

TEACHING THE STEREOTONER; ITS PROBLEMS AND REWARDS

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Between October 1973 and June 1974, 12 blind nonveterans participated in an evaluation project on learning to read ink print with the Stereotoner audible-output reading aid. This project was sponsored by the Veterans Administration, in cooperation with the Committee on Prosthetics Research and Development of the National Academy of Sciences, which provided the Sterotoners, and the American Institutes for Research in Palo Alto, California, which developed the training materials. Each student had a 2- to 3-week training course, one at a time, working 4 to 6 hours a day. The instruction was given at The Hadley School for the Blind, Winnetka, Illinois.

BACKGROUND

There were seven men and five women in the course. All were high school graduates, except for one senior in high school at the time of the course. One was in his 4th year of college, seven had bachelor's degrees, two had graduate degrees, and one had nothing beyond high school. Eight were congenitally blind, and four became blind as children. Of the 12, two are in school, two are medical records typists, one is a program coordinator for a small agency serving the blind, one is a musician, one is a psychologist, and five are currently unemployed. Eight had some knowledge of letter shapes, two were somewhat familiar with print formats (and different kinds of print), and two had no knowledge of print at all.

TRAINING

The training manual consists of 14 units with two to three lessons each. The first unit deals with orientation to the equipment and tone pattern practice. The student analyzes the tonal features of a letter reconciling them with features of the point, like the line on the right side of the small d. Units two through nine cover numbers and three to four

letters each. Each unit has three one-page lessons plus a criterion exercise to be administered upon completion of the unit. Unit 10 deals with the 400 most common words, self-timed reading, and letter pattern practice. Unit 11 deals with bookstyle and two different kinds of italic types, and Unit 12 deals with formats, columns, a table of contents, and a form letter. Unit 13 deals with checking one's typing in the typewriter and using the Stereotoner to identify currency. Unit 14 deals with letters likely to be confused, such as e and s. If a student had consistent trouble with the confusion of certain letters, this last unit was used. Students learned two things: how to recognize the letters by the distinguishing features of their tone patterns, and how to scan the print with the camera moved by a steady hand in a straight line. Some students had trouble hearing the horizontal bar of the small e and the line forming the bottom of the small a. Verticals, which activate more tones, such as the ascenders of the h or d, and diagonals found in the A, w, v, and y are easier to hear. This is because horizontals sound fewer tones than verticals or diagonals. Numbers are harder to learn than letters because of the similarity of the shapes found in the 5 and 6, or 8 and 0. Concentrating on the tone patterns, tracking the print, and keeping the camera moving at a good steady pace tended to make the students' hands tense. Most students learned that by relaxing their hands it was easier to keep up a good reading pace. A good stable tracking aid for beginning readers is needed so that the code is presented properly. With such an aid they would be able to concentrate more on hearing the code, less on tracking mechanics.

Of the 12 students, nine completed the training successfully and are now reading print (at least their mail) and checking their typing. Some are reading short articles. At the end of the training, they read independently, and understood how to adjust the Stereotoner for different sizes and kinds of type. Students left the training course reading from four to five words a minute. Three dropped out of the project; one had difficulty hearing the code, one had difficulty adjusting the equipment, and one could not accommodate to the intensive training, either physically or psychologically. People who have good knowledge of print-letter shapes, and good hearing discrimination, make the best Stereotoner readers. If hearing discrimination is poor, there usually is trouble picking out the distinguishing features of the letters. Without knowledge of print-letter shapes, there is difficulty relating the letter shapes to the tone patterns.

American Institutes for Research has developed four home-study units, with 12 lessons in each unit, plus a criterion exercise which must be recorded by the student for his instructor. The student says the words of the exercise while reading it with the Stereotoner. The units have tape-recorded explanations of each lesson to help him understand the format

of what he is reading. One of the nine students has completed his four home study units and one has completed three. One college student became involved in other things and did not practice. He is now reviewing in the training manual and hopefully will be sending in a recording soon. The others have not had their Stereotoner long enough to get through the units.

FUTURE PLANS

There are currently three more Stereotoners available to nonveterans. One will take training in August 1974 and one possibly in October. The possibility of teaching reading by the whole word method is being considered. Suitable texts have much repetition of words used in simple sentences. Students should learn to recognize letter and word patterns instead of reading letter by letter. New readers tend to read letter by letter; braille teachers run into the same kind of problem.

Reading print with the Stereotoner enables a blind person to do something he could not do before without sight. The satisfaction one gets by helping someone to learn to read print is indeed rewarding.