

CUED SPEECH

NEWS

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PROGRESS CONTINUES ON DEVELOPMENT OF AUTOMATIC CUER

FLASHING LIGHTS TO PROVIDE CUES

Flashing lights, not electrotactile stimulation, will be the modality used for the Automatic Cuer.

The decision to go with the visual approach was made at the end of the Fall 1974 semester after much training and testing with both methods.

Although the subjects working on the tactile display achieved cued test scores showing an appreciable gain over their unaided lipreading scores, the visual results were still far superior.

This decision does not permanently eliminate any possibility of using a tactile approach to mechanical cuing. The idea was discontinued for the duration of the current project in order to devote all effort to development and evaluation of the visual method. It is considered that a tactile approach still has potential, but some basic changes would probably have to be made, and a longer period of time would be required to properly evaluate its potential.

AUTOMATIC CUE GENERATION NEARLY READY

In about a month's time, equipment will be ready to begin using automatic cue generation.

Most of the running speech used in training the subjects has been presented at less than normal speech speeds. This is because the cues have been generated by a keyboard on which the instructors type phonetically as they speak. It has been impossible to achieve, in such a short period of time, more than 1/2 to 2/3 the speed of normal speech in the keyboarding process. The

Continued on page 4

TEST SCORES PROVE READABILITY OF CUES

Fourteen Gallaudet College students, ten of them new, worked intently to learn and master the reading of mechanical Cued Speech during the 1974 fall semester. They continued to demonstrate skill in reading syllables, words, phrases, and sentences; and have added impressive data to that acquired last year.

On a series of consonant-vowel syllable tests given to all 14 subjects (42 tests), the combined average scores were 83% for consonant-vowel syllables and 91% for phonemes. The range of accuracy for reception of CV syllables by hearing people is considered to be 80-96%, so these test scores indicate that these deaf students can understand isolated syllables as well visually (with cues) as the average hearing person can hear them.

Word tests were given in both cued and pure lipreading forms in order to determine how much improvement the addition of cues caused in the subjects' understanding. Significant gains were shown by all the subjects. The averages of all of them showed an increase in comprehension of words from 24% to 89% when the cues were added. The phoneme score went from 51% to 95% when cues were added. Even the poor lipreaders showed remarkable gains. One subject understood only 5 words (10%) on his pure lipreading test, yet got 48 of the 50 words (96%) on his cued test. This represents a difference of 86%. Even the best lipreaders in the group had differences of

Continued on page 4

Recreational games can provide valuable opportunities for learning language and increasing vocabulary -- for hearing and hearing-impaired offspring. Many games which promote the learning and use of words and language are on the market.

PROBE is a "game of words" by Parker Brothers which may be played by two to four people. It is a game that can be played together by children and adults of all ages and abilities.

Each player selects a secret word of twelve letters or less, and the other players try to guess it, letter by letter. Since short, simple words are often difficult to guess, even a child with meager language can compete. Even if a player's word is guessed, he remains in the game until the end.

The deaf sister (aged 9) of an 11-year-old history buff learned new words the first two rounds she played with him: blunderbuss and confederate. She counteracted by stumping him with: palm and temperature.

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John and Shirley Nason of Kent, England, learned Cued Speech from the recorded lessons in the Fall of 1970 when their hearing-impaired son, Timothy, was almost 9 years old. They attempt to use it consistently in many ways: for formal lessons with homework, for reading and writing stories, and for conversation whenever Tim is present. This includes trying to cue whatever transpires at mealtime with their five children. Their policy is usually to "simply use the situations as they arise," but they realize that at times contrived situations or games can be very beneficial.

Mr. Nason wrote in July 1973, when Tim was 11-1/2 years old, "It is simply amazing how many words come out of unusual situations We were sitting on upright chairs and it occurred to me to do as many things [as possible] without moving from the chair. I cued 'Timothy, how do you blink?' 'How do you nod?' etc." Mr. Nason used over 30

During the present school year, the Spanish instruction is being handled by Nancy Strizver. Mrs. Strizver is a native of Argentina and has been working in this program with Mr. Diamant for 3-1/2 years. During the past summer she attended a two-week workshop on use of the direct method in teaching foreign languages.

Mr. Diamant has been transferred to the Communication Department of MSSD where he is concentrating on further development of the use of Cued Speech to improve the students' communication abilities in English.

Since the Model Secondary School for the Deaf was created by an act of Congress to serve as a model for secondary deaf education across the country, all techniques, curricula and methodologies developed there will eventually be available to any school or program for the deaf in the U.S.

CUES FOR DEAF/PARTIALLY-SIGHTED

Continued from page 3

"After working with the deaf/partially-sighted, I really feel that Cued Speech is probably too complex, too subtle, and too dependent on vision for most of them. When people ask me if they should use it with their very low-functioning children, I say no. Those children are making progress if they learn ten signs. I tell them the criteria should be whether they think the child has any potential for connected language. Even that is a chancy determination -- for some of those it is better to build a language base in signs, then move them to a higher level (verbal) if they are able."

words (such as point, weep, sniff, tap) and found that Tim knew only about half of them.

For hearing-impaired children, every chance to talk about or play with words is valuable. Take advantage of opportunities and invent them!

CUED SPEECH AIDS DEAF/PARTIALLY-SIGHTED

Despite the fact that Cued Speech is a visual method of communication, it has been used for two years within the Deaf-Blind Department of the California School for the Blind at Berkeley. Two 9-year-old profoundly deaf and partially-sighted girls have been instructed with cues by Pamela Hardy Beck, who feels they have made notable advances in vocabulary, language and social development.

Prior to their Cued Speech work, which began in the Fall of 1972, the girls had had minimal speech instruction and little language development.

With cues each one's progress has corresponded to her individual characteristics: one child, imitative and social, has acquired a large vocabulary and a receptive understanding of fairly complex language; the other, withdrawn with autistic characteristics, has acquired a forty-word spontaneous spoken vocabulary and a large receptive written vocabulary.

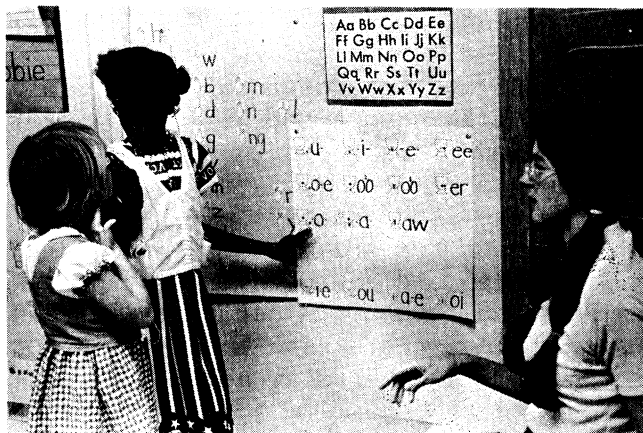
Mrs. Beck feels improvement in social behavior has been the major accomplishment of the girls and that speech instruction and oral communication with cues have been important factors in this.

DEFINITION OF "BLINDNESS"

"Legally, medically and educationally, 'blindness' does not mean a total loss of sight. The definition usually used in the U.S. is based on the amount of vision in the better of the two eyes. A child is considered to be blind if the sight in his better eye is 20/200 or less with the best possible corrective glasses or contact lenses; this means he can't see an object that a person with normal sight can see at a distance of 200 feet unless he is within 20 feet of it." Of the school-children who are blind by this definition, 23% can see nothing. Yet 38% are able to read large-size print.

from IS MY BABY ALL RIGHT?

*by Virginia Apgar, M.D. and Joan Beck
Simon & Schuster, Inc., N.Y. 1972*



Pam Beck's deaf/partially-sighted pupils practice cuing with each other.

Through these mediums, the girls have developed an understanding of the relationships between people. Each has modified her behavior from an extreme to something nearer the average. That the withdrawn child has become interested in communicating is the most exciting and important achievement for her.

Each girl now cues whenever she speaks. Developing oral communication was not simple; a full academic year was necessary to acquire the forty speech sounds, the cues, and the speechreading (with cues) skills. Cued Speech was the constant mode of communication used by the teacher; and, in addition, speech sounds and cues were taught and practiced formally each day.

During the second year, formal Cued Speech lessons were not necessary. The girls' recognition of Cued Speech was checked periodically by asking them to write out sentences and unfamiliar words cued to them during other lessons.

Both girls are considered legally blind although they have some usable eyesight. The corrected vision of one girl is 20/200 in both eyes with an added problem of horizontal nystagmus. The other girl's corrected vision is 20/200 in one eye and 20/80 in the other. In addition she has a mottled retina.

BRITISH TEACHER IN U.S. ON ROTARY GRANT; WILL TEACH CS AT NEW SCHOOL, ST. ALBAN'S

A Rotary International Fellowship gave Ann Wilkinson, a teacher of the deaf from England, an opportunity to spend four months in the U.S. expanding her knowledge of deaf education.

One of her projects -- learning to cue in Standard Southern British -- was complicated somewhat by her natural Irish accent. Any cues she encountered for practice during her stay here used general American cues in a wide range of American accents. Consequently, she has returned to England experienced in handling a large variety of accents and plans to teach CS to parents and teachers there.

The grant from Rotary International enabled Miss Wilkinson to spend the fall semester at Gallaudet College, doing graduate studies in deaf education. She received three hours credit for her work in CS. Besides learning the system and gaining enough proficiency to enable her to return to England and teach it, she adapted the 500-word vocabulary list in the Parents Handbook for use by speakers of Standard Southern British. She also prepared detailed lesson plans for use in teaching CS to parents and teachers. In addition she used cues during the practice teaching she did at the National Child Research Center in D.C.

A veteran of eleven years of teaching, Miss Wilkinson received her training

in education of the deaf at Manchester University. Originally from Ireland, she has taught there and in England.

Mossbury Infants School, a partially-hearing unit, in Stevenage, Hertfordshire, granted Miss Wilkinson leave for the period of her fellowship. In January she returned there to her class of ten hearing-impaired students, who range in age from 4 to 6.

Following her return to Hertfordshire, Miss Wilkinson will assist in the implementation of CS at a new school in the area, St. Alban's School for the Deaf. She plans to help with weekend courses for staff and parents.

St. Alban's is a completely new facility which began classes in January. To be accommodated there eventually will be children aged 3 to 12, who need more than a pure oral approach. Younger children will be accepted first and additional grades will be added as the students advance. Cued Speech will be used with all the students.

Ann Wilkinson went home at Christmas-time to be married; so she began the New Year with a new husband, a new house, and a new method of communication. However, she did keep "something old" -- her class of young hearing-impaired children, which she plans to continue teaching in the New Year.

AUTOMATIC CUE GENERATION

Continued from page 1

testing done so far has been at the slower speeds. The automatic equipment will eliminate the keyboard and make the faster speeds possible.

Work at both Research Triangle Institute and Gallaudet has proceeded well, but two important questions remain to be answered:

Will the speech analyzer present the cues to the deaf person with enough accuracy?

Will the deaf person be able to read the cues when they are delivered at the fast pace of normal running speech?

Under terms of the two-year contract with National Institutes of Neurological Diseases and Stroke, six months remain in which to produce a workable model of an Automatic Cued Speech (CS) system. Engineers at RTI are optimistic that goal will be reached.

TEST SCORES

Continued from page 1

76% and 78% between their cued and uncued test scores.

A sentence test was given to 10 of the subjects, using 15 unfamiliar sentences from the John Tracy Clinic Tests for Lipreading. The number of correct words for each of the subjects ranged from 57 to 74 (74 was the perfect score), with an average of 94%. The John Tracy Clinic data for these tests (the complete series of 60 sentences) indicates a weighted average lipreading score of 35% was achieved by deaf people from elementary to college age. The comparison is compromised somewhat by the fact that the material was presented at below normal speed in this current study. Because of equipment advances, work during the next semester will emphasize reception of the cued material when it is presented at normal speech speeds.

At Mossy Oaks Elementary in Beaufort, South Carolina, teachers and hearing students are continuing to learn and use Cued Speech to provide effective integration for hearing-impaired students. There are seven deaf students at the school this year.

A night class in Cued Speech taught by parents drew a good response from other parents and interested persons during the first months of the school year. A number of hearing youngsters are being taught to cue by the mother of one of the deaf children.

Mr. James B. Kirkland, principal of the school, wrote in October 1974:

"A long-range goal for our school is for every teacher and student to learn to cue. We hope that by the end of this school year at least one teacher and class on each grade level will be able to cue. As you can see, we are sold on Cued Speech."

Joan Rupert, one of the participants in the original Cued Speech workshop held at Gallaudet during the summer of 1967, is still using the method in Vacaville, California. This year she is teaching a class of seven and says she feels like "a country school marm" because their ages range from four to nine. Her class is located in a public school, and all the children are integrated for at least one class.

Mrs. Rupert sent to Cue Central a tape recording containing speech samples of her students. All the children with the exception of one are profoundly deaf and they demonstrated speech of very good quality.

She reported that "The two speech therapists that have worked with the children are amazed at the oral and rhythmic speech the children use." The tape provides evidence of this.

RECENT CONFIRMATION OF CUED SPEECH USAGE

Recent communications with Cue Central by these people indicate the following as current cue usage at their schools. This is by no means a list of all current users.

In a RICHMOND, VIRGINIA public school, J. B. Fisher Elementary School, Pam Christie says eight teachers are using Cued Speech and three teachers are using Total Communication.

In SACRAMENTO, CALIFORNIA, Elaine Epling reports the classes for the deaf have been changed to Total Communication but Cued Speech is still being used with the elementary hard of hearing.

At Ruby Thomas Elementary in LAS VEGAS, NEVADA, Christine Lykos Sechrist said Cued Speech is being used with five classes and Total Communication with three.

In PENSACOLA, FLORIDA, at the Baptist Hospital Speech and Hearing Clinic, Speech Pathologist Linda Kennedy began this past fall using cues with three 2-year-old children with severe and profound hearing losses.

At North Elementary in PRINCE GEORGE, VIRGINIA, Andrea Specht uses cues with her class of five deaf children, aged 7 to 10.

Dr. Larry Dettweiler of the University of Victoria, BRITISH COLUMBIA, CANADA, wrote in December to say: "We are using Cued Speech with one retarded boy now and have noticed marked improvement."

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"EQUALIZER" ENABLES DEAF STUDENTS TO LEARN SPOKEN SPANISH AT MSSD

Students at the Model Secondary School for the Deaf now have the opportunity to learn spoken Spanish through a well developed audio - visual method. According to Jay Diamant, who has developed and assembled the Spanish curriculum at MSSD, the "equalizer" which is making possible the elimination of the spoken language barrier for the deaf is a "potentially revolutionizing instructional weapon" -- Cued Speech.

Previously, deaf students who have ventured into the study of a foreign language have been confined to learning grammar and doing translation exercises. It is hoped that this experimental project at MSSD will demonstrate that it is possible for deaf students to develop comprehension and speech skills first as a foundation for reading and writing skills.

The multi-media instructional system in use at MSSD was developed for hearing students by the Center for Curriculum Development, a subsidiary of Rand McNally. It is called Vida y Dialogos de Espana and includes tapes and discs to be used in conjunction with filmstrips and picture workbooks. The essential audio components have been replaced by corresponding Cued Speech-based materials which enable deaf students to receive their lessons as accurately in a visual form as hearing students receive theirs through audition.

Filmstrips are shown and the teacher speaks and cues the accompanying dialogue. The class then repeats after the teacher, in "echo fashion," the sentences in each frame of the filmstrip. Then students break up into small groups to practice speaking the dialogue. Eventually the students assume the roles of the characters in the filmstrips and wear around their necks plaques imprinted with pictures of the characters' faces. They act out the situations in the filmstrips, using all the appropriate dialogue. Reading and writing practice immediately follows each unit which has been internalized through these oral-aural activities complemented by Cued Speech.



Andrew Crovo cues "And this is Alfonso" in Spanish ("y este es Alfonso") to Norma Foglio as "Alfonzo" Delma Beverly watches. Norma, whose native language is Spanish, came to MSSD last year from Mexico and has been learning English with the help of Cued Speech.

This active, participatory approach to foreign language study is being combined with an attempt to promote understanding of Spanish-speaking cultures. Cooperation with other departments in the open school -- where there are subject areas rather than classrooms -- has led to coordinated projects in art, drama, social studies and home economics. Field trips have been sponsored to such places as the Pan American Union, the National Geographic Society (for a special program on Mexico), Spanish and Mexican restaurants, and a Flamenco show.

The Spanish department at MSSD has encountered problems during the four years of its operation, the most serious being a high student attrition rate. Scheduling at MSSD involves frequent changes, and students often find continuation of Spanish impossible because of a scheduling conflict. It is hoped that in the future a year's commitment will be possible and required before a student is allowed to select the course.

Despite the problems, Mr. Diamant cites the positive aspects of the program as being: good materials and methodology, cooperative students, and "perhaps most important of all, a clear method of communication which allows the major focus to remain on and in the target language."

Continued on page 2