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ABSTRACT

The report describes the Summer Sessions for Preschool, Rubella, Deaf-Blind Children conducted in 1970 and 1971 by the Northwest Regional Center for Deaf-Blind Children in Vancouver, Washington. The summer programs were primarily designed to evaluate preschool deaf-blind children in a learning and living situation. The report is intended not only to describe the short-term evaluative programs, but also to show how a coordinated program may be organized, administered, and evaluated. Described are program objectives and the learning station concept upon which the program was based. The calendar of events for the 1971 program is included. Detailed are the methods of description and evaluation utilized as well as the process of forming recommendations for children. Outlined are the objectives and procedures of the five learning stations (Specialized areas of training and evaluation), which focused on communication skills, experience training, self help skills, physical development, and social skills. Briefly described are the residential station and medical diagnostic and evaluative services. Recommendations deal with program extensions and improved descriptive and assessment techniques. (KW)

FINAL REPORT:

TWO-YEAR STUDY OF NORTHWEST REGIONAL CENTER'S SUMMER SESSIONS FOR PRE-SCHOOL, RUBELLA, DEAF-BLIND CHILDREN

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JANUARY 1972

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SUMMER SESSIONS

FOR

PRESCHOOL, RUBELLA, DEAF-BLIND CHILDREN

Submitted to

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Limited time and space do not permit us to name all the individuals, the staffs of both summer schools, various groups and agencies who again and again proved very helpful. It would, however, be unfair not to mention several persons whose skill and timely aid made this two-year study possible.

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Mr. Jon Ingram, doctoral student in Clinical Psychology from the University of Portland, who, as Research Coordinator for the second session, was responsible for observing and evaluating all aspects of the operation from a third-party point of view. The greater portion of this report is based on Mr. Ingram's observations.

We are indebted to Mr. Byron Berhow, Superintendent of the Washington State School for the Blind, for making the buildings available which housed both summer school programs.

Mr. Robert Mealey, Physical Education Supervisor, and Mrs. Ruth Richardson, Deaf-Blind Supervisor at the Washington State School for the Blind, who, as members of the Summer Administrative Committee, helped in much of the daily planning of activities in addition to functioning as members of the teaching team which put many of these ideas to work.

Mrs. Dona Schaefer, Coordinating Office Manager and a member of the Summer Administrative Staff, assisted in detailed scheduling of the programs and supervised the final reproduction of this report.

The pictures were done by Mr. Walter Hicks, photographer for "The Columbian", Vancouver's only newspaper.

Finally, to the parents and guardians of deaf-blind children enrolled in the summer sessions who were generous enough to cooperate with our staff by furnishing much personal information, we are profoundly grateful. We trust that the results of our sessions may help us to better understand those deaf-blind children who were enrolled in our sessions and all deaf-blind persons throughout the country.

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CHAPTER I

INTRODUCTION

A perusal of the history of services provided multiply handicapped children clearly demonstrates the improvements, especially during the past fifteen years, in the provision of educational, rehabilitative, and diagnostic programs for deaf-blind children. It seems, however, that there has been little impetus toward total coordination of these programs into a single, more efficient, "package" of services. Moreover, programs have tended to develop through trial-and-error. Techniques and programs which have seemed successful have been retained; others have been modified or abandoned.

The foregoing observations are not intended to advocate the use of a single type of program for all deaf-blind children. As deaf-blind children surely differ, so the programs which serve them must also vary. It is necessary, though, that the theoretical and practical foundations of seemingly dissimilar programs be principles which have been thoroughly implemented and assessed. It is, therefore, proposed that programs for the deaf-blind be objectively described and subjected to rigorous evaluation.

An initial step was taken in this direction by the Northwest Regional Center for Deaf-Blind Children. Summer programs primarily designed to evaluate preschool deaf-blind children in a learning and living setting, were conducted in 1970 and 1971. The present report serves not only as a description of these short-term evaluative programs,

but also indicates how a coordinated program may be organized, administered, and evaluated.

CHAPTER II

BACKGROUND INFORMATION

The Northwest Regional Center for Deaf-Blind Children is one of ten centers developed in 1969 by the Project Centers Branch of the Division of Educational Services under Title VI of the Elementary Education Act, Public Law 89-10, as amended by Public Law 90-247, Part C.

Mr. Robert Dantona, National Project Officer, in a review of Project Centers writes, "The purpose of the Regional Deaf-Blind Centers is to provide for all deaf-blind children a program designed to develop and bring to bear upon such children beginning as early as feasible in life, those specialized, intensive professional and allied services, methods, and aids that are found to be most effective to enable them to achieve their full potential for communication with an adjustment to the world around them, for useful and meaningful participation in society, and for self-fulfillment."

Since the Washington State School for the Blind for twenty years was one of seven schools offering services for deaf-blind prior to the establishment of the Centers, the Coordinating Office for the Northwest Region was, and is presently located, at that school in Vancouver, Washington, serving the five-state area of Washington, Oregon, Idaho, Montana, and Alaska.

The deaf-Blind Project designed for the Northwest Region, as for all Centers, is to provide the following services: (a) Diagnostic and Evaluation, (b) Education, and (c) Consultative.

Initial surveys of the vast, sparsely populated states indicated as early as August, 1969, that a summer session should be included in the overall planning to aid in identifying children by medical diagnosis and psychological evaluation.

By June, 1970, such a session was held in which twenty-six children were enrolled. A summer session held in 1971 extended this evaluation to include that of education, thereby assisting in placing these children in various programs in the region.

The summer sessions indeed have become an important and integral part of the large regional program serving deaf-blind children and their families in the Northwest area.

CHAPTER III

PROGRAM OBJECTIVES

The objectives of the 1970 and 1971 Summer Sessions were highly similar. The major difference was that the 1971 program goals were more sophisticated and amenable to objective study. In service programs such as these, with their necessary amount of organization, bureaucracy, detail work, and objective observation, it is all too easy to lose sight of the people who are being served. Therefore, it cannot be overstated that the major goal of the programs was the enhancement of the functioning and development of the children. All other objectives--those dealing with program evaluation, parent counseling and education, and personnel training--were merely tools used in the attainment of that primary goal.

Program Evaluation

The 1970 Summer Session was the implementation of several new concepts in the evaluation and education of deaf-blind children (see Program Description). The program was critically evaluated by the staff and the 1971 program was a revision of the former. Both programs were evaluated according to the following criteria:

1. Service to the children. Does the program present a social and physical environment conducive to maximal child developmer ?

2. Usefulness as an evaluative technique. Does a month-long residential summer program provide sufficient information for the formation of children evaluations and recommendations?

3. Appropriateness as a model program for serving deaf-blind children. Are the principles upon which the program is based flexible enough to be adapted to a school-year educational program, a variable-length evaluation setting, or a day-care program?

4. Program organization and administration. Is the program most efficiently and successfully organized and administered?

Parent Counseling and Education

The parental role is considered to be of paramount importance in the development of the deaf-blind child. Recognizing the importance of the parents, the summer programs attempted to aid them in striving for fulfillment in their parent-child interactions. In order to meet the needs of the parents, the following objectives were prepared:

1. The development of understanding and acceptance of the unique problems associated with raising a deaf-blind child;

2. To learn new and augment previously developed modes of positive interaction with their child;

3. To become familiar with the total summer program so they could develop appropriate techniques of providing the child with consistent care and education;

4. To provide the parents with an opportunity for meeting and interacting with other parents of multi-handicapped children;

5. To provide the parents with recommendations for educational placement of their child;

6. To assist the parents in setting realistic goals for their children.

Professional and Paraprofessional Enhancement

The programs were suited to meet the professional needs of administrators, teachers, consultants, and paraprofessionals. Specifically, the needs were met with the following objectives; the program served as:

1. In-service training for medical and psychological interns at the Crippled Children's Division of the University of Oregon Medical School;

2. A workshop for teachers during which they could add to their regimen of techniques by creatively developing new methods of education and evaluation of deaf-blind preschool children;

3. A practical experience for administrators of programs for multiply handicapped children;

4. In-service training for paraprofessionals (houseparents and aides) during which the creative development of new techniques was encouraged;

5. A model program for the establishment of college courses in paraprofessional training;

6. An introduction to special education for students anticipating entrance into the profession.

Research and Evaluation Methods

Education for the multiply handicapped remains to a large degree

uninvestigated with methods of rigorous research. In line with this great need for experimentation, the following objectives were created:

1. The development of a procedure for objectively describing all activities of which an evaluative or educational program is composed;

2. The development of objective techniques with which the developmental and functional level of deaf-blind preschool children could be described;

3. The development of devices used to measure subtle and outstanding behavior changes directly resultant from program experience.

CHAPTER IV

PROGRAM DESCRIPTION

The Station Concept

Deaf-blind children traditionally have been educated and assessed in a setting organized similarly to the public elementary school. One teacher is most often totally responsible for a very small number of children throughout the school year. It is intended that such an intensive teacher-child interaction accelerates the formation of emotionally positive relationships conducive to early education and adjustment. Furthermore, the consistency attained in one teacher's methods and approaches supposedly creates trust, expectancies, and other psychological benefits in the young child.

It is questionable, however, if one or two persons filling the roles of teacher, evaluator, and substitute mother can most adequately meet all the needs of the multiply handicapped child. In the organization of the summer programs the needs of the children were categorized into seven areas. From areas of need evolved the station concept in which each of seven stations concentrated on a particular cluster of associated needs. The stations consisted of a residential station, five learning stations, and a station for medical diagnosis and evaluation. Briefly described, the stations are as follows:

Station One: Primary Cottage. The residential station was the cottage in which the children slept, ate, and played. This station was important

not only because it served as a base for the children's daily activities, but also because it was a living center in which the methods of the learning stations were continued with the children in a daily-life setting.

Station Two: Communication Skills. This learning station primarily focused on the assessment and development of speech readiness abilities plus intensive practice in speech preparation and auditory training.

Station Three: Experience Training. The goal of this station was the expansion of the experiential world of the deaf-blind child. An attempt was made to overcome the sensory barriers in the doubly impaired children by creating a need for investigation through the olfactory, gustatory and tactual senses. Residual vision, when present, was trained in conjunction with the other senses.

Station Four: Self-Help Skills. In an attempt to make the children more self-reliant and confident, emphasis was placed upon training independence in eating, toileting, dressing and washing.

Station Five: Physical Development. The physical development station engaged in an activity program promoting muscle development, improved coordination and physical competence, and an interest in physical exploration.

Station Six: Social Development. Attention was given to developing an awareness of and positive interaction with other children and adults.

Station Seven: Medical Diagnosis and Evaluation. A complete medical diagnosis and a psychological evaluation were scheduled at the Rubella Clinic, Crippled Children's Division, University of Oregon Medical School.

A detailed discussion of the stations may be found in later chapters.

Inter-Station Cooperation

When a young child is taught by five teachers each day, his adjustment and performance in the program are at least partially dependent upon the consistency of the several teaching methods. Although teachers were encouraged to develop unique approaches in their various stations, cooperation between the stations was emphasized. Teachers shared the activities of their stations and frequently requested that their techniques be continued in other stations.

For example, the Communication Skills teacher constructed a chart known as "The Word For Today". She asked that each day's word be spoken appropriately to the children in other stations, thus reinforcing and generalizing the language development occurring in her station. Words such as "come", "eat", and "sit" were selected. The process was cumulative in that all previous days' words were continued in use.

One of the major benefits of the station concept employed in an education/evaluation program is that each group of "child needs" is approached by a teacher specializing in that area. When that specialization is coupled with a concerted effort among the stations, the child

learns skills in one setting and applies them in many others. Without such cooperation, it seemed highly possible that new positive behaviors would become limited to one teacher and station. The appropriate generalization of skills and behaviors was further emphasized beyond the school setting by indicating the program's successful techniques to the parents and other agencies engaged in service to the children.

Grouping

The daily use of five learning stations by all children necessitated the development of guidelines for placing the children in groups. In general, each of the five groups was created in such a way as to make it as heterogeneous as possible. With children of varying functional levels composing a group, teachers confronted different challenges during every class period and the groups were most easily managed throughout the day. Furthermore, the children were at least in the presence of, and frequently interacted with, children who were dissimilar to themselves.

An initial grouping of the children was made on the basis of information from a brief questionnaire completed by the parents prior to summer school. The following guidelines were utilized in that grouping:

1. Evenly distribute toilet trained children among the groups;
2. Evenly distribute ambulatory children;
3. Evenly distribute according to age.

Each group thus created in the 1971 program consisted of six children.

An evaluation of the heterogeneity within the groups was made by the teachers and administrative personnel during the second week of school. On the basis of one week's interaction with the children, the staff evaluated the groups in terms of the above guidelines. It was also considered necessary to ensure that children within a group varied in needs and abilities. Because of the appropriateness of the initial grouping, it was unnecessary to form new groups.

Scheduling

Scheduling groups at stations was accomplished by first assigning color names to each group. The five groups were assigned to the five learning stations according to the Weekly School Schedule (Appendix 1). Each weekday consisted of six classroom sessions with a session being 50 minutes in length. Ten minutes between sessions were allowed for changing classrooms.

Table 1 presents an example of a group's learning station schedule for one day. The first and sixth hours were always spent at the same station. The Weekly School Schedule indicates that the five daily schedules were different for each group. Because the first and last hours were scheduled at the same station, a group was exposed to each station for six sessions per week. The Weekly School Schedule applied to each week of the summer school. Colored patches of cloth were attached on the back of each child's clothing to indicate the group of which he was a part.

TABLE 1

An example of a group's schedule of learning stations for one day.

Hour 1	8:00 a.m. - 8:50 a.m.	Station 2
Hour 2	9:00 a.m. - 9:50 a.m.	Station 3
Hour 3	10:00 a.m. - 10:50 a.m.	Station 4
Hour 4	11:00 a.m. - 11:50 a.m.	Station 5
Hour 5	1:30 p.m. - 2:20 p.m.	Station 6
Hour 6	2:30 p.m. - 3:20 p.m.	Station 2

The Class Routine

A teacher's aide, assigned to one color group for an entire class day, was responsible for helping teachers in their various stations, transporting children between stations, and assisting the children in dressing, eating, and toileting. Since an aide remained in charge of one group per day and yet had each group once during a week, the children were involved with several adults serving in the aide capacity. This practice broadened their range of experience with new personalities and, hopefully, increased their awareness of and desire to interact with other persons.

The procedures of the learning stations included both group and individual interactions between the teachers and children. If a teacher's daily program indicated individual supervision or instruction, less than ten minutes was devoted at that station to each child. Aides were encouraged to continue the teacher's method of interaction with the children during the remainder of the session. During group activities, aides directly assisted the teacher.

Individuality

The practice of one teacher/evaluator working with a fairly large number (25-30) of multiply handicapped preschool children each day was relatively unique and untested. At first glance, one could assume that the concept of individuality or the one-to-one teacher-child relationship had been sacrificed for a "mass teaching" technique. Efforts were made, however, to ensure that such a sacrifice was not made.

All teachers emphasized each child's individuality in their interactions with the children. A guiding principle was that every child, as a unique personality, must be reached at his current level of development and functioning. Considering all preschool deaf-blind children as essentially alike is a fallacious assumption which leads to inappropriate teaching methods.

The concepts of learning station and grouping of children were implemented not to discredit the reliance upon one-to-one teacher-child relationships; they were adopted to determine the benefits of teacher specialization and hourly class rotation while maintaining strong teacher-children relationships. Although these relationships may have developed more slowly than in the setting in which one teacher had a small number of permanent students, the children were kept active and interested, teachers and children were continually challenged, the children were exposed to many concerned adults, and their needs were most adequately served.

CHAPTER V

THE 1971 PROGRAM: CALENDAR OF EVENTS

The schedule of the 1971 Summer School is indicated below and an explanatory text follows. The major differences between the 1970 and 1971 sessions are discussed.

June 12	Staff Orientation
June 13	Children Arrive
June 14	Classes Begin
June 17 - 18	Initial Scalings
July 8 - 9	Final Scalings
July 9	Classes End
July 9 - 10	Parent Conference
July 12 - 16	Evaluation Week

Staff Orientation

On the afternoon before the children arrived on campus, a staff orientation meeting was held to acquaint staff members with one another and with the function of the summer program. The Regional Coordinator discussed the program goals and operations. The responsibilities of the various positions were loosely defined and major emphasis was placed on imagination and innovation in means of caring for and teaching the children. Those who had previously worked with multiply handicapped children were impressed with the need not to adhere to conventional practices and techniques, but to feel free to suggest new implementations.

A 35-page staff handbook presented further information on program function, scheduling, and other summer session concerns. It was the responsibility of all personnel to become familiar with the handbook, and in so doing many questions and much confusion were precluded.

The staff orientation also included an address by the Project Director who explained the role of the summer session in relation to the ongoing programs of the Northwest Regional Center for Deaf-Blind Children and those of the Washington State School for the Blind. The Research Consultant's function as a non-participant observer was also discussed.

Staff Meetings

Staff meetings were not regularly scheduled during the four weeks of class but were held when necessary. As a result, two full-staff meetings were called early in the Summer School. The first dealt with the care and use of the hearing aid. The Communication Skills teacher instructed the personnel in the procedures employed for inserting, regulating, cleaning and storing hearing aids. The second meeting concerned the children's eating habits; the meeting served to make consistent the manner in which each child was assisted during meals. Decisions were made concerning the methods of teaching self-feeding to the various problem eaters. It was therefore ensured that the selected methods would be applied at every meal.

Teachers' meetings were also called when necessary. During the first week the Coordinator, Supervising Teacher and Research Consultant met individually with each teacher. The object of the meetings was a

discussion of the goals and procedures of each station. At least weekly teachers' meetings were thereafter held to discuss such concerns as the checklists and the parent conference.

Daily teachers' meetings were held during the 1970 Summer School but such frequent meetings were not considered necessary in 1971. Satisfactory substitutes were the morning ten-minute break and lunchtime during which the teachers informally met and usually discussed the problems and successes of their stations. These gatherings--in which suggestions and assistance were often elicited--greatly increased inter-station cooperation.

Information pertinent to all staff members was distributed via memoranda and bulletin board notes.

Parent Conference

The agenda of the 1971 Parent Conference was as follows:

Friday, July 9	5:30 p.m.	Buffet Dinner
	7:00 p.m.	General Meeting I
Saturday, July 10	7:15 a.m.	Breakfast
	8:30 a.m.	General Meeting II
	9:00 a.m. - 11:30 a.m.	Station Visitations
	12:30 p.m.	Lunch
	1:30 p.m. - 3:00 p.m.	General Meeting III
	3:00 p.m. - 5:00 p.m.	Individual Parent-Staff Conferences

The parents arrived on campus on Friday afternoon and were housed in School for the Blind Facilities. The first general meeting served to familiarize the parents with what their children had been exposed to during the previous month. A series of slides of the children in the session introduced the various facets of the program. The film, "A Day With Debbie," which depicts a school day in the life of a deaf-blind girl, was also shown. The film indicates the tremendous progress which a multiply handicapped child may make.

General Meeting II preceded and prepared the parents for the class visits with their children. Abbreviated half-hour classes were held in all the stations and the parents accompanied their children on a typical class day routine. The parents were able to observe each of the teacher's methods of interaction with their children and note changes in the children's behavior. The teachers explained the function and methods of their stations and discussed the children's reactions to the stations.

The Summer School staff and the parents met during the third meeting to ascertain parents' evaluations of the program and to entertain questions and suggestions concerning evaluation and education of deaf-blind children. Following the general meeting, the staff was available for private consultations with the parents. No children evaluations or recommendations were made for the parents during the Conference but were formulated by the staff during the evaluation week.

The 1970 Parent Conference was held at the beginning of that Summer School. The three-day Conference included addresses by specialists

in medicine, education, social work and psychology. The Conference served to indicate the various services available to multiply handicapped children, plus new methods of care, education and evaluation. Since the 1970 Conference served basically to familiarize parents with opportunities for their children, it was decided that the 1971 Conference would introduce parents to the Summer School program.

Miscellaneous Events

Other activities during the 1970 and 1971 Summer Schools included picnics for the children at parks, a visit by the "Disney on Parade" show, and occasional visits by media representatives, classes of college students and various professional personnel.

CHAPTER VI

METHODS OF DESCRIPTION AND EVALUATION

As indicated previously, programs for deaf-blind children must be critically evaluated if such services are to responsibly develop beyond the trial-and-error phase. A first step in such an undertaking is the objective description of these programs, with the descriptions adequately detailed to allow for possible replication in other settings. The descriptions must be disseminated to interested agencies and individuals. Finally, the principles upon which the program is based and the techniques and methods through which it functions, should be evaluated not only by the program participants but also by unbiased and knowledgeable "third parties".

The 1971 Summer Session, an extension and revision of the 1970 Summer Session, was sufficiently developed to be thoroughly described. More than a cursory program evaluation, however, must wait until the above steps have been completed. The first part of the present section outlines the methods of program description and indicates those program evaluations which were made.

The second part of this section is concerned with the manner in which the children were described and evaluated. Finally, the process of forming recommendations for the children is discussed.

Program Description and Evaluation

The role of the Research Consultant called for non-participating

observation of the 1971 Summer Session, including the Staff Orientation, the four weeks of school, the Parent Conference, and week of staff reporting and evaluation. It was hoped that he, being previously affiliated in no way with any agency serving deaf-blind children, could objectively describe all facets of the Summer Program. The Supervising Teacher, who daily observed and assisted in the classroom, also described the learning stations from her viewpoint of frequent interactor.

Each teacher entered the Summer Session with fairly general goals for the children and outlines of procedures to be utilized in achieving those goals. During the first week of school, in which they became familiar with the developmental and functioning levels of the children, the teachers began specifying the goals and procedures of their stations. By the conclusion of the Summer School each station was described in terms of the child needs which it served, the actual goals and objectives toward which it strived, the materials and equipment used, and the methods and techniques of teaching and evaluation.

Therefore, the sources of program description, with which this report is primarily concerned, are the observations made by the Supervising Teacher and Research Consultant, and the station descriptions of the teachers.

The program was evaluated by the administrative staff, teachers, houseparents and aides. An informal evaluative process occurred throughout the Summer Session during which all staff members were free to offer suggestions and criticism. Such feedback was carefully considered and many suggestions were implemented.

The week of staff reporting and evaluation consisted in part of formal program evaluations by the staff as individuals and as a group. All staff members submitted written reports of those aspects of the program which they believed should be improved and those which should be retained unchanged. Furthermore, during nearly one full day of staff meetings, the group as a whole discussed "likes and dislikes" of the program and formulated suggested changes for future programs.

The Parent Conference was designed not only to introduce the parents to the activities of the Summer Session but also to learn their impressions of the children's experiences. An afternoon of the parent-staff meeting was devoted to a discussion of evaluative conclusions by the parents.

It is the goal of future programs to continue the subjective evaluation by all concerned individuals and to form criteria of program evaluation whereby an unbiased third party may measure the extent to which the program fulfills its objectives. This evaluation, a detailed indication of the program's successes and failures, would conclude with a set of recommended changes.

Description of the Children

The necessity of describing the children arises from several goals of the Summer Session. The program, which was essentially an evaluative process for deaf-blind children in a learning and living setting, dictated that a thorough record be kept. The record needed to include the children's adjustment to the program, their reactions to the teaching

methods, and, in general, any other behavior indicative of their developmental and functioning levels. All information pertinent to a training or educational placement recommendation had to be obtained.

The development of research techniques was based upon descriptions of the children and measurement of their behavior changes during the program. An attempt was made to create instruments sensitive to even the minute variations in response noted in the multiply handicapped child. Because the instruments were needed for purposes of research, they were developed in a manner in which response changes could be quantified and therefore subjected to scientific analysis.

Several considerations formed the guidelines for descriptions of the children. Among them was the endeavor to thoroughly describe the children's complete repertoire of behavior. Because deaf-blind children, in relation to non-handicapped children, generally have a constricted range of behaviors, it is sometimes assumed that they are nearly behaviorally void. Such, of course, is not the case. Although the deaf-blind child's behaviors are not all necessarily appropriate or in consonance with his development level, he is nonetheless a responding child. Checklists and scales designed for use with the non-multiply handicapped child do not capture the behaviors of the deaf-blind preschooler. Most objective measures are not useful because they neither allow for the types of behaviors of the multiply handicapped child nor have gradations between levels of behavioral development sufficiently small to note the "large" advances of deaf-blind children.

All staff members who interacted with or observed the children over a fairly lengthy period of time were involved in description. Teachers, the Supervising Teacher, aides, houseparents, the Research Consultant, the Project Coordinator, and the diagnostic medical staff all participated. The children were thereby described at every station and from several different points of view.

Initial Scaling

At the end of the first week of the Summer Session, the teachers, aides, Supervising Teacher and Research Consultant individually described the children with the Vineland Social Maturity Scale, revised for use with deaf-blind children (Appendix 2).

Checking the scale was based on interactions and observations of the fourth and fifth days of that week. Teachers completed a form on each child, aides on two groups apiece, and the Supervising Teacher and Research Consultant each observed half the children. Eight completed forms on every child were thus obtained. The combined data from the eight descriptions were considered to be sketchy indications of the functioning levels of the children at the beginning of the Summer Session. Raising each functioning level was a general goal of the program.

The first week's scaling was only partially successful because the instrument utilized was not primarily designed for use with deaf-blind children. Furthermore, observations were not based on the first three days of school since it was assumed that some time was necessary for the children to adjust to their new life-style. The fourth and fifth days

were arbitrarily chosen, but it cannot be known with total certainty that the children had completely adjusted.

Daily Reports

Daily anecdotal reports (Appendix 3) were made in all but the Physical Development learning station. The reports were narrative in format and were designed to record behavioral changes, responses to classroom activities and stimuli, and any other noteworthy behavioral development. The reports were typed daily and the cumulative record of each child was made available to the teachers in order to assist them in recalling previous days' occurrences. All the anecdotal reports for a child provided a fairly thorough summary of his activities in each of the stations.

Since the format of classroom activities in the Experience Training Station was highly similar from day to day, a checklist to be completed daily was devised to replace the daily report of that station (Appendix 5). The short daily checklist was not only less time consuming for the teacher to complete but also yielded data which were readily understood and indicative of changes over a period of time. The results were as descriptive as the daily reports and much more amenable to research. It is hoped that a daily scaled checklist may be designed for each station's method or procedure which continues a few days or more. With such a checklist, information concerning the children and the success of the station procedures may be obtained.

A daily report was unnecessary in the Physical Development Station

because a quite sophisticated evaluation process lasting throughout the Summer Session was undertaken. A discussion of that evaluation follows in "Physical Development". The checklist and developmental scale used in that station are found in Appendices 8 and 9.

Final Scaling

Throughout the course of the Summer Session, four of the learning stations (with the exception of Physical Development) created scales with which the children's behavior, pertinent to the goals of their station, could be described. The scales are presented in Appendices 4 through 10. Since the learning stations concern themselves with the total child, a combination of the four new scales plus the one from Physical Development present an entire picture of each child. Such a record was useful in forming recommendations and evaluations, and, since constructed as a behavior scale rather than a checklist, provided teachers and parents with the next step or goal in the child's development. The scales are potentially useful as measures of change when completed, for example, prior to and following the use of a particular method. In summary, the scales may be used to describe children, indicate developmental goals, and aid in the evaluation of teaching methods.

The scales presented in Appendices 4 through 10 are currently undergoing revision and upon completion should be suitable for use by parents, evaluators and teachers of multiply handicapped children. They will be available at a later date.

Each of the five teachers completed his particular scale on all

the children. The scalings were based on station interactions and observations of the final three school days. These scalings were considered as indications of the final level of development in the program. When compared to the initial observation results, an index of change was obtained.

Several factors must be taken into account when developmental changes are interpreted. It would be gratifying to attribute all advances to the methods of the program but this cannot be done with assurance. Other variables besides the program life-style and teaching methods potentially influence the children. One cannot, as mentioned above, rule out the possibility that the children had not adjusted to the program at the time of the first scalings. A scaling of the children immediately prior to entrance into the program is needed as a baseline with which regressions and progressions can be compared.

Figure 1 indicates one possible way in which misinterpretations may be made without prior scalings. In Figure 1 the horizontal line at point A refers to the level of functioning before the program; B indicates a decrease due to life-style change and other possible adjustment factors; C refers to advances most likely due to the program. If the functioning level at B rather than A were used as a comparison baseline, benefits of the program would be overestimated.

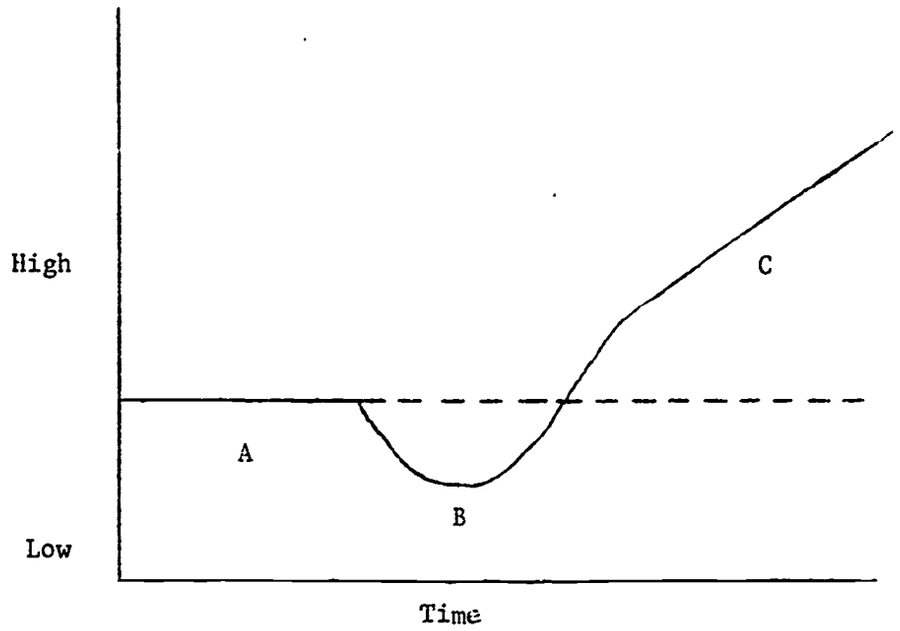


FIGURE 1

LEVEL OF FUNCTIONING

A theoretical curve of a child's level of functioning indicating (A) a stable level of functioning before the program, (B) decreases due to the onset of the program, and (C) increases associated with the program.

Periodic scaling during the program along with a pre-program description could more exactly attribute changes to the program. A series of scalings could also point out the impact--in length and intensity--of the adjustment phase.

Other factors influencing functioning levels include illnesses in the children, effects of medication, and breakage of hearing aids and glasses. These and other factors must be considered during interpretation if they were active during scaling. Since an estimation of their effect is difficult, it is best to avoid scaling while one or more extraneous variables is a possible influence.

A bias on the part of the observer may effect scaling in a more or less favorable direction. An observer, especially one who actively participates with the children in a program, must strive for objectivety in his descriptions. In the best possible situation, observations would be made by a person minimally involved in children interactions.

In a lengthy program, maturation may also account for improvements in functioning. In long-term sessions this variable combines with programming to yield positive changes in children and should therefore be accounted for in the interpretations.

Summary Descriptions

At the end of the four-week school session, the teachers, aides, and houseparents wrote narrative descriptions of the children with whom they had interacted. Discussed in the narrative descriptions were improvements and regressions noted in the children.

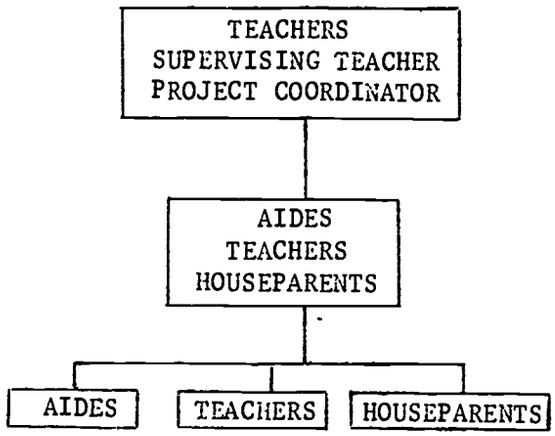
The daily reports of the teachers, the initial and final scalings and the summary descriptions together presented objective and subjective data acceptable for use in evaluating the children and, to a lesser extent, the efficacy of the program.

The Recommendation Process

The final product of the summer school was a set of recommendations for the children's parents and agencies concerned with their care. That portion of the staff involved in describing the children made recommendations, and the recommendation process was an extension of description and evaluation.

On Monday and Tuesday of Evaluation Week (the week following summer school) the aides, teachers, and houseparents met in their respective groups and discussed the children individually. After the three groups reached concensus descriptions of each child, the groups joined, pooled their evaluations, and discussed recommended methods of training, education, and care.

For the remainder of the week the teachers, Supervising Teacher, and Project Coordinator utilized all descriptive and evaluative information to reach final recommendations. The final draft of the recommendations was composed and disseminated by the Coordinator.



Final Recommendation

Descriptions, Evaluations, and suggested Recommendations

Descriptions and Evaluations

FIGURE 2

THE DECISION-MAKING PROCESS CONCERNING FINAL RECOMMENDATIONS FOR THE CHILDREN AT THE TERMINATION OF SUMMER SCHOOL.

Figure 2 outlines the recommendation process and indicates the upward flow of decisions concerning recommendations. The recommendations were written specifically for the parents but were of potential value to other agencies and schools serving the children. The recommendations, made individually for each child, concerned care and training techniques which were successful during the summer session. The suggestions were arranged according to learning station and, considered together, constituted a type of progress report for the summer session.

A second portion of the recommendations, when considered necessary, suggested the type of agency or school which could best serve the child's needs during the regular school year.

CHAPTER VII

THE LEARNING STATIONS

The primary function of the learning stations, it will be recalled, was the establishment of specialized areas of training and evaluation for the preschool deaf-blind child. It was hoped that through a month of intensive classroom interaction, children could advance in their life adjustment, begin methods of training, and be thoroughly evaluated. The learning station orientation was basically educational and differed from a possible residential school setting only by its short duration.

The learning stations, as the primary cottage, were not constricted by certain principles or philosophies in terms of the procedures which they utilized. A basic guideline was one in which freedom was granted to teachers to use any technique or approach which could conceivably help the children. This latitude was granted with the stipulation that all methods be carefully described and evaluated in respect to relative success.

All children in the program were known or suspected to have visual and auditory impairments. Since, according to some estimates, approximately 80% of a non-sensory impaired child's behavior is learned through imitation, deaf-blind children do not possess the usual channels through which behavior is learned. It was attempted through the activities of the learning stations to discover and introduce to the children those methods of learning which are most effective for them.

Deaf-blind children not only have deficits in visual and auditory

functioning but some also have tendencies to under-use their remaining modalities. Some children experience fear and a loss of security association with encountering new aspects of their environment. This apprehension may result in interference with the course of learning, since the residual and non-impaired senses do not "automatically" compensate for sensory loss. A general goal of all learning stations was the reduction of fear arising from new stimulation and motivation of the children to investigate and explore their physical and social environments.

In the following sections, the objectives and procedures of the learning stations are discussed. The physical settings of the classrooms, including equipment and materials, are also noted. The scales developed for each station are explained in reference to the stations' functioning.

COMMUNICATION SKILLS

Objectives

The oral communication problem in the deaf-blind child is created by his inability to hear and imitate spoken sounds and is compounded by the lack of language concepts--often formed visually--to which many verbalizations are normally attached. The problem is further complicated in some multiply handicapped children by improper physical oral development, a situation which hinders or precludes the emission of sounds basic to speech.

In general, the goal of the Communication Skills Station was the establishment of a communication system for each child. The children's levels of communication functioning were ascertained while rapport was

being developed early in the first week of school. Training was thereafter individualized, dependent upon the child's abilities and communication status.

The general steps of communication training were as follows:

1. Oral examination;
2. Assessment of coordination among lips, tongue, jaw and breath;
3. Voice assessment;
4. Speech preparation training;
5. Auditory training.

The specific goals of the station, in line with the above steps, were the assessment and advancement of communication abilities in a training setting. By applying the techniques of the appropriate level of training, each child's potential for communication was estimated.

Procedures, Materials and Equipment

Week 1: Oral examination, coordination and voice assessments; beginning speech preparation training or auditory training.

Weeks 2 and 3: Continuation of speech preparation training or auditory training.

Week 4: Termination of speech preparation training or auditory training; evaluation of communication skills.

The oral examination and coordination and voice assessments were very informally conducted early in the first week of school. The initial evaluations were typically made by the teacher as she and the child played together and as she introduced the child to auditory or speech

preparation training methods. In other words, the evaluation was made in the course of other station activities and did not disrupt rapport building efforts.

The evaluation prompted the development of Parts I, II, and IV of the Communication Skills Scale (Appendix 4). Part I, the oral examination form, is intended for use at the beginning of speech programs. Parts II and IV, coordination and voice assessments, deal with behaviors which are amenable to change and should therefore be completed on each child periodically throughout a program.

During speech preparation and auditory training the teacher worked individually with the children. Rudimentary principles of behavior modification were often utilized in response shaping. One of the tasks of the first week was the discovery of effective positive reinforcers for each child. Most were conveniently rewarded with sugar-coated cereal; others preferred another food, such as applesauce. The teacher in this station, as did the other teachers, also reinforced with verbalizations and body contact. Rewards were given on a continuous reinforcement schedule; that is, every correct response earned a reinforcement. The rapidity of response shaping was dependent on the child's abilities, so that each child was challenged but not frustrated.

Speech preparation began with training in breath control; blowing to produce plosives, sibilants, and fricatives; and tongue mobility exercises for articulation of vowels and consonants. (See Communication Skills Scale, Part VI.) Following mastery of these basic speech prepara-

tion exercises, three methods of communication were available for use by the teacher:

1. The Tadoma method. This well-known method of speech imitation consists of the child's reproduction of the teacher's throat vibrations and lip movements produced by speaking. The vibration method was heavily relied upon to engender an awareness of speech sounds, a motivation to imitate such sounds, and a conceptual language framework within which sound production became meaningful. All staff members were encouraged to utilize the Tadoma method in their interactions with the children so that its acceptance and use would generalize beyond the Communication Skills Station.

2. Gesturing, finger spelling and signing. Children were encouraged to develop non-verbal means of communication in conjunction with their oral communication. "Natural gestures" were frequently used concomitantly with vibration training and aided in concept formation. Because of the short-term nature of the program, formal sign language and finger spelling were not introduced. It was the attitude of the teacher that, had more time been available, finger spelling and signing could have been used as additional cues for speech and language development.

3. The multi-sensory (TVAK) approach. The multi-sensory approach to concept formation and communication is based on obtaining the maximum amount of information from stimuli. The TVAK method utilizes the tactual, visual, auditory and kinesthetic senses. The Experience

Training Station employed a multi-sensory procedure for the introduction of new stimuli to the children, and future programs plan for the simultaneous use of language. That is, the appropriate language will be introduced in conjunction with new stimuli as the Experience Training and Communication Skills Stations work together more closely.

The procedures of auditory training were:

1. Conditioning to the Auditory Training Units,
2. Creating an awareness of sound,
3. Forming discriminations between sounds, and
4. Imitating sounds.

For those children who rejected the earphones of the Auditory Training Unit, acceptance was conditioned by small interval behavior shaping, using such reinforcers as sugar-coated cereals.

Besides amplifying the spoken sounds of the teacher and the children in speech preparation training, the Auditory Training Unit was used for amplification of musical recordings. Recordings were selected which had an easily identifiable rhythm and therefore enhanced awareness of the various properties of sound. Other objects used were drums, bells, cymbals, shakers and horns. Environmental sounds included pots and pans banging together, automobile horns and sirens. The "noise makers" were used in such a way that the children could imitate the teacher in producing the sounds and simultaneously feel the objects' vibrations, complementing the Tadoma method of associating auditory and tactual cues.

The different physical and emotional reactions to auditory stimuli

were noted (Communication Skills Scale, Part IV). The different reactions at various intensities of amplification indicated discrimination of sounds. The procedure aided in determinations of hearing loss and receptivity to new stimuli.

Imitation of speech sounds was reinforced in those children who progressed to that extent. Few, however, advanced to that stage and most time in the station was devoted to training of pre-communication or speech readiness skills.

Although verbal expressive language developed little, it is assumed that advances were made in the non-verbal expressive and receptive languages. Receptive or "inner" language is considered to be the system by which concepts are formed and retained from the spoken language of others. Spoken language associated with experience thereby becomes meaningful to the deaf-blind child and a large step is taken toward communication with others.

EXPERIENCE TRAINING

Objectives

The experiential world of deaf-blind children is constricted by their sensory impairments. The motivation to explore with other modalities is often limited, and apprehension concerning new stimulation may arise. For example, it had been noted by the staff that many preschool and school-age deaf-blind children seek only hard, bright objects--usually metal or plastic--to hold and play with. They generally reject soft, furry or pliable objects which bring pleasure to other children. Stuffed animals,

live animals, velvet objects and many soft-textured food substances are often among the items which are not tactually investigated. Knowledge which the deaf-blind child has about his environment is limited further by this reticence to explore.

The major goal of the Experience Training Station was to begin overcoming the experiential limitation. An attempt was made to create a need for investigation with the senses of touch, taste and smell. The use of residual vision was trained in conjunction with the other senses.

The experience training technique utilized in the Summer Session not only fostered an interest in exploration, but also yielded other benefits including improvements in perceptual-motor (e.g., eye-hand) abilities, practice at visual focus, and enhanced object manipulation, identification and discrimination skills.

Procedures and Materials

The primary procedure was the daily introduction of one new substance or object to investigate. On most days the children were seated at a plastic-covered table and a food substance was placed before them. They were encouraged to tactually explore in a "finger-painting" manner. If the children were hesitant about entering into the activity, a small amount of the substance was rubbed on their hands and they were gently prompted to continue. It was seen, as far as possible, that all the children touched, smelled and tasted each substance.

The following items were used in finger painting:

applesauce
honey
cornmeal (dry and in honey)
jelly
chocolate pudding
peanut butter (chunky)
play dough
chocolate sauce
oatmeal (dry and mixed with water)
wet noodles (with butter and salt)
whipping cream
cooked rice
marshmallow creme
gelatin
meringue
tapioca
eggs (raw, child feels egg, cracks open and finger paints)

On the first day of exploration and finger painting, only three of the thirty children willingly entered the activity. As the month progressed, however, many children began initiating their own involvement. The investigation came to be great fun for most of the children and they eagerly approached the table each day; they dipped into the substance, smelled it, ate it, and smeared it on themselves and the plastic. By the end of the four weeks, all but six of the children were sufficiently confident and curious to "immerse" themselves in the task without prompting, having overcome their fear of "gooey" foods. Several of the hesitant children would taste and smell the foods without touching them with their hands.

The finger painting procedure was expanded for children who quickly progressed to the "eager investigation" level. These children were given practice at spooning the foods into a bowl, measuring, pouring, and using an egg beater.

In addition to the finger painting method, other techniques of introducing stimulation were utilized. The bottom of a large cardboard box (5' x 3' x 5') was covered with popcorn. Several children at a time were placed in the box so they could sit in the popcorn, smell and taste it, roll in it, and generally submerge themselves in the new sensory inputs.

Fresh fruit, including seedless grapes, berries, bananas and oranges, were sources of exploration. Most of the children had not touched, peeled and then eaten an orange or banana, and the new experiences were extremely interesting to them.

For most of the children with residual vision, a flashlight provided an intriguing source of stimulation which moved and caused the children to change focus and fixation. Soap bubbles blown in the room served a similar function. All but one of the children reacted very positively to stimulation by a vibrator placed on their arms, legs, heads, backs, etc. The entertaining properties of these tactual and visual stimuli suggest that they may be used as positive reinforcers for new behaviors.

A collection of spices and fragrant food stuffs was a source of stimulation directed at heightened olfactory awareness, discrimination and identification. Items used for enhancing tactual sensitivity and manipulatory skills were air-filled and water-filled balloons, paper bags containing treats, and plastic and metal containers varying in size, shape, texture, color and weight.

Part I of the Experience Training Scale (Appendix 5) was devised in part to describe the emotional and physical reactions elicited by each substance. The reactions of the children were numbered in the order in which they occurred. A third portion of the scale called for rank ordering the modalities used in the investigation.

This scale was employed daily and replaced the anecdotal report. At the end of Summer School, changes in the reports reflected the reduction of negative physical and emotional reactions to the stimuli and the development of a need to investigate the previously avoided substances and objects. Consistency in use of modality of investigation was noted in the third item of the scale; this information is potentially quite useful in arriving at diagnoses of sensory impairment.

Part II of the Experience Training Scale (Appendix 6) measures curiosity, emotional reactions and negative stereotyped behaviors. Each child was described on Part II at the end of the last week of Summer School. The description served to partially summarize the information contained in the daily scales. Progress made in the motivation to investigate the environment plus the manner in which it is investigated are reflected in the section entitled "Curiosity".

The emotional world of deaf-blind children has long been underemphasized in most assessment devices. The section of "Emotional Reactions" is an attempt to remedy that oversight. This section could have logically been included in any station's scale, but it was made a part of the Experience Training Scale since emotional reactions are regularly elicited by

new stimulation. Furthermore, the emotional reaction items combined with the descriptions of curiosity yield a fairly thorough indication of how the child reacts and relates to his physical environment.

Negative stereotyped behaviors are the rituals and habits often seen in sensory impaired children. Some habits seem to compensate for the loss of stimulation, but in so doing they interfere with the development of positive behaviors. Others may be reactions to frustration, reactions which are potentially harmful to the child. The purpose served by the habits should be filled by positive, beneficial behaviors. The section of "Negative Stereotyped Behaviors" is the first step toward that goal; that is, it serves to identify and rate by frequenc. of occurrence of those habits which should be replaced. Since the habits are frequently manifested in the Experience Training Station, the section on those behaviors was included in the present scale.

In summary, the major functions of the Experience Training Station were enhancement of familiarity with the environment and development of the need to explore, thus ensuring the children's adjustment to their surroundings. These were at least informal goals of every station, but their formalization and implementation in the present station represented a recognition of them as areas of a concentrated curriculum. The finger painting and allied techniques were quite rudimentary--and successful--methods for "creating" curiosity. They were necessarily rudimentary because the children were at first generally fearful and experientially limited.

The experiences most likely built concepts and memories upon which a communication system could be built. In a program of longer duration and/or one in which more advanced children were participating, the experiences could be linked with receptive and expressive language training. This double function could be served by more closely aligning the presentations of the Experience Training and Communication Skills Stations.

SELF-HELP SKILLS

Objectives

Because of the nature of their impairments, most preschool deaf-blind children are largely dependent upon others for their daily care. Because of the security found in dependence, the reliance upon others does not automatically decrease with the passage of time. Therefore, direct effort must be made to engender self-care.

Self-care is basic to the life-adjustment of multiply handicapped persons. The independence at least partially created by the ability to care for oneself in turn leads to a favorable emotional adjustment. This, along with self-reliance, develops greater self-confidence and a more positive self-concept.

Since there is security in dependence, teaching self-care must progress at a rather slow, steady pace. Placing many new demands upon a child could disrupt the security and lead to frustration and regression. Each child was observed and evaluated in the Self-Help Skills Station and he was encouraged to progress in small steps beyond his initial level of functioning.

Eating, personal cleanliness habits, dressing and undressing, and toileting were the major areas of concentration in the Self-Help Skills Station. Some emphasis was placed on orientation and mobility skills, but, since these were target behaviors of the Physical Development Station, most emphasis was placed on the former areas. The objective of the station was to develop an independence in self-care skills, with each child progressing from his level at his own rate.

The items composing the Self-Help Skills Scale (Appendix 7) generally indicate the steps taken in developing self-care. The order of responses within each item follows the developmental progression of the self-help skills. For example, the item on finger foods, the first in the "Eating" section, outlines four steps from not handling finger foods to the independent eating of various finger foods. The level at which a child is observed to perform suggest that the following step is the next immediate goal toward which the child should strive.

Procedures and Materials

The major challenges encountered in the Self-Help Skills Station, besides the sensory impairments, were created by physical limitations of the children and the dependence routine within which many of the children had grown. Physical limitations included, among others, oral maldevelopment which precluded mastication; muscular malformation and underdevelopment, reducing the various coordination abilities necessary in self-feeding, sitting independently on a toilet, etc; and improperly developed thumb-finger grasps making effective spoon use very difficult.

The second major challenge was the routine of dependence, the hesitancy to initiate self-help. Although a few of the children were fairly self-reliant, most had "fallen into" a habitual life-style of dependence upon others. In line with the general reticence about experiencing new stimulation, many of the children were content with their comparatively low functional levels. For example, some had not learned to masticate solid foods and rejected all but a few soft, easily ingested foods.

Teaching self-help skills involves helping the child achieve greatest independence within the limits of his physical abilities, and making self-reliance more satisfying than dependence. Since the dependent person gains reinforcement in the attention, physical contact, and other adult behaviors associated with having his needs satisfied, it is of paramount importance that these reinforcers not be terminated with self-help training. A warm teacher-child relationship must develop as self-care skills are introduced and made important to the child.

Teaching self-help skills in the classroom can be a defeated effort unless the techniques are continued in the children's living setting. Furthermore, the approaches used by the teacher in the learning station must be the same as those used by the houseparents and aides in the cottage station. Without such consistency the self-help patterns would not develop. The various techniques which seemed successful, especially those dealing with eating and toileting, were communicated among the houseparents, aides and teachers.

The following principles were utilized in teaching self-care:

1. Modeling. Many of the activities in the Self-Help Skills Station were group activities. Since the groups were heterogeneous in respect to self-care skills, the lesser-developed children with functional vision were exposed to more progressed children. In such a way they at least became aware of different behaviors, and some even began to imitate.

2. Leading and prompting. Some children were made aware of self-help skills by being led through the behaviors and then gradually encouraged to initiate the behaviors themselves. For example, children who would not use a spoon were helped to grasp the spoon, and then, while their hand was held, they were gently led through the proper movements. Care was taken not to force motions to the extent that resistance resulted.

3. Repetition and routine. In order to replace dependency habits with self-care habits, the new behaviors were repeated again and again. Whether the skill was learned through prompting, imitation, or behavior modification, the new skills were repeated at every appropriate opportunity.

4. Reinforcement and behavior shaping. The new behaviors were introduced and developed in very small steps. In this gradual behavior shaping process, each minute progression was reinforced. Most of the children found praise, loving contact, and other adult interactions reinforcing. Well defined behavior modification techniques were not widely used, but they were employed in a few situations.

The techniques of modeling, leading and prompting, repetition and routine, reinforcement and behavior shaping were generally applied to teaching self-help skills. Specifically, they were applied as follows:

Toileting. For the many children who were not toilet trained, the establishment of a routine was of prime importance. The children were placed regularly on a potty chair or toilet in an attempt to preclude accidents, associate the bathroom with pottying, and make dryness enjoyable. Proper toileting was moderately reinforced.

Toilet training in a residential school setting requires the concerted effort of houseparents, aides and teachers. All participated in maintaining the schedule of regular pottying. Bathrooms were located in the primary cottage and in each of the learning stations, and an attempt was made to record in each bathroom the results and times of pottying and accidents. It was hoped that any regularities demonstrated on the potty charts (Appendix 11) would lead to anticipation of the toileting needs and hasten association of the potty chair with toileting. Use of the charts was only partially successful because of incomplete recording and the lack of more than a few regular pottying habits in the children. It is probable that the chart could be most helpful in the children's homes and in programs of longer duration--programs during which toileting regularities would most likely appear.

The children were guided through all of the toileting behaviors which had not yet developed. These included raising dresses and unzipping and lowering pants, approaching and standing before or sitting on the

potty chair, appropriate use of toilet paper, getting off the chair, dressing, and flushing. When guiding through the sequence led to the child initiating the correct behavior, praise and contact rewards were given.

Indication by the children of their need to potty was reinforced. Gestures, vocalizations and verbalizations were encouraged.

Personal Cleanliness Habits. The cleanliness habits upon which most emphasis was placed were washing, bathing, drying, teeth brushing and grooming. The tasks were associated with certain places and certain times of the day so that expectancies could form as independence developed. For example, hand washing occurred before and after every meal, after toileting, and at various other times during the day when necessary. The children began to anticipate hand washing at these times and it became associated with the bathrooms.

The procedural sequence in teaching self-care skills was (a) encouraging the children's cooperation with the teacher, aides and houseparents, and (b) guiding children through the skills which they had not yet mastered, and (c) gradually prompting self-initiation of the behaviors while decreasing assistance. Each child was expected to improve his self-help skills, and this expectation by the staff was an important determination of the children's progress. It would be very easy, out of compassion, to care for the seemingly helpless child's cleanliness needs, but making simple demands within the child's capability avoids the continuation of total dependence.

Dressing and Undressing. The approach to teaching dressing and undressing was highly similar to that used in engendering personal cleanliness habits. The establishment of a routine was of prime importance and the children dressed and undressed in their rooms at approximately the same times each day. Practice was also occasionally given in the self-help skills station. The procedural sequence was essentially the same as that noted in the above paragraph.

While the children who could not independently dress and undress were guided through the steps, they first learned the proper body movements involved in these skills. Many learned to correctly raise their arms for shirts and sweaters, lift their legs for panties and pants, and straighten and push their feet into shoes and socks. By having the children attend to articles of clothing by touching and, when possible, viewing them as they were dressed, the clothing became associated with various parts of the body. After learning to cooperate and become active in dressing and undressing, they were guided through the more difficult tasks of buttoning, snapping, zipping, and shoelace tying. Each progressive step in cooperation and initiation of the skills was, of course, rewarded with body contact and praise.

Eating. The eating skill goals were the handling and eating of a number of finger foods, mastication of solid foods, independent use of utensils, cups and glasses, learning to specifically communicate hunger and thirst, and the tolerance--but preferably enjoyment--of a wide variety of foods.

The Self-Help Skills teacher was primarily responsible for the approaches used with the children, but the aides, houseparents, food service aides, and other teachers were also involved in supervising the children at mealtimes. With different persons helping the children eat at various meals, it was initially difficult to reliably assess the children's eating abilities and provide consistent supervision. Each non-independent child presented a unique challenge and, of course, each required a unique method of handling. In order to make each child's methods uniform at all meals, a series of meetings of staff members involved in feeding was held. The meetings were conducted during the second week of school and served these functions: (a) an assessment of the children's eating abilities, food preference habits, etc., (b) an evaluation of the children's responses to the methods previously used during meals, and (c) decisions concerning methods to be used during the remainder of the school session. Large charts containing information concerning each child's abilities and training approach were placed on the dining room wall. More detailed information concerning approaches was communicated among the staff members and consistency was thus achieved. Progress was recorded on the charts and methods were modified when necessary.

The Self-Help Skills teacher focused on finger food handling and eating, chewing, and utensil and glass use. The first portion of her sessions was devoted to presenting the children with finger foods such as dry cereals, crackers or cookies, and fruit dishes and juice. Non-independent children were guided through the self-feeding motions, and they were prompted in the use of spoons and juice glasses.

These skills plus the acceptance of new foods were emphasized at mealtimes. The menus consisted of balanced daily diets incorporating a wide variety of meats, fish, vegetables, fruit, dairy products, and breads. It was evident that some of the children had not previously encountered a few of the foods and the introduction of these foods served as new experiences for them. It was not believed that all children should enjoy all foods, but they should at least be exposed to a wide variety and accept foods which ensure a sufficient nutritional intake.

Some children had extremely limited numbers of accepted foods, with one five-year old boy initially accepting only peanut butter, applesauce, and a few creamy desserts. His diet was expanded over the summer session by shaping his eating habits. Peanut butter was by far his most favorite food and it served as a reinforcer. At the beginning of training, a small amount of peanut butter was placed on the tip of the spoon in front of a bit of rejected food. The amount of peanut butter was gradually reduced as the remaining food was increased. By the end of the summer school he was accepting an average of three spoonfuls of "disliked" food followed by one spoonful of the mixture. With this method he began to accept meats, fish, and vegetables which he previously rejected. Furthermore, the food consistency was gradually changed from creamy and ground to more textured and lumpy; he started to develop rudimentary chewing movements.

Favorite food methods were commonly utilized to alter eating habits. Applesauce was a common favorite and a typically successful technique was mixing a few teaspoonsful of applesauce with a rejected food. The apple-

sauce content was gradually reduced until the pure foods were accepted alone. Various favorite foods and various favorite food/rejected food ratios were utilized for different children.

The development of chewing movements is often a problem for young deaf-blind children. There seems to be no practical way of guiding a child through the motions or prompting him to masticate. The most successful, although very lengthy procedure, was the gradual change in food consistencies from those requiring no chewing to bite-sized pieces of solid foods. As soft lumpy foods are introduced, children first seem to learn to tongue the lumps or press them against the teeth and hard palate; later, jaw motions and chewing movements develop. Some deaf-blind children encounter great difficulty learning to masticate if the solids are introduced too hastily and if strict chewing demands are placed on them. Maturation and the usual developmental sequence have a great deal to do with the onset of chewing; patience, encouragement and external techniques will perhaps assist the phenomena of maturation and development, but they will not replace them.

The use of eating utensils, cups and drinking glasses was promoted by guiding incapable children through the behaviors and assisting others to perfect their skills. Even children who could not grasp spoons or glasses were guided through the steps. For example, the spoon was placed in the child's hand and the child was led through the spoonfeeding motions. The children were thus able to develop proper grasping and arm and hand movements and associate them with eating from a spoon.

PHYSICAL DEVELOPMENT

Objectives

The development of children--handicapped and non-handicapped--may be considered building-block learning and maturation in which new skills and knowledge are based on previously acquired skills and knowledge. Physical development plays two essential roles in the over-all development of children:

(1) Since motor learning--in general, physical development--is the simplest and earliest form of learning to begin, it creates a pattern of later learning. Once the simple learning process has been experienced, new types of learning such as concept formation and language development become more probable. This is not to claim, for example, that the handicapped child must walk before he begins to form an inner language; it is merely suggested that the processes used in learning motor skills may be easily transferred to other types of learning. Because deaf-blind children are limited in terms of the number of dimensions of their environment which they can experience, the processes of physical development become especially important as avenues of later learning.

(2) Besides creating a learning pattern, physical development yields many skills which constitute a substructure of more complex skills. Motor learning is the foundation in the cumulative process of development. Without basic motor skills many of the self-help skills, speech-readiness skills, modes of social interaction, and forms of environmental exploration would be unattainable to the deaf-blind child.

Because it fills these roles, physical development in the Summer School was considered basic to the general education readiness program. Furthermore, the degree of motor learning and the level of physical development evidenced by a child during Summer School became indices of educability and predictors of future progress.

In line with the conceptual framework indicated above, the specific goals of the Physical Development Station were:

1. Develop competence in a wide variety of motor activities;
2. Stimulate interest in body movement and physical activity;
3. Develop an interest in and become physically competent at exploring an expanding environment by moving in space and manipulating objects;
4. Create an ability to emotionally adjust from physical security and comfort to usual shifts of body position, unexpected forces, gravity and space;
5. Stimulate the motivation and control of purposeful motor action and coordination;
6. Develop communication, understanding, cooperation and trust through interpersonal stimulation.

The goals not only concern physical growth and development but they also attempt to meet many of the pressing psychological needs of preschool deaf-blind children. The psychological benefits resulting from a concentrated physical development program directly influence the handicapped child's adjustment to his environment. In order to meaningfully relate to

and grow within his social and physical environments, a child must develop a self-concept which differentiates between himself and objects and between himself and other people. The differentiation must occur in such a manner that he becomes secure and as self-reliant as possible. In further knowing his capabilities and needs and the demands and opportunities presented by his environment, the child forms social and object relationships which afford him the healthiest adjustment and greatest development.

The physical development program was organized according to the movement education concept presented by Godfrey and Kephart.[1] The object of movement education, which is composed of movement exploration and motor learning, is the development of purposeful activity. The objective is strived for by the introduction and training of basic movement patterns. The four basic movement patterns are grouped according to whether the child's body or objects external to the child are handled as a result of the movement. Body handling movements include locomotor patterns (crawling, walking, running, climbing, etc.) and balance patterns (standing, sitting, bending, etc.). Object handling movements consist of propulsive patterns which propel or project an object (pushing, pulling, throwing, kicking, etc.) and absorptive patterns (holding, catching, carrying, etc.).

Facilities and Schedule

The program schedule of the Physical Development Station is indicated below. The program was separated into weekly units with the first

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[1]Godfrey, Barbara B., and Kephart, Newell C., Movement Patterns and Motor Education, 1969, New York: Appleton, Century, Crofts.

and fourth weeks dealing primarily with evaluation and the second and third weeks concentrating on movement pattern development.

First Week: Orientation and initial evaluation.

Monday, Tuesday and Wednesday

1. Get acquainted with each child and orient the children to the room and its equipment.

2. Introduce children to primary gym equipment and simple activities:

Mat activities
Wall ladder
Floor balance beam
"Educator" equipment:
A basic fold-away unit including trapeze bar, rings, vertical and horizontal ladders, hanging rope, and fireman's pole.

3. Initial basic skills testing:

Developmental Physical Skills Record
Movement Pattern Inventory Checklist

Thursday and Friday

1. Introduce children to a larger room and additional equipment; add space, distance and height to the environment.

Expanse of unobstructed floor
Large area of mat-surfaced floor
Thick-cushioned landing mat
Tumbling table, padded
Mini-trampoline
Parallel bars
Gym scooters
Cage ball (3')
Giant ropes
Giant rings

Second Week: Development and improvement of locomotion and balance patterns.

Monday, Tuesday and Wednesday

1. Improve and develop locomotion patterns:

Rolling	Climbing
Crawling	Jumping
Walking	Hopping

Thursday and Friday

1. Improve and develop balance patterns:

Sitting: on hands and knees
on knees

Standing: with support
without support

Balance on beam: with support
without support

Third Week: Improve and develop absorptive and propulsive movement patterns.

Monday, Tuesday and Wednesday

1. Improve absorptive movement patterns and object handling:

Holding
Catching
Carrying

Thursday and Friday

1. Introduce propulsive movement patterns:

Pushing	Kicking
Pulling	Lifting
Throwing	

2. Main gym floor made available to the most active children for running, ball throwing, etc.

Fourth Week: Review, retest and evaluate.

1. Review the four basic movement pattern categories.
2. Retest: Developmental Physical Skills Record

   Update: Movement Pattern Inventory Checklist

The facilities of the John F. Kennedy Physical Education Building were used for the Physical Development Station. The areas utilized within this building included the primary gym, tumbling room, and the main gym. The activities of the first week were limited to the primary gym where the children were introduced to mat activities, ladder climbing, balancing and walking on the floor balance beam, and swinging on the trapeze bar, rings and hanging rope. After the children became comfortable and confident in the primary gym, activities were extended to the large tumbling room. In the tumbling room, children were introduced to jumping and landing equipment, landing mats, tunnel tubes, giant balls for crawling, rolling, and sliding, and a large variety of object-handling equipment. For those children who could enjoy it, the large gym was used for running, throwing and exploration. Appendix 12 is a complete list of equipment available for station activities.

Since maintenance costs prevented the use of the swimming pool facilities in the J.F.K. Building, arrangements were made with the Vancouver Parks and Recreation Department for use of their pool facilities. Four or five children were taken on three days a week to the pool and introduced to basic swimming skills.

Although all the activities of the Physical Development Station

were indoors, the belief was maintained that fresh air and the exhilaration of active outdoor play should be a daily experience for the preschool deaf-blind child. Therefore, the program afforded the children ample opportunity for daily outside exploration and exercise. The primary cottage and the learning stations were housed in three separate buildings and travel between the stations required a considerable amount of outdoor walking experience. Furthermore, the children were often outside during their supervised free time after class periods and on weekends. Outdoor facilities consisted of large enclosed grass-covered playgrounds containing swing sets, plastic swimming pools, tricycles, wagons and other play equipment. Outdoor life was extended beyond the playgrounds by staff members who accompanied children on campus-wide excursions.

Procedures and Techniques

Learning--motor learning in particular-- is hierarchical and resultant from a child's interaction with his environment. Deaf-blind children do not typically interact to a substantial extent with their environment and thus frequently exhibit atypical learning histories. The procedures and techniques of the Physical Development Station reflect attempts to fill the disrupted learning histories and therefore differ somewhat from procedures of physical education for the non-handicapped.

The children differed in maturation level, degree of coordination, physical fitness and competence in the various movement patterns. It was necessary, of course, to adapt the schedule of activities and the educational approach to the individual child. Generally, the movement patterns

were introduced and developed with the utilization of the following techniques:

Rapport Development. The first few days of classes are traditionally "getting-acquainted experiences" and present the opportunity to establish positive relationships. With the preschool deaf-blind child the acquaintance experience was necessarily a very direct and personal identification, accomplished by demonstrative overtures such as lifting, bouncing, and playing with the child while on hands and knees. This initial and all subsequent contacts by the teacher were sensitive to the child's temperament in order to build trust, confidence, cooperation and interest. The teacher was not deterred by a child's crying if the child were simply unhappy at being disturbed. If the child were sobbing from genuine fear, he was soothed and reassured. Violent anger was allowed to run its course, followed by completion of the activity initiated by the teacher.

Activity Introduction. Activities were introduced with gentle firmness and the teacher conveyed the attitude that he expected the child to complete the task. Whenever an activity was given a serious attempt by the child, approval was given with a pat, hug, verbal reward, or the clapping of the child's hands. When an effort by the child was unsuccessful, the activity was repeated several times. Abrupt, jerky or hesitant movements which could create fear, hostility or resistance were avoided. Rough-and-tumble play was initiated in a gentle manner which attempted to instill trust and cooperation.

Skill Progression. The physical education program was structured so that each child could learn what to expect and how to cooperate. Initial skills were selected for introduction to each child on the basis of his level of competence, thus fostering a sense of success and accomplishment. Thereafter a progression of skills with increasing difficulty was developed to encourage growth and achievement. Before new skills were introduced, the activities of the previous day were always repeated for review. Physical abilities and motor competence advanced in conjunction with self-reliance and a realistic self-concept.

Activity Elicitation. Most preschool deaf-blind children must be manipulated through the basic movement patterns as they are introduced. For example, many of the children were physically moved through the patterns of rolling, sitting, crawling and somersaulting until the repetitive manipulation prepared them to attempt the activities on their own initiative. Youngsters were taught to climb the stall bars or wall ladders by simply assisting them to place a foot on the first rung, lifting their hand to the next highest rung and waiting for them to pull upward with their arms. A push, nudge, or tap on the seat was used to stimulate some children into climbing. The teacher placed his hand over the hands of beginning climbers to ensure support. It was often easier to teach climbing down the latter before teaching climbing up. For example, a hesitant climber when placed higher on the ladder will "instinctively" grip the rungs and secure his feet against the pull of gravity. Usually the child quickly learns to lower himself to the mat in such a procedure, as he is partially supported and reassured by the teacher.

In instances when elicitation by manipulation was unnecessary, activities were more subtly elicited. The mere presentation of equipment often elicited the appropriate activity. Assistance and support were always available to the child.

Continuous Action. If one waited for a deaf-blind child to achieve an interest in physical development, it is probable that very little progress would be noted. Some multiply handicapped children are content to remain immobile for hours if permitted to do so. Immobility was disallowed in the Physical Development Station and the children grew to expect continuous engagement in activity. A few of the children, after becoming familiar with the setting, initiated their own activities when not under the teacher's supervision. It was the responsibility of the teacher's aide to actively engage all children with whom the teacher was not presently working.

Physical Communication. Gestures, modeling and imitation were used by the teacher for those children who had functional vision. Body positioning, light finger tapping and nudging were utilized for other youngsters to communicate the desired movements. For example, when a child learned to hang from a trapeze bar, rings or low chinning bar, the teacher's hands were placed over the child's hands to secure the grip. The child remained in the position for the count of five to ten seconds, with the count indicated by a slight rhythmical pressure of the instructor's hands. A light, downward pull on the child's hands indicated to him that he was to release his grip. Hand contact followed throughout the drop, indicating

the teacher's presence to the child. Such forms of communication were employed in the process of developing all fundamental movement patterns.

Evaluation Devices. Two measures of description were used during the Physical Development program. A Developmental Physical Skills Record (Appendix 8) was completed on each child during the first week and again during the fourth. Differences between the two assessments indicated change. Descriptions of development of basic movement patterns were kept during the second and third weeks; the Movement Pattern Inventory Checklist (Appendix 9) noted the progress of each child.

SOCIAL SKILLS

Objectives

The repertoire of positive social behaviors of deaf-blind children is often seriously deficient. The limitations in social awareness and social responsiveness frequently interfere with a satisfactory adjustment to persons in the child's life. If the child is not given an opportunity to become highly aware of people and benefit from interpersonal relationships, he will be condemned to a constricted and lonely existence. Therefore, the general goals of the Social Skills Station were the expansion of the children's social world through increased awareness of adults and other children, the attainment of pleasure from social experiences, the development of "social curiosity", the enhancement of rudimentary communication abilities, and the creation of appropriate play habits.

The lack of social awareness is a problem basically created by the sensory impairments. Completely, or at least substantially unable to

hear and see other people, the deaf-blind child is only minimally aware of human stimulation. The problem is compounded by the child's inability to naturally imitate and learn interpersonal behaviors. The awareness and response deficits may be filled only by training the child to use his remaining sensory capabilities to receive human stimulation and by engaging the child in various interpersonal behaviors.

If a child is aware of people and responds appropriately to them, he is not necessarily socially complete. Hopefully the child will actively seek children and adults and gain satisfaction from the interactions. The goal of "social curiosity" (or the initiation of interactions) is thus an extension of social awareness and responsiveness. A desire to learn about his social environment can be instilled in the multiply handicapped child if he is "successful" in his interactions with other people and gains self-confidence from them.

Communication--both verbal and nonverbal--assumes a large role in social interactions. The Social Skills Station augmented the procedures of the Communication Skills Station by advancing the use of gestures and other communication modalities when they were appropriate to the interaction.

The Social Skills Scale (Appendix 10) contains items dealing with the major target behaviors of this station.

Procedures and Material

Among the classroom and playground materials used in the Social

Skills Station were:

wagons	wading pool
building blocks	swing set
Tinker Toys	cardboard boxes (various sizes)
spinning tops	sandbox
animal jigsaw puzzle	scooter boards
crayons and paper	plastic beads and rings
balls	curio cans
skates	adult clothing (dresses, hats, etc.)
dolls	peg boards
doll carriages	form boards
doll houses	small, interlocking bricks
spring boards	large cardboard tubes
marble games	plus other educational and friction toys

The major procedure utilized to encourage social interaction involved various play activities. In general, the teacher first individually played with each child, emphasizing cooperation and imitation by the children. Those who could successfully imitate were thereafter able to initiate their own play activities, explore the environment and frequently demonstrate creative play skills. Finally, the children were involved in group activities, first to promote tolerance and acceptance of the presence of other children, and then to develop cooperative peer interactions.

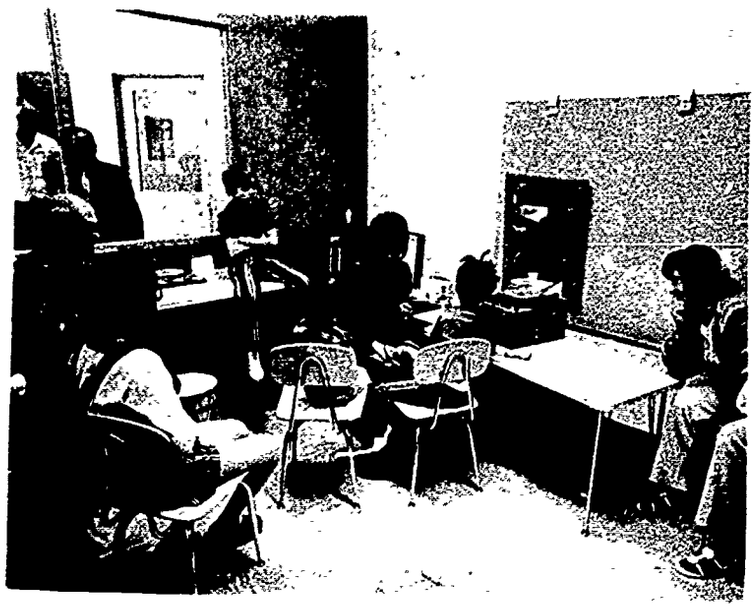
Each child's degree of social maturity dictated those procedures to be utilized. For children who were highly withdrawn, the first step in instilling desires to socially interact consisted of promoting an awareness of the teacher. By engaging the children in lap play, bouncing and swinging activities, and such games as patty-cake, the teacher found ways in which she could kinesthetically and tactually stimulate each child in a manner enjoyable to him. The teacher became perceived as a person with whom physical contact was pleasurable.

The second phase in the child-teacher relationship was the introduction of games and activities which the children could imitate. The children who could not imitate were led through the motions of the gross and fine motor skills, and they were informally reinforced as they began to imitate without assistance. They were encouraged to investigate their indoor and outdoor environments and to play independently with objects which interested them. Several of the youngsters learned to enjoy representational play such as dressing in adult clothing.

The children were very frequently involved in group activities. It was intended that each child first become aware of other children through such experiences as "tea parties", playing together in the sandbox, and sliding with another child down the long tube. Later games, including clinging to the child in front while on a scooter board train, required cooperation among the children. The pleasure derived by some of the children helped them learn to interact.

The majority of the children had a low level of communication which was infrequently used. It consisted mainly of non-specific whining and fussing as a means of indicating wants and dislikes. Some of the children pushed and pulled adults to indicate desires; very few of the children emitted meaningful vocalizations or used appropriate gestures and signs. The Social Skills teacher emphasized the use of natural gestures, verbal communications and meaningful body contacts in conjunction with all interactions with the children. It was hoped that the teacher's consistent use of different types of communication would allow the children to further

develop their receptive skills utilizing their residual sight and hearing and other sense modalities. A multi-faceted receptive system made the children more capable of complying with suggestions, directions and commands, and therefore represented progress in education--and training--readiness.

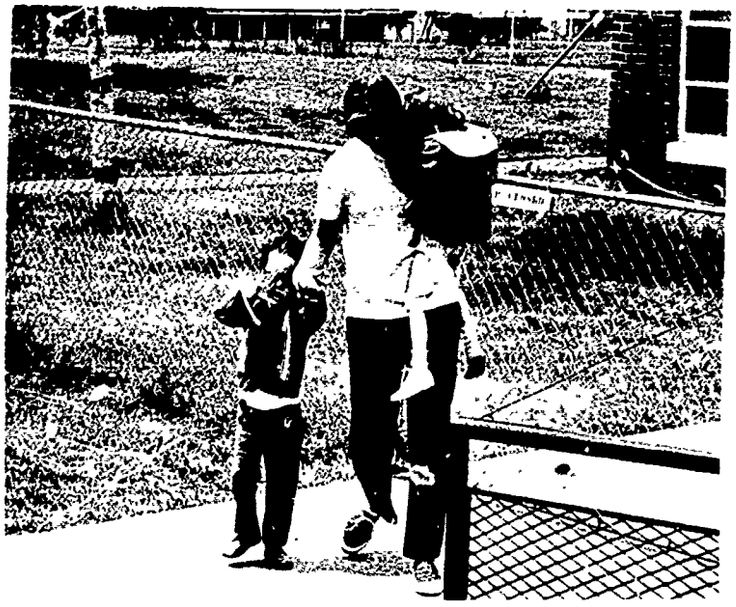


COMMUNICATION SKILLS

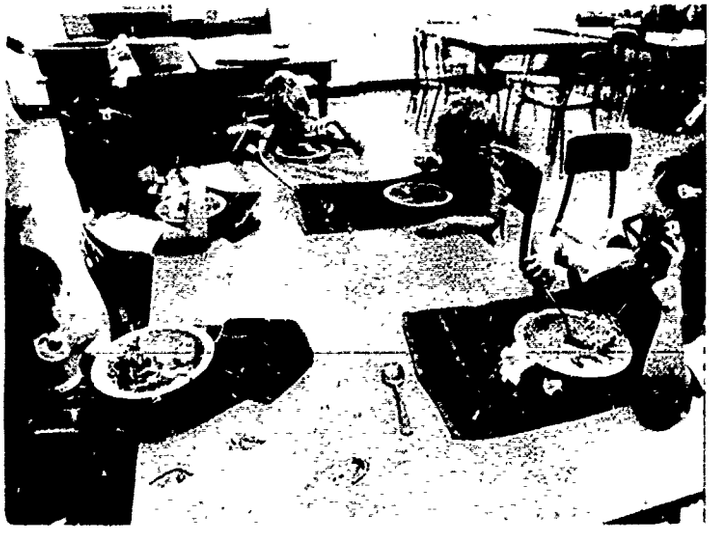
EXPERIENCE TRAINING SKILLS

SELF-HELP SKILLS

PHYSICAL DEVELOPMENT SKILLS



SOCIAL SKILLS



CHAPTER VIII

THE RESIDENTIAL STATION

The function of the residential station was to provide a warm social setting in which the needs of the children could be most responsibly satisfied and the techniques and skills of the learning stations could be applied to everyday living situations. The physical setting of the residential station was a primary cottage which contained four-children bedrooms, a kitchen and dining room, an infirmary and nurse's station, two gaily decorated playrooms, a laundry and an office. The primary cottage was surrounded by a large fence-enclosed lawn upon which were swing sets, a sandbox, wagons, tricycles and other play and exercise toys for children.

Three daily shifts of houseparents were primarily responsible for the residential station functioning. In addition to the houseparents, the aides, teachers, nurses and food service personnel were periodically on duty in the primary cottage. A typical schoolday schedule indicating staff members' duties in the primary cottage is presented below:

Time	Cottage Activities	Staff Members*
6:00 - 7:00 a.m.	arise, toilet, dress	H, A
7:00 - 8:00 a.m.	breakfast, cleanup	H, A, T, FSP
12:00 - 1:00 p.m.	toilet, lunch	H, A, T, FSP
1:00 - 1:30 p.m.	cleanup, playtime	H, A
3:30 - 5:00 p.m.	toilet, snacks, playtime	H, A
5:00 - 6:00 p.m.	dinner	H, A, FSP
6:00 - 8:00 p.m.	playtime, bathe, toilet	H, A

(*) H, houseparents; A, aides; T, teachers; FSP, food service personnel.

During playtime the children were able to engage in supervised play in the playrooms or out-of-doors, or they could relax or nap. An attempt was made to keep all children who were not tired, active and busy. It was found that when the children were highly stimulated and given little idle time, they quickly adjusted--psychologically and physically--to the routines of the residential station.

The houseparents and aides were of paramount value in creating a warm, consistent atmosphere in the primary station. They cuddled, prompted, assisted and demanded in accordance with the needs and capabilities of the individual children. It was largely the concern and understanding of these persons who constructed a secure environment within which the children could adjust and develop.

The interaction between the teachers, aides and houseparents was largely informal although the staff conferences, to a minor degree, served to communicate the methods of the various learning stations. As a result of the teachers' interactions with the houseparents and aides, the primary station became a setting in which the learning station techniques could be emphasized in daily use with the children. Furthermore, the teachers gained insight into successful methods of the houseparents and aides and were thus able to utilize them in the classroom.

Medical services were provided by a staff of nurses and physicians. The nurses were regularly on duty in the cottage (e.g., during medication time) and were otherwise present when necessary. When illness occurred or consultation was indicated, physicians' services were readily available.

CHAPTER IX

MEDICAL DIAGNOSIS AND EVALUATIVE SERVICES

An important aspect of locating and identifying children for the Summer Sessions is the Medical Diagnosis and Evaluation. Family physicians and clinics in the local communities were encouraged to do the initial diagnosis of children being considered for enrollment in the Summer Sessions.

The Crippled Children's Division at the University of Oregon Medical School in Portland, which is located across the river from Vancouver, provided the comprehensive evaluations for these same children. Evaluations included the services of the already established clinics for:

(a) Rubella Syndrome
(b) Congenital Heart Disease
(c) Cerebral Palsy
(d) Neurology
(e) Mental Retardation (University-Affiliated Center)

The individual clinical services available for the children included those of a pediatrician, audiologist, speech pathologist, psychologist, social work consultant, nursing consultant (child development specialist), public health nurse, cardiologist, orthopedist, neurologist, education consultant, occupational therapist, physical therapist, dentist, and ophthalmological consultation.

Arrangements for the Crippled Children's Division to evaluate deaf-blind children in the Northwest area were made as early as 1969, when the program began, and has increased the effectiveness of the Northwest Regional Program for Deaf-Blind by backing up the diagnostic-clinical

recommendations by psychologists, public health nurses, speech therapists, nutritionists, and educators. It also helped to consolidate the services of their own clinic, the Children's Eye Clinic, the University-Affiliated Center for Mental Retardation, Fairview Hospital and Training Center and the Northwest Regional Program for Deaf-Blind. By demonstrating to students of a number of professional disciplines the needs of and the therapy for multiply handicapped children and by acting as a stimulus for student recruitment by demonstration of exemplary service for the multiply handicapped.

The summer sessions gave Crippled Children's Division the opportunity for systematically collecting meaningful data which has stimulated research activities in medicine, education and allied health fields. This agency continues to provide diagnostic, ongoing evaluative and habilitative services for handicapped children in the Northwest region who are ineligible for services through the facilities already mentioned.

The University-Affiliated Center for Mental Retardation which opened in October, 1970, was utilized for services to deaf-blind the second summer. This facility includes Audiology Suites, Outpatient Clinic, Occupational Therapy Unit, Physical Therapy Unit, and now houses one of the classrooms for preschool deaf-blind children.

Children referred for additional supplementary diagnosis and were not scheduled to be periodically evaluated in the Crippled Children's Division, Rubella Clinic, were referred to the Congenital Heart, Orthopedic, Cerebral Palsy, and Neurology Clinics.

Additional resources on the University of Oregon Medical School campus utilized include the Children's Eye Clinic, Portland Center for Hearing and Speech, Doernbecker Hospital for Children, a laboratory for routine and evoked potential E.E.G., and clinical pathology labora ories. The Oregon State Board of Health Laboratory was prepared to provide viral and serologic studies if and when necessary.

An important facet of the Rubella Clinic is the multi-discipline approach to evaluation. The team coordinates the medical and non-medical habilitative services for the multiply handicapped child. The team facilitated all recommendations by providing adequate social services for the deaf-blind child, his home, his school, and his community.

CHAPTER X

RECOMMENDATIONS

The present report is the result of our initial attempt to objectively describe the summer programs conducted by the Northwest Regional Center for Deaf-Blind Children. When, in retrospect, the objectives of the programs are compared to their actual functioning and outcomes, the proposal of several recommendations for a better achievement of the goals is in order. The basic orientation and philosophy of the program, along with its key concepts of the station, inter-station cooperation, grouping, individuality and scheduling, demonstrated much functional utility and shou d be retained for exhaustive research in future educational and evaluative program.. The recommendations deal with extensions of the program operation and with improvements in the techniques of describing and assessing programs of this nature.

Parental Involvements

The parents must be given a greater role in the evaluative process concerning their children. More information dealing with the children's capabilities, impairments and levels of functioning may be obtained prior to and following summer school. Inputs received from the parents before school would indicate to the teachers and other personnel the abilities of the children upon which continued training and education should build, and specific areas in which deficits exist. With this knowledge realistic goals could be created and proper demands could be placed upon the children

at the beginning of summer school. Other information leading to a complete understanding of the child includes the physical and social milieu from which the child comes, and his educational and medical histories.

After the children have readjusted to their home environments following summer school, the parents should be asked to describe all changes--favorable and unfavorable--in their children's behavior. Progress in the children which occurs during their stay in school does not necessarily generalize to all other settings. Parents' indications of such changes would point out those behaviors that are stable and lasting. Knowledge of long-term changes would better prepare the staff to make evaluations and recommendations both for the children and the program.

This information should take an objective format and may be obtained by either personal interview or questionnaire. Interviews, although more costly and time consuming, are suggested because they would help to create a more informal and personal relationship between the parents and the school, and they would probably yield more information.

Staff Orientation

Some of the houseparents and aides had had no experience with multiply handicapped children prior to their summer school positions. The inexperienced personnel were flexible in their approaches to the children and added a great deal to the programs in terms of fresh insight, new ideas and an openness to learn from the children. Perhaps, however, they could have been more prepared by a one or two-day orientation with an educational emphasis. An informal workshop could be conducted with the goals of

familiarization with knowledge of deaf-blind children and an introduction to possible training and care skills, such as rudimentary behavior modification techniques and methods of care and use of hearing aids.

Inter-station communication could begin at this time with each teacher and the houseparents presenting the planned goals for their various stations. Cooperation could be elicited by indicating those techniques and procedures from one station which could be reinforced by occasional use in the other stations. Combined, concerted efforts beginning at the time of the children's arrival on campus would lead to early adjustments by the children and, potentially, more rapid progress.

It must be emphasized that the desired outcome of the staff orientation is not a rigid adherence to certain well-worn and supposedly proven concepts of educating and caring for multiply handicapped children. What is desired is that an acquaintance with all possible principles and ideas, plus the understanding that no techniques or approaches will be forced upon the staff, will lead to inventiveness and progress. The attitude must exist that creativity is more than merely acceptable, it is desired. Such an attitude will not only help newcomers but it will also free the experienced from constricted latitudes of service to the deaf-blind.

Inter-Station Cooperation

Although the cooperation among the stations in the 1970 and 1971 Summer Schools was extensive, there are one or two ways in which it could be improved. The communication among the teachers and aides was quite satisfactory but the houseparents were not thoroughly aware of the other station s

functions and procedures. The staff orientation could serve to generally communicate the learning stations' goals and methods, but follow-up communications dealing with the procedures used with each particular child are necessary. By having more frequent total staff conferences and by having houseparents periodically visit or serve as aides in each learning station, the houseparents could more readily utilize the methods of the learning stations in the residential station.

The curricula of the various stations could be more closely aligned. As previously mentioned, Communication Skills and Experience Training Stations may coordinate their procedures in order that sensory stimuli and appropriate language are made more meaningful by a simultaneous presentation. Other avenues of multi-station procedures should be investigated. The station concept has been shown to be workable and effective, and the independence of the stations must be retained although they may reinforce and assist one another in their methodologies.

Children Evaluations

The assessment devices constructed this summer will be revised and used at the beginning and end of next year's summer school. The checklists will be further developed as scaling techniques. The initial scaling will indicate a child's current level of functioning and state the immediate, specific goals for him. When the initial scaling is compared to the final scaling, changes in behavior will be objectively explicit.

Program Description and Assessment

In line with the need to evaluate programs of service to deaf-blind children is the plan to rigorously describe the 1972 Summer Program. The present description was basically organized and conducted by a third party and therefore achieved a degree of objectivity. The 1972 program will be objectively described to the extent that it may be entirely replicated and statistically analyzed.

The description may take one of several formats. Each station, for example, could be described with a functional analytic approach. Functional analysis describes by indicating the behavioral and emotional interactions between two or more people. By indicating interactions one may determine behaviors (e.g., of a teacher) which consistently cause other behaviors (e.g., of a child). Such an analysis will not only describe stations' techniques on a minute behavioral level but also determine those methods which successfully relate to children and help them develop.

Curriculum Development

A significant product of the summer program will be the development of a basic curriculum for use in education and associated services to multiply handicapped children. The summer schools may be considered as prototype programs in which many new concepts are implemented, carefully observed and assessed. When viewed in this context the prototype programs yield a partially tested curriculum amenable to description and dissemination for purposes of field testing in local deaf-blind units and other agencies performing similar functions.

It is planned that in future months the curriculum of the 1971 Summer School will be more thoroughly refined and reported for possible adoption and testing. The report will include organizational and operational procedures suggested for the 1972 Summer School and other programs in service to multiply handicapped children.

APPENDICES

APPENDIX 1

WEEKLY SCHOOL SCHEDULE

STATION:	1	2	3	4	5	6	7
1st DAY							
1st HOUR	X	Red	Blue	Green	Yellow	Orange	X
2nd HOUR	X	Blue	Green	Yellow	Orange	Red	X
3rd HOUR	X	Green	Yellow	Orange	Red	Blue	X
4th HOUR	X	Yellow	Orange	Red	Blue	Green	X
5th HOUR	X	Orange	Red	Blue	Green	Yellow	X
6th HOUR	X	Red	Blue	Green	Yellow	Orange	X
2nd DAY							
1st HOUR	X	Blue	Green	Yellow	Orange	Red	X
2nd HOUR	X	Green	Yellow	Orange	Red	Blue	X
3rd HOUR	X	Yellow	Orange	Red	Blue	Green	X
4th HOUR	X	Orange	Red	Blue	Green	Yellow	X
5th HOUR	X	Red	Blue	Green	Yellow	Orange	X
6th HOUR	X	Blue	Green	Yellow	Orange	Red	X
3rd DAY							
1st HOUR	X	Green	Yellow	Orange	Red	Blue	X
2nd HOUR	X	Yellow	Orange	Red	Blue	Green	X
3rd HOUR	X	Orange	Red	Blue	Green	Yellow	X
4th HOUR	X	Red	Blue	Green	Yellow	Orange	X
5th HOUR	X	Blue	Green	Yellow	Orange	Red	X
6th HOUR	X	Green	Yellow	Orange	Red	Blue	X
4th DAY							
1st HOUR	X	Yellow	Orange	Red	Blue	Green	X
2nd HOUR	X	Orange	Red	Blue	Green	Yellow	X
3rd HOUR	X	Red	Blue	Green	Yellow	Orange	X
4th HOUR	X	Blue	Green	Yellow	Orange	Red	X
5th HOUR	X	Green	Yellow	Orange	Red	Blue	X
6th HOUR	X	Yellow	Orange	Red	Blue	Green	X
5th DAY							
1st HOUR	X	Orange	Red	Blue	Green	Yellow	X
2nd HOUR	X	Red	Blue	Green	Yellow	Orange	X
3rd HOUR	X	Blue	Green	Yellow	Orange	Red	X
4th HOUR	X	Green	Yellow	Orange	Red	Blue	X
5th HOUR	X	Yellow	Orange	Red	Blue	Green	X
6th HOUR	X	Orange	Red	Blue	Green	Yellow	X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APPENDIX 2

NORTHWEST REGIONAL CENTER FOR DEAF-BLIND CHILDREN

Revised Vineland Social Maturity Scale

Child_____

Observer_____

Date_____

Below are many behaviors of children listed in the order in which they generally develop. After interaction with and observation of each child, place a check in the space in front of each behavior which the child has demonstrated.

Age Levels
0 - I

..... 1. "Crows"; laughs
..... 2. Balances head
..... 3. Grasps object within reach
..... 4. Reaches for familiar persons
..... 5. Rolls over
..... 6. Reaches for nearby objects
..... 7. Occupies self unattended
..... 8. Sits unsupported
..... 9. Pulls self upright
..... 10. "Talks"; imitates sounds
..... 11. Drinks from cup or glass assisted
..... 12. Moves about on floor
..... 13. Grasps with thumb and finger
..... 14. Demands personal attention
..... 15. Stands alone
..... 16. Does not drool
..... 17. Follows simple instructions

I - II

..... 18. Walks about room unattended
..... 19. Marks with pencil or crayon
..... 20. Masticates food
..... 21. Transfers objects
..... 22. Overcomes simple obstacles
..... 23. Fetches or carries familiar objects
..... 24. Drinks from cup or glass unassisted
..... 25. Plays with other children
..... 26. Eats with spoon
..... 27. Goes about house or yard
..... 28. Uses names of familiar objects
..... 29. Walks upstairs unassisted
..... 30. Unwraps candy
..... 31. Talks in short sentences

II - III

..... 32. Asks to go to toilet
..... 33. Initiates own play activities
..... 34. Removes coat or dress
..... 35. Gets drink unassisted
..... 36. Dries own hands
..... 37. Avoids simple hazards
..... 38. Puts on coat or dress unassisted
..... 39. Cuts with scissors
..... 40. Relates experiences

III - IV

..... 41. Walks downstairs one step per tread
..... 42. Plays cooperatively at kindergarten level
..... 43. Buttons coat or dress
..... 44. Helps at little household tasks
..... 45. "Performs" for others
..... 46. Washes hands unaided

IV - V

..... 47. Cares for self at toilet
..... 48. Uses pencil or crayon for drawing
..... 49. Plays competitive exercise games

V - VI

..... 50. Uses skates, sled, wagon
..... 51. Prints simple words
..... 52. Plays simple table games

COMMENTS

APPENDIX 3

NORTHWEST REGIONAL CENTER FOR DEAF-BLIND CHILDREN

Teachers' Daily Record Form

Teacher_____

Station_____

Date_____

Below are the names of all children enrolled in our summer program. Space is provided for recording each child's behavior during your class period. Special emphasis should be placed on behavior relevant to the goals of your station; for example, a child's specific reaction to one of your teaching methods may be noted. New or important behaviors not related to the objectives of your station should also be indicated.

(CHILDREN LISTED ALPHABETICALLY)

APPENDIX 4

NORTHWEST REGIONAL CENTER FOR DEAF-BLIND CHILDREN

Communication Skills Scale

Child_____

Observer_____

Date_____

I. ORAL EXAMINATION

1. LIPS:	O.K.	_____
	cleft	_____
	repaired	_____
2. TEETH:	O.K.	_____
	malformed	_____
	missing	_____
	false	_____
3. JAW:	O.K.	_____
	overbite	_____
	underbite	_____
	openbite	_____
4. TONGUE:	O.K.	_____
	short frenum	_____
	large	_____
	small	_____
	paralyzed	_____
5. PALATE:	O.K.	_____
	high	_____
	narrow	_____
	cleft	_____
	repaired	_____
	hard palate	_____
	soft palate	_____
6. LARYNX:	O.K.	_____
	vocal folds paralyzed	_____
	vocal folds infected	_____
	vocal folds - growth	_____
7. NASAL CAVITY:	O.K.	_____
	occluded	_____

II. COORDINATION

	Good	Fair	Poor
Lips	____	____	____
Tongue	____	____	____
Jaw	____	____	____
Breath	____	____	____
General	____	____	____

III. LANGUAGE

1. Vocalizations
   - a. ____ appropriate
   - b. ____ inappropriate or random
   - c. ____ vocalizes under stress
   - d. ____ vocalizes to exclude external stimuli
   - e. ____ has favorite vocalization
   - f. ____ other (specify):

2. ____ responds with appropriate gestures
3. ____ comprehends "bye bye"
4. ____ waves "bye bye"
5. ____ comprehends "no"
6. ____ comprehends "yes"
7. ____ inhibited on command "no"
8. ____ imitates tones sung by adult: "La La", etc.
9. ____ imitates initial sounds of words: [p,b,m]
10. ____ imitates nonsense sounds or animal sounds
11. ____ relates symbol to object (name to object)
12. ____ reacts to comments such as "Let's go", "good", or "oh oh".
    Specify others:
13. ____ responds to "give me that", "sit down", "stand up".
    Specify others:
14. ____ gestures to body parts: hair, eyes, nose, etc.
15. ____ understands simple questions such as "Do you want a drink?"
16. ____ understands concepts of words such as "in", "beside", "under".
    Specify others:
17. Responds to commands using:
    - a. ____ up
    - b. ____ down
    - c. ____ over there
    - d. ____ beside
    - e. ____ run
    - f. ____ jump
    - g. ____ throw
    - h. ____ run fast
    - i. ____ climb on the chair
    - j. ____ jump off the chair
    - k. ____ throw the ball
    - l. ____ others (specify):

18. Responds to questions:
    a. _____ What do we cook on?
    b. _____ What do we sleep on?
    c. _____ What do we sit on or in?
    d. _____ What do you do when you are hungry?
    e. _____ What do you do when you are thirsty?
    f. _____ What do you do when you are sleepy?

IV. VOICE

1. Pitch
    a. _____ high pitch only
    b. _____ low pitch only
    c. _____ breathiness
    d. _____ hoarseness
    e. _____ hypernasality
    f. _____ hyponasality
    g. _____ normal range
    h. _____ pitch variation
    i. _____ other (specify):

2. Intensity
    a. _____ normal
    b. _____ too loud
    c. _____ too soft
    d. _____ other (specify):

V. COMMUNICATION BEHAVIORS (GENERAL)

1. Hearing Aid Acceptance
    a. _____ Does not have a hearing aid.
    b. _____ Does not accept hearing aid.
    c. _____ Seldom accepts.
    d. _____ Frequently accepts.
    e. _____ Usually or always accepts.

2. Attention Span: Communication Training
    a. _____ Does not attend to training activities.
    b. _____ Attends activity very briefly.
    c. _____ Attends activity for up to one minute.
    d. _____ Attends activity for up to three minutes.
    e. _____ Attends entire activity.

3. Cooperation With Teacher
    a. _____ Does not cooperate.
    b. _____ Seldom cooperates.
    c. _____ Frequently cooperates
    d. _____ Usually or always cooperates.

VI. SPEECH PREPARATION

1. Breath Control
    a. _____ mouth breathing, uses upper thorax.
    b. _____ mouth breathing, uses diaphragm.
    c. _____ nose and mouth breathing.

2. Blowing
   a. ____ No blowing.
   b. ____ Lip rounding, no blowing.
   c. ____ Lip rounding, slight blowing.
   d. ____ No lip rounding, exhalation of air.
   e. ____ Lip rounding, adequate blowing.
   f. ____ Plosive [p]
   g. ____ Voiced plosive [b]

3. Imitation: Gross Motor Activities
   a. ____ Does not imitate.
   b. ____ Imitates with assistance.
   c. ____ Occasionally imitates without assistance.
   d. ____ Frequently imitates without assistance.
   e. ____ Usually or always imitates without assistance.

4. Imitation: Fine Motor Activities
   a. ____ Does not imitate.
   b. ____ Imitates with assistance.
   c. ____ Occasionally imitates without assistance.
   d. ____ Frequently imitates without assistance.
   e. ____ Usually or always imitates without assistance.

5. Response to Tadoma
   a. ____ Rejection of hand placement to clinician's face.
   b. ____ Rejection of hand placement to child's face.
   c. ____ Acceptance to clinician's face, rejection to child's face.
   d. ____ Rejection to clinician's face, acceptance to child's face.
   e. ____ Acceptance to both.
   f. ____ Hand placement to clinician's face without prompting.
   g. ____ Initiates own hand placement.
   h. ____ Vocalizes with hand placement.

6. Conditioning to Auditory Trainer (Earphones)
   a. ____ Resistance to headset before being placed on head.
   b. ____ Resistance to headset immediately after it is placed on head.
   c. ____ Accepts headset for only a very brief time.
   d. ____ Accepts headset for up to three minutes.
   e. ____ Accepts headset for up to five minutes.
   f. ____ Complete acceptance of headset.

7. Tongue Mobility

   Directions: Below is a list of tongue movements which may be spontaneously emitted by the child or elicited (e.g., with the aid of a sucker). Place a check in the space before those movements which have been observed.

   a. ____ Use tongue in mastication.
   b. ____ Protrude the tongue.
   c. ____ Point the tip and touch the upper lip.
   d. ____ Point the tip and touch the lower lip.

e. ____ Point the tip and touch the left corner of the mouth.
f. ____ Point the tip and touch the right corner of the mouth.
g. ____ Outward and upward protrusion toward the nose.
h. ____ Rotate the tongue.
i. ____ Raise the tip of the tongue and touch the gum, hard palate and soft palate.
j. ____ Thrust the tip in each cheek.
k. ____ Raise the tip behind the upper teeth.
l. ____ Curl the tip behind the lower teeth.

8. Reactions to Noise Stimuli

Below are lists of emotional and physical reactions observed when children are presented with noise stimuli. Below the lists are a number of standard noise makers. Indicate the order of occurrence of the reactions from first (1) to last.

Emotional Reactions

a. Screaming, crying, "temper tantrum"
b. Loud negative voice reaction, disgust, fear
c. Whimpering, mild fear or disgust
d. Apprehension
e. Apathy
f. Mild pleasure or interest
g. Joy
h. Great interest, excitement, laughing

Physical Reactions

a. Gross bodily withdrawl, escape
b. Negative stereotyped behavior (e.g., eye gouging, head slapping)
c. Cupping hands over ears
d. Facial grimaces, removal of headset
e. No change
f. Smiling, no attempt to imitate
g. Great interest and pleasure, attempt to imitate

Emotional Reactions	drums	bells	horns	music	cymbals	shakers	other (specify)
a.							
b.							
c.							
d.							
e.							
f.							
g.							
h.							

Physical Reactions	drums	bells	horns	music	cymbals	shakers	other (specify)
a.							
b.							
c.							
d.							
e.							
f.							
g.							

APPENDIX 5

NORTHWEST REGIONAL CENTER FOR DEAF-BLIND CHILDREN

Experience Training Scale - Part I

Child_____

Observer_____

Object_____

Date_____

Directions for "Emotional Reactions" and "Body Orientation": If only one response in a category is observed, place a check in front of that reaction. If more than one response occurs, rank order their occurrence from first (1) to last. Write comments when appropriate (e.g., concerning duration and intensity of response).

1. Emotional Reactions

a. ____ screaming, crying, "temper tantrum"
b. ____ loud negative voice reaction, disgust, fear
c. ____ whimpering, mild fear or disgust
d. ____ apprehension
e. ____ apathy
f. ____ mild pleasure or interest
g. ____ joy, smiling, interest
h. ____ great interest, excitement, laughing

2. Body Orientation

a. ____ gross bodily withdrawl, escape
b. ____ withdrawl of hands and arms
c. ____ slight withdrawl of hands
d. ____ no change in orientation
e. ____ slight advancement of hands
f. ____ moderate advancement, leans forward
g. ____ oriented completely toward object, great advancement

3. Sense Modalities Utilized in Investigation

Rank order the modalities from the most used (1) to least used.

a. ____ tactile
b. ____ visual
c. ____ gustatory
d. ____ olfactory
e. ____ auditory

Comments:

APPENDIX 6

NORTHWEST REGIONAL CENTER FOR DEAF-BLIND CHILDREN

Experience Training Scale - Part II

Child_____

Observer_____

Date_____

I. CURIOSITY

1. Objects: Passive or Active Orientation

a. ____ Does not seek object contact, quickly rejects when given.
b. ____ Does not seek object contact, minimally investigates when given.
c. ____ Does not seek object contact, thoroughly investigates when given.
d. ____ Is slightly curious, seeks some object contact.
e. ____ Is very curious, seeks much object contact.

2. Objects: Length of Investigation

a. ____ Quickly rejects and avoids objects.
b. ____ Investigates an object for a few seconds.
c. ____ Investigates an object for up to a minute.
d. ____ Investigates an object thoroughly, over a minute.

3. Modality First Used When Encountering Objects

a. ____ tactile
b. ____ visual
c. ____ gustatory
d. ____ olfactory
e. ____ auditory

4. Modalities of Object Investigation

Rank order the modalities from most (1) to least used during object investigation. Do not number those that are not used.

a. ____ tactile
b. ____ visual
c. ____ gustatory
d. ____ olfactory
e. ____ auditory

5. Exploration of Environment (Room, Yard, etc.)

a. ____ Is not curious about environment; will not explore if prompted.
b. ____ Is slightly curious; explores some if prompted.
c. ____ Is slightly curious; explores some without prompting.
d. ____ Is moderately curious, explores without prompting.
d. ____ Is highly curious; explores much.

II. EMOTIONAL REACTIONS

1. Appropriateness to Situation

a. ____ Emotional reactions almost always appropriate.
b. ____ Reactions often appropriate.
c. ____ Reactions sometimes appropriate.
d. ____ Reactions seldom appropriate.

2. Intensity of Emotional Reactions (Positive and Negative)

a. ____ Usually expresses intense emotional reactions.
b. ____ Frequently expresses intense reactions.
c. ____ Seldom expresses intense reactions.
d. ____ Has never been observed expressing an intense reaction.

3. Range of Emotional Reactions

a. ____ Has a wide range of emotional reactions.
b. ____ Has a moderate range of reactions.
c. ____ Has a narrow range of reactions.

4. Manner of Expression

Expresses emotions with:

a. ____ vocalizations alone.
b. ____ vocalizations and/or facial movements.
c. ____ vocalizations, facial and bodily movements.
d. ____ verbalizations, facial and bodily movements.

5. Perseverance

a. ____ Emotional reactions persevere much longer than the eliciting situation.
b. ____ Reactions tend to persevere.
c. ____ Reactions terminate with the removal of the eliciting situation; change appropriately.
d. ____ Emotional reactions change quickly, irrespective of the eliciting situation.

6. Frequency

Place a "1" in front of the emotional reactions which are most frequently observed and a "2" in front of those which are less frequently seen. Leave blank those which are not observed.

____ Anger	____ Boredom/apathy	Others - specify
____ Rage	____ Joy	____ _____
____ Anxiety/tenseness	____ Pleasure	____ _____
____ Fear	____ Glee	____ _____
____ Sadness	____ Excitement	____ _____
____ Apprehension	____ Satisfaction	____ _____

III. NEGATIVE STEREOTYPED BEHAVIORS

Place a "1" in front of behaviors which are most frequently observed and interfere with or preclude desirable behaviors. Place a "2" in front of those which are less frequently seen. Leave blank those which are not observed.

Motor Behaviors

____ hopping, jumping
____ head banging (on object)
____ head rolling
____ whirling
____ twitching
____ rocking
____ other (specify)

Auditory Behaviors

____ ear pounding
____ head pounding (with hands, small objects)
____ teeth grinding
____ tongue clicking
____ blowing
____ cheek sucking
____ humming
____ repetitive vocalizations (indicate sounds)
____ other (specify)

Visual Behaviors

____ light filtering with fingers
____ light filtering with objects
____ seeking strong light
____ eye gouging
____ other (specify)

Behaviors in Other Modalities
(specify)

APPENDIX 7

NORTHWEST REGIONAL CENTER FOR DEAF-BLIND CHILDREN

Self-Help Skills Scale

Child_____

Observer_____

Date_____

I. TOILETING

1. Use of Potty Chair or Toilet

a. ____ Will not sit on toilet (or potty chair).
b. ____ Will sit on toilet if placed there.
c. ____ Can independently get on and off toilet.

2. Bladder Control

a. ____ Seldom urinates in toilet when placed upon it regularly. Has many accidents.
b. ____ Frequently urinates in toilet when placed upon it regularly. Has some accidents.
c. ____ Usually urinates in toilet when placed upon it regularly. Has few accidents.
d. ____ Can indicate toileting need but occasionally has an accident.
e. ____ Can indicate toileting need and seldom has an accident.

3. Bowel Control

a. ____ Seldom has BMs in toilet when placed upon it regularly. Has many accidents.
b. ____ Frequently has BMs in toilet when placed upon it regularly. Has some accidents.
c. ____ Usually has BMs in toilet when placed upon it regularly. Has few accidents.
d. ____ Can indicate toileting need but occasionally has an accident.
e. ____ Can indicate toileting need and seldom has an accident.

4. Accident Indication

a. ____ Does not indicate wet or soiled clothing.
b. ____ Indicates wet or soiled clothing by whimpering or crying.
c. ____ Indicates wet or soiled clothing by gesturing or verbalizing.
d. ____ Has no accidents.

II. EATING

1. Finger Foods (cookies, crackers, dry cereal, etc.)

a. ____ Does not handle finger foods.
b. ____ Puts finger food to mouth and sucks or tongues.
c. ____ Holds and munches on finger foods.
d. ____ Will independently hand feed a variety of finger foods.

2. Food Textures

a. ____ Bottle fed.
b. ____ Accepts only baby foods.
c. ____ Accepts junior foods.
d. ____ Accepts mashed and ground foods; has not developed chewing movements.
e. ____ Accepts and swallows lumpy foods.
f. ____ Accepts and somewhat chews or tongues lumpy foods.
g. ____ Accepts and chews lumpy foods.
h. ____ Accepts and tongues or sucks bite-sized pieces of solid food.
i. ____ Accepts and chews bite-sized pieces of solid food.

3. Eating Utensils

a. ____ Does not use utensils.
b. ____ Helps hold a spoon.
c. ____ Holds a spoon independently.
d. ____ Runs spoon across plate.
e. ____ Uses spoon; spills, dips, feeds self part of meal.
f. ____ Uses spoon with some spilling.
g. ____ Uses spoon well.
h. ____ Uses fork to pierce pieces of food.

4. Drinking from Glass (or cup)

a. ____ Does not drink from glass.
b. ____ Sips some from glass held by adult; spills some.
c. ____ Drinks well from glass held by adult.
d. ____ Helps to hold glass.
e. ____ Can hold glass for drinking; does not set down well.
f. ____ Picks up and sets down glass well, without much spilling.

5. Cooperation in Feeding (Irregardless of Feeding Capabilities)

a. ____ Likes no foods; does not cooperate in feeding.
b. ____ Will cooperate when fed one or a few favorite foods (e.g., applesauce, peanut butter).
c. ____ Will cooperate in eating most foods when combined with a favorite food.
d. ____ Will cooperate in eating nearly all foods.

6. Indication of Hunger and Thirst

a. ____ Cannot indicate hunger or thirst.
b. ____ Indicates hunger or thirst by vocalization.
c. ____ Indicates hunger or thirst by gesture or verbalization.
d. ____ Attempts to serve self at drinking fountain, faucet, refrigerator, or cupboard, etc.

III. DRESSING AND UNDRESSING

1. Dressing

a. ____ Does not assist in dressing.
b. ____ Extends arms and legs when being dressed.
c. ____ Helps to pull on clothes.
d. ____ Puts on coat or simple garment with some assistance.
e. ____ Puts on coat or simple garment without assistance.
f. ____ Dresses self except for fastening or zipping.
g. ____ Dresses self including simple fastening and zipping.

2. Undressing

a. ____ Does not assist in undressing.
b. ____ Extends arms and legs when being undressed.
c. ____ Helps to take off clothes.
d. ____ Takes off coat or simple garment with some assistance.
e. ____ Takes off coat or simple garment without assistance.
f. ____ Undresses self except for unfastening.
g. ____ Undresses self including simple unfastening.

3. Putting on Shoes

a. ____ Does not aid putting on shoes.
b. ____ Aids by keeping feet in proper position.
c. ____ Aids by pushing feet into shoes.
d. ____ Aids by attempting to pull shoes on.
e. ____ Puts on shoes with little assistance.
f. ____ Puts on shoes, attempts to fasten or tie.
g. ____ Independently puts on shoes and fastens or ties.

IV. WASHING

a. ____ Does not aid washing hands
b. ____ Places hands in water.
c. ____ Makes lathering motions if aided or prompted.
d. ____ Aids in the use of wash cloth.
e. ____ Independently lathers hands and uses wash cloth.
f. ____ Turns on water, lathers hands and uses wash cloth.
g. ____ Washes, rinses and dries hands without assistance.

APPENDIX 8

NORTHWEST REGIONAL CENTER FOR DEAF-BLIND CHILDREN

Developmental Physical Skills Record

Child_____

Observer_____

Date_____

KEY TO GRADING SYSTEM

1	=	Independent
2	=	Minimum Assistance
3	=	Maximum Assistance
*	=	No Cooperation
/	=	Attention Needs Stimulating
+	=	Confident
-	=	Insecure
p	=	Pumping Movement
too adv.	=	Too Advanced for Student

PHYSICAL EDUCATION ACTIVITIES

INDOOR EQUIPMENT

Stomach roll on 5 foot ball. . . . ____
Giant rope swing . . . . . ____
Giant ring swing . . . . . ____
Vertical drop on mat . . . . . ____
Kicking on mat . . . . . ____
Walking on soft mat. . . . . ____
Riding scooter boards. . . . . ____
Play with inner tubes. . . . . ____
Walking machine. . . . . ____
Jumping rope . . . . . ____

OUTDOOR EQUIPMENT

Primary "Shoe" . . . . . ____
Swinging on swings . . . . . ____
Merry-go-round . . . . . ____
Jungle Jim bars. . . . . ____
Roller skates. . . . . ____
Teeter-totter. . . . . ____
Running on track . . . . . ____

SWIMMING
- entry . . . . . ____
- walk in pool. . . . . ____
- water play. . . . . ____
- kicking . . . . . ____
- stationary back float . . . . ____
- moving back float . . . . . ____
- beg. human stroke . . . . . ____
- water swing . . . . . ____
- beg. bobbing. . . . . ____
- beg. glide. . . . . ____
- water play with objects . . . ____
- propelling self on objects. . ____
- jump in pool. . . . . ____

LADDER
- climb . . . . . ____
- hang. . . . . ____
- descent . . . . . ____

FLOOR BALANCE BEAM
- stationary balance. . . . . ____
- coordinated walk. . . . . ____

4 FOOT BALANCE BEAM
- stationary balance. . . . . ____
- walk. . . . . ____
- dismount jump . . . . . ____

THE EDUCATOR

TRAPEZE
- stationary hang . . . . . ____
- swinging hang . . . . . ____
- drop. . . . . ____
- hang by knees . . . . . ____
- sitting swing . . . . . ____
- dismount from sit . . . . . ____

RINGS
- stationary hang . . . . . ____
- swinging hang . . . . . ____
- drop. . . . . ____
- hang by knees . . . . . ____
- sitting swing . . . . . ____

LARGE RUNG LADDER
- vertical climb. . . . . ____
- horizontal climb. . . . . ____
- suspended hand walk . . . . ____

FIREMAN'S POLE
- transfe. to pole. . . . . ____
- slide down pole . . . . . ____
- floor play. . . . . ____
  (moving pole or rope) . . ____

MAT EXERCISES
- log roll. . . . . ____
- reverse log roll. . . . . ____
- crawl . . . . . ____
- walk. . . . . ____
- somersault. . . . . ____
- fall on red mat . . . . . ____
- sit-ups . . . . . ____
- crab walk . . . . . ____

TABLE WORK
- mounting. . . . . ____
- jumping off . . . . . ____
- stomach-foreward roll to mat. ____

INCLINED TUBE
- entry . . . . . ____
- slide down. . . . . ____
- removing self . . . . . ____
- inside climb. . . . . ____
- outside straddle slide. . . . ____

LEVEL TUBE
- entry . . . . . ____
- roll from inside. . . . . ____
- push from outside . . . . . ____

BALL PLAY - ALONE

3 FOOT BALL
- exploring . . . . . ____
- pushing . . . . . ____
- stomach roll. . . . . ____

12 INCH BALL

Sitting position
- handle. . . . . ____
- roll. . . . . ____
- bounce. . . . . ____

Standing position
- bounce. . . . . ____
- bounce catch. . . . . ____

BALL PLAY - WITH OTHERS

3 FOOT BALL
- pushing . . . . . ____
- stomach roll. . . . . ____

12 INCH BALL

Sitting position
- roll. . . . . ____
- catch . . . . . ____

Standing position
- bounce. . . . . ____
- bounce catch. . . . . ____

MINI TRAMP

mount. . . . . ____

jump . . . . . ____

PARALLEL BAR

skin the cat . . . . . ____

starting position. . . . . ____

foreward spin. . . . . ____

drop . . . . . ____

APPENDIX 9

NORTHWEST REGIONAL CENTER FOR DEAF-BLIND CHILDREN

Movement Pattern Inventory Checklist

The Movement Pattern Inventory Checklist employs the grading system presented in Appendix 8. The movements indicated below were rated in the checklist.

I. LOCOMOTION PATTERNS

1. Creeping
2. Crawling
3. Log Roll
4. Somersault
   a. Foreward
   b. Backward
5. Walking
   a. Two-hand aid
   b. One-hand aid
   c. "Walker"
   d. Balance beam
   e. Independent walking
6. Treadmill Running
7. Climbing
   a. Wall bar
   b. Educator ladder
8. Jumping
   a. Vertical
   b. Obstacle
9. Sliding
10. Hopping
11. Skipping

II. BALANCE PATTERNS

1. Sitting
   a. On floor
   b. On chair
   c. Gym scooters
   d. Hands and knees
   e. On knees
2. Standing
   a. With two-hand support
   b. With one-hand support
   c. Balance beam
   d. Mini-Tramp
   e. Without support

III. PROPULSIVE PATTERNS

1. Releasing
   a. Whiffle ball
   b. Bell ball

2. Returning
   a. Whiffle ball
   b. Bell ball

3. Pushing
   a. Whiffle ball
   b. Cage ball
   c. Bell ball
   d. Medicine ball
   e. Wagon

4. Throwing
   a. Whiffle ball
   b. Bell ball
   c. Bean bag

5. Tossing
   a. Whiffle ball
   b. Bell ball
   c. Bean bag

6. Kicking
   a. Plastic rod
   b. Bell ball

7. Lifting
   a. Bowling pin
   b. Bean bag
   c. Medicine ball
   d. Rubber brick

8. Pulling--wagon

IV. ABSORPTIVE PATTERNS

1. Holding
   a. Whiffle ball
   b. Bell ball
   c. Bean bag
   d. Rod

2. Receiving
   a. Whiffle ball
   b. Bell ball
   c. Bean bag
   d. Rod

3. Retrieving
   a. Whiffle ball
   b. Bell ball

APPENDIX 10

NORTHWEST REGIONAL CENTER FOR DEAF-BLIND CHILDREN

Social Skills Scale

Child_____

Observer_____

Date_____

I. ADULT INTERACTION

1. Awareness

a. ____ Does not differentiate between people and objects.
b. ____ Differentiates people from objects but does not differentiate among people.
c. ____ Differentiates between children and adults.
d. ____ Differentiates between familiar and unfamiliar adults.

2. Response to Adults

a. ____ Does not discriminate between positive and negative responses of adult.
b. ____ Discriminates between positive and negative responses of familiar adults.
c. ____ Discriminates between positive and negative responses of unfamiliar adults.
d. ____ Discriminates fine changes in adults' positive and negative responses.

3. Receptive Behaviors

a. ____ No receptive behavior
b. ____ Attends to adult stimulation (auditory, visual, etc.) for a brief period.
c. ____ Identifies adults through visual, auditory, etc. stimulation.
d. ____ Discriminates in preference for one or more adult.

4. Attention Span: Adult Involved Activity

a. ____ Does not attend to activity started by adult.
b. ____ Attends activity very briefly.
c. ____ Attends activity for up to one minute.
d. ____ Attends activity for up to two minutes.
e. ____ Attends activity for over two minutes.

5. Obeying Commands or Directions (Spoken or Gestured)

a. ____ Unaware of commands; does not receive.
b. ____ Aware of commands but does not obey.
c. ____ Tries to obey, needs assistance.
d. ____ Independently obeys most commands.

6. Adult Attention

a. ____ Readily avoids or escapes adult attention and contact.
b. ____ Incessantly seeks adult attention and contact; disturbed unless in adult's presence.
c. ____ Tolerates adult attention and contact for short time.
d. ____ Tolerates adult attention and contact for up to a few minutes; seldom seeks adult attention.
e. ____ Enjoys adult attention and contact; sometimes seeks.

7. Imitation of Adult Activity (e.g., patty cake, peg placement, etc.)

a. ____ Does not imitate.
b. ____ Imitates with assistance.
c. ____ Occasionally imitates without assistance.
d. ____ Frequently imitates without assistance.

II. CLASSROOM BEHAVIORS

1. Interaction With Other Children

a. ____ Unaware of other children.
b. ____ Aware and avoids or escapes.
c. ____ Aware and tolerates presence of other children for a short time.
d. ____ Aware of activity of other children but does not interact favorably.
e. ____ Cooperatively plays with another child.
f. ____ Cooperatively plays with a group of children.

2. Cooperation in Class Routine

a. ____ Does not cooperate.
b. ____ Is cooperative when assisted.
c. ____ Sometimes cooperative.
d. ____ Frequently cooperative.

3. Initiative in Free-Time Play

a. ____ Does not independently seek acceptable play activities.
b. ____ Seldom seeks play activities.
c. ____ Occasionally seeks play activities.
d. ____ Frequently seeks play activities.

4. Exploration of Environment (Classroom or Yard)

a. ____ Does not actively explore the environment; shows no curiosity.
b. ____ Explores little; shows little curiosity.
c. ____ Explores occasionally; shows some curiosity.
d. ____ Explores frequently: shows much curiosity.

5. Imitation of Other Children

a. ____ Imitates children on a lower functional level, regresses.
b. ____ Does not imitate.
c. ____ Sometimes imitates children on a higher functional level.
d. ____ Frequently imitates children on a higher functional level.

6. Self-Confidence in Play and Exploration

a. ____ Lacks greatly in self-confidence; very hesitant, dependent.
b. ____ Shows little self-confidence; needs much reassurance.
c. ____ Shows self-confidence; needs some reassurance.
d. ____ Shows self-confidence; needs little reassurance.

III. SOCIAL COMMUNICATION

1. Indication of Wants

a. ____ Does not indicate wants.
b. ____ Nonspecific whining, fussing, crying.
c. ____ Whines, fusses, specifying wants.
d. ____ Pushes, pulls, reaches to indicate wants.
e. ____ Uses gestures to indicate wants.
f. ____ Uses language to indicate wants.

IV. OBJECT USE

1. Usual Use of Objects

a. ____ Rejection, disinterested.
b. ____ Mouthing, used to change light pattern.
c. ____ Some appropriate use of object.
d. ____ Frequent appropriate use of object.
e. ____ Creative play, representational play.

2. Below are columns headed by each form of object use. Indicate how the child has used various objects by writing their names in the appropriate columns.

Rejection	Mouthing, etc.	Some Appropriate Use	Frequent Appropriate Use	Creative Play

APPENDIX 11

NORTHWEST REGIONAL CENTER FOR DEAF-BLIND CHILDREN

Daily Toileting Chart

Station_____

Date_____

Directions: Write the times in the appropriate boxes indicating if a child is discovered as soiled or wet, or, when placed on a potty chair, if he does nothing, urinates, or has a bowel movement.

			- - - - Placed on Toilet - - - -		
Name of Child	Soiled	Wet	Nothing	Urination	Bowel Movement

APPENDIX 12

NORTHWEST REGIONAL CENTER FOR DEAF-BLIND CHILDREN

Physical Development Station Equipment

- Insolite floor mats, 5' x 10' x 1"
- Truck innertubes
- Parallel bars
- Giant ropes
- Giant rings
- Incline board, padded and adjustable
- Sound goal indicator, battery operated
- Horizontal bar, adjustable
- Gym scooters
- Wagon
- Push ball, 5'
- Cage ball, 3'
- A.P.H. bell balls
- Plastic, tapered cylinders, 16"
- Utility playground balls, 10"
- Utility playground balls, 13"
- Whiffle bell ball, 4"
- Medicine balls, 8 lbs. and 15 lbs.
- Metal balance beam, 16' x 2"
- Tunnel tube, 7' 2" long with 12" opening
- Mini-tramp, Nissen, 2' x 2' jumping bed
- Treadmill (running and walking machine)
- Trampoline, Nissen, 6' x 12" bounding bed
- Space Trainer, 3' 4" diam. wheel
- Padded tumbling table, 4' x 2' 8", adjustable height - 2'
- Landing impact mat, 5' x 10' x 8"
- Jumping ropes colored plastic segments
- Bean bags
- Rubber bricks, 10 lbs.
- Bowling pins, 3 1/2 lbs.
- Hockey stick, plastic
- Bats, plastic

Steel bars: three, 3' sections, 7' 9" x 9' overall, 6" space between bars.

Educator ladder: 8' x 8', rungs 11 1/2" center-to-center, with trapeze bar, rings, climbing rope, sliding pole and chinning bar.