

**AN INTRODUCTION TO THE 1978 SYMPOSIUM
ON RESEARCH AND UTILIZATION
OF EDUCATIONAL MEDIA
FOR TEACHING THE DEAF

(LINCOLN, NEBRASKA)**

By

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The history of educational media in schools and programs for the deaf is an interesting one. The major thrust began in 1958 when Dr. John Gough was appointed director of the agency then called "Captioned Films for the Deaf." The continuing excellence of this program for the deaf has been assured by the leadership in this field at the Bureau level. Such men as Dr. Malcolm Norwood, Dr. Frank Withrow, Dr. Gilbert Delgado, Dr. Paul Andereck, and Mr. Ernest Hairston have greatly assisted in the promotion of the concept that carefully designed instructional materials are essential and must be provided if we are to achieve the acceleration needed in the deaf student's learning program.

Media projects of various scopes were supported by the Captioned Films Program in those early years (1958-1966). Later the four Regional Media Centers for the Deaf were formed to assist in pre-service and in-service training of teachers through media workshops and institutes. About the same time, Project LIFE (Language Improvement to Facilitate Education) developed a new approach to language instruction by the development of a filmstrip program and the construction of the PAL (Programmed Assistance in Learning) machine, which required a learner response before the program, advanced. This programming style was beneficial to the deaf learner.

Recently (1974-1977) the three Specialized Offices for the Blind, Deaf, and Other Handicapping Conditions made a significant contribution to the selection of educational media to teach the handicapped student. The Specialized Office for the Blind was located at the American Printing House, Louisville, Kentucky; the Specialized Office for Other Handicapping Conditions was at the University of Wisconsin-Madison. The Specialized Office for the Deaf and Hard of Hearing was located at the University of Nebraska - Lincoln, where a staff of qualified educators, including teachers of the deaf, selected during a three-year period over 15,000 items that were deemed to be suitable for teaching the hearing impaired. Retrieval information about these items was fed to a computer in the National Instructional Materials Information System (NIMIS) located at Ohio State University. At the present time, this data bank containing the same information is available from NICSEM (National Information Center for Special Education Materials) at the University of Southern California and the Lockheed Computer Facility. It is now possible for the computer to supply a list of recommended materials for most any topic in a curriculum for the deaf student. Altogether, the computer holds in its data bank nearly 45,000 entries (media) for educating handicapped children.

Another successful project has been the captioning of *The ABC Evening News* by WGBH, an Educational Television Network affiliate in Boston. Not only is the program appreciated by the adult deaf, but the Center is also proving to be a base for research and experimentation in the art of captioning media for the deaf. Added to this is the development of Line 21 for captions on the home television set with the installation of a decoder on the back of the TV set. The decoder permits the use of closed captions. These captions are only visible on sets having the decoder. Open captions, such as on *The ABC Evening News*, appear on all TV sets at the same time. Feedback at the present time indicates that many hearing viewers object to the superimposing of titles and captions on their sets. The decoder prevents that by use of the closed caption system. Although the hardware to accomplish this task is available, it will be some time before the technique is perfected and all commercial networks participate in the plan.

The greatest contribution of these materials and devices is in the area of vicarious learning experiences. Although one would generally consider first-hand experiences to be the ultimate method of instruction, this is not always true. Some circumstances may be too dangerous to offer as a first-hand experience; others are too remote, over-sized, not available, and too expensive. For the handicapped learner, there are other factors. For example, the vicarious or simulated experience may provide a more detailed visualization of the subject than would occur even if the student were present and looking at the object or device. Close-up pictures, animation, controlled vocabulary, and other instructional strategies may be employed in the mediated experience. The instructional strategy may include simplification of the topic or subject as to language development, learning increments and sequenced, progressive study. Educational media and technology have a fundamental and complementary role to play in the instruction of the hearing-impaired student.

Actually, the location and availability of educational resources, both human and non-human, may be an important factor in the selection of the least restrictive learning environment that is specified in P.L. 94-142. Mainstreaming for the hearing-impaired student cannot be a successful operation unless the classroom teacher has resources available that are appropriate to the topic, consistent with the student's best learning mode, and at a level he or she can comprehend. This concept is important in the instruction of "normal" children in the class, but selection of materials becomes absolutely vital to the success of the mainstreamed deaf student who must have some means of access to the same body of information his hearing peers can receive so much more easily by word of mouth.

Thus educational media and technology have a function as part of the Individual Education Plan (IEP) for each handicapped student, as is also specified in P.L. 94-142. The law requires a separate, specially designed program of instruction for each handicapped person. This plan is maintained on a continuous basis and involves teachers and parents, as well as educational specialists. In outlining the past, present, and future proposed accomplishments of the learner, the teacher needs to be aware of the instructional resources required to fulfill this plan. With each review of the plan, the teacher and/or therapist should make adjustments in the instructional strategy, including the use of available resources.

Educational media and technology have a role to play in enabling the student to be an independent learner. If one of the educational goals for the acoustically handicapped is to be independent as an adult, then independence needs to be a planned part of his or her program. Educational media can be a part of this strategy. Specifically designed materials, learning packages, and other self-instructional media can provide freedom and guidance for the student. The master plan should identify this role of media and prescribe the resources to be used.

Another potential application is the use of communication satellites in transmitting and receiving programs for the deaf across the nation. By this method, all schools for the deaf could be interconnected in a participative way by utilizing satellites as the transmission vehicle. Recently the Corporation of Public Broadcasting announced a satellite system for their entire ETV network employing the Western Union's WESTAR I that circles the world at the equator giving full coverage to the United States.

This system carries four programs simultaneously and permits one to be on the air and the other three to be videotape recorded for future transmission. During the day one of those channels could carry special programs to schools for the deaf. Again, these telecasts could feed directly into a classroom or be recorded for future use. The interconnection of these schools would have many advantages in the areas of presentation, curriculum studies, course sequences, and standardizations of methods and procedures.

The use of a computer in a teaching/learning situation is not new. Some of the refinements are new. Probably the most advanced system *technically* is the PLATO program at the University of Illinois-Champaign/Urbana. At this time, the PLATO Model #5 is being tested for its unique interactive capabilities. It is interesting that many schools for the deaf are conducting experimental programs using various forms of computer-assisted instruction. This highly interactive video system utilizes the sensory strengths of the deaf student—his vision and manual dexterity. With the coming of the microprocessor and mini-computer, these devices will be available not only to the school, but also to the home. The cost of computer-designed instruction is falling rapidly and, before too long, will be within the financial reach of many families. As educators of the deaf, we need to explore greater use of those media which support the student's learning strength rather than his/her weakness.

Mention should be made of the excellent children's programs produced and transmitted under the interesting titles *Sesame Street* and *Electric Company*. These programs serve as models for both normal and handicapped children for education and enjoyment. Many of the ideas in this program series have potential application to the design of programs specifically for the hearing impaired. This is another example of television as the transporter.

This symposium brings together some of the leading researchers and programmers who have designed and developed educational technology to benefit the hearing-impaired learner. The authors of these scholarly papers were present at the conference and gave special demonstrations in order to document and explain the ideas being presented. In the education of the hearing impaired, these are exciting times because of the advanced technology, which shows unlimited application to the education of the deaf. The symposium is dedicated to this purpose.