To explore and evaluate the feasibility of providing language instruction to parents of young deaf children in a home-like environment, a demonstration home was established at a clinic. Parents were invited to attend weekly meetings which were reduced to one hour in length during the course of the project. Parents could bring other siblings, family members, and materials from their own home. A single tutor worked with each family in separate rooms in language building activities. Fifty-two families who visited the demonstration home for 10 weekly visits were compared with 25 families who were enrolled in the John Tracy Clinic traditional service program. Language development in the children was assessed with the Boone Scale and changes in the parents' information and attitudes were assessed by scales previously developed at the Clinic. The language scales were too unreliable to be satisfactory, but all showed substantial gains for the demonstration home children. The parent information scores showed that the demonstration home parents did slightly better than the control group of parents. There was no change in the parent attitude scales. Experience with the program was judged so satisfactory by the staff of John Tracy Clinic that the program is being continued as a Clinic function after the expiration of federal grant and has been extended to two similar branch programs (RJ).
FINAL REPORT

Project No. 5-0362
Grant No. 32-14-0000-1014

HOME TEACHING FOR PARENTS
OF
YOUNG DEAF CHILDREN

July 1968

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Education of the Handicapped
Final Report

Project No. 5-0362
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OFFICE OF EDUCATION

HOME TEACHING FOR PARENTS
OF
YOUNG DEAF CHILDREN

Edgar L. Lowell, Ph.D.
John Tracy Clinic
Los Angeles, California

July 1968

The research reported herein was performed pursuant to a grant with the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Education of the Handicapped
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Table 1. Results of pre and post testing of young deaf children on Tracy Modification of Boone Language Scale

Table 2. Results of pre and post testing of young deaf children on Modification of Boone Language Scale

Table 3. Results of pre and post testing of parents of young deaf children on the Tracy Parent Information Questionnaire

Table 4. Results of pre and post testing of parents of young deaf children on Tracy Parent Attitude Questionnaire
ACKNOWLEDGMENTS

This project would not have been possible without the enthusiastic cooperation of the project coordinators and teachers who worked in the Demonstration Home during the period of this grant. Their willingness to give up a comfortable teaching position in the traditional clinic setting and explore this new and often more difficult approach speaks highly for their devotion to the education of young deaf children and their parents. Any success this project enjoyed must be attributed to their skill and hard work.

We acknowledge with deep gratitude the services of:

Miss Charlotte Avery
Mrs. Judith Barnes
Mrs. Pat Bolliger
Mrs. Marie Djang
Mrs. Nancy Laughbaum
Miss Amy Lloyd
Miss Leona Takahashi
Mrs. Mary Tidwell
SUMMARY

Young deaf children need meaningful visual language input for as many of their waking hours as possible if they are to even partially compensate for the auditory language experience of the normal-hearing child. This demonstration project explored a plan for educating parents of young deaf children to provide such language training. The unique feature of the plan was providing the instruction in a home-like environment rather than a typical clinic or school setting. It was hoped this would increase the likelihood of transfer and application in the child's home.

Fifty-two families who visited the Demonstration Home for 10 weekly visits were compared with twenty-five families who were enrolled in the John Tracy Clinic traditional service program. Language development in the children was assessed with the Boone Scale and changes in the parents' information and attitudes were assessed by scales previously developed at the Clinic.

The language scales were too unreliable to be satisfactory, but all showed substantial gains for the Demonstration Home children. The parent information scores showed that the Demonstration Home parents did slightly better than the control group of parents. There was no change in the parent attitude scales.

Some estimation of the success of this new approach can be inferred from the number of similar programs that have been instituted in other institutions with support from the U.S. Office of Education. Experience with the program was judged so satisfactory by the Staff of John Tracy Clinic that the program is being continued as a Clinic function after the expiration of the Federal grant and has been extended to two similar branch programs.

The lack of adequate evaluation instruments suggests that the U.S. Office of Education might well encourage and support future research in this area.
INTRODUCTION

The purpose of this project was to evaluate a different way of providing instruction for preschool age deaf children and their parents. The impetus for the undertaking came from a number of sources.

First, it was assumed that the most important problem of the deaf child is his language handicap and that every effort should be made to start work on this problem at the earliest possible age. It seems logical to involve the deaf child's parents in this language building program because they are with him more than anyone else.

Second, there is an increasing body of knowledge, primarily from the field of linguistics, which emphasizes the importance of the very early years for language development. Studies of language development in the child with normal hearing have emphasized the fact that starting deaf children to school at the age of four or five is much too late. Even Nursery School Programs for deaf children are generally limited to children two years of age and older. Yet, the child with normal hearing by the age of two has acquired an understanding of language that provides the foundation for his subsequent rapid development of both language and speech.

Third, improved early detection or case finding procedures are making deaf children available for education at a much earlier age. In 1960 a study was made of former enrollees in the John Tracy Clinic Correspondence Course. The course was designed for children two years of age and it might be expected that had deafness been discovered by the age of two, the children would have been enrolled at that time. The study showed that the median age at the time of enrollment was 3 years 3 months or some 15 months late. Today that situation has changed. The Clinic is seeing many more younger children. It may be that the Rubella epidemic of 1964-1965 sensitized both parents and pediatricians to the possibility of deafness or it may merely be that the increased interest in early detection of hearing loss is showing results. Regardless of the reason, the great numbers of children being seen at John Tracy Clinic under two years of age was another factor in developing this new method of teaching parents.

For the past quarter century John Tracy Clinic has been engaged in providing education for preschool age deaf children and their parents. Instruction is offered the parents on the essential role that they can play in their child's language development. The educational program includes a world-wide Correspondence Course and a four year program of evening classes for parents. These classes deal with the development of communication skills and offer psychological help through both lectures and modified group therapy. Nursery School and individual tutoring lessons for parents and children are also provided on an appointment basis. With the exception of twenty-four children enrolled in a four year Nursery School, the majority of these individual lessons are offered on a weekly basis.
The Parent Classes present a formidable educational challenge. Parents are enrolled in evening classes all during the year. They start as soon as their child's deafness is discovered. There are no prerequisites for enrolling so that the widest possible array of intellectual and educational backgrounds may be represented in each class.

Although accumulated knowledge and experience of a quarter century have given the Clinic staff considerable insight into the problems of language development, there is still much to be learned.

In attempts to communicate what has been learned about language development in young deaf children and to communicate it to parents with examples and demonstrations, it was quite natural to gear the thinking and the illustrations to the work done in the Clinic.

It was easy to overlook the fact that the average mother did not have a room set aside for language instruction with auditory training equipment and a place to keep her teaching materials. Although the importance of carrying on the language building activities at all times was emphasized, they could only be demonstrated in a school setting. The parents were expected to make the translation to their own home situation. No matter how hard a teacher or lecturer tried to explain the application of language development principles to the home, there was still a gap between what could be shown the parents and what they were expected to do themselves.

The purpose of this project was to explore and evaluate the feasibility of providing language instruction to parents in a home-like environment rather than a clinic or school. It was assumed that if the beginning language building activities could be demonstrated in an environment which approximated the actual home situation, the likelihood of carry-over and application would be much greater.

The notion of providing instruction in a home environment is not new. Such instruction is commonly provided in Europe and Australia by visiting teachers, particularly in rural areas. It has also been used with differing degrees of success in some communities in the United States.

METHODS

Our first attempt was to use an itinerant teacher to provide the parents instruction in the child's own home. The size of our city and the complexity of its traffic made this an economically inefficient approach. Teachers were spending more time driving on the freeways than they were engaged in their professional function.

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The next step was to let the parents provide the transportation and to establish a model home on the Clinic premises. The goal was to determine how effectively this simulated, or Demonstration Home, could be used to train parents to incorporate communication training in their own household activities.

The ground floor of a building immediately adjoining the Clinic was converted into a homelike setting consisting of two living rooms, a dining room, two bedrooms, two kitchens, and a bath. The building, while quite old, was easily converted for this purpose. There were three one-way vision mirrors placed so that the teacher could remove herself from a situation, yet still converse with the mother.

Families were invited initially for an hour and a half visit. This time was found to be too long and was later reduced to an hour. After completion of the project the time was further reduced to a one-half hour visit. It is difficult to evaluate just what the effects of the time change have been. There was a unanimous feeling on the part of the staff that the hour and a half visit was too long. Parents tended to discuss many other unrelated matters during the visit.

For the mother whose child is very young or the mother who is not actively employing the techniques taught at the Clinic in her own home the half hour visit appears to be adequate. The shorter time tends to discourage parents from discussing unrelated matters.

For the highly motivated mother of a somewhat older child, the teachers have experienced some difficulty and frustration in attempting to cover a complete lesson in one half hour.

The demand for service also influenced these decisions. Because of the great backlog of Rubella deafened children, it was decided to reduce the lessons to a half hour so that double the number could potentially be served. When the demand fell below that number it was possible to schedule two half hour lessons a week for those parents who appeared able to take advantage of the extra time. Our general conclusion is that flexible planning should be followed, depending upon the demand for service and the ability of the parents to profit by the experience.

Parents were invited to bring other siblings and family members as they desired. They were also encouraged to bring in materials from their own home that could be worked on in the Demonstration Home. These included clothes to be sprinkled and ironed, materials for baking, mending, etc.

A single tutor worked with each family. It was easier if families were kept in separate rooms. A major task for the teacher was planning to have enough material available in the room to keep the family fully engaged during the visit.
The interaction of hearing siblings was frequently distracting to both mother and tutor but emphasized the type of realistic problems that a mother would face in attempting to carry on language building activities at home.

The staff discovered that the techniques which they had used in the more structured clinic teaching situation were not always applicable in the home. It required a different orientation and a subsequent development of modified techniques for home teaching. The staff also felt that viewing the family in a more natural setting was valuable. It provided insights into how a mother handles all of the children in the family and not just the deaf child. We found that some mothers who did an excellent job in a structured lesson situation were less successful in the more informal one. It was also revealing to see how some apparently capable mothers were unaware of the potential learning situations encountered in everyday situations.

The following activities were found to be suitable for demonstration home language building activities:

1. Vacuuming.
2. Dusting.
3. Sweeping.
4. Washing windows and dishes.
5. Washing, hanging up and sprinkling clothes.
6. Mailing a letter.
7. Short trips to a store.
8. Making, cutting out and baking cookies.
9. Making popcorn, orange juice, hot chocolate.
10. Polishing shoes.
11. Scrubbing Floors.
12. Cutting hair.
13. Setting a table.

Activities which were found to be less successful were:

1. Mending.
2. Writing letters.
3. Ironing.

It appears that activities which require close concentration, such as mending or writing letters, or those which involve possible injury (as from a hot iron), were the only areas which could not be effectively incorporated into the language building process.

Teachers also encountered several other problems frequently enough to warrant mentioning:

1. The children would tend to direct their attention to the teacher rather than the mother. This could be alleviated by having the teacher go into the observation booth and communicate with the mother from there.
2. Because of the informal nature of the Demonstration Home situation, frequently difficulty was encountered in keeping parents on a time schedule. Quite often the mothers tended to linger beyond their allotted time, thus interfering with the next family. This was overcome by establishing and stressing from the start a definite departure time.

3. While other members of the family were encouraged to come to the lessons, it was found that when other adults than the mother and father were present, they frequently tended to monopolize the situation. While this provided some insight into the family structure, it was not always most conducive for language building.

In work with preschool age children at John Tracy Clinic a systematic approach to both general and specific language development has been developed.

The general approach refers to the "every-day" talking to the deaf child about those things in his world that interest him. There are a great many suggestions or rules the parents can learn to make this general language building more effective.

The second part of the program is based on specific language development activities. These consist of techniques designed to increase the number of meaningful visual language experiences a child will have with a specific word. These are not meant to replace the general activities which should go on all of the time but are instead a means of attempting to increase the linguistic input for the deaf child so that, at least for a limited number of words, his receptive language experience begins to approach that of the hearing child.

The suggestions for specific practice are primarily intended to show parents the ways in which one can present the same word over and over again in a variety of interesting situations for utilizing planned activities that are prepared with special materials in advance.

An example may help to illustrate this objective. No definitive information is available about how many times the normal hearing child hears a word before it becomes a part of his receptive or expressive vocabulary. It is undoubtedly a great many times. If the parents of deaf children only engaged in general language activities, consider how long it would take them to provide their child with enough meaningful presentations of a single word to approximate the experience of a hearing child. In general practice alone it would probably not occur more than five or six times a day. If, on the other hand, the parents were to select shoe for specific practice, the frequency could easily be increased to 200 or 300 times a day.
The specific activities also include such things as teaching a child to make a discriminative response so that parents can assure themselves that a child has comprehended their communication efforts by lipreading rather than from guessing from the environmental context.

A more detailed account of the procedures in use at John Tracy Clinic is available in the Clinic's Correspondence Course and in the Clinic's series of 19 Parent Education Films.

During the first year of the project there were 118 families enrolled in the Demonstration Home program. The second and third year there were 105 and 101 families enrolled. Families were generally retained in the service until the child was enrolled in one of the public school programs for the deaf, which are available at age three in California. Some families moved out of the area and a small number dropped out for various other reasons. The scheduling of families for the Demonstration Home was further complicated by the necessity of assigning some families to the Clinic Control Groups.

RESULTS

As indicated in the initial application, this project was primarily a demonstration effort. It was recognized that the lack of adequate instruments to measure language development in young deaf children of this age might make difficult any serious effort to demonstrate the possible benefits of this program. There was, however, a commitment to undertake certain evaluations.

Language Development

We selected a scale of infant language development constructed by Boone. This scale was devised for normal hearing infant language development but was modified slightly to adapt it for use with young deaf children. A copy of the revised scale is contained in Appendix A. The Boone Scale consists of Encoding and Decoding scale and is based on observations made by the teacher of the child's language development. The original scale did not have instructions for the raters. It was assumed that if Boone had intended the Scale to be used with instructions he would have published them with the scale.

An evaluation of inter-rater reliability with the modified Boone Scale was carried out utilizing nine teachers and teacher trainees. They were given no additional information or interpretation beyond what available in the original article by Boone. In randomly assigned pairs they rated 23 children and obtained reliability coefficients (rho) of .66 for the Boone Decoding Scale and .72 for the Boone Encoding Scale.

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"Boone, D. R., Volta Review, 67, 6, June 1965, pp. 414-419"
It was concluded that the Boone Scale was not a suitable instrument for measuring language development without preparing additional instructions for the raters or providing additional training sessions.

Neither course of action was feasible in the context of this demonstration project where the primary goal was to evaluate the feasibility of offering educational help to parents in a new environment and not to conduct research on the development of deaf infant language scale.

This was a difficult decision to reach. However, there did not appear to be any other language development scales that would have been suitable for this age group. It was also felt that there was a useful distinction between a research grant and a demonstration grant. Had this work been carried out under a research grant, it would have been necessary to terminate the program until a satisfactory solution to the low reliabilities was obtained. In view of the apparent success of the program, however, it was decided to gain additional experience with the Boone Scale so that the staff might someday undertake a research project to develop a more satisfactory scale.

It appears now that this decision may have been justified. In a recent meeting of agencies engaged in similar work held at the Bill Wilkerson Hearing and Speech Center and supported by the U.S. Office of Education a discussion of measuring scales for this population revealed that the Boone Scale as modified was the most widely used and that no solution to the reliability problem had been discovered.

In an attempt to minimize rater differences, an attempt was made to use the same raters for pre and post tests reported herein.

The research design was far from optimum. The sample consisted of very young deaf children, many of whom were brought to the Clinic from a considerable distance and whose attendance was often erratic for both health and transportation reasons. Furthermore, once assigned to a group it was impossible to conceal from the raters which treatment the child was receiving.

Two ratings on the Boone Scale taken at 10 week intervals were compared. Children enrolled in the Demonstration Home for this period were compared with children enrolled in the regular weekly clinic program. This Clinic Control Group attended for five weekly sessions during which time the child attended the Nursery School and the mother attended small classes, and then for five additional weekly visits when the mother and child had a lesson and a conference with the tutor.

There is a considerable difference in the numbers of children in the two groups. The pre and post test interval was designed to cover a 10-week period during which time the family would have visited the Clinic 10 times. When a family missed a Demonstration Home appointment,
it was often possible to reschedule them so that they could complete the full 10 visits prior to retesting within the allotted time. The weekly Clinic Control program, which was run on Fridays only, lacked that flexibility so that the loss from families not attending the full 10 sessions was much greater in the Control Group.

It was also possible to take more children into the Demonstration Home Program than the weekly Clinic Control Group because of the size limitations of the Clinic Nursery School.

The age of the Demonstration Home children was considerably younger than those in the weekly Clinic Control Group. This was because it was impractical to enroll children into the weekly nursery school control group before the age of two. Consequently, a priority was given to assigning younger children to the Demonstration Home. For the 1965-1966 year the average age of the Demonstration Home group at initial testing was one year and seven months and the Clinic Control Group was three years and five months.

The results are presented in Tables 1 and 2: fifty-two children who had 10 weekly visits to the Demonstration Home and twenty-five who had 10 visits in our regular Clinic Program.

Using a t test for paired observations showed a significant increase for both Encoding (Table 1) and Decoding (Table 2) for both of the Demonstration Home groups. A similar comparison yielded nonsignificant increases for the control groups.

No conclusions can be drawn from these results at this time because of the limitations discussed above.

One might question whether the failure of the older control groups to show a significant increase was a function of the ceiling of the test. This did not appear to be the case inasmuch as the modified Boone Scale has a total possible score of 28 for the Decoding items and the highest score reached by our oldest group was only 18.5. The Encoding score scale had a total possible score of 41 and the highest score reached by the older group was 24.

One might also speculate on the possible effect on the different number of individual tutor contacts for the Demonstration Home and Control Groups. The Demonstration Home group had 10 individual appointments although much of the work was done by the parent with the Tutor's help. The Control Group had only five individual lessons, the other five visits being to the Nursery School. The Nursery School visits were for three hours, which provided considerable opportunity for language experience from the three tutors available in the Nursery School.
Table 1. Results of pre and post testing of young deaf children on Tracy Modification of Boone Language Scale.

<table>
<thead>
<tr>
<th>ENCODING</th>
<th>Age at Testing</th>
<th>N</th>
<th>Boone Score</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demonstration Home Group</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1965-66</td>
<td>Pre 1 yr. 7 mos.</td>
<td>24</td>
<td>11.88</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Post 1 yr. 10 mos.</td>
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<td>14.46</td>
<td>2.71</td>
<td>.05</td>
</tr>
<tr>
<td>1966-67</td>
<td>Pre 1 yr. 9 mos.</td>
<td>28</td>
<td>9.14</td>
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<td>.01</td>
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<tr>
<td></td>
<td>Post 2 yrs. 1 mo.</td>
<td></td>
<td>11.64</td>
<td>3.66</td>
<td></td>
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<td><strong>Clinic Control Group</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1965-66</td>
<td>Pre 3 yrs. 6 mos.</td>
<td>8</td>
<td>20.88</td>
<td></td>
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<tr>
<td></td>
<td>Post 3 yrs. 8 mos.</td>
<td></td>
<td>24.25</td>
<td>1.16</td>
<td></td>
</tr>
<tr>
<td>1966-67</td>
<td>Pre 2 yrs. 11 mos.</td>
<td>17</td>
<td>15.65</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Post 3 yrs. 1 mo.</td>
<td></td>
<td>16.24</td>
<td>.66</td>
<td>N.S.</td>
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Table 2. Results of pre and post testing of young deaf children on Modification of Boone Language Scale.

<table>
<thead>
<tr>
<th>Age at Testing</th>
<th>N</th>
<th>Boone Score</th>
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<td><strong>Demonstration Home Group</strong></td>
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<tr>
<td>1965-66</td>
<td>Pre 1 yr. 7 mos.</td>
<td>11.33</td>
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<tr>
<td></td>
<td>Post 1 yr. 10 mos.</td>
<td>24</td>
<td>13.12</td>
<td>2.48</td>
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<td>1966-67</td>
<td>Pre 1 yr. 9 mos.</td>
<td>9.04</td>
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<tr>
<td></td>
<td>Post 2 yrs. 1 mo.</td>
<td>28</td>
<td>10.43</td>
<td>2.52</td>
</tr>
</tbody>
</table>

| **Clinic Control Group** |
| 1965-66        | Pre 3 yrs. 6 mos. | 8 | 16.13  |    |     |
|                | Post 3 yrs. 8 mos. | 18.50 | 1.10 | N.S. |
| 1966-67        | Pre 2 yrs. 11 mos. | 17 | 12.12 |    |     |
|                | Post 3 yrs. 1 mo. | 13.18 | 1.33 | N.S. |
Another area of evaluation concerned changes in the parents' information and attitudes concerning deafness. In an earlier study scales were developed to evaluate the amount of information that parents had regarding the education of deaf children and their attitudes as reflected by responses to a questionnaire. A copy of these instruments are in Appendix B.

The results of the Tracy Information Questionnaire is shown in Table 3. The results are not as clear as they were on the Boone Scales. Demonstration Home parents in both 1965-1966 and 1966-1967 showed significant increase in the amount of information. The Control parents of 1965-1966 also showed a significant increase.

The attitude scale results are presented in Table 4, where no groups showed any significant gains.

Outside Evaluation

In an attempt to obtain a more objective evaluation of the program, three outside reviewers were asked to visit and evaluate the project. The reviewers were Mrs. Kathryn B. Horton of the Bill Wilkerson Hearing and Speech Center, Nashville, Tennessee; Dr. Lois Elliott of the Central Institute for the Deaf, St. Louis, Missouri; and Dr. Kevin Murphy of Royal Berkshire Hospital, Reading, England.

The over-all comments of the reviewers were favorable, but this might have been predicted, since all were currently operating or planning to conduct similar activities.

Dr. Murphy's experience was with a home visitation type of program in England which had essentially similar goals. His area of concern was the degree of structure of our instructional program which differed considerably from the ones he was familiar with in England.

Mrs. Horton raised questions concerning the evaluation procedures which have already been described. She also raised questions concerning the role of the audiologist in such a demonstration program. From our point of view, continued re-evaluation of the hearing of young deaf children is an expense and not a particularly productive activity. This is not to deny the importance of using any residual hearing or the importance of auditory training but merely represents a point of view concerning deaf as opposed to hard of hearing children. This ultimately becomes a matter of philosophy as to whether educators of the deaf or audiologists shall be in charge of the training program.

Table 3. Results of pre and post testing of parents of young deaf children on the Tracy Parent Information Questionnaire.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean Score</th>
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<td>24</td>
<td>Pre 10.42</td>
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<td></td>
<td></td>
<td>Post 12.63</td>
<td>3.11</td>
<td>.01</td>
</tr>
<tr>
<td>1966-67</td>
<td>28</td>
<td>Pre 9.39</td>
<td></td>
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<td></td>
<td></td>
<td>Post 11.50</td>
<td>3.55</td>
<td>.01</td>
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<tr>
<td><strong>Clinic Control Group</strong></td>
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</tr>
<tr>
<td>1965-66</td>
<td>8</td>
<td>Pre 9.37</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Post 11.50</td>
<td>2.38</td>
<td>.05</td>
</tr>
<tr>
<td>1966-67</td>
<td>17</td>
<td>Pre 10.71</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Post 11.29</td>
<td>1.47</td>
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Table 4. Results of pre and post testing of parents of young deaf children on Tracy Parent Attitude Questionnaire.

<table>
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<th>Mean Score</th>
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<td></td>
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<td>Post 12.58</td>
<td>1.36</td>
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</tr>
<tr>
<td>1966-67</td>
<td>28</td>
<td>Pre 12.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Post 13.21</td>
<td>1.91</td>
<td>N.S.</td>
</tr>
<tr>
<td><strong>Clinic Control Group</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1965-66</td>
<td>8</td>
<td>Pre 10.87</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Post 12.87</td>
<td>1.68</td>
<td>N.S.</td>
</tr>
<tr>
<td>1966-67</td>
<td>17</td>
<td>Pre 11.06</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Post 12.41</td>
<td>1.27</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

- 14 -
Mrs. Horton also made some recommendations concerning record keeping, specifically that a log report of daily activities be instituted. The value of such a log either for research or training purposes was not and is not clear to the John Tracy staff.

Dr. Lois Elliott was also concerned with the evaluation procedures and was very helpful in improving our data gathering procedures.

Dissemination

While it was always intended to disseminate information about the operation of this program, the early success encouraged an acceleration of the dissemination activities. An amendment of our request grant on December 8, 1965, provided for a broadened dissemination program.

There are now Demonstration Homes in operation at the Bill Wilkerson Hearing and Speech Center in Nashville, Tennessee; Central Institute for the Deaf in St. Louis; and Kansas Medical Center, Kansas City.

In addition, the people associated with these Demonstration Home Projects, under John Tracy Clinic leadership, have presented symposia on the Demonstration Home concept at the National Convention of the American Speech and Hearing Association in Washington, D.C., in November, 1966, and the National C.E.C. Convention in St. Louis in March, 1967.

Members of Staff visited the following agencies for consultation concerning the establishment of Demonstration Homes.

Gompers Clinic, Phoenix, Arizona
Emerson College, Boston, Massachusetts
Central Institute for the Deaf, St. Louis, Missouri.

The following people also visited the Clinic for similar consultation:

Mrs. Dorothy Hamilton and Mrs. Sue Willy from the Bill Wilkerson Hearing and Speech Center
Dr. Richard Dickson, Mr. Gordon Duck and Miss Virginia Pulch from Stanford
Dr. June Miller from the University of Kansas Medical Center
Mr. Homer Coppock from Des Moines, Iowa
Dr. Audrey Simmons from the Central Institute for the Deaf
Dr. Allan Goodman from Boston Children's Hospital.
Members of Staff participated in programs concerning the Demonstration Home at the California Speech and Hearing Association in San Francisco in 1966 and the National C.E.C. Convention in Portland, Oregon, in 1965.

In addition, there were other visitors who were not invited by the project but who have done much to spread interest in the concept to other centers. Perhaps the best indication of the widespread interest in this approach is the action of the Joint Committee on Audiology and Education of the Deaf which proposed a National Conference on Demonstration Home Teaching programs.

CONCLUSION

This report describes the experiences of John Tracy Clinic with a modified educational program for parents of very young deaf children. The aim of the project was to move the instruction for these parents out of the traditional school or clinic setting and into a homelike environment that would more closely approximate the actual home situation. The purpose was to provide more efficient instruction to the parents in the use of language building activities in everyday home situations.

On completion of the federally supported project, this activity became a regular part of the free service program of John Tracy Clinic, and was expanded to similar operations in Long Beach and Costa Mesa, California, under John Tracy Clinic supervision.

Similar projects have been initiated at three other major institutions and a number of others are in the planning stage.

There was widespread interest in the approach evidenced at national professional meetings where the project was described.

The limit measures available to assess the language development of young deaf children emphasized the great need for research in this field. It is to be hoped that the Office of Education will encourage the development of such measuring instruments.
### APPENDIX A

**INFANT SPEECH AND LANGUAGE DEVELOPMENT**

by Daniel R. Boone, Ph.D. *

with Modifications by John Tracy Clinic

<table>
<thead>
<tr>
<th>Age in Months</th>
<th>DECODING</th>
<th>ENCODING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1. Quieted by (voice) adult approach.</td>
<td>1. Vocalizes other than crying.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3. Attends to human (voice) presence.</td>
<td>3. Glottal-velar consonants primarily.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4. Looks at speaker's face.</td>
<td>4. Vocalizes back when talked to.</td>
</tr>
<tr>
<td></td>
<td>5. Anticipates feeding (by noises) and visual stimuli.</td>
<td>5. Chuckles.</td>
</tr>
<tr>
<td>5-6</td>
<td>6. Turns head deliberately to (voice) <em>loud sound</em> and will search for</td>
<td>6. Gives vocal expression to feelings of pleasure.</td>
</tr>
<tr>
<td></td>
<td>source of (voice) <em>loud sound.</em></td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
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</tbody>
</table>

* Volta Review, Vol. 67, No. 6, June, 1965, pp. 414-419
Age in Months | DECODING | ENCODING
---|---|---
9-10 | Activity stops when he (hears) "no-no" or his name. | 15. Shakes head for "no." 
11-12 | Likes to listen to words. | 17. Imitates number of syllables after someone (echolalic). 
14. | Interest begins in environmental noise in test situation. | 18. Says "mama" or "dada." 
13-14 | Knows own name. | 20. Babbles monologue when alone. 
15-16 | Finds "baby" in picture when asked. | 21. Repeats sounds or actions if laughed at previously. 
17. | Recognizes hair, mouth, ears, and hands when they are named. | 22. Peak usage of sound repetitions. 
17-18 | Responds to simple command as "Put the ball in the chair." | 23. Tries definitely to sing. 
18. | Two objects in box identified. | 24. Speaking vocabulary of 3 words in addition to "mama" and "dada." 
21. | Talks in form of play with variety of vocalization. | 27. Indicates wants by pointing and/or vocalizing. 
22. | Asks for wants by naming milk or cookie. | 28. Speaks 10 words. 
23. | | 29. Asks for wants by naming milk or cookie. 
24. | | 30.
<table>
<thead>
<tr>
<th>Age in Months</th>
<th>DECODING</th>
<th>ENCODING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24. Points to any 3 parts of a doll.</td>
<td>32. Combines words relative to needs: food, water, etc.</td>
</tr>
<tr>
<td>21-22</td>
<td>25. Points to 4 or 5 parts of a doll.</td>
<td>33. Tries to tell experiences.</td>
</tr>
<tr>
<td></td>
<td>26. Will follow a short series of related commands.</td>
<td>34. Combines his words into ideas like &quot;Daddy go bye-bye.&quot;</td>
</tr>
<tr>
<td>23-24</td>
<td>27. Carries out 4 directions with ball.</td>
<td>35. Adds 100 new words to vocabulary.</td>
</tr>
<tr>
<td></td>
<td>28. Likes to listen to reason of language, not just the sound.</td>
<td>36. Uses sentences of 2 words of 4 or more syllables.</td>
</tr>
<tr>
<td>Remarks:</td>
<td></td>
<td>37. Speaks about 270 words.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>38. Marked decrease in sound repetition.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>39. Begins to eliminate his jargon.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>41. Refers to self by name.</td>
</tr>
</tbody>
</table>

- 20 -
**APPENDIX B**

**JOHN TRACY CLINIC**
806 West Adams Boulevard
Los Angeles, California 90007

Name ____________________________________________
Address _________________________________________
Child's Name __________________ Child's Birthdate ______________

Directions: Please circle the answer that seems closest to being your opinion.

1. When a young child is experimenting with new materials like paint or clay, his parents should let him do as he wishes with it and not restrict him in any way.

   | Agree | Tend to | No | Tend to | Disagree |
   | Strongly | Agree | Opinion | Disagree | Strongly |

   Growing up to be mature persons amounts pretty much to learning to accept the rules and patterns that are given to the person by his parents.

   | Agree | Tend to | No | Tend to | Disagree |
   | Strongly | Agree | Opinion | Disagree | Strongly |

   When one has serious personal problems to solve which involve other members of the family, it's usually better to think them through completely before openly discussing them.

   | Agree | Tend to | No | Tend to | Disagree |
   | Strongly | Agree | Opinion | Disagree | Strongly |

4. Discipline and punishment should mean about the same thing.

   | Agree | Tend to | No | Tend to | Disagree |
   | Strongly | Agree | Opinion | Disagree | Strongly |

5. Even when a young child has learned to use paints, crayons, and tools, his parents should not teach him what to make with these things.

   | Agree | Tend to | No | Tend to | Disagree |
   | Strongly | Agree | Opinion | Disagree | Strongly |

6. A person who really dislikes seeing anger in other people is probably unable to handle his own anger very well.

   | Agree | Tend to | No | Tend to | Disagree |
   | Strongly | Agree | Opinion | Disagree | Strongly |
7. Personal problems should be thought out carefully before being talked out within the family.

Agree | Tend to | No | Tend to | Disagree
Strongly | Agree | Opinion | Disagree | Strongly

8. If a child starts to regress a little - this is, if he starts to act younger than he has been acting - it's a sure sign that he has stopped developing in a normal and natural way.

Agree | Tend to | No | Tend to | Disagree
Strongly | Agree | Opinion | Disagree | Strongly

9. Some people are mostly interested in their children for what they are, and some for what they might become. Generally speaking, it's better for the child's own future if his parents stress what he is rather than what he might become.

Agree | Tend to | No | Tend to | Disagree
Strongly | Agree | Opinion | Disagree | Strongly

10. A child should not be given things like scissors and hammers to play with until he is old enough to use them properly without supervision.

Agree | Tend to | No | Tend to | Disagree
Strongly | Agree | Opinion | Disagree | Strongly

11. Sometimes children's fears are based on real dangers, and we have to be ready to deal with these. However, some fears are purely imaginary, and all we need to do is make the child understand that there is really nothing to be afraid of.

Agree | Tend to | No | Tend to | Disagree
Strongly | Agree | Opinion | Disagree | Strongly

12. If a couple find that they have to work at making their marriage a happy one - if marital happiness does not come easily and naturally - then something is fundamentally wrong with their relationship.

Agree | Tend to | No | Tend to | Disagree
Strongly | Agree | Opinion | Disagree | Strongly

13. In establishing sound relationships with other people, one's feelings are more "important" than one's actual behavior.

Agree | Tend to | No | Tend to | Disagree
Strongly | Agree | Opinion | Disagree | Strongly

- 23 -
14. The presence of a deaf child in the family can be expected to increase tensions and problems already observable in any other children in the family.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Tend to</th>
<th>No</th>
<th>Tend to</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Agree</td>
<td>Opinion</td>
<td>Disagree</td>
<td>Strongly</td>
</tr>
</tbody>
</table>

15. Failure is as good a teacher as success, since each one shows us what to do next time.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Tend to</th>
<th>No</th>
<th>Tend to</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Agree</td>
<td>Opinion</td>
<td>Disagree</td>
<td>Strongly</td>
</tr>
</tbody>
</table>

16. Sometimes it's a very good idea for parents to do things for children, even though the children are perfectly capable of doing it themselves.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Tend to</th>
<th>No</th>
<th>Tend to</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Agree</td>
<td>Opinion</td>
<td>Disagree</td>
<td>Strongly</td>
</tr>
</tbody>
</table>

17. A parent who gives a great deal of attention to a child is obviously a parent who really loves the child in the fullest sense. In other words, the more love you have, the more attention you give.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Tend to</th>
<th>No</th>
<th>Tend to</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Agree</td>
<td>Opinion</td>
<td>Disagree</td>
<td>Strongly</td>
</tr>
</tbody>
</table>

18. The system of giving children complete freedom to choose their own careers leads to a lot of unnecessary confusion in the growing child's mind.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Tend to</th>
<th>No</th>
<th>Tend to</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Agree</td>
<td>Opinion</td>
<td>Disagree</td>
<td>Strongly</td>
</tr>
</tbody>
</table>

19. When a person feels really angry, the best thing to do is act this anger out - get it out of him - even if this means acting destructively at times. Otherwise the feeling will just build up inside him and get even more out of hand.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Tend to</th>
<th>No</th>
<th>Tend to</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Agree</td>
<td>Opinion</td>
<td>Disagree</td>
<td>Strongly</td>
</tr>
</tbody>
</table>

20. Great concern with our children's future is probably brought about by inadequacies or faults in ourselves.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Tend to</th>
<th>No</th>
<th>Tend to</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Agree</td>
<td>Opinion</td>
<td>Disagree</td>
<td>Strongly</td>
</tr>
</tbody>
</table>

21. The tools a child uses should not be the good tools of the household, since young children have a tendency to misuse and break the things they use.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Tend to</th>
<th>No</th>
<th>Tend to</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>Agree</td>
<td>Opinion</td>
<td>Disagree</td>
<td>Strongly</td>
</tr>
</tbody>
</table>
22. Even in the most warm, loving, and accepting families, spanking is a harmful method of discipline.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Tend to Agree</th>
<th>No Opinion</th>
<th>Tend to Disagree</th>
<th>Disagree Strongly</th>
</tr>
</thead>
</table>

23. People can control their actions, but they cannot control their inner feelings.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Tend to Agree</th>
<th>No Opinion</th>
<th>Tend to Disagree</th>
<th>Disagree Strongly</th>
</tr>
</thead>
</table>
Directions: Circle the letter of the answer you believe is correct in the following 16 questions. Circle only one letter for each question.

1. The threshold of a tone is:
   a. The normal range of volume at which the tone can be heard.
   b. The greatest (loudest) sound your ear can tolerate of that tone.
   c. The least (the softest) sound you can hear of that tone.
   d. The volume beyond which the use of a hearing aid is recommended.

2. When your child has a temper tantrum, the best thing to do is to:
   a. Leave him alone until he quiets down.
   b. Try to explain to him that there is no reason for his anger.
   c. Stay with the child and be understanding.
   d. None of these

3. As with a hearing child, you will be continuously talking to your child before he realizes that your lip movements have any particular meaning. But when is a child actually ready to learn to lipread?
   a. When he gives quick glances at your lips.
   b. When he deliberately begins to watch the lips of talking people.
   c. When he has imitated a word you have said.
   d. None of these.

4. In the first stages of teaching your child the names of objects, a good technique is to use cartoon drawings, since these will usually increase the child's interest in the lessons.
   a. True.
   b. False.

5. The use of the child's hand to feel the sound is particularly helpful in teaching him a word he will use to express himself. How should the child place his hand on the other person's face?
a. Finger on the speaker's lips, thumb on the speaker's chin as close to the jawline as possible.
b. Hand on the speaker's cheek, little finger along jawline, thumb in front of and slightly below the speaker's lips.
c. Either of the above is all right.
d. Neither of the above is correct.

6. In the beginning it is best for everyone in the family to use the same words for routine events, like mealtime and bedtime.
   a. True.
   b. False.

7. The decibel is a measure of:
   a. Loudness.
   b. Pitch.
   c. Frequency.
   d. Range.

8. When you are talking about how a child's words sound to you (the quality of the sound, and how the child says his words) you are talking about:
   a. Speech.
   b. Language.
   c. Both of the above answers are correct.

9. One step in testing the child's understanding is to get him to bring the particular object when you ask him for it. In the beginning he will not know what you want him to do. The best thing for you to do is:
   a. Keep repeating the word until he gets the idea himself.
   b. Lead him to the object and help him pick it up and bring it back.
   c. Go yourself and bring back the object.
   d. Point to the object, or gesture.

10. Because most deaf children must rely on lipreading and touch, certain common phrases such as "Did you hear what I said" and "Did you hear that noise" should be changed to "Did you see what I said" and "Did you feel that noise."
   a. True.
   b. False.

11. When you are giving a child lipreading practice on a particular word, you should use the word in a number of different phrases or sentences, rather than using the same phrase each time.
   a. True.
   b. False.
12. In deciding on a time to give a child his daily lessons in lipreading, it is probably best to wait until he is ready each day, and not to set a regular time that will be the same each day.

   a. True.
   b. False.

13. Deafness is not simply a loss of volume; the range of frequencies that can be heard is also impaired. For most deaf children, the "lost" frequencies are those at:

   a. The higher end of the frequency range.
   b. The middle of the frequency range.
   c. The lower end of the frequency range.
   d. Both the higher and the lower ends of the frequency range.

14. Final evidence - that is, proof positive - that a child can lipread a particular word comes only when he has learned more than one word and he can pick out that object, when you ask for it, from among others for which he knows the words.

   a. True.
   b. False.

15. The main purpose of auditory training is:

   a. To help the child develop an interest in stories.
   b. To make him wear a hearing aid.
   c. To stimulate the nerve of hearing, thereby decreasing the hearing loss.
   d. To develop the maximum use of hearing - in conjunction with a total program of language teaching.
   e. To help the child to rely on hearing alone to learn language.

16. You should have your child's ears examined at least once a year by:

   a. Your family doctor.
   b. An otologist.
   c. An ophthalmologist.
Home Teaching for Parents of Young Deaf Children
Final Report

Lowell, Edgar L.

John Tracy Clinic, 806 W. Adams Blvd., Los Angeles, California 90007

Young deaf children need meaningful visual language input for as many of their waking hours as possible if they are to even partially compensate for the auditory language experience of the normal-hearing child. This demonstration project explored a plan for educating parents of young deaf children to provide such language training. The unique feature of the plan was providing the instruction in a homelike environment rather than a typical clinic or school setting. It was hoped this would increase the likelihood of transfer and application in the child's home.

The report contains a description of the techniques found most useful and relates them to the total educational program of John Tracy Clinic.

Evaluation was hampered by the lack of suitable measuring instruments, although the attempts were encouraging. The evaluation of language development suffered from unreliability of the measuring device. A questionnaire concerning information gained by parents showed a slight benefit from the Demonstration Home Program.

Expansion of the Clinic's program to two additional branches, and the initiation of several similar programs throughout the country are interpreted as indications of the general success of this approach.