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Language of the Deaf

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บทคัดย่อ

การศึกษาครั้งนี้ได้มุ่งเน้นถึงการใช้โปรแกรมการสอนพูดในกลุ่มเด็กหูหนวกก่อนวัยเรียน โดยได้ทำการศึกษาถึงวิธีการสื่อความหมายและการพัฒนาคำศัพท์ของเด็กหูหนวกก่อนวัยเรียน 5 คน ซึ่งครูการศึกษาพิเศษได้ใช้โปรแกรมการสอนพูดในชั้นเรียน ผลการศึกษาพบว่าเด็กหูหนวกสามารถใช้ทั้งการพูดและการสื่อความหมายที่ไม่ใช่การพูดในการติดต่อสื่อสารกับผู้อื่น โดยจะเรียนรู้การสื่อความหมายที่ไม่ใช่การพูดได้ก่อนการพูด ส่วนใหญ่ประเภทคำศัพท์ที่เด็กเรียนรู้ลำดับก่อนหลังจะคล้ายคลึงกับเด็กปกติ จึงอาจกล่าวได้ว่าการศึกษาครั้งนี้สนับสนุนคำกล่าวที่ว่าการใช้โปรแกรมการสอนพูดในเด็กหูหนวกก่อนวัยเรียนจะเป็นการช่วยให้เด็กหูหนวกพูดได้ และการสื่อความหมายที่ไม่ใช่การพูดเป็นระบบการสื่อสารอันแรกที่เด็กทุกคนสามารถเรียนรู้และรู้จักใช้ก่อนการพูด

Abstract

The study confirms the notation that an oral program in preschool provides an opportunity for the deaf to communicate by speaking, and that nonverbal communication is the first system which all children use before verbal communication is developed. Five deaf children were taught by using an oral program and the teacher used verbal and nonverbal communication in the classroom. Results were that the deaf could speak and could use nonverbal communication at the same time. They could acquire nonverbal before verbal communication. The pattern of vocabulary learning was similar to normal children.

Background

Speech is the most popular and effective medium of communication, which provides easier adjustment to the world than does other means of communication. Language is a symbol which is used in speech. Also speech and language are basic to : intellectual, educational, emotional and psychological developments. Hearing loss is the most common cause of delayed speech and language development. Because hearing is a multidirectional sensory which is used the most in daily life, the deaf have the inability to perceive the nuances of spoken language through intact auditory channels, and deaf children of hearing parents typically are denied an early exposure to natural communication as it occurs at home and in the community.

There are a lot of deaf programs which teach the deaf in school. Three of them are popular in Canada : an oral program, a total communication program and a half regular-total communication program. The parents choose these programs for their children. An oral program is very interesting. Verbal communication is mainly used and nonverbal is used to facilitate verbal acquisition in an oral program. Because nonverbal communication is the first system which emerges in all children, it continues throughout the entire life span. Verbal strategies normally develop during the first four years of life and coordinate with nonverbal acts as communicative competence develops. So if the deaf are intensely supported, they should speak well. This research reported here confirms that notation. It was the intent of the present study to provide an opportunity for preschool deaf to speak by using an oral program and nonverbal communication.

Method

Subjects

The subjects were five hearing-impaired children ages 3-5 years in a public preschool in Canada. Four of them had congenital hearing loss and one had hearing loss resulting from meningitis when she was 2 months old. Two are profoundly impaired and three suffer a severe hearing loss. Three subjects belonged to English-speaking families and two belonged to families where Chinese (Cantonese and chiu chou) was spoken at home. Every child has consistantly been using a hearing-aid for more than 7 months and entered a preschool in an oral program for 9 months. All deaf subjects were enrolled 5 days each week. None of them had disabilities other than hearing loss. The teacher graduated in a deaf-teaching program and she has a teacher-assistant who helped her to teach the deaf children. There were speech pathologist and speech specialist who work in school once a week for speech and language therapy.

Methodology

All subjects were in an FM system class. The teacher taught children by using an oral program and an FM system, both in groups and in individual training. This program used audiological rehabilition (auditory training, lip reading, natural gestures and imitation) and encourage the children to communicate by speaking. The teacher and her assistant recorded every new word which each child could correctly produce by himself in school. The researcher and assistant were in the class once a week for 2 weeks to observe and record additional informations.

FM technology provides the necessary first step for audiological rehabilitation in school environment. The goal of audiological rehabilitation is to maximize each child's opportunity to use hearing efficiently in an academic environment as a mean for developing and expanding language in order to acquire knowledge about the world. FM technology provided the necessary first step for audiological rehabilitation in a school environment. It also improves the signal to noise ratio thereby enhancing the clarity of the speech signal

received by the child and it affords the opportunity to access instructional information more efficiently. Data entry precedes data manipulation. The clearer the input signal, the better the chance to process/lean the material. If, for example, a child hears owe instead of the intended word, shows, that child would have difficulty understanding the meaning and use of both the correct and incorrect words. Thus, FM technology is a tool, a means to an end, not the end itself.

Result

The deaf children could understand and produce vocabulary. Nouns were the most commonly followed by : Verbs; Pronouns; Adverbs; Adjectives; Interjections; Conjunctions ; and Articles were the least commonly produced. (Table 1)

Table I Number of vocabulary in percent

No Voc	N	V	Pro	Adv	Adj	Inj	Conj	Prep	Arti
%	39.59*	26.90	14.72	9.64	6.09	1.52	1.02	0.4	0.51

Mean length of Utterance = 1.48
Average total vocabulary number = 39.4 words
Voc = Vocabulary, N = Noun, V = Verb, Adv = Adverb, Adj = Adjective,
Inj = Interjection, Conj = Conjunction, Prep = Preposition, Arti = Article
** 15% of nouns were colours.*

The degree of hearing loss and spoken-home language obviously related to total vocabulary number (Table II)

Table II Relation between the degree of hearing loss and spoken-home language and total vocabulary number

Item Subjects	A	B	C	D	E
Noun	5	18	7	2	46
Verb	5	13	7	3	25
Pronoun	–	11	1	4	13
Adverb	2	4	2	–	11
Adjective	–	2	1	1	8
Interjection	–	1	1	–	1
Conjunction	–	1	–	1	–
Preposition	–	–	–	–	–
Article	–	–	–	–	1
Total	12	50	19	11	105
Degree of hearing loss	Prof HL	Prof HL	Sev. HL	Sev. HL	Sev. HL
Spoken-home language	E	E	C	C, CC	E

E : English C : Contonese, CC : Chiu chou, Prof HL : Profoundly hearing loss, Sev. HL : Severe hearing loss

The researchers found that the teacher emphasized an oral program in the classroom and used nonverbal communication for facilitating the deaf to acquire speech. Nonverbal communication are natural gestures; functional gestures or production of animals or things etc. such as she hopped and produced "op op op" when she talked about "frog". A few of the deaf could only use nonverbal communication for expression as the teacher did, and some of them used both speech and nonverbal communication.

Discussion

The result was found that the deaf children could not acquire vocabularies as well as children without hearing loss. The pattern of acquisition was quite similar to normal children. Nouns were produced the most, followed by Verbs; Pronouns; Adverbs; Adjectives; Interjections; Conjections ; and Articles were the least. This study was found that the pronoun was produced more than other vocabularies except for the nouns and verbs. Maybe these pronouns were ofter used in the classroom because most of them were the names of pupils in same situation.

In this study, colours were 15% of nouns which the deaf could produce. This result was different from acquisition of normal child at the same age in the previous study. Prathanee (1992) studied in comprehension and production of 4 kinds of nouns (animals; things; food and vegetable; colours) among normal children and she found that normal child acquired the noun of colours the least and the noun of animals the most. It may be possible to say that deaf children were taught about colours more frequently than normal children. Because colours were percieved by sight which is a compensation sensory and is easier to receive than hearing in the deaf. Also colours were an alternative which could be seen everywhere and all the toys that were used in the classroom had colours. Most colours which the deaf produced were one-syllable words such as blue, brown, red, etc. They were easily spoken. (Hurlock, 1972)

This study found that a few of the deaf could only acquire nonverbal communication, and some of them learned both verbal and nonverbal communication at the same time. It may be show that the deaf rely initially on nonverbal communication earlier than speech and hearing to communicate and to receive communication from others. They also use it as a bridge to the acquisition of verbal ability. The result of this research supported the result of the previous studies (Gldin-Medow, 1985; Christensen, K.M.,1988)

The main focus of oral program of hearing-impaired to date has been that of rehabilition, helping the deaf to achieve success in using the verbal instruments of communication. Also nonverbal communication can be nescessarily used to facilitate eventual verbal competence.

Reference

Christensen, K.M. I see What You Mean : Nonverbal Communication Strategies of Young Deaf Children. **American Annals of the Deaf** 1983; 133(4) : 270-275.

Flexer, C. Audiological Rehabilitation in School. **ASHA** 1990; 32(4):44-45.

Gentner, D. On Relational Meaning : the Acquisition of Verb Meaning. **Child Development,** 1978; 49:988-998.

Goldin. Meadow, S. Language development under Atypical learning conditions : Replication and Impication of a study of deaf children of hearing parents : In K. Nelson (Ed.), Children's language : Vol. 5 New Hillsdale, NJ : Erbawm, 1985.

Hurlock, E.B. **Child Development.** Fifth Edition, New York : McGraw-Hill BooK Company, 1972.

Prathanee, B. Comprehension and Production of Nouns among the Children Aged 4 - 5 in the Kindergarten school in the Municipality of Khon Kaen Province. **Srinagarind Hospital Medical Journal.** 1992; 6:217-225.

Prathanee, B. Comprehension and Production of Nouns among the Children Aged 2 to 3, in the Kindergarten school in the Municipality of Khon Kaen Province. **Journal of Nursing** 1992; 14 : 39-52.