program was comprised of selected hits from past performances. All skits, songs and poems were done in sign language, mime and pantomime.

The selections included "Haiku Harvest", "Goldilock and the Nanny", "Stopping by Woods on a Snowy Evening", "French Apache", "City Lights", "Richard Cory", "Window Display", "Ozymandias", and "The Jabberwocky".

Key NTID performers included Jody Blank, Flushing, N.Y.; Charles Jones, St. Louis, Mo.; and Tom Orscher, New York, N.Y. Readers from the NTID faculty were Valarie Consaul, Mike Deninger, and Arden Coulston. Miss Blank studied last quarter at the National Theater Institute in Waterford, Conn.

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SHOWING 'EM HOW — National Technical Institute for the Deaf student Charles Jones (left) of St. Louis Missouri gives pointers in playing the role of Charlie Chaplin to (from left) Mrs. F. Ritter Shumway of Rochester, N.Y., Mrs. Homer

Thornberry of Austin, Tex., and Dr. Ralph W. Tyler of Atherton, Calif., all members of NTID's National Advisory Group. Jones played Chaplin in NTID's Drama Club's recent Command Performance.