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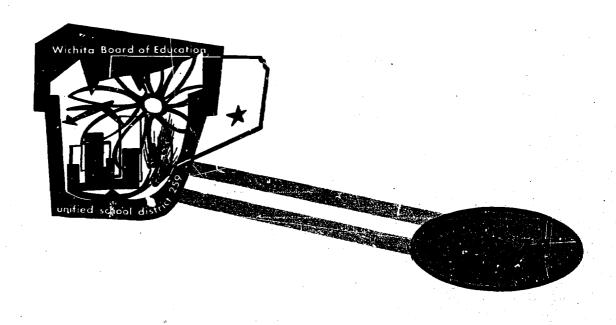
Two special classrooms were provided for 20 students at the preschool and kindergarten level who had severe hearing impairments. Two teachers and two instructional aides condcted classroom activities centered around sense training (visual, tactile, and auditory experiences). Speech development and communication skills were desired outcomes. To measure student gains in eight subtest areas, the Nebraska TEST OF Learning Aptitude was administered. In one year, the preschool students made an average growth of one year and 11 months in mean learning age. The kindergarten group showed an average gain of one year and five months in mean learning age. Student records, samples of classwork, and teacher written reports on each student (including sense training, socialization, responsibility, basic learning skills, and language development) correlated with the test data. (KW)



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Research
and
Information Services Division

TITLE VI HEARING-HANDICAPPED PRESCHOOL AND KINDERGARTEN LEVELS



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TITLE VI HEARING-HANDICAPFED PRESCHOOL AND KINDERGARTEN LEVELS

Project No. 6820

Submitted to the State Department of Public Instruction ESEA Title VI

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TITLE VI

HEARING-HANDICAPPED - PRESCHOOL AND KINDERGARTEN LEVELS

Two special classrooms were provided for pupils with hearing impairments severe enough that they were unable to function in a regular elementary classroom. Communication and language skills were such that most pupils were functioning at the preschool or kindergarten level. These hearing-impaired classrooms were closely coordinated with other similar classrooms at Allen Elementary School and the Wichita Special Education Diagnostic Center. Other hearing handicapped classroom programs were sponsored by the Wichita Public Schools, USD No. 259.

Objectives

- To assist children with hearing handicaps by observation, attention, imitation, concentration, and reason through cultivation of their normal sensory skills.
- To help each child develop full potential of any residual hearing.
- 3. To project communication with and response to oral language through speech and vocabulary skills.
- 4. To augment the skill of lipreading.
- 5. To improve group interaction by personal and social adjustment.
- 5. To discover and devise effective teaching techniques involving adequate instructional materials for children with hearing handicaps.



Methods and Procedures

Two qualified classroom teachers were employed to guide the activities of 20 students in four separate class sessions a day.

Assistance for the teachers was provided by two qualified full-time instructional aides.

A maximum class load of six pupils per session was maintained throughout the year. Each preschool student received five one-half days of instruction per week in either a morning or afternoon session. The kindergarten students received two full days and three one-half days of instruction per week. One pupil in the kindergarten group attended one-half day of regular kindergarten classes and the other one-half day in the kindergarten hearing-impaired classroom.

Classroom activities centered around sense training including visual, tactile, and auditory experiences. Methods used in language development included imitation through simple games, choral speaking, and conversation. Flexibility in classroom situations encouraged the development of socialization. Speech development and communication skills were desired outcomes of this training.

Evaluation Strategy

Both test and non-test data were used to evaluate pupil progress and classroom activities. The Nebraska Test of Learning Aptitude was administered to each child in an attempt to measure pupil gains in eight subtest areas.



Non-test sources of data such as pupil records maintained by the teacher and other school staff personnel, samples of classwork, and end of semester written teacher evaluations were used to assess pupil progress.

Pupils Placed in Classrooms

Examination of pupil records revealed the following information about the pupils placed in both the preschool and kindergarten class-rooms.

Pupil Information 1969-70 School Year

| | <u>Preschool</u> | <u>Kindergarten</u> |
|--------------------------------------|--------------------------------------|--|
| Age Range at Start of School Year | 3 Years 0 Months to 4 Years 8 Months | 4 Years 8 Months to 6 Years 1 Month |
| | 10 Caucasian | 8 Caucasian |
| Race | 1 Negro | 1 Negro |
| | 7 Female | 4 Female |
| Sex | <u>4</u> Male | _5 Male |
| Total Enrollment | 11 | 9 |

Twenty-three pupils were originally placed in the two hearing impaired classrooms. Three pupils withdrew during the year due to family relocation or entrance into another program at the Kansas State School for the Deaf.

Pupil Results

Few standardized tests are available for use with hearing handicapped pupils of this age. The Nebraska Test of Learning Apritude



was administered to each pupil in the program during April or May of 1970. Due to the length and type of test, it was felt that this would not lend itself as a useful device to be given less than one year apart. Most students had taken the Nebraska Test of Learning April Apri

Results for the pupils tested in 1970 are summarized in Table I.

Table II will show the comparison between 1969 scores and 1970 scores for the pupils tested both years.

TABLE I

RESULTS OF THE NEBRASKA TEST OF LEARNING APTITUDE HEARING-HANDICAPPED, TITLE VI

1969-70

| | N = 11 Preschool Deaf Learning Age | N = 9 Kindergarten Deaf <u>Learning Age</u> |
|--------|--|---|
| Mean | 5-10 | 6-9 |
| Median | 5-6 | 6-3 |
| S.D. | 1-1 | 0-10 |
| Range | 4-0 to 8-0 | 5-6 to 7-11 |

For the preschool pupils the mean chronological age was four years and nine months, which indicates the group as a whole was functioning well above normal expectations. The kindergarten pupils' mean chronological age at the time of testing was six years and two months. This indicated



that this group was also functioning slightly above normal expectations.

Table II reveals that the preschool pupils who were tested the previous year made an average growth of one year and 11 months in mean learning age for that period of time. The kindergarten group also showed an average gain of one year and five months in mean learning age for the same period of time. It can be assumed that considerable change did occur in the pupils' learning capabilities based on these test results.

TABLE II

COMPARISON OF RESULTS OF NEBRASKA TEST OF LEARNING
APTITUDE FOR PUPILS TESTED IN 1968-69 AND 1969-70

| | Preschool Dea | f Learning Age | Kindergarten Dea | f Learning Age |
|--------|-----------------|----------------|------------------|-----------------|
| • | N = 7 | | И = | 8 |
| | <u> 1968-69</u> | 1969-70 | <u> 1968-69</u> | <u> 1969-70</u> |
| Mean | 4-2 | 6-1 | 5-3 | 6-8 |
| Median | 4-3 | 5-6 | 5-3 | 6-6 |
| S.D. | 0-8 | 0-7 | 0-10 | 0-10 |
| Range | 3-2 to 5-1 | 5-6 to 7-6 | 3-9 to 6-8 | 5-6 to 7-11 |

In Table III a comparison is made of total group mean scores. Group mean scores were higher for the total group in both cases. Since seven of the 11 pupils in the preschool group and eight of the nine in the kindergarten group had been in the program the previous year, one might suspect group mean scores would be higher.



TABLE III

COMPARISON OF RESULTS OF TOTAL GROUP SCORES ON
THE NEBRASKA TEST OF LEARNING APTITUDE

| | Preschool Deaf Learning Age | | Kindergarten Deaf Learning Ag | <u>e</u> |
|--------|-----------------------------|------------|--|----------|
| | N = 7 | N = 11 | $\underline{N=8} \qquad \underline{N=9}$ | |
| | <u> 1968-69</u> | 1969-70 | <u>1968-69</u> <u>1969-70</u> | |
| Mean | 4-2 | 5-10 | 5-3 6-9 | |
| Median | 4-3 | 5-6 | 5-3 6-3 | |
| S.D. | 0-8 | 1-1 | 0-10 0-10 | |
| Range | 3-2 to 5-1 | 4-0 to 8-0 | 3-9 to 6-8 5-6 to 7-11 | |

To illustrate how individual subtest gains were made, Figure 1 indicates the mean deaf learning age and mean subtest learning age for the 1968-69 and 1969-70 tests.

FIGURE 1

GROUP MEAN SUBTEST RESULTS ON NEBRASKA TEST OF LEARNING APTITUDE

| 1968-69 //////// | 7 1969-70 XXXXXXXXX | |
|---------------------------|--|--|
| | Preschool | Kindergarten |
| | N = 7 | <u>N = 8</u> |
| Learning Age | 11111111111 4-2 | ////////////////////////////////////// |
| | XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX |
| Bead Patterns | 7/////// 3-4 | ////////////////////////////////////// |
| | XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX | 0-6 <u>xxxxxxxxxxxxxxxxxxx</u> |
| Color Memory | 7////////////////////////////////////// | /////////////// 5-6 |
| | XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX |
| Picture Identification | <u>/////////////////////////////////////</u> | ////////////////////////////////////// |
| | XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX |



FIGURE 1 (Cont'd)

| | Preschool | <u>Kindergarten</u> |
|------------------------|--|---|
| | <u>N = 7</u> | N = 8 |
| Picture Association | 1//////// 4-2 | 111111111111111111111111111111111111111 |
| | XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX |
| Paper Folding | ///////////// 4-6 | [/////////// 4-11 |
| | XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX |
| Visual Attention | ////////////////////////////////////// | <i> </i> 5-2 |
| | 0-8 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX |
| Block Patterns | <u>/////////////////////////////////////</u> | ////////////////////////////////////// |
| | XXXXXXXXXXXXXXXX 5-9 | XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX |
| Drawing Completions | 7777777 3-7 | ////////////////////////////////////// |
| | XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX | XXXXXXXXXXXXXXXXXX 7-1 |

It is evident that in most cases more than one year mean deaf learning age was gained in each subject area in both groups. This would indicate that overall the Title VI teachers were presenting materials within the curriculum that were designed to offer a wide range of experiences to the pupils.

Teacher Evaluation

The other means of evaluation of pupil progress was the teacher written report on each student at the end of each semester. The criteria used to evaluate each student comes under these general headings:

(1) sense training, (2) socialization, (3) responsibility, (4) basic learning skills, (5) language development through speech elements, and (6) language development through concepts.



The teacher in the preschool classroom indicated that most pupils made their best gains in the following areas: (1) language development through speech elements, (2) basic learning skills, (3) language development through concepts, and (4) socialization. In the kindergarten classroom, the teacher indicated the best gains were in the following: (1) basic learning skills, (2) language development through speech elements, and (3) socialization.

In general, this information correlates with those findings in the basic skills areas of the Nebraska Test of Learning Aptitude for both groups. The three areas of basic learning skills, language development through speech elements, and language development through concepts are evident in the subtest growth patterns for both groups. The subtest areas which may be associated with indicated growth in the areas evaluated by the teachers were: (1) picture association, (2) bead patterns, and (3) visual attention span. Other subtests tended to support the teacher evaluations except for memory for color and picture identification in the kindergarten group.

Limitations must be recognized in both the objective and subjective data. Certainly, those limitations which normally exist in all resting situations also apply to these evaluative measures. Probably, the teachers' written evaluations are subject to more limitations than the test results used to determine deaf learning age. Even though an attempt was made to provide a guide for teacher evaluation, the degree of value for each category was determined by the individual teacher for the individual child.



Recommendations for Pupil Placement

The following recommendations were made by the teachers for placement of pupils.

<u>Preschool</u>

Kindergarten

5 pupils to all-day hearingimpaired kindergarten 7 pupils to Level I hearingimpaired classroom

4 pupils to P.M. hearingimpaired preschool l pupil to remain in present program

l pupil to remain in present program

1 pupil moved out of town

1 pupil moved out of town

Classroom Supportive Services

The Special Education Diagnostic Center supported the Title VI hearing-handicapped classrooms during the year. Specific areas where help was given were in psychological evaluation and write-ups, administration of diagnostic and evaluative test (i.e., Nebraska Test of Learning Aptitude), program coordination, and school-parent relations. Other services were available through the Special Education Office of USD No. 259.

Other Evaluative Information

The staffing concept of total pupil evaluation was utilized by the teachers, key school personnel, and diagnostic center personnel. With the team evaluating every aspect of each pupil's progress, it was felt that the best recommendations concerning the pupils' future educational goals could be obtained.



Materials and Equipment Used

A variety of materials and equipment was purchased to place in the classroom for utilization by the teacher and pupils. The teacher added to those materials purchased with real objects, when possible, or pictures of objects, if available. Some of the most effective materials or equipment reported by the teacher were: (1) coordination games and boards, (2) Little Owl books, (3) purpets—hand and body, (4) puzzles, (5) auditory records and record player, and (6) "Phonic Ear"—auditory training unit.

Nearly all the materials and equipment were used to build language and speech abilities in the pupils along with development and usage of the pupils' residual hearing.

Comments on Results

The test data indicated that the pupils in both classrooms were functioning in the average to above average range. Some subtest areas showed results of more gains than others. Individual pupil differences were varied, but the amount of individual hearing loss must be considered-especially in development of skills dependent on residual hearing abilities.

Non-test information from teacher evaluations indicated that most pupils have improved in various curricular areas. This improvement is supported by findings on the Nebraska Test for Learning Aptitude.

Success of the program was also evidenced by gains made in developing



skills in the social and communicative aspects of the curriculum.

The staffing concept utilized in this program appears to be providing the proper guidance in referrals, diagnostic procedures, selection of instructional materials, and curriculum design. The effectiveness of the program was indicated by the cooperation on the part of all personnel working in the program.

