DOCUMENT RESUME

ED 058 693 EC 041 169

TITLE	Impact 5 of the Title VI Programs in the State of Oregon, September, 1970 - August, 1971.
INSTITUTION	Oregon State System of Higher Education, Monmouth. Teaching Research Div.
PUB DATE	71
NOTE	111p.
EDRS PRICE	MF-$0.65 HC-$6.58
DESCRIPTORS	*Educational Programs; *Exceptional Child Research; Federal Aid; *Handicapped Children; *Program Evaluation; State Programs
IDENTIFIERS	Elementary and Secondary Education Act Title VI; *Oregon

ABSTRACT

Reported were the evaluations for 18 Oregon projects funded with Elementary and Secondary Education Act Title VI monies for the fiscal year 1971. One project was funded for the entire school year and 14 were funded for the September to June period. Three projects were funded from November through June. Four of the projects were trainable mentally retarded, three were learning disabled, three were hearing impaired and deaf, two were emotionally disturbed, and one each for educable mentally retarded, educable mentally retarded with extreme learning problems, physically handicapped, multiply handicapped, deaf blind, and all handicapping conditions. The total number served was 1,847 children. The total cost of the program was $239,997, with an average per child expenditure of $13.00. In general, the projects were found to be generally successful. For each of the 18 projects, the project title, project location, type and number of children served, funding allocated, and project beginning and ending date were reported. It was concluded that the federal monies were well spent. (CB)

IMPACT

of the Title VI Programs
in the State of Oregon

September 1970-August 1971

Prepared for
The Oregon Board of Education
By
The Teaching Research Division of the
Oregon State System of Higher Education
H. D. Bud Fredericks
Victor L. Baldwin
William G. Moore
John J. McDonnell

R-154

TEACHING RESEARCH
a Division of the Oregon State System of Higher Education

IMPACT 5

of the

Title VI Programs

in the

STATE OF OREGON
September, 1970 - August, 1971

The report prepared under the auspices
of the Oregon Board of Education

by

Teaching Research, a Division of the
Oregon State System of Higher Education

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

Page

Projects Listed By Location

Projects Listed By Type

Title VI Coordinator . . . . . Mr. James McAllister

Advisory Committee

Mrs. Dolores Bowman
Administrative Assistant
Martin Luther King Elementary

Mrs. Barbara Cox (Co-Chairman)
Director, Special Education
Lake Oswego Public Schools

Mrs. Barbara Denkman
Head Teacher
Shriner's Hospital

Mr. Ray Rothstrom
Coordinator, M.R. Program
Oregon Board of Education

Dr. Thomas D. Rowland (Co-Chairman)
Professor of Education
Oregon College of Education

Mrs. Barbara Sackett
President, Oregon Association
for Retarded Children

Mrs. Nonda Stone
Acting Head, Special Education
Department
University of Oregon

Mr. John Taylor
Coordinator, Handicapped
Child Program
Oregon Board of Education

Dr. Christopher P.S. Williams
Associate Professor of Pediatrics
University of Oregon Medical School

Third Party Evaluation Report Prepared By:

Dr. H.D. Bud Fredericks
Dr. Victor L. Baldwin
Dr. William G. Moore
Mr. John J. McDonnell

Teaching Research, a Division of
the Oregon State System of Higher Education

This publication was financed by funds
from Title VI, ESEA, as amended
October, 1968

The Impact in the State of Oregon of Title VI of the

Elementary and Secondary Education Act of 1965 as Amended

September, 1970 - August, 1971

Introduction:

Title VI of the Elementary and Secondary Education Act of 1965, P.L. 89-750, as amended, authorizes that U.S. Commissioner of Education to make grants for the purpose of assisting states in the initiation, expansion and improvement of programs and projects for the education of handicapped children at the preschool, elementary, and secondary school levels. The term "handicapped children" includes the mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, crippled, or other health impaired children who because of their handicaps require special education and related services.

Foundation of the Title VI program within any state is the State Plan, the contract or agreement between the state and the U.S. Office of Education, for the operation of programs and projects for handicapped children at the preschool, elementary, and secondary school levels. The plan submitted by the State of Oregon was approved by the State Board of Education on April 10, 1968 with an effective date of April 18, 1968. This plan was approved by the United States Office of Education on May 5, 1968.

The State Plan described the present statewide educational program for handicapped children. This description is excerpted and included as Annex A of the publication, **Impact of the Title VI Programs in the State of Oregon**. The State Plan described the procedures for the administration of Title VI within the state.

In order to determine which projects were funded under the Title VI program, the Oregon Board of Education, with the assistance of the Advisory Committee, defined and selected the following criteria for establishing priorities for funding projects and programs:

1) The extent to which the project will provide special education services to categories of handicapped children who are not being served or served adequately through the state reimbursed handicapped child program.
2) Adequacy of description and documentation of the need for the special education service desired in the project.

   Highest priority to projects that stress unmet needs by documenting the number of handicapped children needing the special educational service proposed.
3) Extent to which the project stresses early identification of handicapped children and includes aspects of early treatment.

   Highest priority to projects that provide preschool special education services to handicapped children.
4) Adequacy of the project procedures for identifying the handicapped children to be served.

   Highest priority to projects that provide adequate diagnostic provisions for selecting children in need of the special education service.
5) Extent to which the project is of sufficient size, scope, and quality to give reasonable assurance of meeting the educational needs of the handicapped children to be served.

Highest priority to projects that provide special educational services focused on manageable numbers of handicapped children qualifying for the service and to projects that are designed to provide comprehensive service for these children.

6) Evidence of supplementation of the regular school program by the proposed project or program.

Highest priority to projects that made specific and realistic plans for integration into the regular school program of the handicapped children served by the project.

7) Extent to which other community and state resources are represented in the planning and operation of the project or program.

Highest priority to those projects that make full use of other community and state resources that are able to assist in the planning and operation of the project.

8) Provisions for evaluating the effectiveness of the special education services to be provided in the project.

Highest priority to projects that include specific evaluation procedures that are consistent with the objectives of the project appropriate for the services provided.

9) Provision for participation of qualified, non-public school handicapped children in the project.

Highest priority to projects that make provision for participation of eligible handicapped children enrolled in private schools in the area to be served by the project.

10) Adequacy of the size and qualification of the staff.

Highest priority to the projects employing or purchasing the services of well qualified staff and with a high enough ratio of project staff to the number of handicapped children to be served by the project to ensure effective service.

11) Adequacy of the facilities, both existing and proposed, for conduct of the project or program

Highest priority to school facilities that are already available to the district and considered appropriate for the needs of the project.

12) Economic efficiency of the proposed proje t.

Highest priority to those projects listing a detailed budget of estimated amounts of funds required for operation of the project and for cost-service ratios that are consistent with the special education services to be provided.

The policies and procedures under which Oregon initiated, approved, and conducted state programs and projects and local programs and projects were described completely in **Impact of the Title VI Programs in the State of Oregon.** Essentially this procedure involved school districts submitting applications for Title VI monies. These applications were reviewed by the advisory committee who determined recommendations for funding of applications. These recommendations were approved by the Oregon Board of Education who then notified the applying districts.

Evaluation Plan:

From the inception of the Title VI program within the state, it was determined that Oregon should have, as part of its Title VI operation, a Third Party Evaluation. Consequently, the State Department of Education contracted with Teaching Research, a Division of the Oregon State System of Higher Education for consulting services for the development of an evaluation program for Title VI in Oregon. The report of the evaluation of the summer, 1968 program is contained in **Impact of the Title VI Programs in the State of Oregon.** This evaluation model was considered so acceptable by not only the Oregon Board of Education but also by the United States Office of Education that it was continued for subsequent funding periods. The evaluation of Title VI programs for the school year 1968 to June 1969 was also conducted by Teaching Research, a Division of the Oregon State System of Higher Education. The report of that evaluation is contained in **Impact 2 of the Title VI Programs in the State of Oregon.** The summer programs for 1969 were evaluated by the Special Education Department of the University of Oregon. The report of the evaluation is contained in **Impact 3 of the Title VI Programs in the State of Oregon.** Projects for 1969 and 1970 were again evaluated by Teaching Research. **Impact 4 of the Title VI Programs in the State of Oregon, September 1969-August 1970** contains the report of that evaluation.

After the projects have been selected for funding by the Advisory Committee in September of 1970, research consultants from the Teaching Research Division and the Coordinator of Title VI programs within the state, met with each of the project directors prior to the commencement of the project. The purpose of this meeting was to finalize an evaluation plan for the particular project. This final evaluation plan entailed the determination of which measurement instruments were to be used and the method of conducting the measurements with these instruments.

During the school year, Teaching Research consultants visited each project twice to insure that the evaluation procedures were being provided for as planned. Special Education consultants of the State Department of Education visited projects associated with their specialty, not only serving as advisors to project directors in the conduct of the project, but also concerning themselves with the progress of the evaluation. Finally, the Title VI Coordinator visited each of the projects as a further check to insure that their progress and evaluation procedures were proceeding in accordance with plan.

After the final report of each project was prepared and submitted by the project director, the results were examined, treated statistically where necessary, and determination made as to how successfully the project achieved its stated purposes. The results of that determination are reported herein.

The cost to the state for this Third Party Evaluation by the Teaching Research Division was $8,700, which included not only the initial planning with project directors and visits to project sights, but also the drafting of this report, including computer usage for statistical computations.

Results and Discussion

Eighteen projects were funded during fiscal year 1971 (September, 1970, through August 19, 1971). One project was funded for the entire school year and fourteen were funded for the academic year from September to June. Three projects, those at Corvallis, Lebanon, and Linn-Benton Intermediate Education District, were funded from November through June. Four of the projects were trainable mentally retarded, 3 were learning disabled, 3 were primarily hearing impaired and deaf, 2 were emotionally disturbed, 1 each for EMR, EMR/ELP, physically handicapped, multiple handicapped, deaf-blind and 1 for all handicapping conditions. One-thousand eight hundred forty-seven children were served in these projects. The largest number of children served were hearing impaired and deaf children, 1,071. Three hundred forty children were served with all handicapping conditions, 166 trainable mentally retarded children, 139 learning disabled, 58 emotionally disturbed children were treated, 15 educable mentally retarded children, 12 educable mentally retarded/extreme learning problems children, 13 multiple handicapped children, 25 physically handicapped, and 8 deaf-blind and multiple handicapped children. The total cost for this entire program was $239,997. This averaged to $13 per child.

The main features of each project are discussed in each of the individual reports of the projects, but some major worthwhile features are worth noting.

Deaf-blind children have been part of Title VI projects since Title VI began. The continued inclusion of this category of handicapping condition was considered necessary because there were no other facilities for them. Eight of the children have now been integrated into regular special education programs. Thus, one of the purposes of the project – to provide special education programs on a continuing basis for the children – has at least partially been achieved.

An emerging area of concern in special education is the education of behavior problem children at the junior high school level. Two projects, Bend and Parkrose, focused on this population during this Title VI funding period with different educational models. Although neither of these projects can be considered to have achieved total success with this population, they may well have some ingredients for a more efficient educational approach to this very difficult behavior problem population.

The area of language and reading were the main focal points of at least three projects. An advanced expressive language program was tried with trainable retarded children at Aloha. Although the program needs further development, it indicated some promise as an approach.

At Linn-Benton Intermediate Education District various reading methods were tried with a trainable population. The results indicated that approximately 75% of the trainable population is able to learn to read and can probably be trained to achieve at least the third grade reading level. In addition it was determined that trainable retarded children should be started in reading programs at an early age because progress with trainable children below the age of nine was significant.

A third program which had a major focus on language was at Lake Oswego. This project demonstrated the value of the DISTAR Reading Program over a conventional program. This approach suggests further experimentation with other groups of handicapped children – educable mentally retarded, older extreme learning problem children, and perhaps even trainable retarded children.

Although it can be stated that Title VI projects should not be research projects, one must recognize that experimentation with new methods in the classroom has value for the entire state, expecially if other projects which are looking for programs and methods refer to these evaluation reports to determine what has been tried successfully in other areas. Thus, these types of experimentations in reading and language should serve a wide population.

Another major area where some worthwhile progress was made and almost duplicate models were tried was in the area of preschool education. The projects at Central Point and at Medford were very similar and utilized similar approaches to provide structured

preschool education to children who were potential candidates for EMR and ELP programs.

An evaluation technique which was utilized in one project is worth mentioning. At Our Lady of Providence Child Center, the children are severely handicapped and progress is minute. One of the techniques utilized to evaluate this progress is video taping of the children at various periods during the year in the performance of similar activities. This allows project personnel, administrators and evaluators to systematically observe the progress of the child by viewing the video tapes. The video tape process, of course, has the advantage of allowing a permanent record of the child's performance which can be compared with his most recent performance. It allows reliability of observations to be conducted and is all in all a sound approach for personnel interested in programming and evaluation.

Two projects were concerned with the multi-disciplinary approach to treatment and education of handicapped children. It is interesting to note the elaborate administrative organization needed to effect this coordination. At Crippled Children's Division at the University of Oregon Medical School a liaison educator was established with the idea of creating better services for children. Crippled Children's Division felt they needed to communicate in more understandable language to the educational world. In addition, they felt the need to follow-up at the local level. The project established such a liaison educator who was to facilitate this better communication and follow-up service. Although the results do not demonstrate any dramatic changes, (and it could not really be expected that they would in the space of one year), they do indicate a need for these services. The project demonstrated the complexity of coordinating many disciplines to provide services for handicapped children.

The project at Corvallis provided a multi-disciplinary approach for servicing physically handicapped children. The project started late in the year and consequently most of the efforts of the project during the first year of funding were to establish the administrative machinery to treat these children. One examines this machinery and finds it very complex although it may in the final analysis facilitate the multi-disciplinary approach to the treatment of handicapped children. If it does, and the project has been funded for a second year, so that the administrative arrangements can be tested, it may well provide a model for facilitating treatment.

In *Impact 4 of the Title VI Programs in the State of Oregon*, September, 1969 - August, 1970 on page 11 the third party evaluation team made some recommendations relative to Title VI funding. These are considered worth reiterating.

The educable mentally retarded is one of the largest handicapped population; the classes that service this population have come into the most criticism in the field of special education, since it is claimed that they have failed to produce the type of results expected. The third party evaluators, therefore, believe that experimentation with new methods or models in this area might be especially fruitful in future Title VI projects.

The second recommendation has to do with the trainable classes in the State of Oregon. As one views the trainable classes and the children who comprise their population, one must be impressed with the fact that the children exhibit a variety of handicapping conditions other than retardation. There are visual problems, auditory problems, speech problems, physical impairments. Many of the children, especially the young cerebral palsy children, exhibit severe motor impairments which prevent any determination of their mental capacities. Therefore, these classes might better be categorized as classes for the multiple handicapped or developmentally disabled as opposed to trainable classes. The recommendation made last year is repeated now: The categorization of trainable mentally retarded is recommended to be eliminated as a category within the State of Oregon and within the Title VI legislation of the federal government. It is recommended that the nomenclature of all classes serving children now so identified be changed to classes for the developmentally disabled. It is recognized that this action would require a change in legislation as presently sponsored by the Mental Health Division of the State of Oregon. Such a change could be adequately supported by an examination of the etiology and present physical and mental functioning of the

children in the presently labeled trainable mentally retarded classes. The changing of the classes to the title developmentally disabled would also allow a better flow of children into and out of the classes and between these classes and other classes for handicapping conditions.

The third party evaluation team continues to believe that the stringent evaluation measures that have been applied to the Title VI programs have resulted in a steady increase in the quality of these programs. This increased quality has resulted in a greater impact on the children served and has had potential impact for the structure of special education. It is believed, as it was last year, however, that although Title VI programs within the State of Oregon have improved, further improvement can occur if the Ad Hoc Committee which recommends funding for these projects will require that all objectives submitted in Title VI proposals be stated in behavioral terms. It is only for this type of objective that adequate evaluation of results can be achieved. If necessary, the third party evaluation team should be called upon to assist the Ad Hoc Committee in delineating behavioral objectives. This might be accomplished by a review of the proposals by the Ad Hoc Committee and the third party evaluation team with the goal of pinpointing those objectives which do not meet necessary criteria.

As one examines the overall results of the Title VI program for the period September, 1970, through August, 1971 one must be impressed with the following:

1. The Long Range Results as discussed in the next chapter indicate a significant impact of Title VI on special education within the State of Oregon.
2. The value of preschool education has once again been demonstrated for handicapped children.
3. The value of prolonged funding in certain isolated cases has been demonstrated as being worthwhile. (This has been demonstrated adequately this year by the progress of children in the deaf-blind program.)
4. Title VI continues to support experimentation with new models for special education.
5. Curriculum development, especially in language and reading as tried under Title VI programs, provides valuable information for other special education programs throughout the state.

Long Range Results

One of the major concerns in all levels of government has been the effectiveness of federal dollars in improving the education of handicapped children. Certainly these *Impact* series of reports have indicated the effectiveness of Title VI-B funds *while* the project was receiving those funds. But what has been the long range effect of this funding?

In the State of Oregon Title VI-B funds of the Elementary-Secondary Act, Public Law 91-230, has funded 93 projects from 1968 to 1971. The total cost of these projects was $766,162.76. Fifty-two projects were summer projects, and forty-one were school year projects.

Of the fifty-two projects which operated in the summer, only 11 have been discontinued, or 21 percent. Because of the size and scope of the summer programs, (large amounts of money for relatively short periods of service) and because 21 percent were subsequently dropped, Oregon is no longer funding summer programs. Of the forty-one school year projects, only five or 12 percent, have been discontinued.

Table I summarizes the subsequent funding beyond the initial Title VI funding. (One will notice in the table the *N* in both summer and school year projects is less than the total of all the columns. This seeming disparity is explained by the fact that some projects were subsequently funded under two sources of funding. For example, classes for the trainable retarded which were initiated under Title VI were often subsequently funded with both Mental Health Division funds and local district funds.)

	Local District Funding	State Dept. Funding	Title VI-B	Title I (P.L. 89-313)	National Early Education Act	Title VI-C	Easter Seal	Mental Health Division	Oregon Assn. for Retarded Children	Elks Club B.P.O.E.	Dropped
Summer 1968 (N=19)	6	0	6	0	0	0	0	0	0	0	7
1969 (N=24)	15	1	5	0	0	0	0	2	0	0	4
1970 (N=9)	5	1	1	1	0	0	0	2	1	0	1
Total Summer (N=52)	26	2	12	1	0	0	0	2	1	0	12
School Year 1968-69 (N=9)	4	0	4	0	0	0	1	1	0	0	0
1969-70 (N=14)	8	1	4	0	0	0	0	4	0	1	2
1970-71 (N=18)	7	3	6	0	1	1	0	2	0	0	3
Total School Year (N=41)	19	4	14	0	1	1	1	7	0	1	5
Total All Projects (N=93)	45	6	26	1	1	1	1	11	1	1	17

Table I
Summary of Past Title VI Funding

If one combines the total of dropped programs for the summer and school year, it is obvious that the percentage of programs dropped has been declining with each passing year. In 1968-69 (including the summer of 1968), 7 out of 28, or 25% of the programs were dropped; in 1969-70 (summer of 1969) 6 out of 38 or 16% of the programs were dropped; in 1970-71 (summer of 1970) 4 out of 27 or 15% of the programs were dropped.

Since the initiation of Title VI in the State of Oregon, 82 percent of the projects originally funded have been continued beyond the initial funding year and are still in operation.

The sources of funds for these continued operations are as varied as the projects themselves. A pre-school program in Southern Oregon has been continued by funds from Easter Seal. A summer camp for speech handicapped children has been continued with local funds and funds from the State Elks Association. A program for pre-school handicapped in Oregon has been continued by the Federal Government's portion of Title III, ESEA funds. The project which provided services to deaf-blind children is now being funded with Title VI, Part C. One pre-school program has been chosen as one of the national models for early childhood education for the handicapped. While it is impossible for Title VI to take credit for the 1969 State Legislature which developed the program for trainable mentally retarded children in the state, it certainly played an important role in providing a model for public school education of trainable mentally retarded children. Eleven projects, which were initially funded under Title VI, are now being continued with local funds and money from the Mental Health Division. It should be noted that some projects were continued for additional years of Title VI funding.

An examination of the type of projects and the school districts in which they were funded indicates only one minor trend among those that were dropped and not continued by further funding. Of the 17 projects, 5 had to do with leisure time activity. Other than that, no other pattern by school district or by type of program could be discerned.

The relatively few projects not continued by further Title VI funding or other funding indicates that the districts were given a great deal of help in the development of needed services for handicapped children.

Even among those not continued beyond the funding period, lasting impact among the handicapped has been achieved. In at least four instances, those projects which have been discontinued have lead to the development of new models of services which have improved the delivery of educational services to handicapped children. These models have been incorporated in other programs.

It is obvious that the long range results of Title VI projects in the State of Oregon are commendable. By the state's policy of elimination of summer projects, percentage of projects that are continued beyond the initial Title VI period should increase, although the 85 percent achieved for the last funding period, indicates a very acceptable rate of continuance.

Title of Project: *Classroom Experience for Multiple Handicapped Children Living in a Nursing Home Environment*

Location: *Our Lady Of Providence Child Center Portland*

Type and Number of Children Served: *13 Multiple Handicapped*

Funding Allocated: *$14,899*

Project beginning date: *September 1, 1970*

Project ending date: *August 31, 1971*

Background and Rationale:

At the present time there is little available to preschool age children in a residential setting anywhere in the state of Oregon. The program described herein is for multiple handicapped children in need of a nursing care program. The children served are from the state as a whole rather than an individual school district. The determination is to provide as intensive program as possible for each child in a setting for multiple handicapped children in a 24-hour residential care facility.

Objectives and Evaluation Plan:

1: To provide the opportunity for each child for further awareness and familiarity with his environment, adeptness in social skills, increased independence in practical living, and all manner of experiences which would help stimulate the child.

The Activities of Daily Living Skills Scale were to be utilized on a pre- and post-test basis. TV tapes were to be prepared on the performance of each child and a description of the activities undertaken with each child is to be included.

Methodology:

The coordination of the program is on an individual basis for each child. Recommendations for stimulation and speech therapy are made by Crippled Children's Division, Physio and Occupational Therapy Clinic and Multiple Disability Clinic of the University of Oregon Medical School. Children are currently being studied and followed regularly at these clinics and receive a reevaluation at scheduled intervals.

The project employs a Montessori teacher and provides Montessori equipment to help stimulate and develop multiple handicapped, non-ambulatory young children in a 24-hour residence at Our Lady of Providence Children's Nursing Center. Emphasis is placed on practical life experience, stimulation, and sensorial development. The child's full potential, whatever it may be, is as much as possible realized.

The Foster Grandparent program provides aides to the program and the Montessori teacher works daily with the Foster Grandparent to provide the necessary training so that she can effectively assist the teacher. The physical therapist is the other key person working with the program. Her activities are coordinated with the activities of the teacher in providing therapy to maximize the potential of the child.

Parent involvement is not possible because of the distance and/or the emotional inability to maintain such involvement. However as parents are able to participate, opportunity is provided for them to observe and acquaint themselves with the techniques used.

Results:

1: To provide the opportunity for each child for further awareness and familiarity with his environment, adeptness in social skills, increased independence in practical living, and all manner of experiences which would help stimulate the child.

Motor tests and Activities of Daily Living Tests adapted from the University of Oregon Medical School, Crippled Children's Division, were administered to all of the children on a pre- and a post-test basis, the results of which are shown in Table 1. An examination of the first three columns labeled Lower Extremities, Right Upper Extremities, and Left Upper Extremities indicate that all children for whom pre- and post-test scores were achieved with the exception of one, student 7, showed gain in at least one of the three areas. These gains may be considered to be quite small in some cases, but one must constantly consider the profound degree of handicapping conditions which many of these children are exhibiting (see the discussion under each individual child below). Pre- and post-test scores were achieved on only three children on the Activities of Daily Living. Two of these indicated advances and one showed no gain.

Since the major focus of the program was Montessori oriented, each child must be discussed individually and in light of Montessori techniques. One should keep in mind that the Montessori philosophy does not force the child to undertake new tasks in any of the areas although the

Table I

Pre- and Post-Test Motor Age Results of Motor and Activities of Daily Living Tests from University of Oregon Medical School

Student	Lower Extremities		Right Upper Extremity		Left Upper Extremity		Activities of Daily Living	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1	—	6	15	15	2	6	—	18
2	2	4	9	21	10	21	15	18
3	6	12	9	15	9	15	—	36+
4	4	5	4	4	4	4	4	4
5	4	5	6	6	6	6	—	12
6	11	16	10	15	10	15	—	18-20
7	3.5	3	8	8	4	4	—	10-11
8	4	5	6	8	6	10	—	12
9	—	—	—	—	—	—	—	—
10	4	—	6	—	6-7	—	4	—
11	7	7	21	24	30	24	36	48
12	—	—	—	—	—	—	—	—
13	5	8	9	—	11	—	11	—

opportunities for the child to undertake these tasks and instruction in them are available.

Student 1. Chronological age (July 1971) 7 years 2 months. Diagnosis: celebral palsy - spastic Quadrapelegia.

This child sustained a fractured right femur in November due to demineralization of the bones following lengthy prior casting during the project. Consequently her gains in motor activity as reflected on Table 1 probably would have been greater had this fracture not occurred.

At the beginning of the period this child's choice of Montessori apparatus was stereotyped in that she chose the same materials each morning and in the same order. Gradually she added more activities to her list and was even willing to try new apparatus. According to the Montessori teacher the child's coordination has improved and she can independently carry out most of the activities she does. The amount of time it takes for her to master certain activities is relatively small. For example, she worked with a map of the United States for only 2 weeks when she learned all the names of the states and their location.

Student 2. Age 6 years 1 month (July 1971) Diagnosis: Myelomeningocele with Hydrocephalus.

From a physical therapy point of view this child has made minimal but somewhat steady gains. The information on Table 1 supports this view of the therapist.

According to both the therapist and the teacher, when the child first came to school at the beginning of this year, she was shy and refused to work. If she decided to engage one of the Montessori activities, it seemed to be with preoccupation. As the year progressed she seemed to demonstrate more interest and seemed quite pleased when she was able to complete an activity. She is now considered more sociable, much more aware of things around her, she has gained confidence in herself and uses her hands more freely than at the beginning of the period. It should be noted that she has also started using her right hand which formally was not used to hold objects.

Student 3. Chronological age 2 years 8 months (July 1971). Diagnosis: unknown.

This child at the beginning of the period had very little interest in her surroundings. She was highly resistant to any attempts to increase her functional repertoire other than to take care of her physical needs. (She did not have any overt physical problems excepting her feet) (congenital equinovarus). Sitting postures were met with much crying and screaming but once her resistance was overcome, she started to progress very nicely in trying to perform non-ambulatory activities. She was starting to pull herself to a standing position and walking with assistance when she underwent surgery during the first part of July to correct her foot problem. In Montessori activities she was not cooperative and she would put her head down on the table when she had to work. If starting an activity, she would push the material off the table, whereas at the end of the period she was pointing to activities that she would like to engage in and was completing activities she started.

Gains reported by the therapist are supported by the data in Table I.

Student 4: Chronological age 5 years 6 months (July 1971). Diagnosis: Hyperurecenia with secondary cerebral palsy.

From the physical therapy point of view this child seems to have the physical prerequisites to master independent sitting but to date attempts to teach him to do that have been unsuccessful. Attempts to teach him the movement patterns in a prone position have been equally unsuccessful. He can grasp and release selected items which he previously only grasped after the object was placed in his hand. There seems to be some improvement in his speech; he can recognize the three basic colors and try to pronounce the names. He has learned the numbers one through ten and can say the numbers when the symbols are shown. His improvement in grasp behavior has allowed him to master a few of the Montessori activities.

Student 5: Chronological age 5 years 10 months (July 1971). Diagnosis: Congenital rubella.

At the beginning of the period it was questionable as to whether or not this child could even see or hear. There were no gross findings of motor problems from brain damage. Motor activities included moving around on his back and lying on his back and moving his arms and legs wildly about. He loved to throw things and laugh and he seemed to enjoy antagonizing other children by pulling on their clothes or hair and by kicking them. He preferred to be left alone. He would be taken out of his bed as much as possible and placed on the floor in his room or in the therapy room. At the beginning of the year, when presented with Montessori materials he would not even look at them. Instead he would wait for the opportunity to seize a cylinder and throw it. During the course of the year he began to understand what he was supposed to do with the cylinder and he started working with two cylinders first, then five, then eventually graduated to working with ten. Now he looks down at the cylinder blocks and with some help will remove all ten cylinders and put them back. He also works with the sound boxes. He grips the bottle well and shakes it, and seems pleased to listen to the sound. By May of 1971 he attended to rapidly moving objects, would

respond to verbal commands to leave others alone. He could localize and find a key ring in a ten foot radius but would not come to someone calling him unless they had the ring or noise maker. Placed in a forward sitting position, he would stay in good alignment with good equilibrium, but only as long as someone was in attendance. By August he achieved a sitting position occasionally by himself and could hold on to his spoon and take an occasional bite by himself. He has been standing in the ring-type walker. He walks backward in it, occasionally takes a few forward steps.

Student 6: Chronological age 5 years 1 month (July 1971). Diagnosis: Down's Syndrome, plus missing esophagus.

At the beginning of the period this child was very inattentive to the Montessori materials but later during the process of the year became more aware of them and became interested in pushing them off the table until he gradually began to cooperate. At the end of the year he demonstrated abilities to perform the cylinder block part of the pink tower, part of the colored cylinders and part of the sound boxes and was proficient at pouring rice. He was a non-walker at the beginning of the period but learned to walk by May. There has been no physical therapy effort to teach him to walk.

Student 7: Chronological age 3 years 7 months (July 1971). Diagnosis: Hydrocephalus and Myelomeningocele.

This child has spastic paralysis of his trunk and lower extremities and reduced sensation and full use of his left arm and hand. His motor picture vacillates between losing and regaining his limited motor abilities. Shunt problems and illness have interfered with his development. In Montessori activities his coordination seemed good but he would like to throw things and as a result did not accomplish much at the beginning of the period. Towards the end of the period he has begun to attend to his work and complete an activity without being distracted. In fact his attention span has increased to such an extent that sometimes he will repeat an activity from five to six times.

Student 8: Chronological age 4 years 9 months (July 1971). Diagnosis: Cerebral Palsy-Spastic Diplegia.

At the beginning of the period he threw things consistently and his only efforts were to concentrate on how to get hold of an object so that he could throw it. He was not cooperative in performing Montessori activities at all. Towards the end of the period he has partially completed four of the Montessori activities and is demonstrating more cooperation and concentration.

Student 9: Chronological age 3 years 11 months.

This student was not placed on a formal therapy program because he was approaching the final stages of a terminal disease and it was deemed not desirable to place additional physical or emotional demands upon him. He did however participate in the Montessori activities but at the beginning seemed suspicious about everything and did not respond willingly. Gradually he seemed to enjoy working with the pink tower, the cylinder block, the colored tablets, and was very particular about details. His mode of performance was that he would do an activity and perform it very well but would never repeat it. He passed away on May 14, 1971.

Student 10: Chronological age 1 year 9 months (September 1970). Diagnosis: Recurrent Subdural Hematoma Blindness.

This student was only in the program from September to December when he was placed in a foster home. His only physical disqualifications were blindness, a certain motor delay, and a lack of complete elbow extension. At the time of his placement in a foster home he was achieving a sitting position independently. He participated with only a few of the Montessori activities and these very reluctantly.

Student 11: Chronological age 6 years 4 months (July 1971). Diagnosis: Myelomeningocele with Hydrocephalus: acquired blindness.

This student is alert and verbal although he has a flaccid paralysis of both lower legs and lower trunk. He has good strength and use of his upper extremities. The type of therapy activities he participated in were standing in a standing cast, parallel bar activities in standing casts, standing and parallel bar activities in long leg braces with a thoracic cage, and crutch walking activities with braces and axillary. The child could pull himself to the standing position from the floor with the use of a chair but cannot do this with crutches alone. He has practiced falling, but still is not proficient enough to warrant his walking without someone in attendance. He has mastered movement of a wheelchair.

In Montessori type activities he has passed the simple movements and the Montessori activities now must be made more complicated for him. He is accomplishing successfully most of the more complicated Montessori materials for his age level and has used the map of the United States and has learned all the fifty states and their location. He has learned all twenty-six letters of the alphabet. He demonstrated an IQ raise from 60 to 81 over a three year period. He has been transferred to the Oregon School for the Blind on a full time basis and spends week-ends in a foster home.

Student 12: Chronological age 3 years 9 months (July 1971).

This child was not placed on a formal therapy schedule because she was resistant to any form of therapy although she did enjoy interacting with one of her room mothers and this person has been working with her on sitting activities. The child is moderately hypotonic and according to the therapist lacks enough muscle tone for sitting and standing activities.

Her range of activities in Montessori indicates limited involvement and according to the Montessori teacher it is difficult to help her because she does not like to be touched. She participated in four or five Montessori activities and it was noticed by the teacher that she was becoming more cooperative towards the end of the year.

Student 13: Chronological age 2 years 5 months (September 1970). Diagnosis: Myelomeningocele with hydrocephalus.

This child spent most of the time in a body cast but it was noticed that when the body cast was removed he began walking with the parallel bars and was ready to start crutch ambulation. He was only in the program until January at which time he returned to his family. During the period he demonstrated that he was capable of performing a wide variety of Montessori activities and became anxious to try out new activities.

Third Party Evaluator's Comments:

When visiting the project, the third party evaluator learned that there was some difficulty in completing some of the therapy activities and testing due to the absence of the physical therapist for a period of time during the year (maternity leave - 8 weeks).

The Activities of Daily Living Scale was not administered because the scale was found to be inappropriate for some children with the degree of handicap exhibited by these children.

When considering this project, however, one must always bear in mind that the degree of handicapping conditions of these children is severe and profound. These are some of the most seriously impaired children in the state, and thus progress with them must be measured in minute steps.

As one reads the progress report of the teachers and the physical therapist and views the video-tape performances of the children, one cannot help but be impressed with the progress the children are making.

Therefore, one can only conclude that the project accomplished the objective that it set out to achieve.

Title of Project: *An Advanced Expressive Language Program For TMR Children*

Location of Project: *Aloha Center, District No. 48*

Type and Number of Children Served: *120 TMR Children*

Funding Allocated: *$8,152*

Project Beginning Date: *September 8, 1970*

Project Ending Date: *June 10, 1971*

Background and Rationale:

The curriculum of the Aloha Center stresses the development of language competencies on an individual basis for TMR children. Major emphasis is placed on this aspect of the curriculum, for research findings consistently indicate that TMR children possess deficiencies in virtually all areas of language development. The curriculum is designed to develop competencies in both receptive and expressive language. The younger TMR child generally is in need of receptive language training while the older child usually has progressed through this level and is in need of expressive language training.

The Center has been successful in developing curricula in receptive and beginning expressive language skills but further work was needed in developing an advanced expressive language curriculum. An advanced expressive language program would provide training for the TMR child in such areas as sentence usage, use of grammatical concepts such as tensing in verbs, use of plurals, proper use of prepositions and pronouns and in the formation of interrogatory sentences. This project engaged in exploratory efforts to begin developing an advanced expressive language curriculum.

Objectives and Evaluation Plan:

1. Provide training in advanced expressive language skills for TMR children.

The Peabody Picture Vocabulary Test was to be given on a pre- and post-test basis in order to indicate receptive vocabulary and language IQ. The Northwestern Syntax Screening Test was given on a pre- and post-test basis. The Grammatical Closure Sub-Tests of the Illinois Test of Psycholinguistic Abilities was to be given on a pre- and post-test basis. In addition, individual records were to be maintained of the children as they progressed through the language program. Data were to be collected on the generalization of this program to the classroom situation. (The latter requirement was dropped by agreement with the third party evaluator since it was determined that the measure selected did not reflect the changes in the expressive language behavior of the children.)

2. Provide a training program so that high school students can assist in the instructional program of the trainable mentally retarded children.

The opinions of the consultant to the project, the school administration and teachers were to be included. Supporting data for these opinions were to be included where possible.

3. Provide a means by which parents can be trained to assist in the language training of their trainable mentally retarded child.

Parents were to report monthly on a checklist. An attempt was to be made to structure the response on this checklist so that they can be compiled in a meaningful way.

Methodology:

Project staff consisted of one speech pathologist, nine language aides from Aloha and Beaverton High Schools, the principal of Aloha, and a consultant from Teaching Research in language development.

An expressive language program designed by Dr. William Moore of Teaching Research was adapted for use in expanding the expressive language curriculum of the Center. This program utilizes a linguistic approach to teaching oral English. In using this approach, the child is given a language pattern and then provided with an opportunity to practice orally this pattern. The language pattern used in this program is the sentence. The sentences that the child uses contain the grammatical concepts being taught in each lesson. In order to make this approach more interesting to children, each lesson is designed around a flannel board story. While telling the story, the teacher instructs the child to repeat certain sentences that are indicated in the lesson plan. The sentence patterns that are repeated by the child are those that are being specifically taught in that particular lesson. The flannel board figures allow the child to visualize what he is talking about and they also assist in holding the child's attention to the lesson. At the conclusion of the lesson the child is given further opportunities to practice the sentence patterns taught in the lesson. This further practice is done either with the flannel board figures or witn objects in the classroom.

This language program has been designed and written in

such a way that it can be easily used, after a minimal amount of training, by teacher aides or other para-professionals. The program has been effectively used by this type of personnel in preschool classes for disadvantaged children.

Each child in the advanced expressive language program received daily training using the flannel board lessons described above. This training was conducted outside of the regular classroom. In addition, the child received daily expressive language training in the classroom. These two language periods were integrated so that there was continuity of training between the two lessons.

Teachers and the high school volunteers who worked in this program received in-service training through Teaching Research Division, Oregon State System of Higher Education, Monmouth, Oregon. The in-service consisted of an overview and introduction to the advanced expressive language program that was used in the project. This included demonstration lessons using children of the Center. The in-service period was continued and adapted as needed during the school year by follow-up one-day monthly visits from Teaching Research personnel. This provided an opportunity for discussion and remediation of problems. The Speech Pathologist of the Center also assisted in the consultive in-service program.

The high school volunteers were trained to conduct the advanced expressive language program. Each high school volunteer was assigned a number of pupils with whom he worked on a regular basis. At the conclusion of each lesson taught, the volunteer on a checklist indicated to the teacher the lesson the child completed and the child's ability to perform on that lesson.

Each day the classroom teacher conducted an expressive language lesson in her classroom. This lesson centered around an activity, a picture or some other stimulus item that the teacher felt could be used to elicit expressive language from the children.

The parents of all children participating in the project were contacted and provided with information concerning the advanced expressive language program. These parents were invited to attend monthly evening meetings at which time personnel from the Center and Teaching Research were present to discuss the implementation of the language program for each month. Parents were given suggestions for developing expressive language skills in the home and were asked to document their use of these suggestions. This documentation was done on a checklist provided by the Center.

The program originally was designed to place all children at the same concept level, and to progress through concepts at the same rate. This was modified by testing the child's comprehension of a particular concept and his ability to express it after each set was completed. Those children who scored 90% on the concept then moved to the next set, while those who scored below 90% received additional training on the same concept. This necessitated changing some grouping patterns at various times during the year, so that all children in a particular group could work on the same concept.

Results:

1. Provide training in advanced expressive language skills for trainable mentally retarded children.

Table I shows the results of the pre- and post-testing of the Peabody Picture Vocabulary Test, the Grammatical Closure Sub-Tests of the ITPA, and the Northwestern Syntax Test. Fourteen out of the 20 children in the program showed improvement in vocabulary as measured by the Peabody Picture Vocabulary Test. This improvement occurred even though vocabulary development was not specifically stressed in the expressive language program. This test was included as part of the evaluations to determine whether vocabulary would improve incidentally as the child increased his ability to use the structure of language.

Sixteen of the children showed gain on the post-test of the Grammatical Closure Sub-Tests. Inspection of the individual responses on the post-test showed that many of the children more closely approximated the correct responses than they did on the pre-test.

In the receptive area of the Northwestern Syntax Test 18 children showed gain. The two who did not show higher scores gain on this post-test did show gains on the expressive portion of the Northwestern Syntax Test. This test is designed to measure the child's ability to express in sentences specific language concepts. Since this test measures the type of language patterns taught in the program, the results indicate that the children were successful in learning the language concepts that were taught.

2. Provide a training program so that high school students can be trained to assist in the instructional program of trainable mentally retarded children.

A one day in-service was provided to acquaint prospective volunteers with the functions of the Center and to introduce them to the expressive language program. Out of the 60 students who attended the initial in-service, 30 applied to work in the program and nine were selected. These girls were selected by the principal of the Center on the basis of recommendation by supervising teachers and their availability to work with the children.

Once the volunteers were selected, the speech pathologist provided initial teaching demonstrations of the lesson, and made regular observations after the volunteers began their teaching.

In addition, monthly video-taping of the teaching sessions provided an opportunity for the volunteers to evaluate their own performance. The Consultant from Teaching Research and the speech pathologist attended all of these meetings and assisted in the evaluations.

In general, these para-professionals were considered by the project staff to be effective for this type of program.

Table I

Pre- and post-test results on Peabody Picture Vocabulary Test (PPVT), Grammatical Closure Sub-test of ITPA, and the Northwestern Syntax Test.

Student	PPVT Raw Score			Gram Closure			Northwestern Syntax				
							Receptive		Expressive		
	Pre	Post	Chg	Pre	Post	Chg	Pre	Post	Pre	Post	Chg
1	48	52	4	5	14	9	16	29	8	27	13/19
2	60	63	3	6	8	2	18	20	0	4	2/4
3	19	9	-10	5	4	-1	12	11	4	12	- 1/8
4	46	47	1	0	11	11	9	18	0	4	9/4
5	42	55	13	4	6	2	12	25	4	16	13/12
6	57	58	1	0	8	8	7	21	0	8	14/8
7	26	24	-2	2	9	7	6	10	0	3	4/3
8	20	45	25	1	1	0	13	15	0	11	2/11
9	55	51	-4	5	10	5	13	26	2	27	13/25
10	58	78	20	15	18	3	21	24	20	24	3/4
11	15	42	27	2	4	2	9	15	0	5	6/5
12	48	61	13	3	3	0	19	20	0	6	1/6
13	53	71	18	2	5	3	10	23	0	10	13/10
14	56	62	6	15	16	1	11	27	14	27	16/13
15	47	55	8	8	10	2	25	28	17	25	3/8
16	59	53	-6	3	5	2	17	22	0	21	5/21
17	16	27	11	3	4	1	10	19	0	6	9/6
18	31	27	-4	4	4	0	16	13	0	8	-3/8
19	62	63	1	4	5	1	21	24	0	1	3/1
20	39	36	-3	3	9	6	16	24	21	26	8/5

3. Provide a means by which parents can be trained to assist in the language training of their trainable mentally retarded child.

Eight monthly meetings were held for parents. At each meeting a summary of the preceding month's language progress was presented. Parents were given individual data sheets on their child, and suggestions were provided for reinforcing at home language patterns taught in the school. Parents were asked to indicate on these sheets the types of success they had in working with their child, and to return them at the next meeting. These comments provided the basis for the evening discussion. Parents also were shown the video-tapes of the volunteers teaching the language lessons. Approximately 50% of the parents involved attended these monthly meetings. Parents of all but one child attended at least one meeting. Comments from the parents indicate that the monthly meetings were excellent and there was general support for the language program.

Third Party Evaluator's Comments:

The language program chosen for these trainable mentally retarded children had never been tried with this population before. Consequently, when the third party evaluator visited the project, there were indications that portions of the program needed to be modified so as to be adaptable to a trainable population. At the time of the visit

there seemed to be concern about the effectiveness of the program. However, the results of the testing indicate that the children did show significant gains in almost all areas of language, and much of these gains can probably be attributed to the language program administered. It is strongly urged that the author of the program make the necessary revisions so that it can be used for trainable children and prepare the program for publication. This is a neglected area of curriculum for the trainable retarded and this program would fill a major need.

The portions of the program dealing with the training of high school volunteers and parent training were considered to be exemplary, although a higher percentage of parents' attendance at meetings would be hoped for.

Title of Project: *Behavioral Modification of Emotionally Disturbed TMR Students*

Type of Project: *Trainable Mentally Retarded*

Location: *Clatsop County, Astoria*

Funding Allotted: *$4,000*

Number of Children Involved: *3*

Background and Rationale:

No formal educational program was available for the TMR child in Clatsop County. However, Clatsop County Intermediate Education District did provide minimal service to TMR students by providing a teacher aide to work with small groups of TMR's. A regular classroom teacher provided minimal supervision to this teacher aide. TMR students are housed in an elementary school in the Astoria School District and are integrated with the elementary school children whenever possible.

There were three students within Clatsop County who should have been included with this group of trainable mentally retarded children except for certain deviant behaviors which prohibited them from functioning adequately with the group. This project was designed to provide assistance to these three students to the degree that they could be integrated into the class for trainable mentally retarded children.

Objectives and Evaluation Plan:

1. To instill in these children a change in behavior patterns that will enable them to function adequately in a group situation with other trainable mentally retarded children.

Evaluation:

Develop base line data for each child and periodically (at least weekly) reassess the rate of the behaviors determined.

2. To develop a longer attention span that would allow for the rudiments of academic learning.

Evaluation:

Base line data will be established for the determination of the length of the attention span of the child and a periodic (weekly) reassessment of the rate of attention span will be determined.

3. To have parents participate in the program so that they will be able to assist their children within their limitations.

Evaluation:

A log will be maintained of parents' attitudes, and a program established by Dr. Leif Terdahl will be utilized. The evaluation for this particular portion of the project will be determined by Dr. Terdahl.

Methodology:

This project was conducted from September 15, 1970 until June 7, 1971. Three children participated in the program during this period of time. Two children were enrolled between September 15 and January 1. These two students were seen individually for two hours per week with a fifteen minute overlap of time when both children were seen together in an attempt to provide social interaction for them. Beginning in January, the first two students were seen 4 days a week for the same period of time with a fifteen minute overlap of time when they engaged in joint activities. At this time, the third child was also enrolled and was seen once weekly for one and one-half hours for the remainder of the school year.

The teacher in this project was an elementary principal of a Catholic school located in Astoria. This teacher was a certified elementary teacher. The class was held in a small room located in the elementary school of which she was principal.

Consultants from the Crippled Children's Division of the University of Oregon Medical School were also utilized to evaluate the students and provide consultation to the teacher and the parents.

Activities for the three students included academic tasks such as reading, number concepts, coloring, writing, language development, color discrimination, and other academic tasks. However, the primary emphasis was placed on the elimination of deviant behaviors which hindered academic learning in one-to-one situations and larger groups.

Parents' participation in this project included observation of their child in learning situations with the teacher and in some cases assisting the teacher in carrying out the various programs with the child. Frequent parent-teacher conferences were held to make the parent aware of the level of competency of their child relative to specific academic behaviors and to apprise them of procedures which could most readily extinguish deviant behaviors at school and in the home.

Results:

Results of this project are reported by individual child. The information was gathered by compiling comprehensive anecdotal records on each child daily as he participated in the class.

Child R.S. Initially R.S. exhibited frequent temper tantrums which included shouting and crying when he was requested to engage in certain activities in the classroom. While these inappropriate behaviors were being exhibited, academic learning was non-existent because the time was expended in dealing with these behaviors. By the middle of the year there was marked decrease in this type of behavior. By the end of the year the behaviors were almost non-existent.

Relative to attention span, R.S. was unable at the beginning of the year to attend to specific tasks for longer than twenty seconds. By the end of the academic year R.S. was able to work on reading, math and writing activities for as long as one-half hour for each activity without distraction. This attention span was noted while R.S. was working in a one-to-one situation with the classroom teacher. However, the teacher also reported that R.S. was unable to work for this period of time when another child was in the classroom.

Both parents of R.S. are reported to have cooperated with all suggestions that were provided by the classroom teacher. She indicates that they worked diligently in the home and made frequent observations in the classroom. In general, they carried out all activities that were suggested for the home setting, thereby complementing the activities that were being taught at school.

The classroom teacher felt that the objectives were met as specified for this child. She felt that R.S. could be integrated with other students on a limited basis, provided a great deal of individualized instruction would accompany this integration.

Student D.E. The following are behaviors which D.E. now exhibits which he did not have in his repertoire at the beginning of the school year. Initially D.E. spoke in a very loud voice at all times. By the end of the year he was speaking at a normal loudness level that was not offensive to others in the room. He can now write figures 1 through 5 and read and recognize numbers 1 through 100. He works consistently by himself on tasks for 7 or 8 minutes. Initially he was unable to work independently. In a one-to-one setting with the teacher he can now work at an activity for a sufficient amount of time so that learning can occur. He can match numbers and objects from 1 to 10. He can cut a straight line with a pair of scissors and has improved considerably in the speed with which he accomplishes tasks presented to him. He is able to trace his name with a pencil, to do work at the blackboard without someone standing next to him and also do word matching drills. He has a sight reading vocabulary of about 20 words. At the end of the year he was just beginning to read in the pre-primer reading book.

In general, the classroom teacher feels that D.E. accomplished the objectives that were set down for him at the beginning of the year. He is able to work at given tasks sufficiently long for learning to occur. The presence of deviant behavior is almost non-existent at this point. The one objective which the classroom teacher felt that D.E. had not accomplished was the one relative to parent participation in the program. The parents did not participate and the classroom teacher felt that the parents were in no way supportive of the activities that were occurring in the classroom.

The classroom teacher does not believe that D.E. is ready to be integrated into a trainable mentally retarded class unless instruction was individualized.

Student M.H. This student attended class only once weekly for 1 1/2 hours from January 2 to June 1, 1971. By the end of the year he could function adequately in two-digit addition, subtraction, multiplication and division. He reads and writes large numbers adequately. His reading skill was at grade level 2 by the end of the year. His primary reading skill is in the area of sight vocabulary, but he experiences great difficulty with the phonetic areas of reading.

He can now produce the "l" and "s" sounds when used at the ends of words correctly, while at the beginning of the year he frequently omitted these sounds in oral speech.

The classroom teacher reported that M.H.'s progress would have been far greater had he been able to attend class more frequently than 1 1/2 hours per week for five months. She also feels that he could function adequately in a trainable mentally retarded class provided the classroom teacher provided individual instruction for him. Also, being involved in a regular classroom with children his own chronological age would fill a need for socialization which M.H. currently does not have available to him.

The teacher reported that M.H.'s parents had been very cooperative. They participated in observation of M.H.'s classroom activities and supported and carried out these activities with the child in the home.

Third Party Evaluators' Comments:

The major objective of this project was to provide three children with specific behaviors that would enable them to be acceptable to the regular TMR Program that exists ir Clatsop County. The classroom teacher recommended that all three children could now adequately be educated in this class based on the gains that each has made in this Title VI Project. Consequently, the project would have to be considered successful.

One aspect of the program which was less than adequate, however, was the data collection system that was utilized to compile information on each child. Anecdotal records were written in lieu of collecting specific base line data on the performance of each child relative to specific behaviors that were to be taught. Responsibility for this substitution of procedures will have to be jointly shared by the third party evaluators. Insufficient time was spent by these evaluators to train the teacher to secure this type data. Consequently, she selected strategies that she was familiar with to evaluate the performance of the children.

Generally, the project would have to be considered a

success as it provided educational services to three students who would not otherwise have received service. In addition, it provided information to the administration of the Clatsop County I.E.D. that significant progress can be demonstrated with a TMR population. Consequently, they are now examining ways of providing full time educational programs for all TMR students in Clatsop County.

Title of Project: *A Project for Continuation of Educational Services for Profoundly Deaf Students Within an Intermediate School*

Location: *Beaverton Public Schools, Beaverton*

Funding Allocated: *$3,693.00*

Type and Number of Children Served: *5 profoundly deaf students*

Background and Rationale:

Basically this project is a continuation of a Title VI Project begun in 1969-70 which had as one of its major goals the development of a resource room for profoundly deaf pupils in the Mountain View Intermediate School in the Beaverton School District. The present project continued the Mountain View program and expanded the program to serve three similarly handicapped students at Aloha High School.

The original project in 1969-70 was to determine the degree to which profoundly deaf students could be prepared for integration within the regular school curriculum. It was a cooperative effort between three agencies: Tucker-Maxon Oral School, Beaverton Public Schools, and the Regional Facility for the Deaf. The present project is being continued by the Beaverton school district and the Regional Facility for the Deaf, which assumed all of Tucker-Maxon's role responsibilities in the project. The present project included services for five children who were involved in the 69-70 program at the Mountain View Intermediate School and the three profoundly deaf pupils permanently enrolled at Aloha High School. The students at Aloha High School had been integrated into the high school for at least one year. The resource teacher in this project traveled daily between the two schools to provide services to both groups.

The major purpose of this project was to assess the efficacy of integrating profoundly deaf students into regular classroom situations with the help of a resource teacher to provide special training for these students.

Objectives and Evaluation Plan:

1. To develop greater academic, social and/or vocational competencies for two groups of profoundly deaf students.

   To evaluate this objective pre- and post-test measures were given as follows: Spontaneous Language Test, Mykelbust Picture Story Language Test, Utley Lip Reading Test (part 1 for pre-test and part 2 for post-test), Metropolitan Achievement Test, Auditory Training Tool.

2. To help the professional staff to become sensitive to and provide for the needs of the students and their parents.

   To evaluate this objective, the teacher of the deaf identified the activities of the professional staff to indicate those things which he believed indicated sensitivity on their part.

3. To assist the professional staff to establish a rapport and good working relationships among the administrators, faculty and ancillary personnel.

   To evaluate this objective, comments by the teacher of the deaf described what occurred to indicate that rapport and good working relationships were established.

4. To help the parents to become sensitive to their needs and those of their children.

   To evaluate this objective parental activities and involvement were noted for the purpose of identifying their sensitivity to the needs of themselves and their children.

5. To minimize the social and academic limitations previously identified by the initial project.

   To evaluate this objective the social and academic limitations identified by the initial project were listed and the changes made during the project were described.

Methodology:

The students at the Mountain View Intermediate School were assigned to five classes per day with their hearing peers. One period a day was in a language development class which was conducted by the teacher of the deaf. The instructional presentation was influenced predominantly by Groht's Approach, "Natural Language", with additional vocabulary and grammatical exercises provided. Speech lessons were presented following the guide of the Regional Facility for the Deaf. Auditory training instruction was usually an integral part of the speech sessions using the Lexington Guide. These special instructional sessions were grouped and titled Language Arts. Since the faculty at Mountain View Intermediate School had already been involved with these handicapped students, only those teachers willing to work with them received assignments of the deaf students. Special staffing sessions with each teacher were held by the resource teacher for the deaf.

These sessions were to provide orientation or to review methods of communicating with deaf pupils. Suggestions and hints were described and demonstrated as needs arose. Frequent conferences were held with all involved teachers during the year.

The resource teacher also had a full-time instructional aide working with him. She was placed under his supervision in order to assist with instructional and clerical needs.

Instructional sessions began with the three students in Aloha High School during the latter part of September. These pupils had been attending the school the previous year on a fully integrated basis but all of these deaf students were involved in a full schedule so that it was initially difficult to arrange for special sessions with them. After initial parent conferences to acquaint the parents with the new services available and the type of work to be provided by the resource teacher, and after counseling with the head counselor at the high school concerning the new type of program, the instructional sessions began. The original arrangement placed the resource teacher into basically an itinerant role because the deaf students were already on a full schedule. Sessions were arranged whereby pupils attended special instructional classes with the teacher of the deaf during a preparation period. This original arrangement did not provide adequate time for academic tutoring and special instruction by the resource teacher. Therefore, a released time schedule was developed whereby more extensive and regularly scheduled sessions could be conducted by the resource teacher with each student. Under this new system, each pupil had a daily session and assistance was provided according to the child's need. The new arrangement improved liaison between the classroom instructor and the resource teacher.

In both schools the hearing impaired students were encouraged to participate in all regular school activities. Involvement in sports and other extra curricular activities was encouraged. Regular discussions were held concerning relationships with hearing peers and the communication problems which this involved. There was no hesitation by the deaf students to participate if they were interested. These students participated in a wide variety of school activities.

All pupils in the project were involved with a vocational counselor and were interviewed as to vocational interests. All were involved in pre-vocational classes which included woodshop, drafting, power machines, art, and metal shop. A number of the students had vocational experience as a grocery clerk, dishwasher, stable boy, and waiter. The vocational counselor also provided experiences in filling out job applications and interview techniques with potential employers.

The resource teacher observed pupils in the regular classes at least three times formally and on numerous spontaneous visits. These visits provided opportunities for the resource teacher to see the deaf students function in the regular classroom environment, to be alerted to vocabulary and communication needs that should receive attention and to make suggestions concerning educational strategies.

Three scheduled parent conferences were held to relate progress and attitude development. Numerous letters, phone calls, and home visits occurred to maintain communications with the parents. These contacts with the parents were generally quite positive. Two days were scheduled for parent visitation to the classes but no parent visited at these times. One parent who was contacted said that she did not visit because she did not want to single out her boy by visiting the school.

In addition to the regular project staff a number of other professionals worked with the students. A social worker became involved through the Regional Facility for the Deaf in helping gain more complete family history on the students and assisting the resource teacher in developing educational adjustments for the pupils. A student teacher from Oregon College of Education became involved in the program. She assisted in the instructional activities during the spring quarter. Also teacher-in-training participants from Oregon College of Education were in attendance in the fall and winter quarters and they became involved with students instructionally on an individual basis.

Results:

1. To develop greater academic social and/or vocational competencies for two groups of profoundly deaf students.

The Spontaneous Language Test was administered in December and May. The results are presented on Table I as P scores (P score is the score achieved in comparison with the local population of deaf pupils in Portland, Oregon. A P Score of 50 is the norm or mean.) Results indicate that in December two students were above the norm but in May four students were above the norm. All students in this project improved in this measure except subject number 2 who showed a decrease in his P score from December to May.

TABLE I

Results of Spontaneous Language Test (P-scores)

Subject	December	May
1	50.4	57.9
2	46.4	44.2
3	44.9	49.8
4	51.8	53.2
5	49.8	52.6
6	47.9	51.1
7	45.2	Moved
8	45.3	47.4

Results of the Utley Lip Reading Test are provided in Table II. This test was administered in the fall and again in

the spring. As reported by the project director, scores over 70% are considered excellent. It can be seen that in the fall, when this test was originally given all subjects except number 4 received scores above 70% and in the spring all subjects received scores of over 70%. All subjects except subjects number 1 and 3 showed an increase on his Utley Lip Reading Test from the pre-test in the fall to the post-test in the spring.

TABLE II

Results of Utley Lipreading Test

Subject	Fall	Spring
1	97%	87%
2	87%	97%
3	94%	94%
4	55%	78%
5	90%	97%
6	81%	90%
7	97%	Moved
8	87%	97%

Table III provides the data from the Metropolitan Achievement Test which was administered in the spring of 1971. It is difficult to determine the growth represented by these scores as no pre-test scores were provided. The original evaluation plan called for the testing of these children with the Metropolitan Achievement Test in the fall and then the post-testing in the spring. However the Metropolitan Achievement Test was not administered in the fall of 1970. The test that was administered in the fall of 1970 was the Stanford Achievement Battery. This test was also given in the spring, but as these tests are scored nationally the results were not received prior to the writing of this final report. The project director indicated that these test results seemed low for a number of the students. He attributed this to the volume of tests that were given the last three months of the year, and also to the late date (two weeks before school was out) this test was administered. He stated that pupil motivation to perform at peak ability was difficult to generate.

The Mykelbust Picture Story Language Test was administered in January of 1971. The original proposal called for the administration of this test on a pre- post-test basis. However, as indicated, the test was administered only in January, 1971. As reported in the final report, the results indicated that this deaf group consistently wrote more sentences than the norm without also writing more words per sentence. This relates to low verbal facility, a common difficulty with the hearing handicapped. Their written language lacked complexity, variation, and spontaneity of structure. Various language activities were consistently presented to overcome this problem. These are the only data provided for the results of the Mykelbust Picture Story Language Test. No objective data were provided.

An auditory training guide was employed to measure pupils' ability in responding to auditory clues in isolation. The guide breaks sound stimuli into four main sections: gross; music; speech; language growth. As described in the final report pupil responses were widely variable depending upon educational background, type and extent of hearing loss and personal attitude about sound reception. Growth

TABLE III

Metropolitan Achievement Test - Spring 1971

Subject	Word Knowledge	Reading	Spelling	Language	Lang. Study Skills	Arith. Comp.	Prob. Solving Concepts	Social Studies	Social Study Skills	Science
1	9.8	10.0	10.0	6.4	5.6	6.1	6.4	8.1	5.4	4.6
2	4.1	4.0	6.0	4.8	7.0	8.3	5.0	4.9	4.4	4.8
3	4.8	4.2	3.6	5.0	4.5	5.2	5.6	4.8	6.0	7.0
4	3.7	4.2	6.0	5.9	5.6	7.4	7.9	4.8	8.8	4.6
5	6.0	8.0	9.4	10.0+	10.0+	11.+	11.+	10.0+	10.0+	8.8
6	6.4	5.7	9.4	5.9	9.4	6.3	6.8	4.4	10.0+	5.0
7	MOVED									
8	4.2	5.1	4.2	4.3	4.3	6.6	5.4	3.0	5.3	4.4

was noted in two ways; measurement using the test in the fall and then in the spring. The test indicated slight growth which was noted with three of the pupils and two showed no change. In some cases, performance was very erratic as could be expected due to the exacting concentration that is necessary. In addition, pupils' response to sounds around them seemed to increase as the year progressed. One boy, who rejected his hearing aid as a useful tool, began to wear it regularly on a spontaneous basis. This is the extent of the data that were provided for the pre- post-test measures that were to be given with the Auditory Training Tool.

2. To help the professional staff to become sensitive to and provide for the needs of the students and their parents.

The professional staff was briefed concerning the deaf pupils in the school and their assistance was enlisted as to methods of communication with them. Those teachers who were assigned deaf students were specifically trained as to methodology and techniques of working with the hearing handicapped. After these sessions, the staff expressed confidence that they could work well with these students.

As the year progressed, many comments from the involved staff members were made to the resource teacher, which indicated increased awareness of the problems encountered by the hearing handicapped. These included: comments of language limitations both receptive and expressive; social-emotional pressures faced by the hearing handicapped; the need for more structured activities to aid learning; and the need to keep pupils aware of classroom lessons and homework assignments. In addition, parent contact was made by several teachers during the year as they felt the need to communicate with the parents. Regular written evaluations were requested from the teachers who were involved in working with the deaf students.

3. To assist the professional staff to establish rapport and good working relationships among the administrators, faculty, and ancillary personnel.

There were many examples, as reported by the project director, to indicate that this objective was met. Examples showed a cooperative, positive response on the part of all involved personnel. Specifically, the following statements were given to provide evidence that Objective 3 was met.

"The administration provided excellent classroom facilities for the resource room. This occurred during a building expansion even before some of the regular classes were reassigned.

Deaf pupils were treated as any regular student by the pupil personnel director. All deaf pupils were invited to participate in extra activities such as sports, clubs, and dances. This was largely due to the attitude and co-operation of the involved staff.

Teachers who had deaf pupils attending their classes often sought the assistance of the resource teacher to counsel or provide supportive instruction to the deaf pupil in specific ways."

4. To help the parents to become sensitive to their needs and those of their children.

The parents of these children had been involved with hearing loss long enough to be quite sophisticated in their analyses of their pupils' needs. They reflected a strong desire for their child to experience a life as close to normal as possible.

All the ninth grade pupils' parents came to individual conferences concerning high school forecasting. Parents stated their own goals for their sons as well as relating their sons' desires. All were well expressed and showed good communication in the home. The parents were made aware of the educational needs of their children and they were anxious they be met. One family changed goals for their son from college to a more realistic vocational training course arranged through the department of vocational rehabilitation.

5. To minimize the social and academic limitations previously identified by the initial project.

The following eight points were provided as an evaluation of this objective:

1. Concern about class size being more than six. This reservation still seems valid as regards to the optimum teacher-pupil time relation and necessary follow-up sessions with both pupils and involved staff. Instances occurred when the resource teacher was so busy that immediate follow-up was difficult. The class load of eight was acceptable, but would have been better managed if only one school were assigned.
2. The resource teacher should be a full-time and active member of the faculty where the resource room is located. This is not feasible when the teacher is assigned to two schools.
3. The social problems which involve transportation were still present this year at the intermediate school. The high school students all drove cars and thus they could participate in any activity they chose.
4. Hearing impaired pupils tend to have difficulty in pacing their activities through a long-term project. Last year's policy was continued of moving towards more independent responsibility for work.
5. Hearing impaired students have difficulty functioning in group projects. The resource teacher requested classroom teachers to design experiences in group participation to expand deaf pupils' abilities.
6. Students need to be aware of social activities. Announcements were given over the school intercom about such activities. A brief discussion was held with the students in their resource room about these activities. They often generated questions which entailed asking other faculty or students for answers.
7. Conversation between the hearing impaired pupils and hearing pupils were observed three times. The results were tallied but were so erratic in nature as to be ineffective for measuring. The observer did note that the patterns of communication between deaf

pupils and hearing pupils seemed in all cases to be comparable to those occurring between hearing pupils.

8. Students were asked to fill out a survey about their classes. Responses were in keeping with their personal interests and seemed very individual. in nature. All pupils verbalized that they wished to continue in this type of program.

The teacher of the resource room tried to develop competencies in the academic-social-vocational area by:

1. Providing maximal integration into hearing classes.
2. Developing resource skills in extraction of information from texts and other materials.
3. Helping pupils to extend the ability to follow lectures and discussions in classes, to take notes and to question their classmates after sessions.
4. Having deaf pupils present oral reports as any hearing classmate. This was done in various classes and was a success in most cases.
5. Helping the pupil to become aware of his needs so he will request help when necessary. This occurred more and more frequently as the year progressed.
6. Encouraging participation in social, service and athletic organizations.
7. Exploring vocational interests by attending pre-vocational and vocational classes and by participating in vocational experiences outside the school.

Third Party Evaluator's Comments:

Overall results indicate that the project was successful in integrating deaf students into regular classroom situations. The concept of providing a resource teacher and having him available to work with the children one period each day appears to be a very workable procedure. This third party evaluator observed the resource teacher working with the students in one of these class sessions and it was his opinion that the resource teacher did an excellent job. All the students indicated that they enjoyed the program and they appreciated the opportunity to take part in the regular school activities that were provided by the school.

The objective data provided by the testing did not follow the evaluation plan as originally designed. This was especially true in terms of pre- post-test measures as reported for the Mykelbust Picture Story Language Test, the Auditory Training Tool, and the Metropolitan Achievement Test. Results from these three measures were sketchy and did not provide the information designated on the evaluation plan. Results of the Spontaneous Language Test and the Utley Lip Reading Test did indicate that most students improved in the areas as measured by these tests.

Integration of the deaf students into the regular school setting appeared to be well accepted by the regular classroom teacher and the students in the school. Comments provided in the final report indicated that the teachers successfully worked with these deaf students in a variety of school situations. As indicated in the report, the resource teacher and his instructional aide worked at great lengths to see that these deaf children were accepted into the school program.

With the emphases on integrating handicapped children into regular classroom settings, it would appear that this project provides a model to use for integrating hearing impaired students into regular classroom situations. The concept of a resource room staffed by qualified teacher and aide appears to be a successful method by which handicapped children can be effectively supported in regular classroom situations. This is a model that should be explored more fully, not only with hearing impaired students but with other types of handicapped children.

Title of Project: *Identification and Remediation of Learning Disabilities at the First Grade Level*

Location of the Project: *School District 6, Central Point*

Type and Number of Children Served: *30 Learning Disabled*

Funding Allocated: *$13,500*

Project Beginning Date: *August 26, 1970*

Project Ending Date: *June 8, 1971*

Background and Rationale:

The project staff felt a great concern for providing for remediation help for those children whom they label as high risk. Their definition of "high risk" is that the child will probably experience difficulties in later academic years and therefore remediation efforts should be attended to as early as possible. These students typically have normal IQ scores, but have severe learning difficulties caused by visual perception problems, visual motor coordination problems, auditory perception problems, muscular coordination, and low language development prior to school age. This project was designed to deal with first graders designated as high risk students at the beginning of school based on their scores in the Metropolitan Reading Readiness Test and the Bender-Gestalt.

Objectives and Evaluation Plan:

1. To provide reading readiness skills for each child that will enable him to score at the "C" level as measured by a Metropolitan Reading Readiness Test by December 1, 1970.

   . Administer the Metropolitan Reading Readiness Test to all children by December 1.
2. To raise each child's abilities in the area of visual-motor, gross-motor, visual perception, auditory perception, and language development.

   An informal record of the child's motor development, the Bender Visual Motor Gestalt Test, and the Distar Language Program.
3. Each child will be able to read at a minimum of the primer level by the end of the year as measured by the Metropolitan Achievement Test.

   Administer the Metropolitan Achievement Test at the end of the year.
4. Teach the decoding process, including systematic exercises, sequencing events, saying words, rhyming, blending, and sound-sliding.

   Administer the Distar Reading 1 Program.

Methodology:

All district first graders were tested using the Metropolitan Test of Reading Readiness. Any students who scored at the "D" or "E" levels of that test were selected for further screening. This project was written for children with average or above ability who were potentially high risk. Screening was done with the Peabody Picture Vocabulary Test, the Frostig Test of Visual Perception and the Bender Visual Motor Gestalt Test. The final selection of those to be included in the project was made on the basis of the results of all testing plus teacher judgment.

By the time the project began 62 children had been identified and 30 had been selected for the experimental group and 32 for the control group. The simple Chi-Square Test was performed on the pre-test data to determine if there were any significant differences between the control and the experimental groups based on their Metropolitan Test scores. These tests were run by Dr. Barbara Bateman of the University of Oregon and indicated that there was no significant difference between the two groups at the beginning of the project.

Instruction was begun with the experimental group based on a visual motor program of both gross and small motor activities and eye training, the Distar Language Development Program, and the beginning of the Distar Reading Program. The control group received reading training that was consistent with the usual district instruction for first graders. The control group also received instruction on the ITA and several other programmed reader series. The experimental group were part of the regular program in their classroom. In addition they received instruction in visual motor areas plus the concentrated instruction provided by the Distar Reading and Distar Language Development Programs. Special individual help was given in certain cases by the aide or the teacher. The experimental group also received instructions in small groups on other programs such as the Peabody Language Program and Frostig's Remedial Program. The teacher worked with the children for 1 1/2 hours each day, five days a week. There were work stations away from the regular classrooms available for small group work. The gym was also made available for 1/2 hour each day for coordination development.

Results:

1. To provide reading readiness skills in each child that will enable him to score at the "C" level as measured by a Metropolitan Reading Readiness Test by December 1, 1970.

   All children in the project scored at the "C" level or better when retested with the Metropolitan Reading Readiness Test in December. Also experimental control group comparisons were made between 27 children in the experimental group and 32 in the control group. (The experimental group was reduced because some children moved.) The average total point increase scored on the test for the experimental group was 34.7 as compared with the average total point increase of the control group which was 17.3. These data were analyzed utilizing a T-test and the difference between them was determined to be significant at the .01 level.

2. To raise each child's abilities in the area of visual-motor, gross-motor, visual perception, auditory perception, and language development.

   Scores on the Bender Visual Motor Gestalt Test indicated that the experimental group showed an increase in performance ability over the control group. However, these differences were not subjected to statistical treatment. The Peabody test was administered, however, and did indicate a significant difference between the experimental and control group showing the superiority of the experimental group at the .05 level of significance. The Distar Language Program was not evaluated statistically; however, each child was required to pass the subtests before proceeding to the next concept.

3. Each child will be able to read at a minimum of the primer level by the end of the year as measured by the Metropolitan Achievement Test.

   All students except one scored at least 1.5 reading grade placement on the Metropolitan Achievement Test which is considered to be the primer level.

4. Teach the decoding process, including systematic exercises, sequencing events, saying words, rhyming, blending, and sound-sliding.

   The Distar Reading Number 1 Program was completed, and this program is based on the decoding process. The evaluation information to support that this objective was achieved was the fact that each child had to pass an informal test before he proceeded to a new sound.

   The teachers in this project felt that more would have been accomplished in the reading program if they had not used the Distar Reading Program exclusively. It appeared to move too slowly for many of the group and did not go quickly enough into rapid decoding and sight word skills. In next year's program, the language development activities will be expanded to include more creative thinking skills, include some adaption of the Peabody Program to the Englemann Technique. Reading instruction will be begun at an earlier date and it will be expanded to include other programs that are available.

Third Party Evaluator's Comments:

This project was obviously successful as it was able to meet nearly all of its major objectives. The fact that all students except one were able to score at the 1.5 reading grade placement on the Metropolitan Achievement Test by the end of the year would seem to be quite significant. In examining the results, an interesting situation has developed whereby the children in the control and experimental group were tested during the year on the Metropolitan Reading Readiness Test and there was a significant difference between the groups in favor of the experimental group. When these same children were further examined at the end of the year utilizing the Metropolitan Achievement Test, the significant differences cannot be determined. This would seem to raise some fairly serious questions about the ability of the Reading Readiness Test to predict reading success. Objectives which dealt with motor development, visual perception, auditory perception, and language development were usually evaluated by means of either the Bender-Gestalt or the Distar Program. It would seem advisable that in future projects one might utilize separate instruments specifically designed to measure change in a particular area rather than giving one or two tests which cover all areas.

Overall this project was quite successful. If possible, it would be extremely interesting if, in future projects in this district utilizing a similar type of program, information could be presented as to what happened to these children treated in the first year's project. If in the second and third years, these children who were labeled as high risk in the experimental group did not develop reading difficulties or become again labeled high risk or difficult students, then it would seem to add additional merit to utilizing this type of teaching strategy. This type of follow-up information is especially important in light of recent research results which suggest that unless modifications are made also in programs in upper grades, early childhood intervention programs, although apparently successful in the early grades, do not maintain in the upper grades.

Title of Project: *The Liaison Educator*

Location: *Crippled Children's Division, University of Oregon Medical School*

Funding Allocated: *$16,950*

Type and Number of Children Served: *340 - All Handicapping Conditions*

Project Beginning Date: *Sept. 15, 1970*

Project Ending Date: *June 30, 1971*

Background and Rationale:

The main purpose of this project was to secure funds for the Crippled Children's Division to employ a liaison educator. The special education component of CCD had an inadequate number of staff to carry out the coordination of educational services between CCD and the local schools. Such coordination was considered necessary to insure that the handicapped school children received adequate assistance with their school related problems.

Before this study was conducted a close examination was made concerning the major areas of difficulties that the Crippled Children's Division was facing. A list of needs based upon that study follows:

1. Lack of sufficient relevant school information prior to the time youngsters are evaluated, which results in wasted effort in gathering information already available and failure to deal with critical school related problems.
2. Lack of school representation on clinic staffings.
3. Long delays between the time the youngsters are evaluated and the school program receives the results.
4. Too much irrelevant information going out to schools which is not important in educational programming.
5. Reports going out to schools contain terminology which is difficult for them to understand.
6. Reports going out which fail to focus on educational concerns resulting from the handicapped conditions.
7. Reports going out with recommendations concerning educational adjustments which are unrealistic in terms of available community resources.
8. Lack of appropriate personnel available to work with communities and school agencies in implementing recommendations made by various clinics as result of evaluation.

Objectives and Evaluation Plan:

1. Develop better communication between CCD clinics and community school programs.

   A questionnaire was to be developed and administered on a pre-test basis to a number of school districts. Strategies were then to be developed and applied to a specific small example and then the questionnaire would be readministered as a post-test to a small sample.
2. Develop an educational diagnostic service for youngsters seen by the various clinics when such services are necessary to properly answer referral questions.

   The liaison educator was to take a pre- and post-survey of the number of patients with school related problems where a member of the educational staff was involved in a diagnostic evaluation.
3. Develop strategies to assist the multi-disciplinary staff at CCD to do a better job of focusing on relevant educational concerns posed by school agencies.

   The information to be gathered was a description of these activities.
4. Develop strategies through which the parents of youngsters served can be guided to appropriate educational services in their home, community, or region.

   Information to be collected was a description of the strategies involved.
5. Develop strategies through which the staff and trainees of disciplines of CCD would gain a better understanding of the role and function of special education for handicapped children.

   Evaluative information was to consist of a description of the activities engaged in to achieve this objective.
6. Develop research strategies relevant to the above objectives in order to determine if practices currently being utilized are effective or whether other approaches need to be developed and initiated.

   The data to be collected was to be a description of the activities.

Methodology:

The position of the liaison educator was established at the University of Oregon Medical School, Crippled Children's Division, to provide more effective communication between CCD clinics and community school programs.

Strategies included development of a brochure describing CCD and its educational component, orientation sessions at CDRC for directors of special education and special education teachers to familiarize them with the training functions and responsibilities. The liaison educator also helped develop an educational diagnostic service for youngsters seen by various clinics. Such service was necessary to properly answer referral questions.

The liaison educator was to assist the staff at CCD in doing a more effective job of focusing on relevant education concerns posed by school agencies and to help the staff of CCD in a better understanding of the role and functions of special education for handicapped children. This assistance to the staff members at CCD was to be accomplished through:

1. In-service training, courses and seminars relating to special education and
2. Field trips to classes dealing with handicapped individuals representing different aspects of special education.

Parents and physicians were to be assisted in gaining information regarding special education services in their community - parents through individual conferences, and physicians through the development of a resource brochure.

Results by Objectives:

Objective 1: Develop better communication between CCD clinics and community school programs.

A questionnaire was developed and administered to school districts in the state of Oregon (Figure 1). 130 questionnaires were mailed; 56 questionnaires were returned providing a 43.07 response to the questionnaire. Response columns were labeled always, usual, seldom, never, and no information. It was necessary to collapse the columns because of the small numbers in some categories.

The major difficulty area pointed out by the questionnaire was that schools received reports which were highly technical and they found it sometimes difficult to get personnel at the CCD to explain the report. Information obtained from the questionnaire helped develop strategies which were then applied to a smaller specific sample. Inspections of the questionnaire and subsequent responses by the school personnel suggest that written reports are now being received by the various schools that are phrased in such a manner that school administrators and teachers can in fact understand the CCD report. These reports are helpful in planning educational programs for the children.

In addition, data from this objective revealed a series of volunteer responses by persons interacting with the liaison

Figure I

CCD SCHOOL COMMUNICATION QUESTIONNAIRE

130 questionnaires mailed
56 questionnaires returned

Responses of Special Education Directors and School Nurses

43.07 responded

QUESTIONS	Always-Usually		Seldom-Never		No Information		No Answer	
	No. of Resp.	%	No. of Resp.	%	No. of Resp.	%	No. of Resp.	%
1. Prior to seeing a child at Crippled Children's Division, CCD, school concerns are sought by staff of CCD.	24	42.86	16	28.57	11	19.64	5	8.93
2. Prior to seeing a child at CCD, relevant school information is gathered by CCD staff.	25	44.64	17	30.36	9	16.08	5	8.93
3. Written reports to the school from CCD are in language teachers and administrators can understand.	40	71.43	7	12.50	5	8.93	4	7.14
4. In instances where report to school is technical, CCD contacts the school to help interpret it.	13	23.21	28	50.00	9	16.08	6	10.71
5. The CCD report to school is helpful in planning educational program for child.	41	73.21	6	10.71	3	5.36	6	10.71
6. CCD helps the school implement suggested recommendations.	22	39.29	21	37.50	7	12.50	6	10.71
7. CCD is prompt in reporting the findings and recommendations to school.	32	57.14	13	23.21	7	12.50	4	7.14
8. The school knows what services and facilities are available at CCD.	28	50.00	15	26.79	4	7.14	9	16.07

Person Initiating Referral to CCD

Principal	17
Teacher	5
Counselor	8
Nurse	17
Other	29

educator. These for the most part are all positive statements.

Objective 2: Develop an educational diagnostic service for youngsters seen by the various clinics when such services are necessary to properly answer referral questions.

Results of Objective 2 indicate that prior to September, 1970, approximately 70 suspect mentally retarded children were seen per year at CCD through the Multiple Discipline Clinic for evaluation and recommendations. The children were placed in a holding room situation with a classroom teacher. Very little attempt was made to use the classroom or the teacher as resources to assist in the evaluation process. However, during the 1970-71 school year as a result of expanded physical facilities and a revised clinic format, approximately 107 children were served through a diagnostic/prescriptive classroom program. In this context the classrooms have become the focal point of the extended interdisciplinary evaluation process. The education staff are actively involved in the total process. Schools receive an education summary from one of the education staff members regarding developmental levels in the areas of physical, social, emotional, intellectual and academic functioning along with recommendations for improving areas of delay.

Objective 3: Develop strategies to assist the multidisciplinary staff at CCD to do a better job of focusing on relevant educational concerns posed by school agencies.

It was the liaison educator's opinion that the greatest impact noted in this objective was having the liaison educator available for consultation purposes. His presence in the staff meetings of various clinics provided CCD staff with an opportunity to learn the school related problems and how school systems operate. He attempted to bring an educational point of view to a medically oriented setting. In addition, the previously mentioned brochure was developed along with school information sheets and the dissemination of information gathered from the state wide questionnaires served to focus staff's attention on each school age child's education problems posed by the school systems of Oregon.

Objective 4: Develop strategies through which the parents of youngsters served can be guided to appropriate educational services in their community or region.

The availability of the liaison educator to the various clinics and staff of the CCD served to bring him into contact with parents having educational concerns. The liaison educator met with and was part of a team that interacted with approximately 60 parents during the school year. The Project Director felt that this objective was not fully achieved because of the time limitations.

Objective 5: Develop strategies through which the staff and trainees of disciplines of CCD would gain a better understanding of the role and function of special education for handicapped children.

Utilizing field trips to both private and public school classrooms for the staff and trainees was one of the major strategies developed for this objective. Field trips were conducted to a large number of classroom settings across a variety of handicapping conditions. The classrooms at CDRC also provided the staff with a more accurate perception of educational techniques and procedures and they were given an opportunity to participate actively with teachers.

Objective 6: Develop research strategies relevant to the above objectives in order to determine if practices currently being utilized are effective or whether other approaches need to be developed and initiated.

It was generally felt that the questionnaire that was developed and provided to the school personnel was very helpful in delineating communication problems that existed between CCD and the schools. Also a questionnaire was developed for administration to the staff of CCD regarding their perception of the role of the liaison educator. This questionnaire was helpful in providing clarity to the role of the liaison educator and documented the need for such a position. It was determined also that there is a great need, in terms of the staff of various clinics of CCD to become more involved in multi-disciplinary clinics and classroom programs. It was felt that there was a general lack of communication between the various clinics and the classroom which results in an ineffective use of the classroom. It was also felt that the position of the liaison educator which was terminated as a result of this project ending should be reinstated as soon as possible as it seemed to provide a great deal of help for CCD and its relationship with the various schools.

Third Party Evaluator's Comments:

The information that is reported should certainly indicate that incorporation of a liaison educator with the CCD staff was a beneficial decision to provide communication between the clinic and public schools. As a result of this person's efforts, a number of problems that previously existed have been dealt with satisfactorily. Since the project was only of one year duration, it was very difficult for the liaison educator to have had a wide impact; however, it appears that a significant impact occurred with the small number of groups with whom he was able to interact.

The first two objectives are obviously the major components of this project and they certainly seem to have been achieved. The results from the other objectives are reported in narrative form and were intended to raise more questions than to solve existing problems. The major lack in this project is the development of specific strategies to get at the questions that were raised as a result of the one year's activities.

Overall the project seems to be successful. It certainly spells out a future need for the permanent establishment of a liaison educator position with the Crippled Children's Division.

Project Title: *Educational Manager for Primary EMR Students*

Type of Project: *Educable Mentally Retarded*

Location: *Eugene*

Funding Allotted: *$17,000.*

Number of Children Served: *15*

Background and Rationale:

This project is a continuation of a program that was initiated during the academic year 1969-70. At that time Eugene School District Number 4J questioned the practice of placing educable mentally retarded (EMR) students in special segregated classrooms. The district developed a program in which EMR students were retained in regular classroom settings with the help of an educational manager to assist the classroom teacher. The present project is an extension of this program. It was continued during the academic year 1970-71 in three schools within the district with the help of an educational manager and support help through a cooperative agreement, with the University of Oregon Special Education Department.

This project was designed to explore more fully requirements for maintaining primary EMR students in regular classroom settings. The goal was to keep these retarded children in their neighborhood schools and not have them labeled as Educable Mentally Retarded. Fifteen EMR students from three elementary schools in the district were selected for the program.

Objectives and Evaluation Plan:

1. To maintain within regular classroom settings certain children falling within the Educable Mentally Retarded range according to the State of Oregon's certification plan.

   To evaluate this objective demographic data were to be provided on each child concerning his placement at the end of the project.

2. To evaluate the current educational performances of those children selected and to develop an educational prescription for each child which can be carried out within the regular classroom.

   To evaluate this objective inventory data and precision teaching data were to be supplied for each child in the program. This information was to cover the areas of math and reading.

3. To delineate those required teacher behaviors and provide materials necessary to the classroom teacher so that she can maintain the children selected for the project in her regular classroom.

   To evaluate this objective a description of the kinds of materials utilized was to be provided in addition to a description of the assistance given to the teacher by the University of Oregon staff.

4. Discover those measures of evaluation and appraisal which will better enable the development of a prescriptive educational program.

   To evaluate this objective a description of the measures of evaluation and appraisals deemed appropriate was to be provided. Copies of the evaluation instruments and appraisal instruments were to be included if they have been prepared exclusively for this project.

5. To continue and further develop a supportive parent program which initial data from this current year's project suggest will be valuable.

   To evaluate this objective the individual progress of the parents was to be documented and the effectiveness of the parent in working with their child was to be described.

6. To work in close cooperation with the University of Oregon Special Education Department, the Educational Resource Center of that Department, plus the University Affiliated Center and Clinical Services. Their goals are similar to those of the Eugene School District and the purpose will be to develop a model which can be utilized by school districts such as Eugene for the support of children with learning difficulties in the regular classroom.

   To evaluate this objective a description of the project was to be provided as it was implemented in the Eugene schools.

One of the original objectives of this project was to measure the student's academic growth by administering the Wide Range Achievement Tests on a pre- post-test basis. However, this objective was dropped by mutual agreement of the school district and the clinical service personnel from the University of Oregon. It was agreed to drop this objective as it was felt that the Precision Teaching Graphs would give a more accurate record of the children's academic achievement.

Methodology:

During the month of August, 1970, the educational manager for the project contacted the principals and counselors from the four elementary schools that were included in the project during the academic year 1969-70. These schools were Adams, Bailey Hill, Santa Clara and Ida

Patterson. The principal of Ida Patterson School requested that they not be included in this year's project as they had added a perceptual development class to their program. During the first part of September meetings were held in each of the remaining three schools that would be involved in the project. At these meetings the Clinical Services Staff and district personnel met with the teachers, counselors, and principals. The planned project was discussed in detail and a question and answer period was provided for the school staff. After these initial meetings, the school psychologists administered the Stanford Binet IQ Tests to the students who were selected to be in the project. Twelve children in the three schools qualified for the program. Also at this time, and prior to the initiation of the classroom intervention program, Dr. Eric Haughton of the Clinical Services Staff provided training in precision teaching techniques for the aides who would be working in the classroom.

Beginning September 24 the educational manager and the teacher aides, who would be working in the classes, made initial observations in the classrooms in which they would be working. The purpose of these observations was to determine the way in which the referred child was currently functioning in the regular classroom setting. The aides were instructed to review materials and observe techniques used by the classroom teacher. In addition, the educational manager began to make informal educational assessments in order to establish initial projects to be started by the teacher aides in the classroom. Also during this time, the educational manager worked with the aides to demonstrate specialized teaching techniques and provide behavior modification training.

During the first week of October, two in-service training sessions were held for the teachers at Santa Clara School. The teachers met with the educational manager and Dr. Eric Haughton to receive training in precision teaching techniques. The same type of in-service training was held during the first week in November for the teachers at Adams and Bailey Hill Schools. During the latter part of October, the educational manager contacted each parent of the students in the project in order to explain the program to them and to obtain written permission from them which indicated that their child could be involved in the project. At this time the parents were also informed that some of the students would be going to the Clinical Services Building on the campus at the University of Oregon for a period of approximately six weeks to have prescriptive programs prepared for them. Also during this latter part of October all children in the project were given physical, dental, speech and hearing examinations plus a social evaluation.

During October the specifications of options between the classroom teachers and the University Resource Center were drawn up in contract form by Dr. James Crossen of the University of Oregon. In essence this contract stated the responsibilities of both the University Resource Center personnel and the School District personnel. The Resource Center personnel were to provide training in precision teaching for the teachers, supervise the training of children in the teachers' classroom and to assist in recording the child's performance on behavioral charts. The Resource Center personnel were also to provide analysis of data in the two curriculum areas of arithmetic and reading. The Center personnel were to provide assistance to the classroom teacher in the managerial aspects covered in the areas of behavioral and academic assessment. The teachers agreed to conduct one academic project for each child within the group in both arithmetic and oral reading for a period of twenty days. The teachers also agreed to define project goals and set criteria for phases within a project in consultation with the University Resource Center staff. After twenty days of work, if the referred child had reached a criterion level on one or both of the arithmetic and reading projects, the teacher could elect to continue the program as specified, expand the program to incorporate a prescriptive program developed by the Resource Center or terminate the program with that child. After twenty days, if the child had not reached criterion in either one of the two areas, he would be placed in the Clinical Services Center classroom on the University campus. While on the campus, he would attend classes conducted by the Clinical Services staff. During this period the Resource Center staff would continue to provide advice and consultation to the classroom teachers in the district. This in essence was the contract that was drawn up between the teachers involved in the project and the Clinical Services Staff in October.

During the first week in November the Clinical Services personnel from the University and the Title VI staff from the Eugene Schools administered reading and mathematics inventories to all the children involved in the project. During the last week of November the teachers began individual programs in arithmetic and reading with the project children in their classroom. As agreed in the contract, the teachers used these programs for twenty days. At the end of this time, December 18, the initial phase of the project was completed.

During the first week in December, some of the teachers involved in the project began questioning the relevancy of the project in relation to their children. The problem centered around the fact that the teachers were being asked to collect data on the entire class, using the precision teaching model. They felt that this was taking disproportionate amount of time away from their instructional program. Also, some of the teachers expressed concern about the arithmetic and reading inventories that were given to their children. The teachers felt that it took too long to administer these inventories and that many of the items were inappropriate for the grade level of the children with whom they were working.

In order to alleviate these problems, during the first few weeks of January, the project staff of the Clinical Services

Center, the Title VI personnel from the school district and the teachers from the district met on three different occasions and discussed the problems that had arisen during the first twenty days of the project. These meetings provided an opportunity for the teachers to express their feelings to the University staff concerning the problems in the project. As it turned out, these meetings had rather far-reaching implications. First, the mutual commitment of the teachers, the Title VI Project Staff, and the staff of the Resource Center toward the betterment of educational services for the handicapped children led to a genuine sharing of information in a problem centered climate. From this, it was possible for the teachers to show how several of the program requests and procedures imposed by the University-based group were irrelevant to the need of the children involved, as well as over-burdensome to their teachers. These findings are discussed elsewhere in this report. More importantly, the realization of this knowledge caused the Resource Center personnel to reconsider its philosophy of service, and ultimately resulted in a total reorganization and redirection of Center activities toward the development of a beneficial field-centered model of service based upon the concept of co-active communication between University-based personnel and educational practitioners in the field. Thirdly, in recognition of the need for more effective communication and participant planning for referred children, a plan was developed whereby the educational manager, teachers, and Resource Center staff would participate in systematic evaluation of and planning for each child's progress. This process continued throughout the balance of the project year and was thought to have resulted in much more relative and effective programming for each child.

From January 25th to March 5th all of the Title VI students were transported daily to the Clinical Services Building on the campus of the University of Oregon. Their entire school day for this period of time was conducted on the campus and the Clinical Services teachers were responsible for the daily programs. Individual programs were designed and carried out for each child while he was on the campus and these were taken back to the classroom when he returned in March. During this time the educational manager also worked with the children. Also at this point, release time was arranged for the classroom teachers so they could observe their students working in the center. They could also confer with the Clinical Services teachers and the educational manager on prescriptions for their students.

The program at the Clinical Services Building for the Title VI students included continued work in the development of reading and arithmetic competencies and a physical education program that integrated arithmetic concepts with music. Students were also able to use the bowling alley on the campus. Communication skills were stressed and a speech program was conducted under the direction of Dr. Hervey, Professor of Speech Pathology, University of Oregon. A recreational program was also conducted which included a visitation to the campus museum, arts and crafts and other activities.

While these 12 children attended class at the Clinical Services Building, three more children were screened and selected by the district to participate in the program. These three students were added to the Title VI population and worked in the regular classrooms in the district.

On March 8th the 12 students returned to their regular classrooms. They brought with them their individual programs that were to be conducted by paraprofessionals under the direction of the classroom teacher and the educational manager. During the period April 29th—June 8th the three new students who were identified earlier were transported to the Clinical Services Building on the campus, repeating the same type of programming which the first groups of students received. The educational manager continued to work with the three students on the campus and the initial group in the classroom.

Results:

1. To maintain within regular classroom settings certain children falling within the Educable Mentally Retarded range according to the State of Oregon's certification plan.

   An examination of Table I indicates tnat the majority of the children in the program were able to remain in a regular classroom setting. Nine students of the total group were promoted to the next grade level in a regular classroom setting. One child was retained in his regular classroom setting at the same grade level. Two children were placed in special classes for the coming year. It should be noted that subject number 12 was placed in a special class at his parents' request. Three children moved out of the area and the disposition of their placement was not reported. From the information reported, it can be seen that the program was successful in keeping nine of the 15 project children in a regular classroom setting.

Table 1

Disposition of Subjects at Termination of Project

Subject	School	Grade	Dispositions
1	Adams	2	Moved
2	Adams	3	Place in 4th grade
3	Adams	1	Place in ELP class
4	Adams	2	Place in 3rd grade
5	Adams	3	Place in 4th grade
6	Adams	1	Moved
7	Bailey Hill	2	Place in 3rd grade
8	Bailey Hill	1	Retain in 1st grade
9	Bailey Hill	1	Place in 2nd grade
10	Bailey Hill	3	Moved
11	Bailey Hill	2	Place in 3rd grade
12	Santa Clara	2	Place in Special Class
13	Santa Clara	3	Place in 4th grade
14	Santa Clara	2	Place in 3rd grade
15	Santa Clara	3	Place in 4th grade

2. To evaluate the current educational performances of those children selected and to develop an educational prescription for each child which can be carried out within the regular classroom.

Tables II and III provide educational data in the area of reading and arithmetic for the children involved in the study. These data were accumulated from the inventories and precision teaching charts that were maintained for each child in the project. As can be seen from the data on Table II, the majority of the children showed improvement in the area of reading. Also, as indicated on Table III, the majority of the children showed progress in the area of arithmetic. This was especially apparent in the areas from "ability to count" to "ability to perform subtraction without borrowing." The data indicate that only three students showed improvement in the areas from "addition with carrying" to "division facts." This can be explained by the fact that due to the grade level of the children involved in the study the major part of the arithmetic curriculum was concerned with having the children gain skills in counting and computing simple addition and subtraction problems. Higher level arithmetic skills required in computing problems requiring carrying in addition and borrowing in subtraction along with the learning of multiplication and division facts is generally not acquired by students at these grade levels.

3. To delineate those required teacher behaviors and provide materials necessary to the classroom teacher so that she can maintain the children selected for the project in her regular classroom.

The following behaviors were deemed necessary for the classroom teacher if she were to successfully maintain primary EMR students in a regular classroom setting:

1. Be sensitive to the needs of special class children.
   a. Longer periods of intensive individual instruction is needed to develop primary skills.
   b. Begin with concrete materials and move towards more abstract concepts.
   c. Expect that children can and will learn when appropriate teaching methods are employed.
   d. Children's attention span may be short and they may engage in undesirable behaviors but these can be modified through use of behavior modification techniques.

Table II

Educational Data – Reading Tasks

Subject	Letters Named Orally		Consonant Sounds Read Orally		Consonant Teams Read Orally		Vowel Sounds Read Orally		Vowel Phonograms Read Orally		Blending Three Letter Words		Consonant Team Combinations Read Orally		Syllables Circled		Syllables Read Orally Fall		Free Syllables Said Orally		Alphabet Orally in Sequence		Syllables Read School Selection		Syllables Read Inventory Selection	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1	18/6	43/6	11/6	107/6	0/8	18/1	11/16	64/7			7/3	20/1					24/6	81/3			11/6	41/6	14/7	30/13		
2	52/3	118/6	46/3	52/12	14/6	16/20	26/10	11/30	14/1	32/20	6/6	13/13	2/3	3/28	23/6			160/3	206/6	444/6	212/6	208/6	135/11	130/11	131/49	147/30
3	11/6	7/33	24/6	24/7	2/16	10/2	16/20	24/6	1/6	2/4	3/3	1.3/1.3	0/6	3/.3	0/9				240/6		112/6		11/13		7/31	
4	16/6	26/6	14/2	20/3	6/8	2/31	14/13	43/1			0/6	2/6					27/2	63/1			1/1		27/2	63/1		
5	46/6	40/3	20/6	46/13	6/2	14/6	30/26	20/6	4/1	14/6	2/6	19/6	1/3	4/6	41/1			37/11	200/6	454/6	211/6	450/16	24/16	41/6	16/32	37/15
6[1]	12/13		26/16		0/43		30/26		0/12		0/33		0/26		1/1				193/16		44/12		4/35		0/104	
7	4/2	12.1/6	4/2	27/5	0/8	0/9	4/13	21/3	0/8	2/8	0/8	4/3.3	0/8	3/3.3	2/16				209/8	209/8	1/8	111/6	6/5	12.3/3	0/37	2/3
8	3/37	3/33	4/38	24/2	8/8	0/6	4/33	41/3	0/16	0/18	0/18	0/7	0/18	0/6				8/13	24/8	104/8	0/16	24/16	0/36		0/33	0/18
9	21/6	42/8	41/3	92/6	20/7	41/3	10/18	24/6			43/3	41/8					24/6	67/3			16/6	40/6				97/6
10[1]	40/7		41/3		0/6		11/6		1/4		0/6		0/7						121/6		33/33		24/7		1/6	
11	11/6	28/6	41/6	61/6	31/33	102/6	74/6	29/7			14/5	17/5					21/3	67/6			18/6	46/7		73/6		
12[2]	4/3		18/6		0/18		1/13		0/38		0/78		0/18		1/31				218/6		488/32		44/65		0/31	
13	48/6		98/6		2/31		36/38		1/3		1/7		9/7		41/3				140/6		114/6		29/7		88/83	
14	4/3	1/6	41/8	46/6	0/8	0/7	4/7	70/13	2/8	0/7	0/8	4/13	1/3	0/28	1/18			11/13	23/5	115/6	1/16	61/12	31/35	90/6	2/18	45/5
15	24/6	41/6	45/7	88/3	0/8	40/2	6/6	24/6	1/7	41/6	0/6	2/3	1/6	0/6	0/18			114/7	180/6	117/6	103/6	116/7	24/6	133/3	0/3	24/32

Key: Correct / Incorrect

[1] Moved prior to administration of post-test.

[2] Transferred to special class prior to administration of post-test.

TABLE III

Educational Data - Arithmetic Skills

Subject	Oral Counting: Total Digits Pre	Oral Counting: Total Digits Post	Oral Counting: In Sequence Pre	Oral Counting: In Sequence Post	Read Numbers Pre	Read Numbers Post	Writing Numbers: Total Digits Pre	Writing Numbers: Total Digits Post	Writing Numbers: Unique Numbers Pre	Writing Numbers: Unique Numbers Post	Writing Numbers: In Sequence Pre	Writing Numbers: In Sequence Post	Word-Number Correspondence Pre	Word-Number Correspondence Post	Addition Facts Pre	Addition Facts Post	Subtraction Facts Pre	Subtraction Facts Post	Addition No Carrying Pre	Addition No Carrying Post	Subtraction No Borrowing Pre	Subtraction No Borrowing Post	Addition With Carrying Pre	Addition With Carrying Post	Addition With Borrowing Pre	Addition With Borrowing Post	Multiplication Facts Pre	Multiplication Facts Post	Division Facts Pre	Division Facts Post
1.	119/0	119/0	11/10	107/0	11/0	11/1	23/0	49/0	-/0		10/0	22/0			-/1	-/1	-/1	-/1	0/11	11/11	-/1	11/1								
2.	119/0	120/0	119/0	113/1	11/1	113/0	22/0	44/0	10/0	10/0	10/0	11/1	1/1	11/1	11/0	20/1	20/0	21/0	21/0	11/1	11/0	11/0	11/0	12/0	0/10	1/10	1/1	11/1	1/10	10/1
3.	22/0	114/0	11/1	100/0	10/10	11/0	11/1	20.1/1.5	10/0	10/0	11/0	11.5/1.5	1/11	10.1/1	-/1	10.1/1	-/1	1/1.5	0/0	0/0	0/0	0/0								
4.	60/10	111/0	11/1	11/1	11/10	11/1	11/0	11/0	10/0		11/0	11/1			11/1	11/1	-/1	11/0	0/0	11/1	1/0	11/1								
5.	111/0	111/0	109/0	110/1	11/1	11/1	11/0	10/0	10/0	10/0	11/0	10/1	1/1	1/1	11/0	11/0	11/1	11/1	10/0	11/1	1/1	1/1	-/1	-/1	0/1	1/1	1/1	1/1	1/11	11/0
6.[1]	11/0		11/0		-/0		11/0		-/0		-/0		1/0		-/0		-/0		-/0		-/0		-/0		-/0		1/0			
7.	109/0	11/0	11/0	11/0	11/0	11/0	20/0	11/1.5	10/0	10/0	10/0	11/1.5	1/11	1/1.5	11/1	11/1	11/0	11/1	1/1	11/1	1/0	1/0								
8.	11/0	11/0	11/0	11/0	1/11	11/11	1.1/1	11/0	1/0	11/0	1/1.5	11/1	1/1	1/1	1/1	1/1	1/0	1/1	1/0	1/1	1/0	1/0								
9.	111/1	111/1	11/1	11/0	11/11	111/0	11/0	11/0			11/0	20/1			11/1	11/1	1/1	11/1	1/1	20/1	1/1	1/1								
10.[1]	111/0		11/0		11/1		11/1		11/0		11/11		1/0		11/0		1/1		11/1		1/0		1/0		1/0		1/0		1/0	
11.	111/0	111/1	11/0	110/1	11/1	100/0	11/0	11/1	10/0		11/1	11/1			11/1	11/1	11/0	11/0	11/1	11/1	11/0	11/0							11/0	11/0
12.[2]	1.10/0		11/0		11/1		11/1		1/0		11/1		1/11		1/1		1/1		1/1		1/0		1/0		1/0					
13.	120/0	100/0	111/0	111/0	11/0	11/0	11/1	100/0	11/0	1/0	11/1		1/1	11/11	11/0	10/0	1/0	11/0	11/0	11/0	1/1	11/0	1/0	1/0	1/0	1/0	1/1	1/1	1/1	1/0
14.	111/1	111.1/0	11/1	11.1/1.5	11/0	11/1.5	11/0		10/0		11/1		1/0	1/1.5	11/1	11.1/1	1/0	11/1	1/1	10/1										
15.	111/0	111/0	110/0	111/0	101/0	111/1							11/1	11/0	11/1	10/1	11/0	11/0	11/1	11/0	11/1	11/0	11/0	11/0	1/11	11/0	1/0	11/1	1/0	1/1

Key: Correct / Incorrect

Figures represent responses on each probe.

1. Moved prior to administration of post-test
2. Transferred to special class prior to administration of post-test.

2. Be able to plan instruction for individuals rather than groups of children. This planning should be appropriate for EMR children for at least a 20–25 minute academic period.
3. Be able to determine exactly where a child is performing, on a daily basis, through educational assessments or inventory tests. Precision teaching techniques can also be used for this purpose.
4. Have knowledge of appropriate sequence of academic skills.
5. Be able to break the sequence of academic skills into their smallest components (tasks analysis).
6. Be able to write and prepare programs and materials suited to the needs of individuals (prescriptive programming).
7. Be aware that immediate reinforcement is imperative and be able to determine the type of reinforcers that are most appropriate for each individual student.

Although the original evaluation plan for Objective 3 did not call for the listing of these behaviors, they were included since part of Objective 3 was to delineate required teacher behaviors for maintaining special education students in regular classroom settings.

A description of the assistance given to the teachers by the University staff can be found in the Methodology section of this report as well as in the Results section under Objective 6.

Materials selected should be those that would serve to help individualize instruction related to prescriptive programming. The following materials were used in this project: Cassette tapes and playback units for programming material; head sets, language masters, tape recorders, and record players for language development programming; film strips and film strip projectors for teaching math facts and other related arithmetic skills; reading materials phonically written such as Follette Materials, Webster-McGraw Hill, and Lippencott; games and puzzles to enhance enjoyment of learning, developmental programs in academic areas such as Distar and Open Court readers. A variety of teacher prepared materials can also be used in this type of program.

4. Discover those measures of evaluation and appraisal which will better enable the development of a prescriptive educational program.

Educational inventory materials were developed to assess the child's ability in the areas of reading and arithmetic. Data gathered from these inventories are shown on Tables II and III. These inventories were designed especially for the type of program described in this report and they were effective for gathering

educational information about special education students. Copies of these inventories can be obtained from the Eugene Public Schools by contacting Dr. Aubrey Trimble, Director of Federal Programs for the district.

5. To continue and further develop a supportive parent program which initial data from this current year's project suggest will be valuable.

A parent training program was initiated to provide the parents with methods for working with their children in the home situation. These methods were to help the parent change behaviors that they felt were adversive in the home as well as to instruct them in ways in which they could assist their child in academic areas. This program was conducted by the staff of the resource team from Clinical Services Building at the University of Oregon. The first parent visit was conducted at the Clinical Services Building on the campus and at this time an orientation to the short term program that would be conducted at the Center was provided. In addition, permission forms to allow the children to participate in the program were explained to the parents and the parents signed these forms at this time. Also, commitments were obtained from the parents to work with the resource team from the Clinical Services Building. The second visits were conducted in the home and at this time an explanation of the multi-disciplinary evaluation was provided and applications for medical assistance were signed by the parent. In addition other necessary resources were identified for the parents. An explanation was also provided concerning the teaching assistance that would take place in the regular classroom for their child and a description was given of the similar programs that would be developed in the home. Feedback on a child's progress in the regular classroom would be furnished to the parents on a regular basis. After the second visit, the third and any other succeeding visits were conducted in order to provide the parent with needed information concerning the child's progress in the school situation. Also the development of academic and behavioral programs in the home were continued at this time and assistance was given in further helping the parent to develop these programs. Parents were instructed on how to chart behaviors but this was not a requirement of the parent program. Fourteen out of the fifteen parents became involved in some type of mini-program in the home situation and these parents experienced some success with their program. The parents did spend time with their children in the home situation, working on structured academic programs; however, as reported by the district, the failure to link the teacher and parent during this home intervention program appeared to diminish the success of the program.

6. To work in close cooperation with the University of Oregon Special Education Department, the Educational Resource Center of that Department, plus the University Affiliated Center and Clinical Services.

Their goals are similar to those of the Eugene School District and the purpose will be to develop a model which can be utilized by school districts such as Eugene for the support of children with learning difficulties in the regular classroom.

The final goal of this project was to develop a working relationship between the Eugene Public Schools and the University of Oregon Special Education Department which included in this project the Educational Resource Center of the University, plus the University Affiliated Center and the Clinical Services Building. Because the goals of the University's program were similar to those of the School District, it was deemed that a working model could be developed that could possibly be utilized by other school districts. This working relationship could serve as a model for developing support programs for special children with learning difficulties who could be helped in a regular classroom setting. This was to be done in order to prevent children from being placed in segregated special education classes. The results of this project indicate that a cooperative relationship could be developed with a public school system and a university program. The University was able to provide services in terms of developing programs for children, gathering educational data for teachers and providing educational programs for children both in the classroom and home setting. The Eugene School District reported a number of modifications that had to be made to the original proposal. It was reported by the district that less children were involved in the program than had originally been predicted. The original proposal called for serving from 20 to 24 children when actually 15 children were served in the project. One factor contributing to this modification was the difficulty experienced by the Resource Center in meeting scheduled deadlines. This was due to the fact that the Resource Center was itself involved in development of its program. Also, the Resource Center's initial requirement of gathering precision teaching data on the entire class was too time consuming for the teachers and necessitated some delays in implementing programs in the initial phase of the project. It was also reported that many of the teachers continued to depend on the Title VI aides to maintain the individual programs. Some teachers had gained the necessary skills to maintain individual programs but due to the numerous classroom responsibilities it was impossible to conduct the required individual instructional programs. The district felt that this was caused by the teachers' orientation to group instruction rather than individ-

ual instruction. This resulted in further delays in implementing a full range of programs for the children.

Third Party Evaluator's Comments:

In reviewing the objectives and outcomes of this project it can be noted that a number of successes were obtained. The cooperation between the Eugene District and the University did provide services for EMR children in regular classroom settings. As results indicated, nine children will remain in a regular classroom setting next year. Only two children were placed in special classes. Three children moved out of the area and information was not available concerning these children. In reviewing the educational data that were reported it can be noted that the majority of the children showed gains in both reading and arithmetic skills. The home intervention program was successful and a number of parents planned programs and worked with their children in the home setting.

In spite of these successes there were problems that developed around the requirements that the University placed upon the teachers in the Eugene schools. It was felt by the teachers that the University was requiring too much extra work from them, especially in the area of data collection. The original requirements called for the teacher to collect data only on the child involved in the project but the University was requiring them to collect data on all the children in the classroom. Many of the teachers reacted adversely to the precision teaching model which requires a great deal of data collection. Most of the teachers reported that they were unable to gather all the data required by the University using the precision teaching model. Another problem that arose concerned the educational inventories that the University provided for the classroom teachers to gather educational data. Many of the teachers felt that the inventory was assessing skills that were beyond their curriculum. For instance, many of the first grade teachers indicated that the educational inventory in arithmetic was asking them to gain information concerning their children's ability to multiply and divide and this was not part of a first grade curriculum. The teachers also voiced unhappiness about the fact that the University did not provide the educational assistance to the teachers in the area of curriculum development. Apparently the teachers were under the assumption that the University would recommend various curriculum materials to be used but the teachers felt that this help was not provided.

The project was initiated in September and by December the University staff on the project became aware of the problems. At this time, they attempted to correct the problems that were created in the district. A general meeting of all the teachers and the University project staff was held in early January and at this time the teachers were able to express their reaction to the program and alternative plans were explored at this time. One of the changes that was made at this time concerned the amount of daily data that had to be collected on the children. It was decided that only those children who were involved in the project had to have data collected for them. Also at this time the University brought the children in the project into the classroom setting on the campus where they worked for approximately three months with them. In this facility the staff demonstrated the concepts they felt were crucial to the education of these children. The programs that were developed in the center were sent back with the child when he returned to the school district. Thus an attempt was made to communicate with the teachers and the administrators in the program to solve the problems. It is felt by this evaluator that the University did place some requirements upon the teachers that were too demanding in relation to their total teaching commitment, but when the University became aware of this problem they made appropriate modifications to their requirements.

It is the opinion of this evaluator that the concept that was developed in this project should be pursued. It is logical that the University program with its numerous facilities and staff would be an excellent resource to assist school districts, such as Eugene, develop programs whereby special education children can be maintained in the regular classroom setting. Results of this project suggest that the University staff needs to become more aware of public school programs so that they can be more relevant to the needs of classroom teachers who are attempting to support special education students in the regular classroom setting. Even though this project was beset with a number of problems, the University was sensitive to them and they did correct them. It appears that this kind of effort should be continued with both parties willing to make needed changes to effectively educate special education students in regular classroom settings.

Title of Project: *Southern Oregon Regional Center for Hearing Evaluations*

Location: *Jackson County Intermediate Education District, Medford*

Funding Allotted: *$12,600*

Type and Number of Children Served: *1,056 - Hearing Impaired*

Project Beginning Date: *Sept. 15, 1970*

Project Ending Date: *July 31, 1971*

Background and Rationale:

This project is an extension of the previous year's project with a main concern for providing hearing evaluations and treatment recommendations for children with hearing difficulties in the southern part of Oregon. Until this particular service was instituted, the nearest place a child could receive hearing evaluation was in Eugene. The results of this project last year indicated that the staff was able to evaluate 321 children. Last year's third party evaluation indicated that although a significant number of children were seen for hearing testing, the results of the subsequent treatment recommendations were not evaluated as to their effectiveness. Thus, this year's project was designed again to screen a large number of children but also to document change that occurred as a result of treatment.

Objectives and Evaluation Plan:

The objectives specifically were to provide hearing impaired children residing in Southern Oregon the following audiological services:

1. Audiological assessment. – This includes standard hearing tests for determining type and degree of hearing impairments which are pure tone, air and bone conduction audiometry, speech reception, and speech discrimination tests.

   Evaluation: Report the number of children assessed, the results of the assessment, and a statement concerning severity.
2. Special diagnostic audiologic tests. – This includes such tests as tone decay, short increment sensitivity index, sensory-acuity level test. Special test for non-organic deafness and infant screening.

   Evaluation: Report the number of children assessed, the results of that assessment, and a statement concerning severity.
3. Hearing aid evaluation. – Includes hearing test to analyze the hearing impaired person as a hearing aid user and to help him discover one or more instruments which satisfy his hearing requirements as reasonably as may be expected.

   Evaluation: Report the number of children evaluated and the subsequent improvements in their hearing ability.
4. Physician referral. – To insure medical evaluation and treatment when needed.

   Evaluation: Report the number of children referred and the amount of improvement following medical treatment on those children retested.
5. Counselling with the student, parent and teacher.

   Evaluation: Report the number of children seen in a counselling situation.
6. Recommendations for follow-up. – Speech therapy, speech reading, auditory training, language development or tutoring of the school subjects.

   Evaluation: Report the number of children on whom recommendations were made and the type of recommendations that were made.
7. Educational follow-up by the Audiologist with the classroom teacher and principal.

   Evaluation: Report the number of children who were followed-up by the project staff after treatment and the number of follow-ups per child.
8. In-service training for classroom teachers and parents regarding hearing loss.

   Evaluation: Report the various types of in-service training that were conducted, the number of people who received training and a general description of those persons.
9. Dissemination of information regarding the evaluation services available on the accomplishments of the program to all cooperating agencies.

   Evaluation: A narrative report of the year's activities.

Methodology:

The children that were served were under 21 years of age and resided within a five county region. Referrals were received from Oregon State Board of Health Hearing Conservation Program, four county public health depart-

ments, speech and hearing therapists of Southern Oregon, Head Start Programs, speech and hearing planning, Southern Oregon College, Crippled Children's Clinic, physicians, Division of Vocational Rehabilitation, Welfare Department, and parents who suspected that their child had a hearing loss.

The staff for this particular project consisted of an audiologist who holds a Masters Degree and Certificate of Clinical Competency in Audiology from the American Speech and Hearing Association. Hearing evaluations were scheduled each hour and a half throughout the program. Existing facilities available for this activity were provided by the Jackson County Intermediate Education District for housing and supervision of the program. A Tracor Clinical Audiometer, Model RA115, and an Industrial Acoustics Company Sound Room, Model 403A, and office equipment were also part of the current facilities.

Parents of the children being tested were expected to be present for counselling and to assist their child by executing any recommendations made. Parents, teachers, and family physicians were informed of the child's hearing loss. The physician performed medical evaluation and treatment when indicated. The hearing impaired child was referred to a qualified hearing aid dealer to fit the child with an aid when he or she could profit from one. Teachers provided educational readjustment when necessary.

In-service training was provided for classroom teachers, speech therapists, school administrators and parents in the form of a class through the Division of Continuing Education. The Audiologist in this program also received some short in-service training on task analysis and writing behavioral prescriptions for educational follow-up.

Results:

1: Audiological assessment - Report the number of children assessed, the results of the assessment, and a statement concerning severity. As can be seen in Figure 1 a total of 1,056 children were seen for audiological assessment. The chart is further broken down into age groups and types of hearing loss.

2: Special diagnostic and audiologic tests - Report the number of children assessed, the results of that assessment, and a statement concerning severity. Figure 1 indicates that a total of 43 children were assessed from these special diagnostic tests. Of the total of forty-three (43) children administered special diagnostic tests, thirty-three (33) fell in the range of mild to moderate degree hearing loss. Of this number, seven (7) proved to have valid tests while the others were demonstrating a functional non-organic type hearing problem. Of the other ten (10), special tests administered were as follows: Tone Decay Test (TDT) - Seven (7) of this number gave positive response to the test. This test is indicative of a retro-cochlear type lesion. Short Increment Sensitivity Index (SISI) - Five (5) of those individuals administered the aforementioned test demonstrated positive or questionable results. This test is indicative of a cochlear type deficiency. Only three (3) medical reports were received on the above individuals. They were all demonstrating functional type hearing deficiency.

3: Hearing aid evaluation - Report the number of children evaluated and the subsequent improvements in their hearing ability. Figure number 1 again reports the number of children seen by age groups. The total number of children seen for this particular type of evaluation is 47. Of the total forty-seven (47) children recommended for hearing aids, all were considered to be able to benefit from amplification or no recommendation would have been made. Only sixteen (16) returned for further evaluation within the thirty day recommended period. Of the sixteen (16) that returned within the thirty day recommended time, all proved as initial recommendations suspected; that is, sufficient gain to enable them to benefit auditorially at their optimum level in an academic environment. A break down of the forty-seven (47) is as follows: Thirty-three (33), moderate (41 to 55 dB) to moderately severe (56 to 70 dB) degree of loss - amplification brought them to within American Medical Association criteria of normal (0 to 26 dB HL). Nine (9) severe (71 to 90 dB) aided, four (4) returned to AMA normal. Five (5) demonstrated improvement to a moderate degree of loss. The remaining five (5) fell into the profound degree of loss level (91 dB plus). All were very young; actual level of improvement is subjective. However, all exhibited improvement at least to the moderately-severe level.

4: Physician referral - Report the number of children referred and the amount of improvement following medical treatment on those children retested. Figure 1 indicates that 253 cases were referred to physicians. As far as could be learned, two hundred and twenty-one (221) of the two hundred and fifty-three (253) referred cases followed through with their medical evaluations. Of that number, thirty-seven (37) returned for re-evaluation by this Audiologist. The thirty-seven (37) demonstrated either total improvement to the nerve line or were still under medical management at time of post medical testing.

5: Counselling - Report the number of children seen in a counselling situation. The data collected indicate that there were 431 cases of counselling with parents, 142 cases of counselling individuals, 77 teachers received counselling, and 97 cases receiving counselling that fall in the category of fathers. This results in a total of 747 counselling situations utilized.

6: Recommendations for follow-up - Report the number of children on whom recommendations were made and the type of recommendations that were made. The recommendations made by the center are as follows: medical 461, preferential seating 141, speech reading and/or auditory 70, educational 88, speech therapy 75. The total number of recommendations made by the center staff is 835.

7: Educational follow-up - Report the number of children who were followed-up by the project staff after treatment and the number of follow-ups per child. The only

information that is available indicates that 3 children in the 0-5 age range received at least one educational follow-up.

8: In-service training - Report the various types of in-service training that were conducted, the number of people who received training and a general description of those persons. One type of in-service training was conducted in the form of a Division of Continuing Education course that was made available to 43 persons. It was made up generally of teachers, nurses, and school personnel.

9: Dissemination - A narrative report of the year's activities. The narrative report is described in the method section of this report. The center also produced a newsletter that was published once.

Third Party Evaluator's Comments:

This project has again succeeded in providing hearing evaluations for an extremely large number of children in Southern Oregon. This is certainly a meritorious activity.

It was pointed out last year that an attempt should be made to determine the effectiveness of treatment strategies employed as a result of the hearing evaluation. Last year the project got started late and the equipment was not usable until mid-year and therefore the evaluation information concerning the effectiveness of treatment was very difficult to gather. It was recommended however that with a full year of operation it should be reasonable to expect that this type of evaluation information could be gathered.

In this year's projects there is one area which could not be evaluated because evaluation information is considered incomplete. This area is the educational follow-up.

The project has adequately demonstrated the ability of a school system to conduct auditory screening of children on a large scale.

Title of Project: *The Value of Distar Reading and Language Programs with Learning Disabled Students*

Location of Project: *Lake Oswego*

Type of Child Served: *Learning Disabled*

Number of Children Served: *66*

Funding Allocated: *$13,000*

Background and Rationale:

This project is a continuation of a previous Title VI project in which children identified as having potential learning disabilities were provided with special remedial instruction. The project was first initiated in May, 1969 when 54 kindergarten students were identified as having potential learning problems in the area of reading on the basis of their scores on the deHirsch Test, a test designed to predict learning disorders. Thirty of these students were given special remedial instruction during the summer of 1969. The remainder of the group formed a control group and they received no special instruction.

In September, 1969 all of these children entered the first grade and at the termination of their first grade year in May, 1970, all 54 students were tested on the Gilmore Oral Reading Test. At this time it was noted that the 10 students who received the highest scores on the Gilmore Oral Reading Test had been given instruction in the Distar Reading I Program during their first grade year.

In September, 1969 a group of 64 kindergarten children were identified on the deHirsch Test as having potential problems in learning to read. Twenty-eight of them were placed in a special experimental program and the other 36 children formed the control group. In May, 1970 it was found that 15 of the children who were in the special program continued to fail the deHirsch Test. These 15 children were placed in a special summer program where Distar Reading and Distar Language were used. These children began first grade in September, 1970 and were given continual instruction in the Distar Reading Program.

The purpose of the present Title VI project was to assess the efficacy of the Distar Reading Program with children identified as having potential problems in learning to read. Part of the group that were assessed during the 1970-71 school year were those children who had completed one year of first grade reading using the Distar Reading I Program and were at this time, (June, 1971) completing the second grade and had worked with the Distar Reading II Program. Another group of children who were assessed were those who had begun work in the Summer of 1970 with the Distar Reading I Program and had now in June, 1971 completed the first grade year using the Distar Reading I Program. Also, the Distar Reading Program was assessed as a remedial program with three upper grade students who were in a remedial reading program. In addition, a Distar Language Program was conducted for a group of students identified as having poor language development.

Objectives and Evaluation Plan:

1. To verify the value of Distar Reading I materials with certain high-risk first graders receiving help from an ELP teacher. To evaluate this objective, the Gilmore Oral Reading Test was administered at the conclusion of the program to 15 children who received Distar Reading I materials and 20 children who received a reading program other than Distar.

2. To determine the influence of classroom teachers using the Distar Reading I materials with certain high-risk first graders. To evaluate this objective, the reading scores of those children who received the reading specialist's help would be compared with those children who received help from the classroom teachers only.

3. To verify the value of continuing second grade students, who have completed Distar Reading I, into Distar Reading II. To evaluate this objective, the Gilmore Oral Reading Test was administered at the end of Grade 1. This constituted a pre-evaluation measure. The Gilmore Oral Reading Test was again administered at the end of Grade 2 and constituted a post-measure. Ten children were expected to be involved in this measurement. These were the 10 students who scored the highest on the Gilmore Oral Reading Test in May of 1970 at the conclusion of their first grade year. A control group of children constituting approximately 40 children who did not receive Distar I were tested with the Gilmore Oral Reading Test at the end of Grade 1 and again with the same measure at the end of Grade 2.

4. To determine the value of the Distar Reading Program with three remedial sixth graders. To evaluate this objective, the Gilmore Oral Reading Test was administered at the beginning and end of the sixth grade year to these three students. This objective was not part of the original project, but was added after the project had begun.

5. To determine the value of Distar Language I with students who have poor language development. To evaluate this objective, Northwestern Syntax Screening Test was administered on a pre- post-test basis.

Methodology:

Mrs. Iris Poutala, a certified teacher in extreme learning problems, was the leader of the project. She received special training from the Science Research Associates who publish the Distar Reading materials. This special training included the use of Distar materials and procedures involved in teaching this program. Also involved in the study was Mr. Joe Favero, a speech therapist in the district. Mr. Favero worked with children who received the Distar Language I Program.

The two classroom teachers who used the Distar Reading Program in the classroom setting were Mrs. Laura Thompson and Mrs. Jean Lusk. Both were first grade teachers. Each of these teachers selected 11 students who had been identified in their kindergarten year as having potential learning problems in the area of reading. The teachers used Distar Reading I with groups of five to six of these children at a time, one half-hour daily.

Mrs. Poutala, the teacher certified in extreme learning problems, trained the two first grade teachers in the use of Distar Reading materials. In addition she used the Distar Reading I and II Programs with the three intermediate remedial reading students on a half-hour per day basis, and she also used the Distar Reading I and II with a group of first graders who have been identified as having potential learning problems in reading during their kindergarten year. She also worked with these students on a half-hour per day basis. She used the Distar Reading II Program with nine second graders who had completed the Distar Reading I Program the previous year.

Mr. Favero, the speech therapist in the district, tested 68 primary children using the Northwestern Syntax Screening Test. From this testing he identified 33 students who were deficient in language development. Twenty-three of these students formed the experimental group. This group was composed of twelve kindergarteners, eight first graders, two second graders, and one third grader. He saw this group of children twice a week on a half-hour per day basis. Ten children who were identified as having poor language development were used as a control group and they did not receive the special instruction with the Distar Language Program. The control group consisted of six kindergarteners and four first graders.

Results:

1. To verify the value of the Distar Reading I materials with certain high-risk first graders receiving help from the ELP teacher.

   Table I provides the data for the 10 children who received instruction in Distar Reading during their first grade year. It should be noted that the original plan called for testing 15 students. Five children from this group moved from the district prior to the final testing. On Table II, results are provided for the children who did not receive instruction in Distar Reading during their first grade year. These children received instruction in the regular school reading program as provided by the school district. It should be kept in mind that both groups of students, those whose scores appear in Table I and those students whose scores appear in Table II were identified during their kindergarten year as children with potential reading problems. They were identified on the basis of their scores from the deHirsch Test.

   Table I indicates that all children who used the Distar material were reading at the first grade level in accuracy at the end of the year. Three students were reading below first grade level in comprehension at the end of the year. These are subjects 2, 4, and 8. All of the other subjects were reading at the first grade level or higher at the end of their first grade year as measured by the Gilmore Oral Reading Test.

TABLE I

Gilmore Oral Reading Scores with First Graders
ELP Teacher Using Distar Reading I

Subject	Gilmore Oral Reading Scores (June-1971) Accuracy	Comprehension
1	1.0	1.0
2	2.6	.6
3	1.7	1.3
4	1.3	.7
5	3.2	5.4
6	1.7	3.4
7	2.4	2.1
8	1.4	.8
9	2.3	1.3
10	1.5	2.6

Table II indicates that four subjects were reading below first grade level in accuracy as measured by the Gilmore Oral Reading Test. These were subjects 12, 15, 16, and 17. It should be noted that subjects 12, 15, and 17 were only one month below the first grade level at the end of the year and subject 16 was only two months below the first grade level. In comprehension, three subjects were reading below first grade level. They were subjects 6, 9, and 17. It should be noted that subject 17 was the only subject who was below grade level in both accuracy and comprehension on the Gilmore Oral Reading Score. As noted earlier, all of the children whose scores are reported in Tables I and II were identified as having potential reading problems on the basis of their deHirsch Test scores. It would appear from the results on Tables I and II that both the Distar Reading Program, as presented by the ELP teacher, and the regular classroom reading program are effective in

preventing these children from becoming reading failures at the end of the first grade year. Of the 30 students tested, only one subject was below grade level in both accuracy and comprehension.

TABLE II

Gilmore Oral Reading Scores with First Graders Using Regular School Reading Program

Subject	Gilmore Oral Reading Scores	
	Accuracy	Comprehension
1	1.4	1.6
2	1.1	1.6
3	1.3	2.3
4	1.1	1.8
5	1.2	1.1
6	1.4	.7
7	1.3	1.6
8	1.4	2.3
9	1.3	.8
10	1.4	2.8
11	1.4	1.6
12	.9	1.0
13	1.0	1.8
14	1.4	1.8
15	.9	1.0
16	.8	1.0
17	.9	.4
18	1.4	2.1
19	1.4	1.8
20	1.4	2.3

2. To determine the influence of classroom teachers using the Distar Reading I materials with certain high-risk first graders.

Table III provides the data for the group of students that teacher number 1 worked with during their first grade year. Table IV provides the test results of teacher number 2. She also used the Distar Reading I Program with these first graders. The scores presented here were those obtained from the children at the end of their first grade year. Again, it should be kept in mind that these 22 students, i.e., those working with teacher number 1 and teacher number 2, were identified as having potential reading problems on the basis of their deHirsch Reading scores obtained during their kindergarten year in school. As can be noted on Table III, all of the children working with teacher number 1 were reading at the first grade level or beyond at the end of their first grade year. A number of the students were reading one to two years above grade level in both accuracy and comprehension. The scores of subject number 7 were especially high. On Table IV results from teacher number 2 indicate that the majority of these students were reading at the first grade level or higher. Only three subjects were reading below the first grade level in accuracy as measured by the Gilmore Oral Reading Test. Of these subjects, numbers 5 and 10 were reading only two months below grade level and subject number 9 was reading only one month below grade level. All of the students were reading at the first grade level or higher in comprehension at the end of the first grade year.

TABLE III

Gilmore Oral Reading Scores with First Graders Teacher #1 Using Distar Reading I

Subject	Gilmore Oral Reading Scores	
	Accuracy	Comprehension
1	2.7	2.8
2	1.4	2.8
3	2.3	1.4
4	1.4	1.0
5	2.4	2.6
6	2.1	2.3
7	3.7	3.6
8	1.2	1.6
9	1.7	3.8
10	2.1	1.9
11	2.5	2.3

TABLE IV

Gilmore Oral Reading Scores with First Graders Teacher #2 Using Distar Reading I

Subject	Gilmore Oral Reading Scores	
	Accuracy	Comprehension
1	1.4	1.8
2	1.4	2.8
3	1.4	1.6
4	1.5	1.8
5	.8	1.0
6	1.4	1.8
7	2.5	2.6
8	1.2	1.0
9	.9	1.0
10	.8	1.0
11	1.4	2.8

As can be seen from the results on Tables III and IV, these 22 students were making satisfactory progress or better in reading at the end of their first grade year.

Results obtained by the classroom teachers, as shown in Tables III and IV, can be compared with the results obtained by the ELP teacher in working with first graders identified as having potential reading problems, as shown on Table I. It can be seen that the classroom teachers were as effective as the ELP teacher in working with the children. Test scores indicate, again, for all three groups that the majority of these children were reading at the first grade level or higher. The exceptions were the children who were reading at less than first grade level in accuracy or comprehension. None of the 32 first graders who received instruction in Distar Reading I and whose scores appear on Tables I, III and IV were below grade level in both accuracy and comprehension. Again, it should be noted that the ELP teacher trained both teachers number 1 and 2 in the use of the Distar Reading material. It appears that her training was very effective.

A further examination of the results obtained by the two classroom teachers and the ELP teacher indicate that the children who received instruction from teacher number 1 made more progress in reading than the children who received instruction from either the ELP teacher or teacher number 2. One factor that may explain this difference is that teacher number 1 used Distar Reading with the entire class while teacher number 2 and the ELP teacher used Distar Reading with only the experimental children. Because the entire class was involved with Distar Reading as well as Distar Arithmetic, the techniques and reinforcements were repeated several times during the day and thus the students were constantly being reinforced for good listening and good performance.

3. To verify the value of continuing second grade students who have completed Distar Reading I into Distar Reading II.

Table V presents the scores of the nine second graders who were identified as having potential reading problems during the summer of 1969 when they were in kindergarten. These nine students received training in Distar Reading I during their first grade year and Distar Reading II during their second grade year. As can be seen from their scores on Table V, all nine subjects were reading above the second grade level in both accuracy and comprehension when tested with the Gilmore Oral Reading Test in June, 1971. Table VI presents the scores of 18 second graders who were also identified in their kindergarten year as having potential reading problems on the deHirsch Test. These 18 students received help during the summer of their kindergarten year in the Distar Reading I Program. However, while these children were in the first and second grade they worked with the regular school reading program. They did not receive instruction in Distar Reading I or Distar Reading II during their first and second grade years. As the scores on Table VI indicate, 12 of the 18 children were below second grade level in accuracy as measured by the Gilmore Oral Reading Test, and four scored below second grade level in comprehension as measured by the Gilmore Oral Reading Test.

Table VII presents the scores of second graders who were identified during the summer of their kindergarten year as having potential problems in learning to read by the deHirsch Test. These children received no special help of any type either during that summer or during their first and second grade years. They were enrolled in the regular school reading program during this period of time. As can be seen on Table VII the results indicate that five of these students were below grade level in accuracy and five of these students were below second grade level in comprehension as measured by the Gilmore Oral Reading Scores.

Results from these three Tables suggest that children who received instruction in both Distar Reading I and II made excellent progress in reading.

TABLE V

Gilmore Oral Reading Scores of Second Graders
ELP Teacher Using Distar Reading II

Subject	Gilmore Oral Reading Scores (June-1971) Accuracy	Comprehension
1	2.7	2.8
2	3.1	2.3
3	2.8	4.2
4	2.7	2.3
5	2.8	5.8
6	2.0	3.4
7	3.3	3.4
8	3.8	3.6
9	2.3	5.1

TABLE VI

Gilmore Oral Reading Scores of Second Graders
Regular School Reading Program
(Distar Reading I - Summer 1969)

Subjects	Gilmore Oral Reading Scores (June-1971) Accuracy	Comprehension
1	1.8	4.1
2	1.5	2.8
3	1.9	2.8
4	1.4	1.8
5	3.3	3.8
6	1.4	2.8
7	1.2	1.8
8	1.6	2.6
9	1.2	.8
10	1.8	4.1
11	.7	1.0
12	4.9	3.8
13	1.8	2.3
14	3.7	3.1
15	2.3	3.8
16	3.2	2.8
17	1.9	2.3
18	2.4	5.1

TABLE VII

Gilmore Oral Reading Scores of Second Graders
Regular School Reading Program

Subjects	Gilmore Oral Reading Scores (June-1971) Accuracy	Comprehension
1	1.4	2.8
2	2.6	4.1
3	5.1	4.8
4	.7	1.0
5	1.8	1.9
6	2.6	3.8
7	2.9	1.8
8	3.1	3.8
9	2.6	3.4
10	1.0	1.6
11	4.2	1.4
12	2.9	3.1
13	1.4	2.8
14	2.3	5.4
15	4.5	2.3

Students who received either minimal help during one summer of their kindergarten year in Distar Reading or who received no help at all with Distar Reading did not make the same amount of progress that the students did who received both Distar Reading I and II during their first and second grade years.

4. To determine the value of the Distar Reading Program with three remedial reading sixth graders.

Table VIII presents the Gilmore Oral Reading Scores of the three sixth grade students who received instruction with the Distar Reading II Program. These children were tested in October, 1970 with the Gilmore Oral Reading Test and then post-tested in June, 1971. The ELP teacher worked with these three students using the Distar Reading Program. As can be seen by the results, subject number 1 made 2.7 years' growth in both accuracy and comprehension, while student number 2 made 2.6 years' growth in accuracy and 3.9 years in comprehension. Subject number 3 entered the program in January of 1971 and his growth was .9 years in accuracy and .5 in comprehension. It was reported by the teacher that student number 3 was very emotionally involved. She reported that he was so anxious to show her that he had profited from her help that he was unable to read or comprehend as well as he could when there was no test situation involved. These results, as limited as they are, do suggest excellent progress in reading for these students.

TABLE VIII

Gilmore Oral Reading Scores
Remedial Reading Sixth Grade Students
Using Distar Reading II

Gilmore Oral Reading Scores

	Pretest (10-70)		Posttest (6-71)	
Subject	Accuracy	Comprehension	Accuracy	Comprehension
1	3.4	3.1	6.1	5.8
2	4.1	4.8	5.7	8.7
3*	4.5	6.2	5.5	6.7

*Pretest administered (1-71)

5. To determine the value of Distar Language I with students who have been identified as having poor language development.

Tables IX and X report the data for the children involved in the Distar Language Program. All these children were tested with the Northwestern Syntax Screening Test on a pre- post-test basis. It should be noted that the original objective called for working with first grade children only, but both groups, the control and experimental, used kindergarten level children. In addition, the experimental group had two second graders and one third grader. As can be seen by the test results, the children in the experimental groups made more growth than the children in the control group. All children in the experimental group except one made growth in both expressive and receptive language. In the control group, one kindergarten child made no growth in receptive language, and one first grader lost 5 points on the receptive language measure. In the control group, on the expressive language measure, one kindergarten child made no growth and one kindergarten child lost four points. One first grader lost two points in expressive language.

It should be noted in scoring the Northwestern Syntax Screening Test that there is a possible 40 points for both the receptive and the expressive language measures. The receptive language measure tests how well the child comprehends sentence patterns in Standard English, and the expressive section measures how well the child can express sentence patterns in Standard English.

As can be seen by these results, the Distar Language I Program was effective in remediating the language problems of the children identified with this test. These children in the experimental group made more growth than the children in the control group. Six children in the experimental group on the receptive language measure made more than 10 points growth, and on the expressive language measure, 10 children made more than 10 points growth. In the control group only two children made more than 10 points growth in receptive language and only one child made more than 10 points growth in expressive language.

Third Party Evaluator's Comments:

In reviewing all the data in this project, the most prevalent finding that appears is that the Distar Reading Program is an effective program to use with children who may have problems in learning to read. Virtually all of the children in this project who were instructed with the Distar material are reading at grade level or better, some of them reading one to two years above grade level. For a group of children who were initially identified as having potential reading disorders, this suggests that the Distar Reading Program is very effective. Other factors may be contributing to these results. One factor may be that the deHirsch Test for predicting reading failure does not predict future reading problems. Another factor which may be contributing to the reading scores, could be attributed to a well trained, highly skilled, ELP teacher who is handling the material. It should be remembered that the ELP teacher not only worked directly with students, but she also trained the two teachers who used the Distar materials. As noted the classroom teachers and ELP teacher obtained excellent progress with the children they instructed.

It should be kept in mind that the deHirsch Test is designed to predict reading failure at the end of the second

TABLE IX

Control Group
Northwestern Syntax Screening Test Results

Kindergarten	Pretest (10-70)		Posttest (6-71)		Difference	
Subject	Receptive	Expressive	Receptive	Expressive	Receptive	Expressive
1	22	7	33	34	+11	+ 7
2	23	32	35	35	+12	+ 3
3	23	9	23	17	0	+ 8
4	21	26	29	26	+ 8	0
5	26	23	29	24	+ 3	+ 1
6	22	32	25	28	+ 3	- 4
First Graders						
1	32	19	27	34	- 5	+15
2	37	32	38	34	+ 1	+ 2
3	22	29	34	34	+ 2	+ 5
4	27	31	34	29	+ 7	- 2

TABLE X

Experimental Group
Northwestern Syntax Screening Test Results

Kindergarten	Pretest (10-70)		Posttest (6-71)		Difference	
Subject	Receptive	Expressive	Receptive	Expressive	Receptive	Expressiv
1	0	0	22	14	+22	+14
2	25	20	27	29	+ 2	+ 9
3	26	18	31	31	+ 5	+13
4	22	23	34	32	+12	+ 9
5	23	22	26	30	+ 3	+ 8
6	20	10	27	32	+ 7	+22
7	23	13	32	28	+ 9	+15
8	23	26	29	33	+ 6	+ 7
9	28	21	34	37	+ 6	+16
10	14	0	23	2	+ 9	+ 2
11	20	21	33	33	+13	+12
12	25	17	26	24	+ 1	+ 7
First Graders						
1	30	24	31	33	+ 1	+ 9
2	32	28	36	38	+ 4	+10
3	30	29	36	38	+ 6	+ 9
4	30	17	34	33	+ 4	+16
5	26	30	33	35	+ 7	+ 5
6	33	30	36	36	+ 3	+ 6
7	16	24	33	31	+17	+ 7
8	32	33	35	30	+ 3	- 3
2nd Graders						
9	31	29	35	37	+ 4	+ 8
10	28	18	38	33	+10	+15
3rd Graders						
11	27	21	37	31	+10	+10

grade and it should be noted that Tables I through IV in this report report data on first graders. In other words, the predictive test is not designed to predict reading failure in these children until the end of their second grade year. However, in reviewing the reading progress of the 52 children whose scores are reported on Tables I through IV, it can be seen that there is no trend toward reading failure at this time.

Those children who used the Distar Reading I in the first grade and the Distar Reading II in the second grade, as reported on Table V, are having no problems in learning to read according to their scores on the Gilmore Oral Reading Test. Thus, either the deHirsch Test does not predict reading failure at the end of second grade or the Distar Reading Program is a highly effective program for children who have potential reading problems. In comparing the

results of the children in Table V who had the Distar Reading with those in Table VI who had Distar Reading only in the summer or those in Table VIII who had no Distar Reading at all, it can be seen that the children working in the Distar Reading Program made more growth than the children who received only limited exposure to the program, or had no exposure at all. Based on these results, it would appear that the Distar Reading Program is an effective set of materials to use with first grade children who may be experiencing problems in learning to read.

It should be noted that the use of the ELP teacher as a trainer for regular classroom teachers in the use of certain specific reading materials is a highly effective way of using a special teacher. Results from Tables III and IV suggest she was able to train these teachers to use effectively the Distar materials.

It should be noted that objective number 3 which calls for the testing of the second graders with the Gilmore Oral Reading Test at the end of the second grade also called for the testing of these children at the end of their first year in school. First grade results were to be compared with the second grade results at this time. However, the results of the first grade year were not included. This comparison was not made, but, the results of the second grade testing suggest, as mentioned earlier, that the Distar Reading Program is an effective program to use with these children. It appears to be especially beneficial for children who have had instruction in both Distar Reading I and II.

Results also suggest that the Distar Program may be an effective remedial program for upper grade students, as evidenced by Table VIII.

Results of the children involved in the language program also indicate that the Distar Language Program is an effective program for remediating children who have language problems as identified by the Northwestern Syntax Screening Test. This test measures both receptive and expressive language. Results of the experimental groups, which are reported on Table X, indicate that the Distar Language Program was effective in remediating both receptive and expressive language deficiencies.

Again, the overall results of this program strongly suggest that the Distar Reading Program is a highly effective program for use with children in the first grade who may have potential problems in learning to read. Results strongly suggest that these children should receive instruction in both the Distar Reading I and Reading II programs, thus covering their first and second grade years. Results also suggest that children with language problems should be provided with language training in the Distar Language Program.

Title of Project: *Junior High School Program for Emotionally Disturbed Children*

Location of Project: *Heights Junior High School, Portland*

Type and Number of Children Served: *45 junior high school aged children diagnosed as "emotionally disturbed" and generally having average to above average intelligence*

Funding Allocated: *$21,778.00*

Project Beginning Date: *8-31-70*

Project Ending Date: *6-22-71*

Background and Rationale:

In 1964 Parkrose Schools and Multnomah County Mental Health Clinic "National Institutes of Mental Health Funds" initiated a four year school base program for severely disturbed elementary aged children. This project met with such sufficient success and local acceptance that it is now an integral part of the district's special education program.

In an effort to increase the flexibility and the productivity of this established program, a Title VI grant for a social transition classroom was funded last year to serve those children who had made sufficient progress in the program for the severely disturbed that they could: (1) benefit from a classroom environment, one nearly like that of a regular classroom setting, and yet one which maintained sufficient structure to insure individual success through social and academic rewards; (2) serve the needs of a number of children who could not meet the criteria for placement in the classroom for the severely disturbed and yet were unwilling to achieve the minimum standards of performance in their regular classrooms. This Title VI project was deemed to be of such benefit that at its conclusion last June it also received district support and became part of the district's special education program.

The district's experience with these two classes at the elementary school left them with two pressing and unanswered problems. The first problem focused on those children who had made progress in the elementary program but who needed additional support as they moved into junior high school. The second problem centered around the need for a program to handle children whose social emotional problems did not surface until they reached junior high school. To answer these needs this Title VI project for the education for disturbed children in the 12-15 age group was undertaken.

Objectives and Evaluation Plan:

1. To diagnose academic and behavioral weaknesses and suggest approaches for their correction.

   Diagnostic tests on reading and language on a pre-test basis would be conducted. Observational data for behavioral weaknesses were to be obtained.
2. To provide a classroom experience designed to improve academic performance in basic skills and to increase the output of positive social behavior.

   Pre- and post-tests in language and reading were to be conducted. The Hill-Walker Problem Behavior Checklist was to be administered on a pre- post-test basis. Weekly data on each child were to be maintained to document behavior performance.
3. To train regular staff teachers and administrators to use behavior modification techniques.

   Teacher evaluation of the in-service training was to be obtained. Each teacher was required to complete a behavior modification project.
4. To conduct group counseling sessions designed to assist the development of positive behaviors.

   Analytic records were to be maintained recounting the number of contacts, both group and individual sessions, that were conducted with project children.
5. To help parents deal more effectively with their child.

   Description of the specific intervention attempts by the parents were to be included.
6. To establish a workable model for the education of emotionally disturbed within the structure of the regular junior high school.

   The model we described.
7. To furnish a placement facility for a selected number of students currently residing in the districts adjacent to Parkrose.

   A description of the placement facility and its success was to be included.

Methodology:

Heights Junior High School, where this project was conducted, is operating on a modular schedule with 26 15-minute modules each day of a six day cycle. Approximately 40% of the student's time is "unstructured" or "free".

An in-service training program on the techniques of behavior modification was established for regular teachers so they might be able to utilize these techniques with the students who were part of the Title VI program. Certain teachers constructed academic programs geared to the present grade level of achievement of the individual students, and some teachers employed group and individual behavior modification programs within their classrooms.

Students chosen for the Title VI program were assigned to those teachers who had successfully completed the in-service program. These students carried a full (or nearly full) academic load. All were scheduled into the project classroom for the 40% "unstructured" or "free" time modules.

Forty-five students went through the diagnostic cycle. Twenty-four of these were selected to participate in the program. Of these 24, nine students participated in individual reading programs with the reading specialist. One student participated in an individual speech therapy program. All students were given assistance in academic assignments while in the project classroom and were placed on a highly structured reinforcement system.

The students were reinforced for completed assignments, attempted assignments, class attendance, punctuality, and having the proper tools for working on assignments. Positive reinforcement (tokens, points, praise, and teacher attention) was primarily used. The tokens were awarded for both appropriate social and academic behavior and could be utilized to purchase soft drinks, unstructured time, and field trips. The normal unstructured or free time modules which students in Heights Junior High School had as a matter of scheduling became contingent with the Title VI students based upon their appropriate behavior. If they earned sufficient points or tokens, they could then use the unstructured time for whatever activity they chose and this time could be spent in or out of the project classroom. Negative reinforcement was also utilized in that it allowed the student to leave an aversive academic environment contingent on producing a prescribed amount of work. Cross procedures, that is the loss of points, tokens and time, were also utilized throughout the year.

The project staff, consisting primarily of four members directly responsible for the project, a teacher coordinator, three Title VI assistants, helped the students by attempting to assist them in establishing appropriate study habits, giving them direction with regard to the use of the building facilities (library, resource center, cafeteria), teaching mathematics and reading skills, modifying inappropriate behaviors (fighting, obscene behavior, throwing objects, talking out, slamming doors, or abusing the furniture), and providing regular classroom teachers with suggestions on planning academic and social behavior modification programs. It is important to note that school administrators had given absolute control of courses, scheduling, and discipline to the Title VI staff for those students involved in the program.

Results:

1. To diagnose academic and behavior weaknesses and suggest approaches for their correction.

Academic weaknesses were determined through evaluation of Metropolitan scores, accumulative grades and the California Test of Basic Skills (CTBS) on an individual basis. Table I shows grade level equivalencies in reading and language for those students who participated in the program full time for the five months during which the program was in operation. The regular classroom teachers were informed of the academic test results and specific recommendations were made with regard to course content for the Title VI students.

Behavioral weaknesses were determined through the analysis of the Walker Problem Behavior Identification Checklist and the tracking of behavior in the project classroom and regular classroom, utilizing the Title VI behavioral data checklist. See Figure 1. Methods of strategies for modifying these behaviors were determined and agreed upon by both Title VI staff members and regular classroom teachers. Parents were included in these discussions when appropriate.

2. To provide a classroom experience designed to improve academic performance in basic skills and to increase the output of positive social behavior.

Post-tests in language and reading were conducted, utilizing the California Test of Basic Skills. See Table I. An examination of the table shows the following things. In reading, of 16 children involved 5 showed a score lower on the post-test than on the pre-test. (Students 4, 8, 9, 10, 13). Two students (15 and 16) showed no gain. Thus 7 of the 16 students involved showed on the basis of the California Test of Basic Skills either no gain in reading or a loss in reading ability. Of the remaining 9 students, the gains exhibited by two of them (student 6 and student 11) can be considered to be minimal.

In language, of the 16 students participating 6 students (4, 5, 8, 9, 11, 13) exhibited total scores on the post-test lower than that exhibited on the pre-test. Two students (12 and 16) exhibited post-scores equal to the pre-test scores. The gains exhibited by student number 10 are considered minimal.

The project staff makes the following comment about these results:

> "California Test of Basic Skills results are indicative of the inability of the Title VI program to deal effectively with academics. Academic remediation, one of the major goals of the project, was sacrificed in order to put maximum energy towards modifying social behaviors which we felt were prerequisite to successful intervention in academic areas. We were also

Table 1

Pre- and Post-Test Results of
CALIFORNIA TEST OF BASIC SKILLS

	READING				LANGUAGE									
	VOCABULARY		COMP.		TOTAL		MECHANICS		EXPRESSION		SPELLING		TOTAL	
STUDENT	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST
1	10.30	11.30	11.60	12.90	10.90	12.40	9.20	9.00	12.80	12.90	9.90	10.10	10.40	11.00
2	5.80	6.10	2.10	3.70	3.90	4.80	4.00	4.90	4.10	4.00	2.80	3.40	3.50	4.10
3	2.70	8.60	2.60	4.70	2.40	6.90	2.30	3.40	5.40	5.50	2.00	2.60	2.70	3.50
4	3.00	2.70	4.90	2.00	4.20	2.00	4.30	2.20	2.30	3.60	2.80	2.00	3.00	2.00
5	2.30	3.30	2.00	3.70	2.00	3.50	3.30	2.70	3.30	2.70	2.80	2.40	3.00	2.10
6	3.60	4.00	7.30	7.50	5.60	5.80	4.70	5.30	5.00	5.55	7.10	7.20	5.60	6.00
7	5.80	7.60	5.40	7.50	5.70	7.50	5.00	8.20	5.60	9.00	6.80	6.30	5.70	7.60
8	7.70	6.60	6.20	6.60	7.10	6.60	3.30	4.60	6.50	6.20	6.50	4.90	5.30	5.00
9	11.20	10.70	10.00	9.50	10.70	10.20	7.50	9.00	11.50	9.60	11.10	11.50	10.20	10.10
10	4.30	4.60	2.90	2.60	3.40	3.20	3.30	3.60	3.00	3.00	2.50	2.60	2.70	2.80
11	9.30	7.60	7.60	11.20	8.60	8.90	10.20	7.40	4.50	6.80	6.10	4.20	6.40	5.80
12	2.00	5.30	2.00	3.50	2.00	4.20	2.30	3.40	2.00	2.30	2.10	2.00	2.00	2.00
13	7.30	5.50	5.10	4.10	6.40	4.80	5.00	4.60	2.00	2.00	5.80	5.50	4.30	3.90
14	4.60	6.00	5.90	6.10	5.30	6.10	7.50	8.20	3.60	3.30	5.50	6.30	5.50	5.80
15	12.00	12.80	12.90	12.90	12.90	12.90	9.20	9.90	8.70	11.20	12.00	10.70	9.90	10.70
16	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.60	2.00	2.00	2.00	2.00	2.00	2.00

hampered in achieving the academic goal due to our miscalculating the staff requirements to meet this goal."

Mathematic tests on a pre- and post-test basis were conducted by the mathematics department in an informal manner. This math evaluation was to be subjective and the project staff felt this was a "necessary concession made in terms of strengthening a weak relationship and lack of concern with the Title VI program".

The measurement of increase in output of positive social behavior was to be accomplished primarily by the Walker Problem Behavior Identification Checklist. This was administered on a pre- and post-test basis. The results are shown in Table II. The total scores decreased in 12 out of 16 cases. In the four instances (students 1, 4, 12 and 16) where the score increased, the total number of points involved on both pre- and post-test indicate that the magnitude of the inappropriate behavior should not be considered too serious. In fact, according to the norms of the Walker Problem Behavior Identification Checklist, none of these would be considered to be possessing behavior problems. It is interesting to note that four of the students (3, 9, 10, and 13) although improving on the post-test all indicate post-scores still well within the range of children who are behavior problems. Three of these four children's (students 9, 10, and 13) academic grades also fail to show an improvement, thus demonstrating a correlation perhaps between academic performance and behavior. The only other correlation that could be determined between the two areas are in students 4 and 16. Student 4 showed an increase in his Walker Problem Behavior Identification Checklist score and also demonstrated a decrease in academic performance in both areas according to the post-test scores on the California Test of Basic Skills. Student 16 showed no increase in these academic scores and also showed an increase in his post-score on the Walker Problem Behavior Identification Checklist. Thus of the six students who failed to show an increase in both of the academic areas, five also failed to show an improvement in behavior. The sixth student, student number 8, showed decreases in academic performance yet made an apparently remarkable improvement in his behavior.

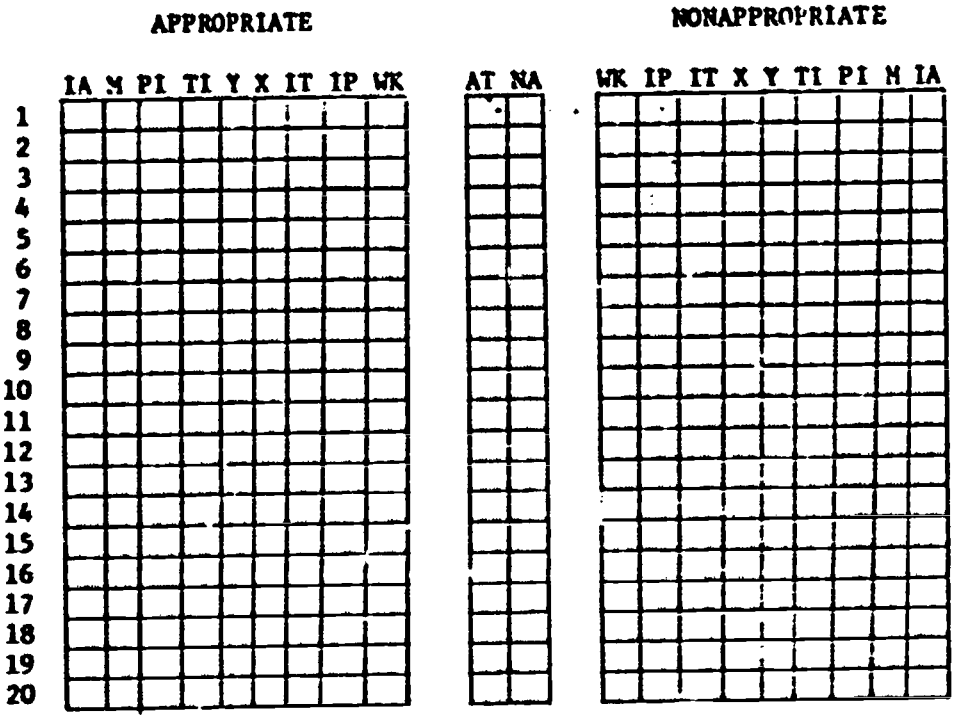
There are some comments by the project staff which may be appropriate to consider relative to the Walker Problem Behavior Identification Checklist: "We feel the general trend by teachers to rate students lower on the WPBIC is indicative of a shift in attitude with regard to behaviors which the regular classroom teacher will tolerate."

Figure 1

Behavioral Data Check List

NAME_____ OBSERVER_____ DATE_____

CLASS_____ TEACHER_____



AT-attending
NA-nonattending
WK-work
IP-initiation to peer
IT-initiation to teacher
X-peer interaction
Y-teacher interaction
TI-teacher initiation
PI-peer initiation
M-movement
IA-independent activity

COMMENTS (Preceding Events & Task)_____

The behavior data checklist was also utilized which provided information about a child's attending and non-attending behavior. The sampling of such observations is reported in Table III. This table represents a series of samples from observed behavior at the beginning of the project that compared with a series of samples of behavior observed at the end of the project. It is obvious from the table that in 13 out of 16 cases, significant improvement is noted in attending behavior with a corresponding decrease in non-attending behavior. In the cases of students 12 and 16, however, non-attending behavior has increased; whereas attending behavior has decreased. The decreases and increases are not considered significant and may be considered as no change. A no change situation is also apparent in student number 14. It is interesting to note that in the case of student 12 there was also a sizable increase on the Walker Problem Behavior Identification Checklist (Table II).

Table II

Pre- and Post-Test Results of
WALKER PROBLEM BEHAVIOR IDENTIFICATION
CHECK LIST MEAN SCORES

STUDENT	ACTING OUT		WITHDRAWAL		DISTRACT.		DISTORTED PEER RELATIONS		IMMATURITY		TOTAL	
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST
1	1.00	0.00	10.00	6.40	2.00	1.00	0.00	1.60	4.00	3.00	10.50	12.00
2	2.40	0.08	6.80	5.00	3.20	1.80	0.50	1.10	3.70	2.50	16.80	11.30
3	10.60	10.10	2.40	0.05	8.80	7.10	0.80	1.50	0.00	0.08	22.80	21.00
4	7.10	5.10	0.80	1.10	5.70	6.60	2.70	2.00	0.70	0.06	13.70	15.60
5	7.30	4.80	0.40	4.00	7.30	5.00	2.20	0.00	2.00	0.40	19.20	14.20
6	1.30	0.05	6.00	2.30	6.30	2.30	0.00	0.00	4.60	0.06	18.30	5.80
7	2.40	4.50	3.70	0.02	5.20	4.20	2.20	0.00	3.30	1.00	16.80	10.00
8	1.00	1.50	9.00	4.00	2.80	1.00	0.50	1.20	1.90	0.00	15.80	4.00
9	13.60	7.80	3.80	1.70	8.30	6.20	6.10	0.01	6.20	5.00	38.00	21.00
10	3.20	5.50	8.20	5.70	3.80	4.40	5.80	2.10	6.20	6.10	26.20	24.00
11	9.80	6.20	5.00	1.40	4.00	3.00	1.60	1.40	3.60	0.06	24.50	12.60
12	3.00	8.00	2.50	0.07	6.70	5.50	0.02	0.07	0.05	0.12	12.70	16.20
13	15.00	8.00	4.20	6.00	6.20	3.00	9.00	5.00	6.00	4.10	40.70	26.50
14	5.00	4.10	4.80	0.02	8.60	5.30	4.00	5.00	2.20	0.01	24.60	11.70
15	3.00	1.20	0.06	1.50	7.00	5.70	0.00	0.00	0.00	0.05	3.60	0.09
16	0.07	2.50	3.20	0.05	4.50	6.70	2.00	3.20	1.10	1.00	11.70	14.00

Two areas of concern to the regular classroom teacher are class attendance and past due assignments. The Title VI staff with cooperation of regular classroom teachers instituted two programs in attempting to modify the above behaviors. Figure 2 indicates that class attendance increased substantially and the incompatible behavior of cutting class dropped nearly to 0.00%. Figure 3 indicates that the behavior modification program was partially successful in decreasing the number of past due assignments. The academic year terminated before another Sd could be added which is believed by the project to have better enabled them to achieve the prescribed goal.

3. To train regular staff teachers and administrators to use behavior modification techniques.

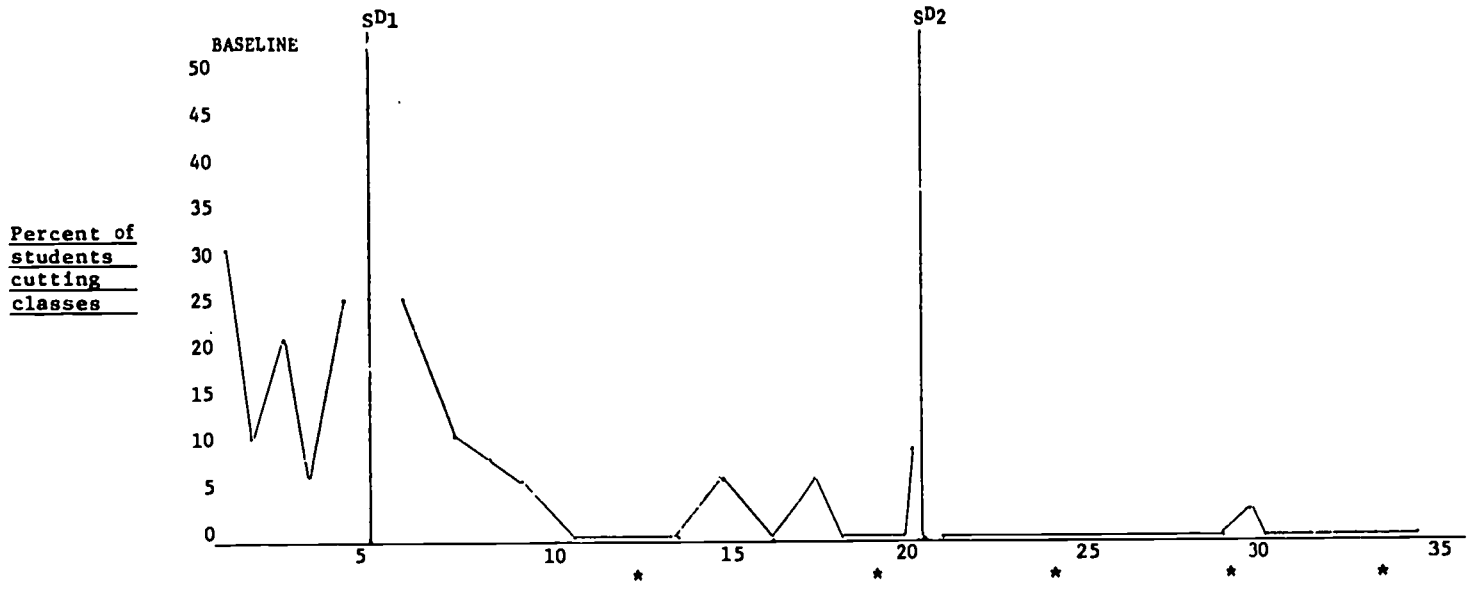
A teacher questionnaire was used to determine whether or not the teachers found the behavior modification in-service training relevant to public schools and to determine the strength and weaknesses of the in-service program. In general, the in-service program was found to be satisfactory although the training staff had to make significant changes in their approach during the course of the training in order to more successfully accommodate the requirements of the public school setting.

Each staff member was required to engage in at least one behavior modification project. An examination of these by the Third Party Evaluation Team indicates that the majority of the teachers acquired at least sufficient knowledge and skills to apply behavior modification techniques in the classroom.

A follow-up study indicated that 25.8% of the staff members receiving in-service training in behavior modification are continuing to use these techniques, principles, and strategies which were emphasized in the training program. The project staff made this statement relative to this percentage: "This figure is substantially higher than most with regard to public school in-service training programs. In addition, teachers are beginning to use the terminology they were exposed to as well as attempting to observe behavior objectively and examine their own teaching methods."

Figure 2

Class Attendance



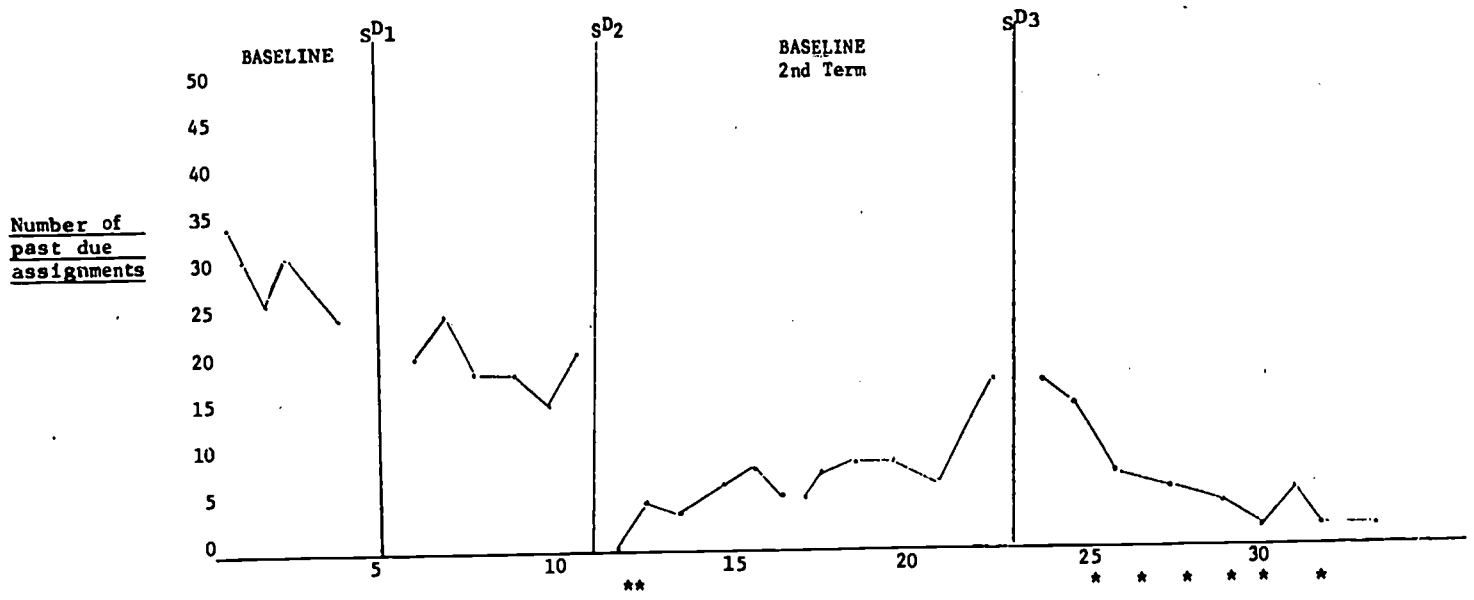
S^{D1} A chart will be posted in the project room with names of those who have cut class. There will be no pop allowed, if any names appear on the chart for that day. Three consecutive days at zero absences will equal one bottle of pop (no charge) and one free module.

S^{D2} Repeated S^{D1}

* Free pop and 1 free module awarded.

Figure 3

Past Due Assignments



S^{D1} Chart will be posted. Field trip when there are no past due assignments for three consecutive days.

S^{D2} Beginning of new term. Teachers cancelled all past due assignments.

S^{D3} Field trip started again plus a bottle of pop for all if graph line continues to drop each day.

* Bottle of pop awarded.
** Field trip.

Table III

Behavioral Data Check List Observations

Student	Attending		Nonattending	
	Pre	Post	Pre	Post
1	52	72	28	8
2	26	55	54	25
3	43	67	37	13
4	62	77	18	3
5	48	78	32	2
6	50	77	30	3
7	46	72	34	8
8	74	80	6	0
9	60	62	20	18
10	34	50	46	30
11	57	68	23	12
12	64	63	16	17
13	38	79	42	1
14	56	57	24	23
15	55	80	25	0
16	57	51	23	29

4. To conduct group counseling sessions designed to assist the development of positive behaviors.

From January 5, 1971 through June 4, 1971, there were 15 large group meetings involving major discussions in the following areas: group responsibilities, use of unstructured time, behavior modification use and terminology. There were 207 individual counseling sessions scheduled as well as numerous unscheduled meetings involving both Title VI staff, regular classroom teachers and the individual student.

5. To help parents deal more effectively with their child.

Parents were requested to participate in ten weekly meetings with the school counsel and social workers serving as group leaders. The emphasis during these meetings was to teach parents methodology of behavior modification and have them engage in behavior modification in the home. The parents meet in groups of five to eight.

The percent of parents attending the first meeting was 85.5%. The determination of the parent education program attendance records indicated 55.2% attended regularly.

During the group meetings the counselors found it most difficult to interest the parents in the behavior modification approach and parents attempted to manipulate the meetings for catharsis.

In addition to attending the meetings, the parents were asked to attend staffing of schools as well as to keep an open mind in communication via the telephone. Some of the parents religiously complied with these requests. Other parents ignored all efforts to communicate with them. Interestingly enough, the parents who ignored efforts of the school district according to the project staff "found themselves in court because of charges made for truancy, incorrigibility, or minor infractions of the law by their child."

6. To establish a workable model for the education of emotionally disturbed within the structure of the regular junior high school.

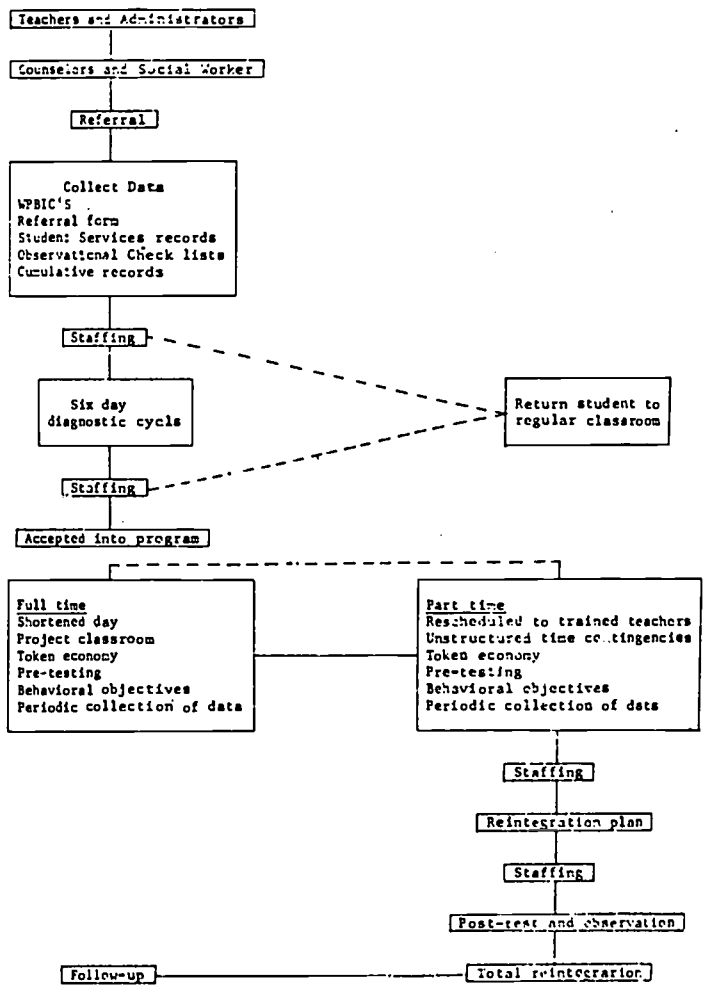
It is the opinion of the project staff that such a model has been developed through this project. This model is graphically illustrated in the Flow Chart in Figure 4.

7. To furnish a placement facility for a selected number of students currently residing in the districts adjacent to Parkrose.

The neighboring districts referred four students and followed through with necessary procedures with regard to two students. Of these two, one was not accepted into the program as the result of observations and conclusions drawn from the diagnostic cycle. The other student is under consideration for placement during the next academic year. According to the project staff "it appears that neighboring districts view this project as a referral agency for their most difficult students who in our opinion are in need of a more highly structured environment than a public school has to offer."

Figure 4

Flow Chart of Referrals



Third Party Evaluator's Comments:

This project attempted providing special education services in an area much neglected in this state - a behavior problem remediation class at the junior high school level. Although this project cannot be considered totally successful in all instances, it may well serve as a beginning model for other districts to establish such a class. Certainly the gains that were made indicate that some children, utilizing the techniques described in this project, can be helped and assisted to be producing members of the academic environment in a junior high school.

Before considering the results in detail, the third party evaluation team wishes to stress that it recognizes the fact that remediating behavior problems at the junior high school level is a major undertaking, for these are behaviors which the child has learned over a number of years and which undoubtedly will be more difficult to extinguish. Moreover, it is recognized that these inappropriate behaviors significantly interfere with academic progress and probably have been so doing for many years, thus making academic remediation more difficult. Therefore, to achieve total success in all cases is a highly ambitious undertaking.

The academic gains made by the 16 children for whom data are reported are not considered significant in 9 out of 16 cases in the area of reading and in 9 out of 16 cases in the area of language. Thus only about half of the children showed academic improvement. The project staff indicated that they did not emphasize academic improvement in an effort to improve behavior problems. Yet when one examines the behavior problem improvement of those who fail to achieve academically, one sees that only one of these children made significant gains behaviorally; whereas five out of six who were deficient in both academic areas did not. Thus one must be forced to a decision somewhat different than the project staff.

The third party evaluators believe that the data indicate that if the behavior modification program was working at all with these children, it was working generally in both academic areas and behavior problem areas and that thus the total environment of the child was being modified. This generalized effect seems to be more in keeping with what one would hope to achieve in a behavior modifications system such as is being established in this program, where a system, although focusing on individual behavior, is treating the entire environment of the child. The effect might be more likely generalized to both social behaviors and academic behaviors.

The specific data reported in Figure 2 are impressive. One might conclude from these data where class cutting has been significantly reduced that the environment in the classroom was a much more pleasant environment and that the reinforcements were powerful. Improvement in attending behavior and the reduction in late assignments is also impressive.

Thus when examining all of the measures utilized to consider the overall improvement in the behavioral area, one must note that there was a general improvement in behavior in the majority of students' cases. The academic improvement is of course disappointing.

The project staff was satisfied with the 25.8% of the teachers continuing to use the principles and techniques of the behavior modification training that they received. They expressed this satisfaction because the carry over percentage was higher than most in-service programs. One should recognize that this was an intensive period of training over a projected period of time and cannot adequately be compared with most in-service programs for teachers. The third party evaluators are of the opinion that a higher percentage of teachers utilizing these principles after such prolonged training would be desirable. However, there is no historical data available with which to compare these figures. Thus the third party evaluator's aspirations for success of this type of training program may be unrealistic. It is recommended, however, that personnel engaging in this type of training activity build into their training model the acquisition of follow-up data to determine whether or not teachers are in fact utilizing this training once having been exposed to this type of intensive program.

The project staff was concerned because the parents utilized the parent meetings for catharsis and attempted to divert the discussions from the behavior modification training which was the agenda for the meeting. This attempted catharsis is a normal happening for parents with handicapped children in a group setting. Further training of the project staff in utilizing this cathartic attempt to illustrate behavior modification techniques may be indicated.

The utilization of the Parkrose project as a referral facility for other school districts can only be considered partially successful, primarily because of neighboring school districts' apparent attempts to send more severely handicapped children to the project than the project was designed to accept. This indicates a need for better communications between the Parkrose School District and other districts in describing the project and the type of child which they will accept. This is an easily remediable situation and is considered only to be of minor difficulty.

Despite the poor academic gains made by the children, the project must be considered to be a successful beginning for the establishment of a model for junior high school behavioral problem classes. It is obvious that there are many additional techniques which may have to be developed to make this model more effective both in the academic area and in the behavioral area, and hopefully there will be a modification also of the training methods of teachers so that a higher percentage of teachers will begin to utilize the behavior modification training which they receive.

Title of Project: *Preschool Disability, Identification and Prevention*

Location of Project: *Medford*

Type and Number of Children Served: *12 EMR/ELP*

Funding Allocated: *$16,270.00*

Project Beginning Date: *September 1, 1970*

Project Ending Date: *June 30, 1971*

Background and Rationale:

Records of the past five years in public schools of Medford, Oregon, reveal that 50% of entering first grade students fall below the lower quartile level in academic performance (reading and arithmetic) at the end of six months attendance in grade one. These data indicate a loss of three to five months normal first grade reading instruction with at least one third of the entering first grade students. The records further indicate that many of these students are potential candidates for special programs, failure, chronic emotional upset, and grade retention.

To correct this situation, a structured preschool program was to be established for these potential special education students.

There is ample evidence that preschool education and early childhood intervention seem to have value for those who are disadvantaged or socio-culturally deprived. The structured preschool environment used in this project is modeled after preschool programs for the Trainable Mentally Retarded in Corvallis and Medford and was chosen because of the excellent results demonstrated with handicapped children. Many techniques employed by Engelmann are also used.

Essentially therefore this project was designed to provide preschool services for children who have all the indications of being eligible in the future for extreme learning problem classes, educable mentally retarded classes, and for other special remediation programs. The intervention of this class was designed to alleviate the child's learning difficulties by providing him with sufficient background to allow him to succeed at an acceptable level in the regular schools, something which these children are unable to do at the present time.

Description of the Project:

A. Project staff - one teacher, qualified to teach at the elementary grade level and trained in the techniques of behavior modification and individualized programming.

Volunteers in the form of parents working in the classroom and high school students, both of whom administer individualized programming to the children. Both parents and high school students have been formally trained.

Teaching Research staff provides consulting services to the teachers relative to the educational model being employed and provides evaluation services during the conduct of the project.

B. Description of the Program:

Base line data in reading readiness/reading, arithmetic skills, language, and motor development were determined by a systematic assessment of each child's capability. Once base line data had been established, individualized programs with sequenced materials (e.g., Sullivan Reading Series, Distar Language, and Sullivan and Singer Arithmetic Series, plus teacher made materials) were used. The child commenced the program at the peak of his present ability in each of these subject areas and progressed to more advanced stages as rapidly as he was able. The program was individualized in the sense that individual reinforcers for each child were utilized. A point system was used wherein the child, having earned points, could trade them for free time or other activities of his choice. Behavior problems, manifested by these children, were alleviated by withholding of points or time out procedures when necessary. Parents were instructed in the utilization of behavior modification and were used in the classroom as volunteers. Volunteers in the form of parents and high school students were utilized to provide individual programmed instruction to the children. Each child was in school for a period of three hours from 8:30 to 11:30 daily and during that period of time moved from individual program to individual program in the various subject areas.

Objectives and Evaluation Plan:

1. To establish a preschool program for potential special education students.

A detailed description of the establishment of this type of program and difficulties encountered will be provided.

2. To increase the reading readiness and/or reading abilities of these children.

   Base line data will be established for each child and daily records maintained.

3. To increase the readiness for arithmetic or arithmetic abilities in these children.

   Base line data for each child will be maintained in arithmetic skills and daily records will be maintained.

4. To increase the language abilities of these children.

   Base line data for each child will be established and daily records maintained.

5. To enhance the motor development of these children.

   Base line data will be obtained and daily records maintained.

6. If necessary, to remediate the behavioral problems which may be interfering in the learning situation.

   As required, when a child exhibits aberrant behavior in the classroom, base line data consisting of frequency of this aberrant behavior will be obtained, intervention procedures inaugurated, and account of the rate of the behavior at the conclusion of the intervention procedures will be made.

Results by Objectives:

1. To establish a preschool program for potential special education students.

   A certified teacher who is already employed by the Medford School District provided the instruction for these children. She underwent a six week training program during the summer, consisting of a one week workshop and five week practicum conducted by the staff of Teaching Research. The workshop consisted of lectures and demonstration on the utilization of behavior modification in the classroom with detailed instruction on the curriculum to be employed in the preschool. The teacher had an opportunity during the mornings of the remaining five weeks to practice the systems presented. Her performance was video taped. In the afternoons, after the children were dismissed, the teachers and the staff of Teaching Research reviewed the video tapes and conducted a critique of the teaching methods employed. (This in-service training of the teacher was conducted under the Title I program and provided the basis for the Title VI application.)

   This is a program in which Title I and Title VI joined forces to provide services for potentially handicapped children. The two programs united to form two classrooms for preschool children, designating those who had physical handicaps and who appeared to have lower IQs to be designated in the Title VI program while those who had no obvious physical or mental handicap but who came from a disadvantaged population to be designated in the Title I program. Both programs were scheduled to be housed at Howard School in Medford, but because of an untimely fire in that building, the preschool facilities had to be moved to a nearby church.

   Publicity for the school was announced in the local newspapers and other media. Recruitment of children to participate in the schools was conducted through this advertising, through perusal of the census data of cligible preschool children, and through knowledge of various school officials of families who qualified for the program. All these potential candidates were administered the Basic Concept Inventory, which was used as the principal screening instrument. Children were selected for participation in early September with four more joining in the remaining three months.

   Although it was anticipated to have only ten children in the Title VI preschool program, twelve finally passed through the program because three moved during the course of the school year. (Movement of this type of population is a high probability and consequently waiting lists should be established for this type of preschool in order to keep the classrooms full and to make maximum utilization of the teachers' capabilities and the facilities available.)

   The preschool emphasized language skills leading to reading readiness with subsidiary emphasis on arithmetic, motor development, and remediation of behavior problems.

   All programs in the preschool were individualized. Base line data were established for each child in the areas of language, reading or reading readiness, arithmetic, and motor development and the child was assigned to programs which were geared for his capabilities and his rate of movement. Daily data were maintained to plot the progress of the child. The learning philosophy and teaching methodology utilized in the program was behavior modification. A token system was established within the school which had two facets. For language and reading skills the child was paid off in tokens which if he achieved a specified number, he could trade in at the end of the day for small trinkets or toys.

   The child also received points which were placed on his desk which he could trade for free time at stations around the room, each three points being worth 1 minute of free time. These points were essentially awarded for seat work which consisted of drawing, pasting, work book exercises, in programmed reading and arithmetic, and writing. Points were also awarded for good behavior.

   The school day started at 8:30 and lasted until 11:30. Transportation was furnished to and from the

school by the parents.

Volunteers from the parents participated in the program. It is believed these parents learned much about behavior modification as a result of their participation in the program.

In addition, volunteers were obtained from the mid high school and high school in the Medford School District. These volunteers were trained in the techniques of behavior modification by Mr. Wayne Hanson. The high school volunteers were found to be highly qualified and capable, and Mr. Hanson deserves an accolade for his training of these students. The teacher in the preschool conducted further training to familiarize the student with the application of behavior modification in this type of environment. The teacher was also responsible for training the high school students in specific subject areas and teaching materials. One high school aide was assigned to each six children.

2. To increase the reading readiness and/or reading abilities of these children.

Tables I and II show the progress of each of the twelve children in the program in the Distar Reading Program and the Sullivan Programmed Reading Program. Progress in these programs is of course the best index of the students' mastery of elementary reading skills.

The reading program began with reading readiness during September, October, November, and in December moved into the Distar program with the exception of students 3, 5, 8, and 9. Student 8 was ready to move into the Distar Program in January and all students had reached the Distar Reading Program by February. The progress of each student in the Distar Reading Program is shown in Table I.

Table I

Distar Page Completed

Student	Dec.	Jan.	Feb.	Mar.	Apr.
1	8	30	36	55	77
2	22	43	52	73	93
3	0	0	7	28	51
4	12	29	44	55	66
5	0	0	6	6	23
6	21	63	74	89	125
7	32	62	72	94	125
8	0	9	15	29	39
9	0	0	13	21	39
10	Moved before she could be placed on program.				
11	29	69	74	- Moved -	
12	104	121	Book B ⟶		

At a certain point in the Distar Reading Program, when the teacher felt that the student was ready, he was moved into the Sullivan Programmed Reading Primer. No child was able to reach this stage until February with the exception of student 12 who moved into the primer in January. Three additional children began work in February, one more in March and three more in April. Three of the children who continued in the program never were able to reach the Sullivan primer workbook.

Table II

Sullivan Primer Pages Completed

Student	Dec.	Jan.	Feb.	Mar.	Apr.
1	—	—	—	--	57
2	—	—	—	20	43
3	—	—	—	--	--
4	—	--	—	—	34
5	—	—	—	—	16
6	—	--	5	68	94
7	--	--	19	51	61
8	—	--	—	--	--
9	—	--	--	--	--
10	- Moved -				
11	—	--	19	- Moved -	
12	5	88	Completed		

It is believed that the progress shown by these children in the Distar Program and the Sullivan Program indicate that all are potential readers. If the same individuality can be shown to them in the first and second grades as has been given them in this pre-school environment, there is little reason to believe that they should not continue to improve their reading skills. If, however, in some instances, especially students 3, 8, and 9, the teacher is unable to individualize the program sufficiently, these students may be lost in the group processes.

3. To increase the readiness for arithmetic and the arithmetic abilities in these children. Table III shows the general progress of the students in Singer and Sullivan Programmed Arithmetic workbooks. As can be seen from this table, the majority of the children had finished the kindergarten Singer book which deals with recognition and utilization of numbers up to five including the addition and subtraction of these numbers and arranging the numbers in sets. Many of the children progressed into book one of Singer and also book one of Sullivan. This indicated, of course, a mastery of numbers up to ten and beyond in some

Table III

Terminal Progress of Students in Singer and Sullivan Programmed Arithmetic Workbooks

Student	Singer		Sullivan		Notes
	Page	Book	Page	Book	
1	33	1	95	1	
2	39	1	94	1	
3	78	k	39	1	
4	57	1	90	1	
5	55	k	---		1
6	115	1	127	1	
7	55	1	86	1	
8	78	k	53	1	
9	69	k	20	1	2
10	41	k	68	1	3
11	35	1	89	1	4
12	123	1	22	2	5

1 - Other records indicate that this child achieved the ability to rote count to 5 and recognize numerals to 4.

2 - Child moved one month before end of school.

3 - Child withdrew from program on 12/14/70.

4 - Child withdrew from program on 2/28/71.

5 - Despite a verbal IQ as measured on the PPVT of 65 and a score of 42 on the BCI, this child showed excellent progress in all aspects of the program.

cases and also utilizing these in addition and subtraction cases.

There is every indication from the data available that these children have gained sufficient arithmetic skills to successfully achieve in the first grade.

4. To increase the language capabilities of these children.

The Basic Concept Inventory, which was utilized to screen the children in this program, is basically a test of language proficiency - utilization of language concepts both from an expressive and receptive point of view. The gains scores therefore in the Basic Concept Inventory should be an index of the progress of the child in language.

The main language materials utilized in teaching were Distar Language although some Peabody Language materials were used.

An examination of the data of the gains scored on the Basic Concept Inventory indicates that the least number of points gained was 7 and the most number of points gained was 45, but in almost every case there was a sizable reduction in the scores indicating that the children had gained significantly in language abilities. See Table IV. Progress through the Distar Language program is also an index of the type of skills that the child acquired.

5. To enhance the motor development of these children.

The children engaged in a number of motor development activities, some of which were carefully documented so as to determine what the gains of the children were. The activities shown in Table V are those for which the data are considered adequate. Additional motor development activities for which the data were attempted to be gathered were pull ups. However, the transfer of the class to a facility which did not have a pull up bar prevented completion of the gathering of those data. Push up data were also gathered but were considered improperly gathered in that three types of push ups were recorded and were not adequately distinguished in the records.

However, in the data that are reported in Table V, walking a straight line, sit ups, ball catching and ball bouncing, the children in the vast majority of cases show significant gains in each of these skills. The numbers represented as pre and post scores in Table

64

Table IV

Basic Concept Inventory

Student	PPVT - IQ	Pre-Test Date	Pre-Test Score	Post-test* Score	Gain Score
1	NA	Sept. 21	66	35	31
2	99	Sept. 21	38	10	28
3	NA	Jan. 20	34	NA	—
4	76	Sept. 21	42	35	7
5	NA	Jan. 21	86	41	45
6	89	Sept. 21	50	9	41
7	80	Sept. 21	55	29	26
8	NA	Dec. 17	75	48	27
9	NA	Jan. 19	51	Moved	—
10	73	Sept. 21	65	Moved	—
11	91	Sept. 21	50	Moved	—
12	65	Sept. 21	42	13	29

*All post-tests were administered on May 25.

Difference between pre and post-test is significant at the .001 level.

Table V

Gains During Period in Selected Motor Development Activities

Student	Walking Straight Line Heel to Toe (# feet) Frontwards Pre	Frontwards Post	Backwards Pre	Backwards Post	Sit-Ups Pre	Sit-Ups Post	Ball Catch (# feet) Pre	Ball Catch (# feet) Post	Ball Bouncing (# Consecutively) Pre	Ball Bouncing (# Consecutively) Post
1	0	6	0	1	0	4	4	8	0	9
2	1	6	0	3	2	25	4	7	2	14
3	6	6	5	5	---	---	4	7	5	7
4	6	6	0	1	0	5	0	4	0	3
5	0	4	0	2	---	---	3	3	1	10
6	6	6	0	3	0	3	6	8	3	7
7	0	5	0	3	0	10	4	7	3	4
8	0	4	0	3	0	4	3	5	0	15
9	6	6	0	3	---	---	5	5	1	11
10	0	5	0	0	0	10	---	---	0	1
11	0	6	0	2	3	15	2	6	1	1
12	0	6	0	3	0	8	4	11	5	9

V are the average of the first three performances of the year and the averages of the last three performances of the year.

6. If necessary, to remediate behavioral problems which may be interfering in the learning situation.

There were really no major behavioral problems manifested by any of the children. Many of the children exhibited minor disruptive activities. For instance, there would be out of seat behavior, talking out and inattention to task. Teachers were able to handle these minor behavioral problems by careful dispensing of points, reinforcing other members of groups and ignoring the inappropriate behavior.

High school girls who were acting as volunteers in the program quickly learned the techniques of employing these points as group behavior modifiers and were successful in reinforcing appropriate behavior and extinguishing the inappropriate behavior.

No data are submitted on these minor behavior problems since most of them were remediated at least on a temporary basis within a day or so. It is however felt that the techniques of recording behavior problems data is an area which needs to be improved in the training of the teachers and high school girls in the program.

General Comment:

The data that have been gathered in this program indicate that most of these children now have the necessary skills to succeed in the first grade. However, there is a danger that because of their previous and present home environment they may not be able to perform as well as other first graders. If first grade and subsequent primary grade teachers are unable to individualize these children's academic programs, there is a strong possibility that these children may once again be potential academic failures when they reach second or third grade. It has been adequately demonstrated by Bereiter and Engelmann that despite the most stimulating and enriching preschool experience, children from disadvantaged backgrounds who are asked to keep pace with their peers in the first and second grades will fall behind unless their programs are individualized and geared for their particular deficiencies.

The skills which have been imparted to these children in this particular project will allow them to start at an even position with their peers in the first grade. This advantage, which has compensated for their poor environmental background, will be lost unless first and second grade teachers are aware of the techniques of individual programming.

Third Party Evaluator's Comments:

The overall objective of this type of program is to prepare the "high risk" child for entry into the first grade. The objective is further broken down to include reading readiness, arithmetic, language, motor, and behavior problems. Each of the objectives is stated in such a manner that the program can be individualized and the student can be monitored on an individual basis as he progresses through the programs in various areas.

The data indicate that the objectives were overwhelmingly met inasmuch as approximately 90 percent of the children were able to achieve a level of performance that is considered adequate for entering the first grade. In many cases standardized tests were utilized to determine the child's level; however, these were combined with individualized performance records. As the project points out, these skills may in fact dissipate by the time the child is in the third grade; however, they will at least be able to enter the first grade on an equal basis.

Sufficient data were gathered in all areas except those relating to behavior problems and the project staff indicated that they did not have enough major behavioral problems to warrant data collection and recording. It seems reasonable to assume that if one has developed a highly individualized program that keeps children working continually throughout the day at their own rate and provides them a maximum amount of reinforcement, that one would in fact expect to see a reduction of behavior problems without directly dealing with them.

The success of this particular project can be demonstrated in another way. The project is now a national model center for preschool education for the handicapped, funded under the Bureau for the Education of the Handicapped in the U.S. Office of Education. This would seem to be an excellent use of the Title VI seed money and should provide the project with the opportunity to expand and to disseminate their results to larger populations of interested people.

Project Title: *Special Services for Deaf-Blind Children*

Type of Project: *Deaf-Blind and Multiply Handicapped Children*

Location: *Portland*

Funding Allotted: *$30,244*

Number of Children Involved: *8*

Background and Rationale:

This project was designed to provide a permanent development and educational program for deaf-blind children in the greater Portland area. The children enrolled in this program were a population of children who were excluded by all other special education programs within the Portland district. It has been determined that each has a significant auditory and/or vision loss which prohibits them from inclusion in other special programs. The overall goal of this project was then to provide educational services to this small but significant group of multiply handicapped children so that they might acquire skills that would allow them to enter existing special education programs.

Objectives and Evaluations:

1. All children will make progress in accepting and chewing a variety of foods insofar as any dietary or physical limitations permit. Five participants will refine their use of eating tools; and three will sit in an upright position for feeding (one of these will make progress toward finger feeding.) Eight children will make progress in vocalizing and gesturing to indicate their food interests or needs.

Evaluation:

Anecdotal records will be maintained which will include teacher and parent observations. The developmental checklist, section 1, pages 1 and 2 will be included.

2. As far as physically possible, six participants will be able to undress and will show progress toward learning to dress themselves. One child will refine and extend his ability to manipulate his body parts and cooperate in the dressing and undressing process. One will become aware of the process of dressing and undressing and will begin to manipulate his body in the proper responses.

Evaluation:

Anecdotal records will be maintained and the developmental checklist, section 1, pages 2 and 3 will be included.

3. Four children will be toilet trained, one will develop the ability to use gesture, plus vocalization, to indicate his needs to use the toilet, one will use the potty if placed, and two will tolerate sitting on the toilet and will use it occasionally.

Evaluation:

A daily performance chart will be kept by the aide. The developmental checklist, section 1, page 1 will be included.

4. Six children will have learned the basic functions of the various body parts as they relate to toileting, feeding, and dressing; two will have made progress toward learning these functions.

Evaluation:

Anecdotal records will be maintained which will include teacher, parent, and counselor observations.

5. All participants will improve in their ability to make appropriate use of their residual vision and hearing as they complete their developmental tasks.

Evaluation:

Anecdotal records which will include teacher, parent, aide, and counselor observations will be included.

6. Each child will have shown growth in ability to communicate as measured on the narrative reports and checklists.

Evaluation:

Anecdotal records will be included as well as the developmental checklist, section 1, page 6.

7. Seven participants will be able to move about freely and independently in the manner their physical limitations permit; one child will learn to imitate purposeful movements which will lead to free and independent movement period.

Evaluation:

Anecdotal records to include teacher-parent coordinator observations together with the developmental checklist, section 1, page 4 will be utilized.

8. Seven children will respond, in the manner their physical limitations allow, and make overt actions to objects and persons in their environment. One child has shown awareness of objects and persons.

Evaluation:

Anecdotal records will be maintained and the

developmental checklist, section 1, page 5 will be included.

9. Three children will be able to complete 90% of the items listed in their developmental list of work habits; two children will complete 50%; two children 20%; and one child will learn to use her hands to hold and manipulate objects.

Evaluation:

Anecdotal records together with the developmental checklist, section 1, pages 4 and 5 will be included.

10. Four children will be able to decelerate undesirable stereo-type activities.

Evaluation:

The developmental checklist, section 2, pages 1 and 2 will be used.

11. Eight parents and guardians will have learned to interact successfully with their child; four will better understand their mutual limitations and show an improved trend; and four will be in the process of acquiring beginning acceptance of the child.

Evaluation:

Parent and teacher comments will be used.

12. Insofar as any physical handicap permits six children will play cooperatively with their peers and will interact with teachers, aides and other children. One child will be aware of his peers and teachers and will come to interact on a primary basis; one child will become aware of the children and teachers.

Evaluation:

Anecdotal records will be maintained together with section 1, page 5 of the developmental checklist.

Methodology:

This project was initiated on September 2, 1970 and was conducted through July 30, 1971. Eight young deaf-blind and multi-handicapped children from the greater Portland metropolitan area participated in the program during this period of time. The project was housed at the Child Development Rehabilitation Center, Crippled Children's Division at the University of Oregon Medical School in Portland. The children were assigned to one of two groups. The younger children or those who had the most severe handicapping conditions attended the morning class while the older children or those who had fewer handicapping problems attended the afternoon session. Classes were conducted five days per week from nine in the morning to three in the afternoon for the time specified.

Staff of this project included two master's level certified teachers. One teacher was certified in the area of the blind who served as the lead teacher. The other teacher was certified in the area of the deaf and served as teacher assistant. The coordinator of the project was a specialist in the education of the vision impaired child and chairman of the Department of Visually Impaired in the Portland public schools. There was also a fourth staff member who served as a counselor to the parents, who was a certified social worker and a counselor in early childhood development in the public schools. In addition, there were six student teachers from the field of mental retardation from Portland State University who participated. Four volunteers were utilized from the Crippled Children's Division's volunteer pool. A third master's level person, who was a certified teacher, served as a substitute for the lead teacher when necessary.

Being housed at the University of Oregon Medical School in Portland allowed the project staff to utilize consultants from the University of Oregon Medical School. These consultants included pediatricians, audiologists, speech therapists, physical therapists, occupational therapists, nutritionists, dental consultants, ophthalmological consultants, psychiatric consultants, and any other member of the professional and para-professional team at the University of Oregon Medical School as was needed.

This program was developed to advance the sensory, motor and social development of the deaf-blind and multi-handicapped children who are in the program. Communication skills served as a matrix which encompassed the entire program. The lead teacher planned the basic developmental program and within it set up an individual program for each child for the purpose of closing specific developmental gaps. Heavy emphasis was placed on ways of stimulating and guiding communication skills within the frame of each activity, in addition to daily language therapy. No fewer than ten specific behavioral objectives were identifed for each child participating in the program. This approach was deemed necessary, because the staff recognized that the gains that these children were apt to make would be so subtle, that the behavioral objectives needed to be specifically geared to the capabilities of each child.

Parents met monthly at the center, but in addition to those monthly meetings also came frequently to observe. Specifically, the monthly meetings were geared to discussing ways of getting the parents to involve these children in regular family activities. Parent meetings and observations in the center allowed the parents to learn more about:

1. Methods of relating to their children; and how to obtain a positive response from the child.
2. Methods of working and playing with their children, and the selection of materials, toys, and activities which were highly reinforcing to each child.
3. Providing parents with an understanding of what educational programs were available to their child on a permanent basis and being specific about what

behaviors each child needed to acquire before he would be acceptable to the educational programs currently available.

During the course of the school year, personnel from other special schools and programs were invited to observe the children for the purpose of providing them with an opportunity to observe each child and to note the behaviors that each child had in relation to the criteria for acceptance into their special programs. It was hoped that these directors would be able to recognize that these children would fit into their program. Minimal entry behaviors for each child were discussed by both staffs.

Results:

Of the eight children who began this class in September of 1970, all except one will be placed in other educational settings in the Fall of 1971. Two children will be integrated in the Portland Regional Program for the Deaf; one child will be integrated in the Regional Center for the Physically Handicapped; another child will be integrated into the West Side School for Exceptional Children (a TMR class); one will be placed in Providence Nursery; two will receive instruction from Portland State University students; and one will attend a nursery school class for sighted youngsters.

The following gaps were substantially closed in order to make this enrollment possible. Of these eight children, all but one were toilet trained. Four were removed from the category of legally blind through various educational programs which improved the use of residual vision. Four improved their mobility and independence in moving about. Seven children improved their communication skills and four decelerated deviant behaviors to the point that they were now acceptable to other educational programs.

The results of the activities which went on during this project will be reported individually by child. Each was so severely handicapped that the progress must be measured in minute steps. Objectives for each of the children were different depending upon the child's present level of functioning. These objectives were, however, directly related to those objectives stated for all children. These behavioral objectives were selected at the initiation of this program based on testing and observation of each child. Each behavior selected was not previously in the child's repertoire.

Subsequently, anecdotal records were kept daily and summarized weekly for each child upon completion of the various educational tasks. This information included: condition upon arrival at school, behaviors related to communication in group play, language, self-help skills and motor development skills. The anecdotal records were kept consistently and comprehensively by the project teacher and they noted all progress made relative to each behavioral objective as it was specified for the child. In addition, the developmental checklist for deaf-blind preschool children was kept on each child utilizing a Likert base scale from 1 to 5 to determine whether the child had achieved the various behaviors specified for him. Compilation of the information provided by the anecdotal records and the developmental checklist allowed the teacher to judge the degree to which each child had achieved the various behavioral objectives set down for him. The following is a summary by child which specifies each objective and the percentage of achievement of that objective based upon the information provided by the teacher.

NAME: Student #1
BIRTHDATE: 1/14/66
HANDICAPPING CONDITIONS: Legally blind, deaf, heart surgery, cerebral palsy (does not walk)

Objective			% Achieved
1.	a.	Will learn to accept a variety of foods.	90%
	b.	Will refine her use of eating tools.	95%
	c.	Will vocalize and gesture to indicate her food interests.	50%
2.		Will be able to undress insofar as is physically possible and will be able to dress self.	90%
3.		Will be toilet trained.	75%
4.		Will have learned the basic function of the various body parts as they relate to toileting, feeding and dressing.	95%
5.		Will improve in ability to make appropriate use of residual vision and hearing as completes developmental tasks.	75%
6.		Will have shown growth in ability to communicate as measured on the narrative reports and check lists.	50%
7.		Will be able to move about freely and independently; will have made progress in walking independently.	85%
8.		Will respond positively to objects and persons in their environment.	85%
9.		Will be able to complete 90% of items listed in the developmental list under work habits.	85%
10.		Will be able to decelerate undesirable stereotyped activities.	90%
11.		Will play cooperatively with peers and will interact with teachers, aides and other children.	90%

NAME: Student #2
BIRTHDATE: 8/28/69
HANDICAPPING CONDITIONS: She is deaf, blind, and perhaps cerebral palsied (not conclusively diagnosed)

Objective			% Achieved
1.	a.	Will accept and retain a variety of foods.	75%
	b.	Will maintain a sitting posture during feeding.	35%
	c.	Will progress toward finger feeding.	15%
2.		Will become aware of the process of undressing and begin to manipulate her body in the proper responses.	0%
3.	a.	Will tolerate sitting on the potty.	50%
	b.	Use it occasionally.	15%
4.		Will have progessed toward learning tha basic function of the various body parts as they relate to toileting, feeding and dressing.	5%
5.		Will improve in her ability to make appropriate use of residual vision and hearing as she completes her developmental tasks.	0%
6.		Will have shown growth in ability to communicate as measured on the narrative reports and check lists.	0%
7.		Will learn to initiate purposeful movements which will lead to free and independent movement.	15%
8.	a.	Will show an awareness of objects.	0%
	b.	Will show an awareness of persons.	10%
9.		Will learn to use her hands to hold and manipulate objects.	15%
10.		Will be able to decelerate undesirable stereotyped activities.	0%
11.		Will become aware of children, teachers, and aides.	10%

NAME: Student #3
BIRTHDATE: 6/14/66
HANDICAPPING CONDITIONS: Visually impaired, hard of hearing, cerebral palsied, language delay, hyperactive.

Objective			% Achieved
1.	a.	Will sit cooperatively at the snack table.	95%
	b.	Will refine his use of proper eating utensils.	75%
	c.	Will tolerate a variety of foods.	50%
	d.	Will learn to vocalize his desire for food.	50%
2.		Will be able to undress insofar as is physically possible and will be able to dress self.	75%
3.		Will use the potty if placed on it.	75%
4.		Will have learned the basic function of the various body parts as they relate to toileting, feeding, and dressing.	90%
5.		Will improve in ability to make appropriate use of residual vision and hearing as he completes developmental tasks.	95%
6.		Will have shown growth in ability to communicate as measured on the narrative reports and check lists.	50%
7.		Will be able to move about freely and independantly; will have made progress in walking independently.	95%
8.		Will respond positively to objects and persons in their environment.	90%
9.		Will be able to complete 50% of items listed in the developmental list under work habits and increase in his desire to participate in work table activities.	90%
10.		Will play cooperatively with peers and will interact with teachers, aides and other children.	95%

NAME: Student #4
BIRTHDATE: 8/20/60
HANDICAPPING CONDITIONS: Osteopetrosis, a progressive overgrowth and deterioration of the bones; deafness, blindness, lack of control of tongue and speech organs, physical anomalies

Objective			% Achieved
1.	a.	Will learn to tolerate and chew solid food.	95%
	b.	Will accept a variety of food insofar as her diet and physical limitations permit.	85%
	c.	Will refine her use of eating tools.	100%
2.	a.	Will be able to undress insofar as is physically possible.	100%
	b.	Will be able to dress herself.	90%
	c.	Will show growth in personal habits of good grooming.	85%
3.		Will have learned the basic function of the various body parts as they relate to toileting, feeding, and dressing.	95%
4.		Will improve in ability to make appropriate use of residual vision and hearing as she completes developmental tasks.	85%
5.	a.	Will have shown growth in ability to communicate as measured on the narrative reports and check lists.	80%
	b.	Will learn to recognize large print words of everyday activities and objects.	75%
6.		Will be able to move about freely and independently; will have made progress in walking independently.	100%
7.		Will respond positively to objects and persons in their environment.	100%
8.		Will be able to complete 90% of items listed in the developmental list under work habits.	100%
9.		Will be able to decelerate undesirable stereotyped activities.	100%
10.		Will play cooperatively with peers and will interact with teachers, aides and other children.	90%

NAME: Student #5
BIRTHDATE: 4/6/66
HANDICAPPING CONDITIONS: Severe cerebral palsy, blind

Objective			% Achieved
1.	a.	Will learn to assume and maintain an upright posture which will permit her to be easily fed.	90%
	b.	Will develop the ability to chew foods.	50%
	c.	Will accept a variety of foods.	90%
2.		Will refine and extend her ability to manipulate her body parts and cooperate in the undressing and dressing process.	90%
3.		Will develop the ability to use a gesture plus vocalization to indicate her need to use the toilet.	75%
4.		Will have learned the basic function of the various body parts as they relate to toileting, feeding, and dressing.	100%
5.		Will improve in her ability to make appropriate use of her residual vision and hearing as she completes her developmental tasks.	85%
6.		Will have shown growth in ability to communicate as measured on the narrative reports and check lists.	35%
7.		Will be able to move about freely and independently in the manner her physical limitations permit.	95%
8.		Will respond and make overt actions to objects and persons in her environment in the manner her physical limitations allow.	100%
9.		Will complete 20% of items listed in the developmental list under work habits.	90%
10.		Will play cooperatively with her peers and will interact with teachers, aides and other children.	100%

NAME: Student #6
BIRTHDATE: 1/2/66
HANDICAPPING CONDITIONS: Severe cerebral palsy, blindness, questionable deafness

Objective			% Achieved
1.	a.	Will learn to assume an upright sitting posture.	0%
	b.	Will learn to maintain an upright sitting posture which will permit her to be easily fed.	50%
2.		Will be able to undress herself insofar as it is physically possible.	0%
3.	a.	Will tolerate sitting on the toilet.	50%
	b.	Will use toilet occasionally.	15%
4.		Will have shown progress toward learning the basic functions of the body parts as they relate to toileting, feeding, and dressing.	15%
5.		Will improve in ability to make appropriate use of residual vision and hearing as she completes developmental tasks.	90%
6.		Will have shown growth in ability to communicate as measured on the narrative reports and checklists.	25%
7.		Will be able to move about freely and independently in the manner her physical limitation permits.	25%
8.		Will respond and make overt actions to objects and persons in her environment in the manner her physical limitations allow.	90%
9.		Will be able to complete 20% of items listed in the developmental list under work habits.	5%
10.		Will be aware of her peers and teachers and come to interact on a primary basis.	90%

NAME: Student #7
BIRTHDATE: 6/5/66
HANDICAPPING CONDITIONS: Legally blind, deaf, cerebral palsy, heart surgery (does not walk)

Objective			% Achieved
1.	a.	Will learn to accept a variety of foods.	95%
	b.	Will refine her use of eating tools.	95%
	c.	Will vocalize and gesture to indicate her food interests.	95%
2.		Will be able to undress insofar as is physically possible and will be able to dress self.	85%
3.		Will be toilet trained.	100%
4.		Will have learned the basic function of the various body parts as they relate to toileting, feeding, and dressing.	100%
5.		Will improve in ability to make appropriate use of residual vision and hearing as completes developmental tasks.	95%
6.		Will have shown growth in ability to communicate as measured on the narrative reports and checklists.	75%
7.		Will be able to move about freely and independently; will have made progress in walking independently with braces and crutches.	95%
8.		Will respond positively to objects and persons in their environment.	100%
9.		Will be able to complete 90% of items listed in the developmental list under work habits.	100%
10.		Will play cooperatively with peers and will interact with teachers, aides and other children.	100%

NAME: Student #8
BIRTHDATE: 6/17/68
HANDICAPPING CONDITIONS: Cerebral palsied and blind as result of brain tumor, degree of learning not fully evaluated.

Objective			% Achieved
1.		Will refine his ability to use eating tools and will learn an acceptable manner of communicating his desire for food.	75%
2.	a.	Will be able to undress himself insofar as it is physically possible.	50%
	b.	Will be able to show progress toward learning to dress himself.	35%
3.		Will use the potty when placed on it.	75%
4.		Will have learned the basic function of the various body parts as they relate to toileting, feeding, and dressing.	90%
5.		Will improve in his ability to make appropriate use of his residual vision and hearing as he completes his developmental tasks.	90%
6.		Will have shown growth in ability to communicate as measured on the narrative reports and checklists.	50%
7.	a.	Will be able to move about freely and independently.	85%
	b.	Will have made progress in walking independently with braces.	35%
8.		Will respond and make overt actions to objects and persons in his environment.	100%
9.		Will be able to complete 50% of items listed in the developmental list under work habits.	90%
10.		Will be able to decelerate undesirable stereotyped activities.	90%
11.		Will play cooperatively with his peers and will interact with teachers, aides and other children.	90%

Third Party Evaluator's Comment:

Little is known about effective teaching methods or strategies in teaching the deaf-blind child. Consequently, the types of activities that a teacher utilizes to achieve educational objectives with this type child must be experimental in nature. It is the opinion of the third party evaluator that the staff involved in this project did in fact utilize such procedures in producing the results reported for each child. The fact that each of these children has deficits in the area of hearing, vision, plus brain damage and physical abnormalities takes away virtually all modalities which we normally utilize to get input into the child whom we are teaching. Under normal circumstances, if we are dealing with a deaf child, the teacher usually puts heavy emphasis on visual input; if the child is blind the emphasis is naturally placed on the auditory aspects of education. However, in this case it can be seen that since all avenues are inoperable, it becomes virtually an impossible task to present information to the child. Progress demonstrated for each child involved in this project indicates that the teachers did through an experimental procedure uncover strategies which will be beneficial to all educators who are dealing with a deaf-blind child in the future.

Relative to the program involving the parents, it should be emphasized that while it was reported that the frustrations that the parents felt regarding their child were alleviated by their participation in this program, it appears that more specific instruction to the parent could have been presented on how to cope with their handicapped child. Many of the programs could have been sent home to the parents. These same behavioral objectives that were clearly stated for each child in the classroom could have been presented to the parent and programs provided to accomplish these behavioral objectives in the home. In this way, due to the severity of the handicapping condition which each child had, greater gains could have been made in that each child would have been receiving considerably more educational interaction daily than was provided by the program as it currently existed.

However, the behavioral objectives as were stated for each child were accomplished for each child to a degree that satisfies accountability for dollars expended in this project.

Title of Project: *A Junior Work Study Program*

Type of Project: *Emotionally Disturbed*

Location: *Bend*

Funding Allocated: *$15,770*

Number of Children Served: *13*

Background and Rationale:

Within the Bend School District there were a large number of students of junior high and high school age who had normal intelligence, but were academic failures because of deviant behaviors exhibited while at school. Many of these students were on the verge of being expelled from school due to truancy, academic deficiencies, fighting, and other behaviors which are incompatible with normal school activities. In many cases, individuals had been arrested and had been processed through juvenile court for some of the more serious deviations. The regular junior high and high school were unable to cope with the behaviors of these students. Consequently, this program was designed to test the theory that vocational activities may be used as a method of motivating these students to higher academic achievement and adjusting to the school situation. It was anticipated that vocational activities could be presented in such a way to emphasize the relevancy of reading, writing, spelling, and mathematics to occupation needs in the working world.

Objectives and Evaluation Plan:

1. To improve academic achievement.

Evaluation:

The Stanford Achievement Test will be administered on a pre- post-test basis.

2. To develop vocational awareness of the children for future participation in Distributive Education.

Evaluation:

A teacher devised vocation awareness test will be administered in October and May as a pre- and post-test instrument. A job performance checklist will also be accomplished.

3. To develop social skills through behavior modification techniques.

Evaluation:

The Walker Behavior Problems Checklist will be administered on a pre- post-test basis. An attendance record will be maintained. Graphing of various behavioral records will be accomplished.

4. Provide a meaningful community service for a psychology student from Central Oregon Community College.

Evaluation:

A description of the activities of the students will be provided.

5. Develop vocational aimed curriculum for possible inclusion in future classes.

Evaluation:

The description of the curriculum will be included.

Methodology:

This project was initiated on September 10, 1970 and was completed on August 30, 1971. The project was housed in the Reed School in Bend, Oregon. The room provided was a regular classroom; however, this was used only as a base of operation, since frequently the daily interaction between teacher and students was held outside the classroom in the various vocational settings. Within the classroom structure, the room was set up in a fashion that provided maximum flexibility for the various kinds of vocational and/or academic tasks that were being provided for the students. In no way did it resemble a traditional type academic setting at the junior high school level.

The staff of this project was composed of a certified teacher with extensive background in vocational activities. This past teaching experience had been at all levels from elementary through high school. The teacher was assisted by a teacher aide in all activities. People from the community frequently gave presentation in their areas of vocational expertise. Volunteer tutors also assisted in teaching reading to certain students.

During the course of this project 13 boys from junior and senior high participated. However, there were never more than 10 students enrolled in the program at one time. Students in this class were identified by various classroom teachers, building principals, psychiatric social workers, and the Director of Special Education as being of normal intelligence, but lacking motivation to profit from the regular school curriculum to the extent that they were difficult to manage in the regular classroom. Frequently the students were exhibiting behavior which deterred them from functioning appropriately in a regular classroom and also were such a disturbing influence as to make it difficult for other children to learn. Some of the students in the project faced expulsion from the regular classroom and were to be given home instruction because of delinquency or inadequate classroom behavior.

In addition to basic academic tasks such as reading, math, language, writing and spelling which were presented in the classroom setting, field trips and other vocational activities were planned to show the students the relevance to these academic tasks. In each instance when academic activities were presented, they were directly related to a field trip or vocational activity.

Activities during this Title VI project included a two day camp out at Lavacicle with a naturalist. The students constructed nature trails at Shelvin Park for the Director of Parks and Recreation for the City of Bend. This activity netted $219 which was placed into a bank account in the class's name. The teacher arranged with a local body shop for the students to wet sand cars and trucks, preparing them to be painted. The boys were paid $15 per vehicle which also went into the bank account.

Frequent meetings and potluck dinners with parents were conducted throughout the year. Other work activities were provided for the students which netted additional monies which were put into the bank account. Several other camp outs and fossil hunting trips were provided during the year. Each field trip was related to a reading vocabulary, writing and preparing menus, computing the amount of money necessary for food, supplies, – in general showing the relevance of academic behaviors to the outdoor and vocational activities.

During the year there were frequent opportunities for each boy to make oral presentations to various groups in the Bend area concerning the class's activities. Examples of these groups included the high school geology club, the local school board, the Interagency Group, the rock club, and the parents of the students.

Each boy participating in the program was also interviewed on local television concerning his individual efforts in the construction of the nature trails.

Another project undertaken in the classroom was the routing of wood signs which were made and placed on the nature trail. One of the students in the class became so proficient in sign routing that he has now gone into business in Eugene making signs on order.

As a result of many of the camp outs and fossil hunting trips arranged during the year, several science projects were developed and displayed in the Oregon Museum of Science and Industry in Portland. A second place state award was won as well as a number of other lesser awards.

During the course of the school year the psychiatric social worker spent one hour each week with the students in the class. During these meetings, he talked with students about various problems they were having and he attempted to assist them in making adjustments to these problems. During the school year it was the observation of the classroom teacher and other consultant staff, that all participants in the program appeared to be happy, eager to participate in school and cooperate in all activities and efforts expended by the project.

Results:

1. To improve academic achievement.

Table I shows the pre- post-test scores achieved on the Stanford Achievement Test which were administered in November and May.

TABLE I
Stanford Achievement
Intermediate Level

	Pre-Test			Post-Test			Differences		
Student	Word Meaning	Arith. Reason.	Arith. Comp.	Word Meaning	Arith. Reason.	Arith. Comp.	Word Meaning	Arith. Mean.	Arith. Comp.
D.L.	8.3	5.5	5.0	8.9	6.8	5.0	+ .6	+1.3	+1.8
G.B.	6.3	6.5	7.1	7.0	9.5	7.1	+ .7	+3.0	+ .5
M.R.	4.8	5.2	4.6	7.5	6.2	4.6	+2.7	+1.0	- .1
D.S.	6.8	5.9	5.3	5.9	8.4	5.3	- .9	+2.5	+1.0
C.D.	8.3	5.2	5.2	8.3	7.3	5.2	.0	+2.1	+1.6
G.F.	5.6	5.1	4.1	7.0	5.6	4.1	+1.4	+ .5	+ .9
R.R.	4.1	4.1	3.0	2.5	4.3	3.0	-1.8	+ .2	+2.3
J.S.	6.3	4.7	5.0						
B.K.	3.7	3.3	3.0						
D.M.	3.0	4.3	3.5						
C.B.				2.5	3.6	4.2			
J.W.				3.5	3.4	4.7			

*Denotes either pre or post tests were not administered because students moved or were not in the class when tests were administered.

2. To develop vocational awareness of the children for future participation in Distributive Education.

The classroom teacher reported that this vocation awareness test was not developed and consequently was not given to evaluate this aspect of the project. He did state, however, that frequently during class periods throughout the year such things as filling out job applications, interviews with prospective employers, and social behaviors connected with applying for and securing jobs were discussed in great detail. Interviews were also set up with local employment office personnel in order to give the students experiences in job interviews.

3. To develop social skills through behavior modification techniques. Table II indicates the results of the pre-post-test of the Hill Walker Behavior Checklist for behavior problems.

As further evidence to demonstrate the attainment of objective three is the attendance record for seven students who were involved in the program from beginning to end and the number of referrals to juvenile court during the year prior to this project and during the year of the project. Tables III and IV show this information.

4. Provide a meaningful community service for a psychology student from Central Oregon Community College. This portion of the program was not successful because the Central Oregon Community College did not recommend students to act as a teacher aide in this project. The few students who did apply for the job did not have adequate background or skills necessary for the position available. Consequently, a teacher aide position was filled by a person outside the college setting. While there were three different teacher aides during the course of the year, each provided excellent assistance to the teacher and to the students involved in the project. They worked closely with the classroom teacher and carried out the various activities as they evolved in the program. The teacher felt that it was unfortunate that none of the three who were hired could remain employed for a longer period of time since the changing of teacher aides had some effect on the progess of the project.

5. Develop vocational aimed curriculum for possible inclusion in future classes. A comprehensive planning guide and curriculum for the junior workstudy program was submitted by the project director and the teacher in her final report for this Title VI project. In this curriculum, the best approaches were selected from this Title VI project and are listed in detail and described so that they would be available for anyone who wanted to establish a similar program of this type. Various field trips, camp outs, work activities and methods of relating academic subjects to each of these are specified.

In addition, various motivational devices via positive reinforcement, token systems and other methods of achieving high rates of participation and correct responses in students are described. Schedules are set down and are discussed in terms of participation in the classroom for field trips and camping activities. In general, the curriculum guide appears to be one that is quite comprehensive and complete and of course is based on the trial and error of various curricula attempted during the project.

Third Party Evaluator's Comments:

The concept of providing vocational relevance to academic subjects by presenting the academic subjects concurrent with field trips, camp outs and vocational activities is not a unique procedure. It is unique, however, when the entire academic year is established in this fashion. The data generally support the fact that this project was successful and did meet its objectives in eliminating deviant behaviors, keeping these students in school on a regular basis and improving academic achievement.

The data from the differences of the pre-post scores on the Stanford Achievement Test indicates that all of the students made substantial gains in one or more academic areas.

The mean differences of pre-post scores on the Hill Walker Behavior Problem Checklist indicates that the mean scores moved closer to the norm in four of the five scales.

Of particular significance is the attendance for all students during the year (98.7%). This attendance record is outstanding considering that many of the boys were threatened with expulsion for truancy in previous years. The difference in juvenile court referrals is also significant. This changed from eight referrals during the 1969-70 school year to two referrals during the 1970-71 school year.

The vocational curriculum guide prepared by the project staff is comprehensive and specific in format. It would be valuable to any school district who anticipates providing services of this type. This document is available through the Special Education Department in Bend.

One area alone indicates failure to meet the behavioral objectives specified for this project. That was the area of vocational awareness of the jobs available in the community. Even though the project teacher indicated that activities were provided to accomplish this objective, no evaluation or supportive data were provided to substantiate this progress.

However, relating to the major emphasis in this project, it must be stated that this project was a successful one.

TABLE II

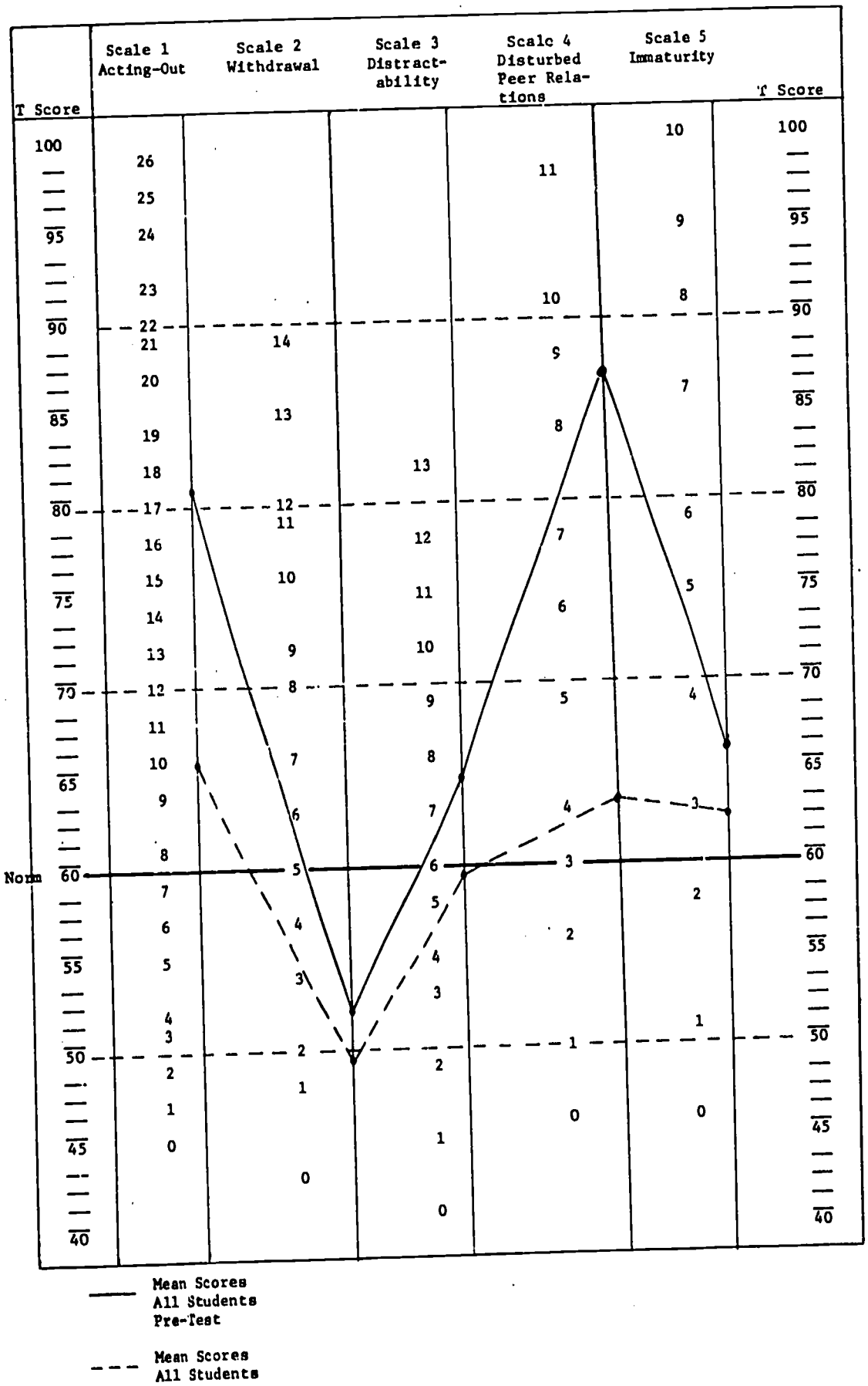

T Score
Scale 1 Acting-Out
Scale 2 Withdrawal
Scale 3 Distract-ability
Scale 4 Disturbed Peer Rela-tions
Scale 5 Immaturity
T Score
Norm
Mean Scores All Students Pre-Test
Mean Scores All Students Post-Test

TABLE III

ATTENDANCE RECORD: Days Absent		%Present	Days Present
DL	0	100	155
GB	0	100	155
MR	0	100	155
DS	1	99.5	154
CD	3.5	97.7	151.5
GF	2	98.7	153
RR	7.5	95.1	147.5

Average: 98.7% attendance
Average: 2 days per boy absent

(The boys listed were in the program from the beginning)

TABLE IV

STUDENT'S NAME	REFERRALS TO JUVENILE COURT PRIOR TO 10-1-70	REFERRALS AFTER 10-1-70
MR	4 (for quite serious offenses)	0
CD	None since 1969. Many before that.	
GB	2	0
JW	1	0
DS	0	1 (10-27-70)
DM	1 (driving without license)	0
BK	0	1 (10-13-70 but three or four since Feb. when he was expelled from school.)
JS	? (many)	Now receiving psychiatric help. Not in school.

Others in the class have had no contact with the Juvenile office.

Title of Project: *Resource Room Teacher for Hearing Impaired Secondary School Students*

Location of Project: *Salem Public Schools, Salem, Oregon*

Type of Project: *Hearing Impaired/Deaf*

Funding Allotted: *$9,668*

Number of Students: *10*

Background and Rationale:

Prior to the initiation of this Title VI program, hearing impaired students in the Salem Public Schools have been served by a speech and hearing clinician on a part-time basis or by an itinerant teacher of the hearing impaired. This project was designed to determine the effectiveness of establishing a permanent resource room where hearing impaired students could be provided daily assistance in the areas of academic subjects, lipreading, auditory training and language.

In addition, the project also demonstrated the effectiveness of the resource room as a trial or transitional educational experience for a student from the Oregon State School for the Deaf.

Objectives and Evaluation Plan:

1. Determine the effectiveness of the resource room approach to increasing academic success of hearing impaired students in the selected secondary school setting.

   The Wide Range Achievement Test was to be given on a pre- and post-test basis.
2. Evaluate the effectiveness of specific techniques, procedures, and materials utilized in furthering the academic and social growth of students.

   This would be the professional opinion of the teacher. Supporting evidence for this opinion should be furnished, if available.
3. Evaluate the social progress of students included in the program.

   The Roger's Personal Adjustment Inventory was to be given on a pre- and post-test basis.
4. Identify academic and social limitations in situations most restricting to the successful participation of hearing impaired students.

   Student comments were to be solicited and included to satisfy the requirements of this objective.
5. Orient faculty members to specific needs of hearing impaired students.

   A description of the orientation provided faculty members was to be provided.
6. Determine the supporting skills and the activities of parents of hearing impaired students which contribute positively to their school experience.

   Comments from both parents and students were to be obtained. In addition, a description of the ability of the parents to follow through on suggestions was to be included.
7. Evaluate the effectiveness of this situation as a trial opportunity for students from the School for the Deaf for anticipated integration into the local public schools.

   Data for each child from the School for the Deaf were to be separately maintained and included in addition to obtaining from the School for the Deaf staff comments relative to the success of this operation.
8. To determine the value of this experience to the hearing impaired students in this secondary school setting to formulate plans for accommodating the special needs of this group in other Salem areas.

   This objective was to be examined in light of the success achieved in Objectives 1 through 6. The statement by the administration of the school district should be included here.
9. Contrast the resource room approach with the itinerant teacher system to consider modifications of the program at the elementary level.

   It was agreed that three or four students would be used as a control and taught under the itinerant program. Also, to be included was to be a comparison of the efficient employment of teacher time, cost of transportation, and other administrative expenses.

Methodology:

This project was conducted for ten students beginning on August 31, 1970 and ending on June 4, 1971. The class was held at the South Salem High School and taught by a certified teacher of the hearing impaired and deaf.

Seven of the ten students were seen on a five day a week basis ranging from 15 minutes to 55 minutes per day. Two of the students were seen three days a week and one of the students was seen two days a week.

The content of the information presented to the various students included improvement of oral and written language skills, speech correction, auditory training, and lipreading instruction. The majority of the time spent was involved with academic tutoring in course material and reinforcement of the on-going high school class programs. In addition, time was spent by the resource room teacher in

counseling and aiding students' orientation to goals by unit studies on career, marriage, consumer problems, and similar studies.

In addition, one student from the Oregon State School for the Deaf came to South Salem High School three hours per day. His time was spent in regular classes at the high school with the exception of the time spent in the resource room.

Children for this project were selected because of their hearing impairment (i.e., 35 dB or greater in the better ear) and the fact that they were experiencing difficulty with subjects in the regular classroom. The students in this project had hearing losses ranging from 38 dB in the better ear to 100 dB in the better ear. However, the majority of the students had losses between 50 dB and 70 dB. Four of the students had hearing aids when they entered the program and two were provided aids by the staff from the resource program during the year. Three other students refused to wear hearing aids even though their hearing losses indicated that an aid would benefit them in the classroom.

Besides the resource teacher, there were volunteer consultants from various disciplines around the State of Oregon who were interested in the success of this project. They include Mr. John Taylor, Coordinator of the Handicapped Children's Program, State Board of Education; Mr. Marvin Clatterbuck, Superintendent of the Oregon State School for the Deaf; Dr. Harlan Conkey, Audiologist, Oregon State University; Mrs. Stuart McElhinny, Chairman of the Special Education Citizen's Advisory Committee and others.

Results by Objectives:

Objective 1: Determine the effectiveness of the resource room approach to increase the academic success of hearing impaired students in selected secondary settings.

The results of the Wide Range Achievement Test for the pre-test administered in September and the post-test administered in May are shown in Table 1. The results of this test on six students indicate that five of the six students made substantial gains in the areas of reading; however, only minimal progress was recorded in spelling and arithmetic.

Table 1

Results of the Wide Range Achievement Test

Student	September Scores			May Scores			Sept.-May Difference		
	Reading	Spelling	Arithmetic	Reading	Spelling	Arithmetic	R	S	A
	Standard Score	Standard Score	Standard Score	Standard Score	Standard Score	Standard Score			
1	76	81	93	93	97	122	+17	+16	+29
2	86	92	90	101	93	90	+15	+ 1	---
3	64	86	81	83	91	85	+19	+ 5	+ 4
4	82	82	83	86	80	90	+ 4	- 2	+ 7
5	84	88	84	95	92	87	+11	+ 4	+ 3
6	55	68	74	68	75	79	+13	+ 7	+ 5
7	86	85	88						

Four of the ten students who participated in this project were not given the Wide Range Achievement Test or the Roger's Personal Adjustment Inventory. Student seven listed above left the program in December. Consequently, no post-testing was done. Two other students came into the program in January and no pre- or post-testing was administered. A fourth student was not tested because of his severe hearing loss. (100 dB in the better ear.)

The resource teacher reported that every student in the resource room program except one showed an improvement in grades for both semesters of the academic school year 1970-71. One student showed a slight improvement, four showed a moderate one, two showed a sizable improvement, and two students went from C average to about an A-average. In one of these cases, the use of Captioned Instructional Films from the Oregon State School for the Deaf Repository is credited as having much to do with her success during this school year.

Objective 2: Evaluate the effectiveness of specific techniques, procedures and materials utilized in furthering the academic and social growth of students.

Relative to the academic growth of students, it was determined that the use of Captioned Films and Filmstrips to supplement the presentations in the regular classroom was a major factor in the improvement of the academic growth in students. Captioned Films and Filmstrips were ordered from the Oregon State School for the Deaf and from the Regional Repository at the Colorado School for the Deaf and Blind. These Captioned Film materials were especially successful with students who were enrolled in and having difficulty with social studies and literature. These media were used after an explanation and discussion of the text material was given by the regular classroom teacher.

In general, the conclusion was that the use of all types of amplification (i.e., headsets which were utilized with both tape recorders and record players and auditory trainers) and the utilization of filmstrips and other visual aids was most instrumental in allowing the hearing impaired students to be successful in their regular classroom activities.

In addition, the reinforcement of the on-going classroom programs by taking the vocabulary necessary for completion of assignments in these classes and working on this vocabulary during the resource room instruction was helpful. In science, for example, a list of 15 to 20 of the most important words of the up-coming chapter would be listed and studied so that when the hearing impaired students read the chapter they knew the important words from the onset.

Specialized procedures which were utilized to improve the social growth of students in this program were:

1. To encourage students to attend athletic events, school dances and other school activities.
2. Teaching social graces and courtesies, especially those applying to proms and other dances. Such topics as dating, behavior at dances, and sending of thank-you

notes were discussed, and Captioned Films and Filmstrips were utilized to explain these topics.

3. Students attended all assemblies throughout the year instead of remaining in home rooms. Vocabulary and ideas presented by the various speakers were taken as a follow-up after the assemblies.
4. Trying to anticipate the vocabulary needs of the hearing impaired as they participated in various social, intramural, and club activities and then teaching the specific vocabulary in advance of the various activities as they evolved. The resource teacher reported that much of the supportive evidence illustrating the effectiveness of stated techniques were substantiated by the students themselves. Throughout the year the students expressed their appreciation for the assistance given them in helping them with the various academic and social areas discussed.

Objective 3: Evaluate the social progress of students in the program. Pre- and post-tests for the Roger's Personal Adjustment Inventory were given. (See Table II.) Two students were admitted to the program late in the year and were not given this test.

Table II

Results of the Roger's Personal Adjustment Inventory

Student	October Scores	May Scores	Oct.-May Difference
1	25.5	23	-2.5
2	24	13	-11
3	34.8	40	+ 5.2
4	34.5	53.5	+19
5	31	34	+ 3
6	26	28	+ 2
7	30.7		

Classification of Scores

Below 33 - Less than average evidence of maladjustment

33 - 44 - Average adjustment

44 or above - Rather serious degree of maladjustment

These data generally reflect that four of the students regressed in their personal adjustment to peers and family. However, subjective reports by the resource teacher and classroom teachers indicated that students generally felt that they were now accepted by their hearing peers. Students participated in many of the social activities in school and were generally accepted and felt at ease at all phases of public school life.

Objective 4: Identify academic and social limitations which most restrict successful participation of these students.

The following were identified:

1. Students complained of having an extremely hard time following a discussion when the whole class was taking part. Students felt lost many times even in a round table discussion.
2. In noisy classes such as science labs, students had difficulty hearing the teacher give directions. Three students complained of not being able to hear in noisy classes.
3. Teachers using lecture procedures most of the time in class were very hard to follow especially when they didn't use the blackboard. The resource room teacher observed many classes and tried to change schedules to keep the hearing impaired students out of the classes where the teacher lectured a lot. Students complained of boredom in lecture classes.
4. School social events caused minor difficulty during the school day since the resource room teacher was able to attend and explain speeches, skits, jokes, etc. The students did complain of not being able to follow the speaker on several occasions due to the difficulty of lipreading from a distance.
5. During evening social events such as the annual school musical it was difficult for the students to understand. However, when the resource room teacher also attended these evening events, much could be explained and discussed with the students at the next class meeting. The students that were able to sit near the front said they enjoyed themselves much more while sitting close to the stage.

Objective 5: Orient faculty members to specific needs of hearing impaired students.

The following was done to meet the requirements of this objective:

1. A formal orientation was given to the faculties of both schools at the beginning of the year at both faculty meetings. Methods of communicating with the hearing impaired were suggested.
2. Later in the year more information was shared with small groups of teachers who had hearing impaired students in their classes. This included information about audiograms, what sounds were hard to hear for particular hearing losses, and the use of a record demonstrating various hearing losses.
3. Throughout the year, informal talks with individual teachers about the hearing impaired students in their classes were held. Each teacher was sent a memo offering suggestions as to how to deal with the students in their class.
4. It was necessary to review throughout the year the essentials of dealing with hearing impaired students in the regular classroom. Such essentials as proper seating and proximity to audio-visual equipment were reviewed with the teacher whenever it appeared necessary to do so.
5. The resource room teacher observed many classes for about twenty minutes in duration. This practice throughout the year was very helpful to the resource room teacher in planning his academic assistance to his students and determining advantageous teacher choices for these students. If time permits in the

clinician's schedule, this practice is highly recommended for understanding the needs of each hearing impaired student with particular teachers.

6. Many speech and hearing test referrals were given to the resource room teacher. There were at least thirty referrals for hearing tests; some were given quite informally by teachers as they "bumped into" the resource room teacher illustrating that the presence of the resource room teacher facilitates teacher referrals and further awareness of the hearing impaired children.
7. The resource room teacher gave talks about the hearing impaired to the following classes: psychology, health, family living, employment experience, and modern problems.
8. Finally, there were a few teachers of hearing impaired students who simply did not or could not grasp the idea that they were working with a student of very limited hearing. The resource room teacher tried at least weekly to explain the hearing loss but with no success. This situation emphasized again the need to influence selective placement.

Objective 6: Determine the supporting skills and the activities of parents of hearing impaired students which contribute positively to their school experience.

The following were accomplished to meet this objective:

1. The resource room teacher either met monthly or phoned monthly all of the parents of the children in the program. The parents were visited in their homes before school started.
2. Parents were eager and happy to have the resource room assistance for their children. Parents of seniors agreed that thisprogram was long overdue. The teacher of the hearing impaired found it to be quite valuable to visit the homes of the students and meet the parents.
3. Suggestions were given regarding homework and the providing of a study area in the home, vocabulary development, and such things as checking the child's hearing aid before school.
4. Two of the parents had great difficulty getting their children to wear hearing aids at the beginning of the year. By stressing the importance of wearing an aid for academic reasons and by suggesting some behavior modification approaches, the resource room teacher helped the parents so that by mid-year the two students were wearing their aids.
5. Monthly progress reports were made to the parents either by a visit or by a phone call. Several of the parents visited the resource room throughout the year and during "open house" evenings.
6. Some parents were given vocabulary lists to support the resource room teacher.
7. Parents were asked to assist the resource room teacher in discussion of social matters such as dating, sending thank-you notes, dress and grooming.
8. Parents were asked to assist the resource room teacher in vocational areas by discussing careers with their children. Oregon State Vocational Rehabilitation services were explained fully to the parents involved. The parents were pleased to be able to get vocational help for their children.
9. The ability of the parents to understand and accept their child's handicap varied. Generally, the resource room teacher received good support. Some of the parents were given more detailed suggestions than others.

Parents were surprised at the speed with which their phone calls were returned and quick assistance given to their children. This was accomplished by means of the low class load the resource room teacher had. The parents expressed gratitude for the monthly and sometimes weekly progress reports.

Objective 7: Evaluate the effectiveness of this situation as a trial opportunity for students from the Oregon State School for the Deaf for anticipated integration into the local public schools.

One ninth grade boy from the School for the Deaf was integrated for two periods a day at the junior high during the last semester of the year. The resource room teacher's role was one of liaison and supportive services and the child was driven back to the School for the Deaf after he got out of the junior high school. In the opinion of the resource teacher, integration would work best if the deaf students are chosen who demonstrate high academic ability. In addition, both the resource room teacher and staff from the Oregon State School for the Deaf must provide tutorial and supporting services for the child who is trying to make this transition. Tutorial services should include both academic and social activities because each is important to the successful integration of the severely hearing impaired student.

Adequate transportation must also be made available so that time and scheduling of classes do not become serious problems which will deter the academic and social growth of the student involved.

Objective 8: To determine the value of this experience to the hearing impaired student in the secondary school setting to formulate plans for accompanying the special needs of this group in other Salem areas.

Generally, this project showed that the concept of integrating severely hearing impaired children into the regular school setting can be implemented successfully. The resource room teacher felt that integration can very definitely work in other Salem schools and throughout the State of Oregon, expecially when a resource room concept is utilized. Administrators and classroom teachers also agreed that the project was a success.

Objective 9: Contrast the resource room approach with the itinerant teacher system to consider modifications of the program at the elementary level.

It was the opinion of the project administrator that the

resource room provided the following services that the itinerant teacher cannot provide or can provide only in part:

a. A place for the hearing impaired students to come to anytime during the day.
b. A daily hour for tutoring, vocabulary, and speech work, etc.
c. A source room with texts, encyclopedia, magazines and other reference materials.
d. A permanent place with its own audio-visual equipment for presentation of Captioned Films and Filmstrips complete with head sets.
e. A full-time teacher known by the administrators of cooperating schools. The resource room teacher attended relevant faculty meetings at the junior and senior high, several assemblies at both schools, social events, and many sporting events at both schools where he met teachers as well as the hearing impaired students. The resource room teacher officiated at some sporting events, was a volunteer soccer coach, performed other duties, and a few times acted as an emergency substitute teacher at both schools. The substituting involved a total of five hours the entire year, and the resource room teacher felt it was beneficial to his program to cooperate with the principals of both schools in this manner.
f. The teacher was present for any emergencies or conferences as they might come up during the day.
g. The resource room teacher with one free period daily, provided the opportunity to maintain contacts with the State School for the Deaf, Vocational Rehabilitation, teacher contacts, conferencing with teachers and with parents personally and by telephone, and Special Ed supervisors.

Considerations in addition to those enumerated above when contrasting the resource room and the itinerant teachers' services would include factors of expense, time and student achievement. The mileage expense of just under $800.00 for two teachers serving eighteen students individually and extending testing and evaluation service for hearing impaired students throughout the district is an important item. Also to be considered is the investment of nearly 1½ hours daily for travel time. These two differing expenses (although the second could also be converted to dollars) must be weighed against the unmeasured advantages of having children attend their community schools, fully integrated with the neighborhood children and with only a minimum of segregation for their tutoring and auditory training sessions. In many instances, the specialists conducted this work on the sidelines in the classroom, just as do other auxiliary personnel. The Itinerant Teachers of Hearing Impaired have been similarly well received by classroom teacher and principals and enthusiastically welcomed by parents of children with hearing impairments.

Upon comparing the data reported for students involved in each of these two groups (resource room and itinerant teacher), there is little difference in their progress on the WRAT or the Roger's Personal Adjustment Inventory. It was notable that in each group (the resource room students being identified by number and the itinerant teachers' students being identified by letter) the students falling into the "serious maladjustment" range on the Roger's Personal Adjustment Inventory, students 4 and c, were also the students who finished the year with the lowest achievement record. (See Table III.) Interestingly, it was student c who had the highest Grade-Point Average (2.75) of the three itinerant teacher's students. Her only achievement gain was in math and, this having been identified as her weakest subject, was the area of concentration with her itinerant teacher.

Table III

STUDENT	Average WRAT Difference	Roger's[1] Personal Inventory Oct.-Score	Roger's Personal Inventory May-Score	Roger's Personal Inventory Difference	GPA
(Resource Room)					
1	+21	25.5	23	- 2.5	
2	+ 8	24	13	-11	
3	+ 9.3	34.8	40	+ 5.2	
4	+ 3	34.5	53.5	+19	
5	+ 6	31	34	+ 3	
6	+ 8.4	26	28	+ 2	
Mean	+ 9.28				
(Itinerant)					
A	+ 9.6	35e[2]	44	+ 9	2.3
B	+ 5.5	68e[3]	39	-29	2.2
C	- .9	44.6	50	- 5.4	2.75
Mean	4.37				

e[1] Classification of scores (totals):
Below 33 = less than average evidence of maladjustment
33-44 = average adjustment
44 or above = rather serious degree of maladjustment

e[2] Parents divorced during October to May interval—reflected in "Family Maladjustment" subscore.

e[3] Student unable to comprehend the inventory in October presentation. It was read to him in May.

Student 1 made progress far in excess of any of his fellow resource room students or the itinerant teachers' students and was very comfortable in the "less than average evidence of maladjustment" range scored on the Roger's Personal Adjustment Inventory. The mean differences between October and May on the WRAT were +9.28 for the resource room and +4.37 for itinerant students. However, if the three scores of students 4 and c, who were evidencing serious adjustment problems and possibly related lowest achievement, and the disproportionately high score of student 1 are excluded, the averaged academic gains for the remaining resource room students is +7.9 on

the Wide Range Achievement Test standards scores, and +7.5 is the average gain of the itinerant teacher's students.

Except for students 4 and c, all finished the school year in the average or less than average maladjustment range as measured by the Roger's Personal Adjustment Inventory. The October to May differences varied from -29 (reduced maladjustment) to +5.2 points increased maladjustment. None of the teachers felt that this test was recommendable for future use being (1) keyed to a younger population, (2) difficult for any with low reading level (student b) to comprehend, (3) offensive to the students in specific areas (the rating of members of the family, for example), and (4) difficult to score. While it would not be suggested to other educators nor used again for test-retest purposes, some items used clinically did offer insights into the students' attitudes and feelings.

The following impressions and recommendations were made by the project director:

"While the results of this year's experience did not suggest the abandonment of the itinerant teacher approach, they did support the inclusion of the resource room as a highly workable variation of supplementary aid to the hearing impaired student. We would concur with the statement made in the booklet IMPACT which reported on the 1969-70 Beaverton Project for Hearing Impaired-Deaf students in which they concluded:

> The advisability of establishing additional resource rooms in suburban districts should be dependent upon the following conditions:
>
> 1. Existence of a group of students whose academic level, social maturity, and chronological ages are suitable for placement in a single unit.
> 2. Willingness of participating agencies to permit a certain degree of flexibility in administration of the resource room.
> 3. Availability of an experienced and competent teacher of the hearing impaired who can adjust to an individualized program.
> 4. Existence of competent supervisory personnel to complement the services of the deaf in programming, curriculum development, and pupil guidance.
> 5. Willingness of a public school to accept a resource room into the total program as an integral part of the school.

Because of the six year age and grade span represented, this program was completely individualized and in only a few situations was there academic overlapping which lent itself to combining the students for specific instruction. Some more socially-oriented involvements were of mutual concern to two or more students, but here too the problems and needs were highly individualized. This situation is notable among the elementary students being served by the itinerant teachers and emphasizes our agreement with point one above of the Beaverton conclusions. However, at such a time as there exists a natural homogeneous clustering of younger students suggesting the resource room approach at the elementary level, the comparisons pointed out under Objective 9 would be included in the rationale for its establishment.

Each advisory participant was called upon in the capacity indicated with the majority of the contacts early in the school year. Several of them have submitted reaction statements. These have been primarily positive and encouraging continuation of the program. A principal notes the improved grades of Junior High pupils in the program and has observed their increased social participation. A parent praises the resource teacher's rapport with both students and faculty and the "balance of understanding that makes for an effective and happy learning situation." The audiologist-participant presented a most constructive critique suggesting a more active and committed advisory board "to review the design of the program and determine future needs."

As a pilot project, we have been highly satisfied with this initiation of the Resource Room for Hearing Impaired students and feel that in addition to academic and social progress of the students, acceptance and cooperation of the administration and teaching staffs of the two buidlings have been gained. Nonetheless, we do see our greatest areas of weakness as physical limitations related to cramped space and needed equipment, and operational shortcomings involving a need for more interaction with the advisory participants and an increased effort to utilize behavioral objectives and to quantify results. Amelioration of these weaknesses is a center of focus as we look ahead.

From the standpoint of the Administration, the School Board and the Budget Committee of School District 24J, this project has been viewed as a valuable format for services to Hearing Impaired Secondary School Students and was included in the budget which passed in Salem on June 7, 1971."

Third Party Evaluator's Comments:

The concept of providing a resource room for severely hearing impaired children at the secondary level is a relatively unique procedure for dealing with the many academic and social problems of the hearing impaired. Consequently, the information provided by this project should be very useful to other districts throughout the State of Oregon who wish to provide these types of services. It is the opinion of the third party evaluator that the subjective and objective data submitted for this project indicates that the project objectives were largely met. There are, however, several reservations.

It was discussed in the initial proposal of this project that services in the area of lipreading, auditory training, speech and language development would be provided. While the project director indicated in the final report that these services were in fact provided, there were no data submitted which indicated progress in any of these four areas. While one might assume that gains in these areas would be reflected in the academic and social growth of these

students, it would seem necessary because of their importance in the growth of severely hearing impaired children that specific data in these areas should have been reported. However, this oversight should be jointly shared by the third party evaluator as this was not detected and rectified during the course of the project.

In addition, it seems unfortunate that only one student from the Oregon State School for the Deaf participated in this project. Since the concept of integrating institutionalized hearing impaired children into the public schools is a topic of much discussion, it appears that this project might have provided an opportunity to substantiate the success of an endeavor of this type had more students from the Oregon State School for the Deaf participated. This, however, cannot be construed as a criticism of the project staff, because the implementation of this particular aspect of the project would require cooperation from a variety of sources in order to be successful.

Comments from the Oregon School of the Deaf indicate that they are interested in having other children participate in this type of project, and also having some of their high school age children participate in the career education clusters at McNary High School on a part time basis. Transportation problems are apparently present. It is the opinion of the third party evaluator that every effort should be made to solve these transportation problems and to inaugurate such a program.

Finally, it was the opinion of the resource teacher that the evaluation of changes in social adjustment was inadequate. The project director decided on the use of the Roger's Personal Adjustment Inventory and it was indicated by the resource teacher that this provided little information on a pre- post-difference basis to indicate progress made or as a way of specifying particular behaviors that were hindering improvement in social adjustment. It is suggested and recommended by the third party evaluator that in future years specific behaviors be pinpointed in this area and that daily data be taken on changes relative to therapeutic intervention so that gains in the area of social adjustment can be determined.

This project was the second Title VI project in the past two years which represents unique methods of educating severely hearing impaired children in the public schools. Specific information has been documented as to the methods utilized to initiate these programs. In addition, an honest appraisal of the mistakes made during the year has been included by the project director. Other school districts in the state can profit from the errors as well as the successes.

Title of Project: *High School Students as Behavioral Engineers*

Location of Project: *Riverdale School, Kilchis River Road, Tillamook*

Type and Number of Children Served: *18 children TMR between ages of 4 and 21*

Funding Allocated: *$9,912.00*

Project Beginning Date: *September 15, 1970*

Project Ending Date: *June 30, 1971*

Background and Rationale:

The successful implementation of behavior modification technology, in special public school classrooms, has recently received considerable attention (Zimmerman, Zimmerman, and Russell, 1969; Osborne, 1969; Birnbrauer, Wolf, Kidder, and Tague, 1965). In each of these systematic applications, the teacher was utilized as a behavioral engineer which necessitated that he selectively observe, record, and dispense consequences for each of the "target" children in his classroom. Within a classroom, there are times when such practices are not only impractical but impossible. For example, when a teacher is working intensively with one student, it is impossible to attend closely to the behaviors of other students located in another part of the room.

If time, personnel, and adequate funds were available, the optimal condition within a school would be for trained behavioral engineers to work with children concurrent with the teacher-directed educational programs. Because of the prohibitive cost involved in hiring special personnel and the lack of individuals with sufficient training, many problems are allowed to exist and to develop until it is only after a severe behavioral problem is well established that any student is given professional attention.

Attempts to reduce this idiosyncratic emphasis while maintaining the effectiveness of behavior modification have ranged from increasing the efficiency of the teachers through in-service training (Hall, Ranyan, Rabon, and Broden, 1968; Baldwin and Fredericks, 1970), the development of procedures which focus less emphasis upon individual treatment and more emphasis upon the utilization of a common set of treatment strategies (Bushell, Wrobel, and Michaelis, 1968; Zimmerman, Zimmerman, and Russell, 1969), to the use of adult volunteer aides.

In a setting where the teacher is unable to work with all the children in question, he must utilize the resources at hand. In the typical school setting, an abundant resource available for the modification of students' behavior, is other students. Surratt, Ulrich, and Hawkins (1969) used a regular fifth-grade student to modify non-study behaviors in four "normal" first-grade public school children. The investigators concluded, "In general, it appears that the present technique has considerable promise for helping some children in school settings. It is capable of modifying the behavior of several children at one time and yet involves very little professional time. In fact, it should tend to release the teacher from some of the time she spends attempting to stop disruptive behavior for the acceleration of more adaptive behaviors" (p. 91).

Brodsky, LePage, Quiring and Zeller (1969) selected six institutionalized adolescent boys to serve as peer teachers. These boys were in the age ranges of 13 to 18, with I.Q.'s of 70 and above. They were trained four hours per day for three weeks, with approximately one-half to two-thirds of that time devoted to on-the-job training. Training was devoted to explaining the principles of reinforcement, reverse chaining and time-out. The results indicated that mentally retarded students, when taught reading by the peer teachers, maintained a high correct reading response rate. The investigators concluded by stating, "...we believe that peer teaching may provide a solution to many of the practical problems now preventing the widespread application of newer methods of training for the retarded" (p. 5).

Objectives and Evaluation Plan:

There were two major areas which required evaluation in this project. The first concerns the behavior of the student engineers. A successful behavioral engineer exhibits three (3) classes of behavior; (1a) the appropriate dispensing of reinforcement, or feedback, contingent upon appropriate responses by the TMR child; (1b) the reliable collection of observational data so that appropriate decisions can be made, based on objective data, concerning the progress of each TMR child; and (1c) the designing, testing, and modification of program materials which can be utilized with the TMR child.

1a was to be evaluated by administering the Ray, Shaw, Patterson (1968) coding form. This form provides a method of characterizing classroom environments for a given child, in such a way as to facilitate the understanding of the determinants and consequences of social and academic behaviors. By making these observations before and trimonthly during the project it was to be possible to report and evaluate the amount of appropriate and/or inappropri-

ate feedback or consequences each TMR child is receiving from the behavioral engineers. In addition, by comparing the pre-treatment data (i.e., without the behavioral engineers) we can report the increase in appropriate and/or inappropriate consequences over "traditional teacher-only" directed activities.

1b will be evaluated by utilizing the behavioral engineers in pairs to independently but concurrently record the behavior of the same TMR child. By computing reliability coefficients it will be possible to obtain a measure of how successful the engineers were in recording behavior.

1c will be evaluated by reporting the individual progress of each TMR child in regards to each program. A program is only successful to the degree that it produces observable changes in the TMR child's behavior who is operating under that program.

The second major area which requires evaluation is the behavioral changes produced in the TMR child over the nine (9) month demonstration period. These changes will be reported, for each individual, by first taking baseline data for each child and comparing these with the continuous measures of the same behavior during treatment.

Methodology:

The purpose of this proposal is to demonstrate that it is both economically feasible for school districts and educationally advantageous to the TMR child to utilize senior high school students as behavioral engineers in classrooms for the trainable mentally retarded child. In addition, this program provides invaluable educational and practicum experience for the participating high school students. Such a demonstration would result in a significant impact not only on the structure and educational effectiveness of special education classes within the state of Oregon but also provide information concerning the implementation of similar programs in "regular" classrooms throughout the state.

The project staff was as follows:

1. (1) Director of special education
2. (1) TMR classroom teacher
3. (16) High school students
4. (2) Consultants from Teaching Research
5. (2) Classroom aides
   (a) Practical nurse
   (b) District classroom aide
6. (2) High school counselors

The ultimate success or failure of the behavioral engineering program is dependent upon the training of the high school participants. Consequently, the primary focus of the project will be directed toward this objective. This objective can be conceptualized as comprising two distinct and mutually exclusive aspects: (1) the training of high school students in behavior modification as it related to the problem areas confronted by the TMR child. These problem areas are: (a) self-help behaviors; (b) language behaviors; and (c) motor behaviors; (2) the maintenance of the utilization of this technology in the TMR classroom by the behavioral engineers by providing a system which is responsive to the needs of the students and the TMR child.

This behavior modification training program was conducted in the following manner: students were trained in the utilization of behavior modification by first participating in a two-week intensive training session. During the first week the students were introduced to the concepts of behavior modification. They were taught a simplified behavioral language so that they could easily comprehend the relationship between behaviors, cues, and reinforcements, the key to the entire learning paradigm. For example, a behavior is a thing which the child is to do or the thing which the child is to stop doing. In the parlance of precision teaching it is the movement, and in the language of Skinnerian doctrine, it is the response. The cue equates to the SD of Skinnerian terms and the antecedent event of precision teaching. A reinforcer is the consequence in Skinnerian terms and the subsequent event of precision teaching.

The students were taught to examine behavior critically. They were taught the difference between complex behaviors which in actuality consist of the chaining of a series of behaviors and very simple behaviors such as raising a finger or uttering a syllable. They were taught the necessity of analyzing behaviors so as to be able to break them down into parts so that one component can be taught at a time. They were taught principles of chaining, reverse chaining and the techniques – shaping or successive approximations. The various types of reinforcers were explained and the techniques of administering them were demonstrated by means of video tape. Simplified methods of observational techniques and data keeping were also taught.

During the second week the students worked with TMR children before video cameras after they watched a staff member work with the child utilizing the techniques of behavior modifications. No corrections of the students' performance were made during the initial video taping. Instead, the video tape was played back to the students after the child left the room. Then the students and the instructor reviewed the tape. The instructor verified the students' methods of keeping data and pointed out to them improvements that could be made in addition to emphasizing the good features of their performance. During this training period the TMR teacher played a vital role in specifying and delineating the problems which the behavioral engineers would encounter in the classroom.

After the initial two-week training session, the students were ready to begin working in the TMR classroom under the direction and supervision of the classroom teacher. They recorded behaviors, devised programs, and modified the behavior of the TMR child under the supervision of the classroom teacher. Each behavioral engineer (16) worked in this capacity in the TMR class for two hours each week.

The system was responsive to the idiosyncratic needs of each behavioral engineer by providing a monthly meeting

which was attended by the professional educational staff, the behavioral engineers, and the consultants. They met for one-half day, on the last Thursday of each month, to discuss changes in programs, the derivation of new programs and any problems arising in the classrooms. In addition, the consultants took this opportunity to (1) review the behavior modification principles and (2) introduce new techniques and/or strategies. Periodically video tapes were shown of the behavioral engineers' performance in the classroom so that relevant modifications could be made in their behavior.

One TMR classroom has been in operation for the past year in Tillamook. It was hoped that a second class could be initiated but the District was unsuccessful in their attempts to hire a qualified teacher.

The following intake procedures were utilized for enrolling TMR students: (1) a child was referred to the special classes office; (2) a Vineland Social Maturity Test was administered to the parent; (3) if possible, etiology is determined through an evaluation conducted by one of the evaluation centers; (4) if possible, a psychological evaluation was completed; (5) if possible, a speech and hearing test and an eye examination were conducted; and (6) willingness of parents to participate in one session per month of in-service training.

The twenty-one (21) high school students, who were to serve as behavioral engineers in this project, were selected from the psychology classes at Tillamook High School. They were selected because of concurrent interests in behavior modification and educational opportunities for the TMR child. A contract was negotiated between Tillamook District No. 9 High School and Tillamook County Intermediate Education District Special Classes which would: (1) allow psychology students at Tillamook High School to participate in the program and; (2) grant ten (10) high school academic credits to the participating students. Participation was defined as: (1) each student involved in a two-week training program from August 17, 1970, to August 28, 1970; (2) each student working in the TMR classroom, under the supervision of the special classroom teacher, for two hours each week beginning September 8, 1970, and terminating May 20, 1971; and (3) each student attending formal retraining and discussion sessions on the afternoon of the last Thursday of every month beginning September 25, 1970, and ending May 20, 1971.

Results:

Subjective teacher impressions: (1) The high school students were very effective in reinforcing the TMR children, although some students felt that they were "turned-off" by the children. (2) The use of a half day per month throughout the year also proved to be valuable in maintaining the cohesiveness of the high school students. Also the formation of a youth group helped to maintain the group. (3) All in all, the project was a success as students carried on projects that the teacher did not have time for. (4) The only real problem was graphically showing the data in a more workable and useful way. The teacher did not feel that he ever resolved this problem. (5) The original number of high school students (21) was reduced to 16. (Three students moved; one student was in an auto accident and suffered a broken pelvis; and one student just could not work with the TMR's and was advised by his high school counselor to terminate his involvement.) (6) Five high school students joined the project during the year through an independent study program and were trained in after school sessions but they were not as effective as the original 16 as they could not handle difficult situations.

Objective 1a. – the appropriate dispensing of reinforcement: The Patterson coding form was not utilized because of the complex nature of the form and also because it was observed that the high school students were only used in structured academic settings where the reinforcement was continuous (CRF). All the high school students delivered appropriate consequences, but there were varying cliques of effectiveness. The differences appeared to be not in the frequency of delivery but rather in the quality of the delivery (something that the Patterson coding form does not detect).

Objective 1b. – the reliable collection of observable data: The high school students were not utilized in free operant situations where observational technology is required because the TMR's did not exhibit any outstanding behavior problems. Thus the students were only used in structural academic problems. The academic and/or behavior deficiencies were identified by the classroom teacher as well as the programs. The programs were then implemented by the students. Examples of the type of abilities that the high school students obtained may be gleaned from the following progress notes which were written by the students:

> "Working with Debbie on her s sound on the end of words was a lot of fun. When we started out they were coming about 1-1½ seconds after she said the word. We repeated and timed what she said each time and kept a record of her progress. We got each word down to less than .5 of a second including the s sound. Debbie worked real hard at getting this time down and she really improved over the sessions. Debbie needs only Social Reinforcement and she works fine under it. Some work was done on the s sound at the beginning of words, she seemed to improve on that, but no timings were taken."

> "Vicki's program consisted of saying the sounds in the alphabet, working on words that would be everyday occurrences, one program of extinction (crying), and eventually reading. When we started out she did know a few sounds but not too many. Vicki learned rapidly and we

moved from program to program very easily. She is attentive and she finished all of the programs we started with high percentages."

1c. – individual progress of TMR children: A wide variety of individual programs were conducted with the TMR children by the high school behavioral engineers. These data were maintained in individual folders but were so poorly organized that no organization of the data for reporting progress could be achieved. This fact also, of course, affects the reporting of the data for Objective 2. What data can be deciphered, however, indicate progress by the children.

Third Party Evaluator's Comments:

The evaluation of this project is very difficult and not a small part of that difficulty lies with the Third Party Evaluation Team.

There is no doubt that the high school students mastered the behavioral principles presented in this program. They demonstrated that they became very proficient behavioral engineers in a highly structured situation; they interacted with students to employ effectively reinforcement techniques, shaping procedures and cue control. They appeared to be lacking in only one area – the systematic maintenance of data.

This latter criticism is not undertaken without the realization that the Third Party Evaluation Team is by criticizing poor data maintenance criticizing their on-going critique of the project. This deficiency should have been noted early in the project and suggested methods for remediating it should have been made. They were not and thus the final report remains deficient.

However, this deficiency should not obscure the most salient feature of this project – the systematic and successful training of high school students to teach trainable youngsters employing behavior modification techniques. Tillamook is at least the third school district in the state which is employing high school students in this manner. The technique has now been replicated and proven successful. The model is available; hopefully districts throughout the state will employ it more frequently in the education of handicapped children.

Title of Project: *A Regional Program for Providing Ancillary, Diagnostic and Therapeutic Services for Physically Handicapped Youth*

Location of Project: *Corvallis School District No. 509J*

Type of Project: *Physically Handicapped*

Funding Allocated: *$10,000*

Number of Children Served: *25*

Project Beginning Date: *Nov. 1, 1970*

Project Ending Date: *June 30, 1971*

Background and Rationale:

In the spring of 1970 a survey revealed 150 names of youths between the ages of 2 and 21 with physical handicaps in the general area that could be served by the Corvallis Public Schools. Since neither the Corvallis nor the Oregon schools had provided assistance to the physically handicapped in the form of physical therapy in a medical sense, the district administration, with the approval of the Corvallis School Board, decided to initiate such an experimental program. Several factors contributed to the undertaking of the project. The Board of Education encourages innovative projects to meet demonstrated needs and the superintendent of the Corvallis Schools had previous experience with the project for the physically handicapped in another state. The Special Services Department in the Corvallis District has successfully developed other innovative programs in response to unmet needs.

Objectives and Evaluation Plan:

1. To introduce an innovative program to the public school system of identification, correction, or adaptation to physical handicaps.

Evaluation plan:

To provide a statement relative to the difficulties encountered in establishing such a program and to recount the necessary planning steps required so that it may serve as a guide to other school districts.

2. To provide such services to other school districts on a countywide regional basis.

Evaluation plan:

Provide a statement describing how this objective was accomplished.

3. To develop cooperative action by other public and private agencies in a hitherto neglected area for remediation of the problems of the physically handicapped. Sub-parts to objectives 3 include:
   a. To identify handicapping problems, especially at an early age with provisions for diagnostic and corrective services. This may require directed therapy or a controlled, restricted exercise program.
   b. Deaf and blind will learn the compensatory skills through employment of certified personnel to provide the necessary training.
   c. Hearing and vision impaired will be trained to optimally use available aids and to use alternate perceptual resources.

Evaluation plan:

It was agreed that these two objectives could be combined and that statements of physicians would be provided as to the condition of each child at the beginning of the period and at the end of the period, and in addition, statements of physical therapists as to range of motion and the degree of involvement of the children at the beginning of the period and at the end of the period.

Methodology:

The purpose of the physically handicapped program was to correct or alleviate impairments which may be handicapping youths in their educational or physical development. This contribution is largely that of providing school and home activities with professional therapy provided by the medical profession. Consistent efforts mainly on the part of the child are essential if the typical twice a week professional treatment is to be successful. The types of handicaps most often referred are hearing impairments and orthopedic problems influencing posture and gait. These often create side effects of headaches, fatigue, stress, all of which are detrimental to learning.

A professional committee was appointed to help establish procedures for combining resources of the medical profession, Oregon State University, Corvallis Schools, and parents. It was clearly established that the Corvallis School Board was the final authority in these educational matters. It would have been almost impossible to have secured the immediate cooperation of the involved autonomous groups without the services of the Advisory Committee.

The Advisory Committee that was established consisted of an orthopedic physician, a doctoral level professor in health education, a registered public health nurse, a physical therapist, and an elementary school principal.

The project staff included Corvallis School System's Director of Special Services, a field worker on a half-time basis who was a registered occupational therapist, a physical therapist on a part-time hourly rate, and a secretary who was employed at a 20 percent level. Of the 150 youths tentatively identified by the Benton County Health Department and the schools as having physical handicaps, about 40 were diagnosed as acceptable candidates for therapy.

Results:

1. To introduce an innovative program to the public school system of identification, correction, or adaptation to physical handicaps.

Information to be reported consisted of statements concerning the difficulties encountered in establishing this program and a description of the planning steps required so that it may serve as a guide to other school districts.

The first thing that must be noted about this project is that the original proposal was submitted for $30,952 and was subsequently funded for only $10,000. This resulted in a subsequent reduction in the scope of the project mainly concerned with serving the children only from the Corvallis-Philomath area and not on a countywide basis.

It was felt that the establishment of the five member Advisory Committee was instrumental in guiding the project through the pitfalls of the medical practices administered by non-medical personnel.

The contractual services with Oregon State University and Good Samaritan Hospital were very satisfactory. The Benton County Health Department provided a nurse to serve on the Advisory Committee and provided related nursing services to the homes and schools.

The Corvallis Board of Education directed that no district money could be spent on transportation. Therefore, parents were responsible for transportation of their children and a volunteer agency helped when necessary. This did not appear to create a great obstacle.

As a result of the year's activities a series of difficulties have been noted. They are listed as follows:

a. Delays affected the size of the program. Funding was not available until October 26, 1971 and it was February before the actual physical therapy program was started.
b. Organizing an Advisory Committee. It was February before the Advisory Committee could be established and meet for the first time. The organizations that were asked to recommend members to serve on the Advisory Committee were somewhat slow to respond.
c. Establishing Advisory Committee responsibilities. A written statement needed to be developed to act as guidelines for the committee. The committee elects its own chairman. The committee decided to operate in a formal meeting sense including motions, seconds, voting. It was felt that this would provide a legal basis on which to operate concerning referrals.
d. The lack of understanding the problems connected with initiating individual therapy. A time consuming promotion routine had to be initiated to get the professionals and lay people to utilize this service. It seems that as many handicapped individuals refuse therapy as accept it, once they are referred. This became less of a problem as the program became better known.
e. Overlapping jurisdiction. Some families employed a general practitioner and several specialists. The physician on the Advisory Committee was in a position to advise safe medical practices when in fact he was not the family physician in some cases.
f. The problems of recording and reporting medical information. The information that is gathered by physicians is often very difficult to collect and to put into some sort of standard form. One of the solutions of this problem is to have a physical therapist assemble the information about the initial condition and to keep a record of the physical therapy progress from time to time. It is also noted that the physician on the Advisory Committee oftentimes had to interpret the referral from the family physician.
g. Confusion of hearing impaired therapy and education and the audiologist's test for degree and nature of hearing loss. If the condition is not responding to medical treatment, the audiologist then assists in compensating for the loss by effective use of remaining resources. After obtaining the strengths and deficiencies in academic subjects, the condition under which they are taught leads to the necessity of training both the child and the teacher in better classroom methods.
h. Conflict of interest. The special assignments in audiology are particularly the responsibility of the regular school speech therapist. The sudden intrusion of the audiologist may seem threatening to the speech therapist.
i. Distinguishing between activities assigned to physical therapy and the school corrective exercises. Children accepted for physical therapy are considered in a medically guided program and all aspects of the formal access program have to be coordinated by the physician, utilizing the registered school physical therapist. This required extensive coordination with the TMR program where exercises were already established prior to the introduction of the physically handicapped project.
j. Transportation. With reduction in funds it was impossible for the school district to pay for transportation of children. The parents were instructed to bring their own children and in some cases transported other children: however, this latter arrangement

presents a potential liability problem. FISH, a volunteer service organization, agreed to transport all cases in real need.

k. Difficulty in assembling groups for physical therapy. It was generally felt that groups of children could be simultaneously scheduled in the hospital facilities for physical therapy. This was a very difficult thing to accomplish due to the small number of children involved. The problems of the grouping centered around the nature of the handicap and transportation problems. It was also noted that coordination with schools sometimes created a problem.

2. To provide such services to other school districts on a countywide regional basis.

Due to the project allocation being reduced, the program was limited to the Corvallis-Philomath area rather than on a countywide basis. Of the 40 children served in the program, 8 children or 20 percent were of districts other than Corvallis School District No. 509J. Seven of these eight children were from Philomath and one was from Albany.

3. To develop a cooperative action by other public and private agencies in a hitherto neglected area for remediation of problems of the physically handicapped.

a. To identify handicapping problems, especially at an early age with provisions for diagnostic and corrective services.

The procedures utilized to achieve this objective are as follows:

(1) Physical therapy in the schools must be administered by a registered physical therapist. The parents may administer physical therapy to their children under medical supervision.

(2) Equipment, appliances and other orthopedic devices proposed by the school for use as part of the physical therapy program are to be approved by the district physical therapist.

(3) Organized school exercises of the physically handicapped program proposed by the school are to be reviewed by the district physical therapist who will approve or secure medical approval before the exercises are initiated by the schools.

(4) An authorized physical therapist will periodically observe the school and/or home exercises to verify they are in conformity with the physician's instructions.

(5) Reports on school and home exercises will be made to the family physician and the Advisory Committee by the physical therapist.

There were six children who received physical therapy for the duration of the project. The length of therapy for the six children varied from two months to six months. They were rated on a chart used by physical therapists to determine physical evaluation. Figure 1 shows for the six children the percentage of items on the test which indicate improvement, deterioration, or no change. Since no control group was used and no similar records maintained in equal intervals of non-therapy, no conclusions may be drawn relative to the value of the therapy compared to ordinary development without therapy.

Figure I

Improvement Table: (Total 6 children)

Number of items showing improvement	56
Number of items possible to improve (less than 100% rating)	149
% of improvement	38%

Deterioration Table: (Total 6 children)

Number of items showing deterioration	18
Number of items possible to deteriorate	149
% of deterioration	12%

No Change Table: (Total 6 children)

Number of items showing no change	75
Number of items possible to change	149
% of no change	50%

(It should be noted that no change or small deterioration may constitute medical success but for reporting purposes benefits will be recognized only for positive gains.)

Recap:

Improved	38%
Deteriorated	12%
No Change	50%
Total	100%

b. Deaf and blind will learn the compensatory skills through employment of a certified personnel to provide the necessary training.

Several deaf youths were known to have their permanent residence in Benton County, but during this program they all have been in attendance at the School for the Deaf in Salem. Therefore, no information was recorded concerning this part of Objective 3.

c. Hearing and vision impaired will be trained to optimally use available aids and to use alternate perceptual resources.

It was agreed that the O.S.U. Hearing Evaluation Clinic would provide the data for this objective. It was also stipulated that the changes in order to hear were to be primarily in degrees of hearing and sight acuity. Nineteen children who were screened were also recommended to have particular treatment strategies applied to aid them in their particular defect. The information gathered suggests that 18 of the 19 children were satisfactorily served by this project. The one child who was not served satisfactorily could no longer be located by the Corvallis Public Schools.

Third Party Evaluator's Comments:

This project has succeeded in setting up a very detailed program for the identification of and delivery of service to physically handicapped children. For more detailed information concerning the complete design of this program, it is suggested that the reader contact the Corvallis Public Schools. Production and funding allocation certainly had an effect on the program, and this first year was mainly concerned with the development of strategies to deliver services. It is hoped that in subsequent years more children can be served, as the project should have a longer time to operate.

It would also appear that the size of staff necessary to run this type of program is greater than is presently available in the Corvallis Public Schools. It is recommended that in future applications of this program a careful attempt be made to document the effectiveness of the various treatment programs recommended. These data would seem to be extremely valuable in changing or altering the program as needs are dictated. Thus, there is a need for better data collection systems.

Project Title: *Giant Step*

Type of Project: *Learning Disabled*

Location: *Lebanon Elementary School*

Funding Allotted: *$19,541*

Number of Children Served: *43*

Background and Rationale:

The special education services for the learning disabled in Lebanon School District No. 16C have been provided for children from grades 2 to 8 prior to the initiation of this project. This project desired to extend specific special education services to learning disabled children in kindergarten and grade 1. It was believed that by extending these services to grade 1 and kindergarten, the following could be accomplished:

a. Provide for the early identification of children with learning disorders for the effective use of observation, diagnostic techniques, and referral services.
b. Provide for the correction or improvement of existing conditions which undetected will become causative and contributing factors in the further development of more severe learning disabilities.
c. Provide a curriculum program of instruction designed to meet the needs of the learning disabled child.
d. Assist parents in understanding the needs of their learning disabled child.

Objectives:

Kindergarten

1. To determine individual needs of each child.
2. To strengthen the physical motor development.
3. To strengthen sensory perceptual development.
4. To develop language and communication skills.
5. To develop social and psychological adequacy.

First Grade

1. To determine individual needs.
2. To strengthen verbal meaning and language skills and to further develop the ability to understand ideas expressed in words.
3. To strenthen perceptual speed and to further develop the ability to recognize likenesses and differences between objects or symbols quickly and accurately.
4. To strengthen number facility and to further develop the ability to work with numbers, to handle simple quantitative problems rapidly and accurately and to understand and recognize quantitative differences.
5. To strengthen spatial relations and to further develop the ability to visualize objects and figures rotated in space and the relationships between them.

Methodology:

The staff for this project consisted of one teacher and two assistant teachers.

The three project staff teachers traveled from school to school and provided instruction for children on an individual basis or in small groups (2 to 4). The work accomplished with individual children and the small groups was conducted in the regular classroom at a table in a screened corner of the classroom whenever that was possible. Where the classroom facilities did not accommodate an activity, small special education rooms were used.

Each child received approximately 120 minutes of instruction per week.

Parents were involved in the project by being asked to attend a coffee where the materials and methods were presented to them. Few parents, however, accepted invitations to come watch their children at work with the teachers in the school.

Evaluation Plan:

The evaluation plan agreed upon was as follows: The Peabody Picture Vocabulary Test was to be given in January and at the conclusion of the project to both kindergarten and first grade children. The Illinois Test of Psycho-linguistic Ability was to be administered as the staff was able. The Lebanon Developmental Scale was to be administered to kindergarten children in January and June.

The SRA Primary Mental Abilities Test was to be administered to first grade children in January or February and again at the conclusion of the program in June.

Results:

Kindergarten

Objective 1: To determine the individual needs of each child. The original referral sheets checked by the teachers showing probable areas of need, the Lebanon Developmental Readiness Survey, and the Peabody Picture Vocabulary Test, the Illinois Test of Psycho-linguistic Ability, and where necessary, an individual intelligence scale was administered to provide information to the teachers. Results of these tests are dicussed under other objectives.

Objective 2: To strengthen physical motor development. The motor development improvement is noted in Tables I and II. Table I indicates that the average pre-test score on the Lebanon Developmental Readiness Survey score was .75 whereas the post-test was 2.00. Table II indicates that four of the children gained at least one area or one point on the test and three gained in two areas. One child remained the same. This was a child who was in the average category who did not advance into the above average or superior category.

The project staff indicated that this was one of their major areas of emphasis since these children seemed to need much help in developing gross and fine motor abilities. Consequently, part of each session was usually devoted to one or more motor activities.

Objective 3: To strengthen sensory perceptual development.

Tables I and II show the gains made by the children in the sensory development area. Table I indicates that the average score for the children on the pre-test was .87 whereas on the post-test their average score was 1.87. Table II indicates that four children made a one point gain and two children made a two point gain and that two children remained the same. One of these was at the below average level and one was at the average level.

Objective 4: To develop language and communication skills. Table I and II show the gains achieved by the children on the Lebanon Developmental Readiness Survey scores. Table I shows that on the pre-test the children scored an average of .87 and on the post-test the children achieved a score of 2.25. Five of the children made at least one point gain and three made two point gains. This is the one area where all children showed the greatest accomplishment. The staff attributes this accomplishment to the one to one and small group relationships that they were able to achieve in the teaching of language and felt that the Distar language program was extremely helpful.

An examination of the pre- and post-test scores achieved on the Peabody Picture Vocabulary Test, which is essentially a language IQ test, indicates that two of the children were below norms both on the pre- and post-test and consequently no scores were achieved. Of the remaining six children, two achieved lower scores of five and six points respectively in the post-test as compared with the pre-test. Three children achieved higher scores of 1 point, 11 points and 21 points respectively. One child was not administered a post-test.

Objective 5: To develop social, psychological adequacy. Table I and Table II show social development as measured by the Lebanon Developmental Readiness Survey score. Table I indicates that the average score on the pre-test was .50 and the average score on the post-test was 1.37. Three of the children achieved a 1.0 gain as is shown on Table II, whereas two of the children achieved a 2.0 gain. Three of the children remained the same. It is interesting to note that all three of these were at below average level.

This portion of the Lebanon Developmental Readiness Survey score is attempting to measure the improvement in attitude, self-control, cooperation, and participation. The project staff saw excellent improvement in these areas, but considered it a serious weakness in the program that these improvements did not consistently carry over to the classroom. It is interesting to note a sentence in the project staff's report which is considered to be quite significant: "There was too little cooperative effort between the classroom teacher and the project staff in setting up specific goals and making a team effort to accomplish these."

First Grade

Objective 1: To determine individual needs of each child. The following instruments were used to determine the individual needs of each child: the SRA Primary Mental Abilities Test, the Peabody Picture Vocabulary Test, and the Illinois Test of Psycho-linguistic Abilities and where necessary, an individual test was administered to all children.

Objective 2: To strengthen verbal meaning and language skills and to further develop the ability to understand ideas expressed in words. Table III shows the average gains made by the children during the three testing periods. In examining these data one must bear in mind that the project did not begin until December. Consequently, the gains that are reflected from September to January are not the result of project intervention, whereas those from January to May may or may not be as a result of project intervention, but as least the project was in force at that time.

An examination of Table III shows that the students made an average gain between September and January of 7.78, whereas in January through May the average gain was 12.63. This was by far the most significant gain of any of the areas on the SRA Primary Mental Abilities Test.

The staff also felt that they were making the greatest gains in the area of language. This contention is supported somewhat by Table IV which shows the gains and losses on the Peabody Picture Vocabulary Test for Grade 1. Eighteen

of the 33 scores show a gain in IQ greater than the standard error of measurement. The remaining 15 fall within the standard error of measurement. Assuming the validity of the test, this would indicate a significant gain in vocabulary ability and language IQ.

Objective 3: To strengthen perceptual speed and to further develop the ability to recognize likenesses and differences between objects or symbols quickly and accurately.

Table III shows the gains achieved on the SRA Primary Mental Abilities Test and shows that during the period of September to January when the project was not in operation that the average gain was 12.50 points whereas from January to May when the project was in operation the average gain was 10.04 points. It should be noted, however, that this instrument tests only visual perception which was only one of the areas where instruction was given. Auditory and tactile discrimination were not tested and so no results can be reported for them.

Objective 4: To strengthen number facility and to further develop the ability to work with numbers, to handle simple quantitative problems rapidly and accurately and to understand and recognize quantitative differences.

During the period of the project Table III shows that the average gain was 12.41, whereas prior to the initiation of the project the average gain was 8.00, implying that the project did have an effect in helping the children acquire a capability of working with numbers.

The staff's opinion is interesting here in that they believe that the gains are due primarily to maturation and to the fact that the child felt more self-confidence and was not so limited by a fear of failure and that he was more sure of approval regardless of performance by the final testing time.

Objective 5: To strengthen spatial relations and to further develop the ability to visualize objects and figures rotated in space and the relationship between them. The scores achieved during the project period show a loss as reflected in Table III, whereas prior to the project the children showed a gain. The project staff reports that it may have been carelessness during the final test taking which caused the poor performance; in addition, they believed that the emphasis on the instructional program was different than that reflected by the test.

General Evaluation Results:

The comments examined from the various building principals and teachers indicate great support for this program and indicate that the program is sorely needed. The overwhelming majority of teachers indicated that the participating children showed improvement in their classroom performance as a result of this program. Their comments were quite supportive and indicated a desire for the program to continue into future years.

Third Party Evaluator's Comments:

The results of this project can only be considered as mixed. On the positive side we see a number of children at the kindergarten and even more so at the first grade level showing significant improvement in language. As measured by the Lebanon Developmental Readiness Survey scores, we also see kindergarten children making improvement in motor development, sensory development, and to a much lesser extent social development. Teachers and building principals indicated that the program was worthwhile and that it should be maintained because they could perceive differences in the performance of the children although in no case were they able to substantiate this feeling with empirical data.

On the negative side, although one sees an improvement in language development among kindergarten children, one must be impressed by the relatively poor improvement shown in the Peabody Picture Vocabulary Test. The first grade children also did not seem to make major gains during the conduct of the program in perceptual speed and spatial relationships, two of the areas where gains were predicted and were listed as objectives of the program.

One must be impressed with the analysis which the project staff has made of their own deficiencies and the two areas in which they hope to demonstrate improvement during the next year. The first of these is the coordination that needs to be achieved between the special teacher and the regular classroom teacher. Closely allied with this is the second area, and that is the designation of behavioral objectives which they will hope to achieve with each child. Hopefully, this project when continued next year will specify behavioral objectives for each child which will be derived from the experiences of the regular classroom teacher and her indication of the specific areas where improvement must be achieved. Thus can better measurement of the value of this type of program be made.

The third party evaluator, in his visit to the program, was impressed with the fact that the program had failed to achieve articulation between the regular classroom teacher and the special teachers. This is considered to be the major weakness of the program and one which hopefully will be remediated next year. However, weighed against that weakness, one cannot fail to be impressed with the improvement of language especially among the first grade children. It is almost axiomatic that language ability has a direct relationship with the success of the child in school. If this is so, this program has succeeded in providing a number of first grade children significant language improvement which should provide the child a much better opportunity to succeed in the regular classroom.

It should be recognized that the data presented in this brief report, although on the surface not completely laudatory, can only be the beginning of an evaluation.

Whether or not the program has any success can only be measured by the successes of these children as they progress through succeeding grades. This will be the true test of the worth of the program. However, it is believed that when the program is continued next year, by the establishment of behavioral objectives for each child and perhaps by even a greater emphasis on language abilities, the program can be significantly improved.

Finally, one should realize that this program was only in effect for four and a half months. During that time the program had to be organized and teachers had to feel their way in their relationships with the regular classroom teacher. The fact that they accomplished as much as they did is commendatory.

Table I
Lebanon Developmental Readiness Survey Scores
Kindergarten

Area	**	Number of Children Scoring at Each Level: Immature	Below Average	Average	Above Average	Superior	Total	Average* Score
Motor Development	Pre-Test	4	2	2	0	0	8	.75
	Post-Test	0	2	5	0	1	8	2.00
Sensory Development	Pre-Test	3	3	2	0	0	8	.87
	Post-Test	0	2	5	1	0	8	1.87
Language Development	Pre-Test	2	5	1	0	0	8	.87
	Post-Test	0	2	2	4	0	8	2.25
Social Development	Pre-Test	4	4	0	0	0	8	.50
	Post-Test	0	5	3	0	0	8	1.37

*Scores were derived by assigning numerical values as follows:

Immature - 0
Below average - 1
Average - 2
Above average - 3
Superior - 4

**Pre-test administered on January 18, 1971
Post-test administered on May 5, 1971

Table II
Gains Achieved on the
Lebanon Developmental Readiness Survey Scores
Kindergarten

	Remained Same	One Point Gain	Two Point Gain
Motor Development	1	4	3
Sensory Development	2	4	2
Language Development	0	5	3
Social Development	3	3	2

Table III
Average Quotient Scores and Average Gains
in S.R.A. Primary Mental Abilities Test

	Average Quotient Scores			Sept. - Jan. Gain/Loss	Jan. - May Gain/Loss
	September	January	May		
Verbal	91.40	99.18	111.81	+ 7.78	+12.63
Perceptual Speed	91.96	104.46	114.50	+12.50	+10.04
Number	90.62	98.62	111.03	+ 8.00	+12.41
Spatial Relationship	92.62	97.87	97.21	+ 5.25	- .66
Total	92.66	100.03	111.71	+ 7.37	+11.68

Table IV
Gains and Losses on
Peabody Picture Vocabulary Test
Grade One

	Gain or Loss	Frequency
+	Above 24	1
	23 - 24	2
	21 - 22	2
	19 - 20	2
	17 - 18	2
	15 - 16	1
	13 - 14	1
	11 - 12	3
	9 - 10	4
	7 - 8	5
	5 - 6	1
	3 - 4	2
	1 - 2	3
	even	0
-	0 - 1	0
	2 - 3	2
	4 - 5	1
	More than 5	1

Title of Project: *Trainable Mentally Retarded Curriculum Development*

Location of Project: *Linn-Benton Intermediate Education District, Fairmount School, Albany*

Type and Number of Children Served: *Trainable Mentally Retarded - 25*

Funding Allocated: *$3,020*

Project Beginning Date: *November 1, 1970*

Project Ending Date: *June 4, 1971*

Background and Rationale:

The term trainable mentally retarded child has evolved over the past years because it has been believed that it is futile to try to educate this level of child in any academic skills. Consequently, curriculum has evolved which calls for teaching the child self-help skills, basic motor development skills, and survival skills, such as the recognition of certain key words. There has also been a strong trend to teach the child basic crafts and basic vocational skills.

This type of curriculum has evolved because the best efforts available until recent years indicated that the trainable retarded child did not have the capability of engaging in more extensive academic work. And yet, it seems to be a basic assumption that if the child could be taught some reading and writing skills, he would be better able to cope with the world in which he has to live, and he would be better able to achieve a measure of self-sufficiency which in many cases with the present curriculum, he is now unable to achieve. Coupled with this recognition of the importance of reading, there is scattered evidence that the trainable retarded child is capable of much more academic achievement than previously thought possible.

The purpose of this study, therefore, was to develop a systematic, structured reading program suitable for trainable retarded children. This program would provide the trainable child reading skills beyond the survival words now frequently taught. Hopefully, it would enhance the retardate's chances of employment and recreation. Certainly a retardate who could read basic instructions would be more valuable economically and job-wise than one who cannot. Certainly the retardate who can read could enjoy comic books and simple stories. Even television might be more pleasurable and meaningful to him with rudimentary knowledge of reading.

This study, therefore, was an effort to improve the curriculum for trainable retarded children, and thereby improve their potential functioning.

Description of the Project:

A. Project Staff:

The project staff included the normal complement of teachers and aides found in the two trainable mentally retarded classes at the Linn-Benton Intermediate Education District. The teacher of the primary class is Mrs. Cheryl Riggs and the teacher of the advanced class is Miss Mary Heyer. Each is assisted by a paid aide. In addition, each class utilized a system of volunteers who came into the class to administer individual programs to the children. These volunteers are high school girls, college students, and mature women in the community.

In addition to the above staff, representatives from the Teaching Research Division of the Oregon State System of Higher Education provided consulting services to the teachers and provided the Doman Reading Program which was utilized with the non-readers. The amount of instruction provided by Teaching Research was minimal in the sense that the teachers were allowed to conduct the classes as they normally do, and the only guidance given them was to insure that data were collected properly and that the reading program was conducted as prescribed. No instruction was provided by the Teaching Research Division relative to other aspects of the reading program, namely the Dr. Seuss Beginning Reading Program, the M.W. Sullivan Reading Program, or the SRA Reading Program.

B. Description of the Program:

Base line data for each child relative to his reading ability were obtained at the beginning of the school year. Based on this initial performance, the child was assigned to one of the four specified reading programs, Doman, Sullivan, Dr. Seuss and SRA.

Each child was provided individualized instruction daily, varying in time from 5 to 15 minutes. In a few instances where the child was exhibiting more advanced reading behaviors, and was engaged in SRA or Sullivan Reading, the reading sessions might last as much as a half-hour to one hour.

Daily records were maintained of each child's behavior so that he could properly advance in the program.

It should be mentioned that the instructional techniques utilized in these two classrooms employ a behavior modification learning theory and teaching technology. This, coupled with the individualized programming for the children, allowed each child to move through the reading program at the optimum pace.

In addition, it was attempted to involve the parents in the reading program. Approximately 25 percent of the parents did so participate, and provide additional reading instruction in the home. Essentially, the techniques utilized in the parent instruction were to give the parents the necessary background in behavior modification and the necessary background in the reading program to allow them essentially to duplicate the instruction in the home that the child was receiving in school.

C. Objectives:

1. To improve the reading skills of trainable retarded children.

2. To modify and adapt for a trainable mentally retarded population programmed reading materials presently available, pre-reading materials and reading materials.

3. To determine what type of children can succeed in this program and what type of methods make this achievement most possible.

Evaluation Plan:

Base line reading data were to be gathered on each child at the beginning of the school year. After the child was assigned to a program, daily data as to his performance in reading were to be maintained and charted where necessary.

In addition, for the children who were already exhibiting some reading skills, the Wide Range Achievement Test (Reading) was to be administered at the beginning of the period and at the conclusion of the period.

To achieve Objective 2, records were to be maintained as to the materials utilized and their effectiveness with the children.

To achieve Objective 3, the medical etiology of each child was to be examined together with age and history to determine if any particular type of child is able to succeed in the reading program as opposed to other types of children who may not be able to succeed.

Results by Objectives:

1. To improve the reading skills of trainable retarded children.

Primary Class

Student number 1, age 6, unspecified brain damage. Primary class student number 1 was on the Doman program November 2, 1970 to January 28, 1971. The child learned only one word during that period and was taken off the program because of poor attention span. An individual program to improve attention span was prescribed. It is the opinion of the teacher that he should commence the reading program next year.

Student number 2, age 8, unspecified brain damage. This child accumulated a reading vocabulary of 24 words consisting primarily of body parts, although he began to name objects within the room. See attached chart for cumulative record.

Student number 3, age 6, Down's Syndrome. This child was on the Doman program and accumulated a reading vocabulary of 16 words, although for the first two months of the program he only accumulated a reading vocabulary of two words. See attached chart. The child had little expressive language; pointed to his body parts when shown card with certain body part. This child's parents also engaged in an active home reading program. It is interesting to note that this home reading program began on January 19, the point at which the child's reading behavior suddenly improved.

Student number 4, age 8, Down's Syndrome. This non-walking, non-speaking child did not participate in the program. His attendance at school was sporadic and the main emphasis was control of behavior and motor development skills.

Student number 5, age 4, undetermined brain damage. This child did not participate in the program. The teacher worked on building attention span and controlling his behavior.

Student number 6, age 11, undetermined brain damage. This child's progress in the program was very slow and he was in fact absent from school and the program for a period of three months, although it was noted that upon his return to the program his performance did not improve appreciably. See attached chart.

Student number 7, age 6, Down's Syndrome. This child was on the program from November 1 and during the seven month period learned 10 words in the Doman program. See attached chart.

Student number 8, age 6, unspecified brain damage. During the particular period from November 1 to May 15 the child learned 30 words, including body parts, and names of objects around the room. Learning rate was constant. An interesting aspect of this individual was that parent participation was very high and very steady throughout the entire period.

Student number 9, age 12, cerebral palsy. She participated in the program and showed relatively little gain after the period February 1. Various reinforcers and parent participation were tried with no improved performance noted.

Student number 10, chronological age 9, unspecified brain damage. This child learned a total of 17 words during the period. It is interesting to note that during the first two months he acquired two words for an average rate of acquisition of one word per month. During the remaining four and a half months he acquired an additional 15 words

for an acquisition of 3.3 words per month. It is also interesting to note that it is during this period that there was active parent participation.

Student number 11, age 7, unspecified brain damage. This child who had no expressive language did not participate in that he was unable to attend to the task. Data were maintained on this child's progress in the Doman program for two months and indicated no progress.

Student number 12, age 10, unspecified brain damage. This child also did not participate in the program since the main program for her had to be a program of attending.

Student number 13, age 6, brain damage. This child showed a steady constant gain while he was on the program. There was active parent participation during most of this period. See attached chart.

Student number 14, age 6, brain damage. Non-walking, non-talking individual. Emphasis motor skills and behavior (toileting and eating skills).

Advanced Class

Student number 21, age 13, cerebral palsy. This student was on a functional reading program, that is, the acquisition of survival words and community living words. He progressed through step 65 out of possible 71 steps.

He also participated in the SRA program and advanced to Power Builder number 19. He also prepared his own story which he was reading.

However, in the Wide Range Achievement Test Scores in Table I, the child indicated no gain. In fact, a loss in reading level is noted. This can probably be explained, however, by the fact that he communicates primarily by gesture and has few comprehendible words. This situation would make it difficult for him to improve his WRAT score.

Student number 22, age 17, unspecified brain damage. This child was in the M.W. Sullivan Program Workbooks and Supplementary Reader. She had progressed to page 30 of Book II.

She was also on the SRA Reading Series and had progressed to Power Builder number 12 (Gold).

As evidenced by Table I, the child made a gain of .2 grade levels and achieved a score of 3.0 gain.

Student number 23, age 12, unspecified brain damage. This child is on the SRA Reading Program, has advanced to Power Builder number 12 (Gold) and was able to read 40 out of 44 words correctly. This child gained .3 grade levels in reading and achieved a gain of 6 points on the Wide Range Achievement Test.

Student number 24, age 13, unspecified brain damage. This student participated in the functional reading program and the Doman reading program. Relative to the functional reading program he was able to advance to step 51.

It should be noted that he was indicated as possessing a few functional words at the beginning of the program. This is certainly evidenced by the fact that he did achieve a score on the Wide Range Achievement Test. He accumulated a total of 29 words in the Doman program, as evidenced by a rate of growth on the attached chart. Parental assistance in this program was continued.

He gained 9 points on the Wide Range Achievement Test Scores according to Table I.

Student number 25, age 10, unspecified brain damage. This child is a non-reader and was on the Doman program and learned 10 words during the period as shown on the attached charts.

Student number 26, age 8, Down's Syndrome. This child was on the Doman program, the Dr. Seuss and functional reading. His progress on the Doman program is shown on the attached chart. He accumulated 47 words during the period. His parents were active in assisting him at home. On January 27 he was placed on the functional reading program and advanced through step 15. On April 8 he was placed on the Dr. Seuss Reading Program and accumulated 10 words other than those shown on the Doman program. It is interesting to note that after being placed on the Dr. Seuss Reading Program, his advancement on the Doman program advanced sharply.

Student number 27, age 16, brain damage. This student was on the functional reading program and the SRA program since she knew how to read at the beginning of the program. She progressed through step 65 of the functional reading program, and was finished with Power Builder number 8 in the gold SRA program. Her progress as measured by the Wide Range Achievement Test indicates a gain of .3 grade levels and a total gain of 4 points score.

Student number 28, age 9, undetermined brain damage. This child was on the functional reading program, the Doman and the Dr. Seuss reading program, both ear book and the foot book.

Relative to the functional reading program he proceeded through step 70 satisfactorily.

His progress on the Doman reading program is shown on the attached chart. It is interesting to note that his progress on the Doman chart sharply accelerated around February 15 when he was placed on the Dr. Seuss Reading Program. This phenomena coincides with that noted in student number 26. He was also being assisted by his parents on the Doman program.

Student number 29, age 7, undetermined brain damage. This student was on the functional reading program, the Doman program and the Dr. Seuss Program.

He proceeded through step 20 of the functional reading program.

His progress on the Doman reading program in which he accumulated 28 words from November 1 to May 15 indicated a rather steady progress. His parents were assisting on this program. When placed on the Dr. Seuss Reading Program there was not the sharp acceleration that was manifested in student number 26 and student number 28 although there was an upward turning of the curve at this point after almost a month of leveling off.

In addition to the words shown, he had accumulated 14 words from the Dr. Seuss Beginning Reading Program. He

was administered the Wide Range Achievement Test and was unable to score during the first testing and achieved a score of 4 (pre-kindergarten 2 level) in the post-test.

Student number 30, age 16, undetermined brain damage. This student was on the Doman program, the M.W. Sullivan Program, the Dr. Seuss Beginning Reading Program, functional reading, and was on his own story.

Relative to the M.W. Sullivan he progressed through page 50 of Book B.

He completed step 50 in the functional reading program. The attached chart shows his progress in the Doman reading program. In addition to that progress he learned 10 words on the Dr. Seuss program and 11 words on his own story. His Wide Range Achievement Test scores indicated a gain of 4 points moving from kindergarten level 4 to kindergarten level 7.

Student number 31, age 18, brain damaged. This student was on the Doman program and the functional reading program. He proceeded through step 40 of the functional reading program. His progress on the Doman program is shown on the attached chart. He accumulated a total of 12 words.

Student number 32, age 8, Down's Syndrome. This student was on the SRA reading program, the M.W. Sullivan program, functional reading, and the Doman program. He progressed through Power Builder number 17 (Gold) in the SRA reading program and progressed through page 96 in Book D of the Sullivan program. In the functional reading program he proceeded through step 66.

His progress on the Doman program is shown on the attached chart. By April 1 he had pretty well completed the program and was moving primarily into the M.W. Sullivan Reading Program. Yet, his progress on the Wide Range Achievement Test shows only a gain of .3 in reading level and a total gain of 5 score points.

His parents assisted him on the M.W. Sullivan and the Doman programs.

General

The results of this program were, as predicted, spotty. Some of the children showed remarkable gains in their individual word recognition and ability to read basic materials. These gains, although significant when analyzed from the point of view of progress through materials and acquisition of skills, were not supported by an examination of the Wide Range Achievement Test scores. One must be cautious about the test scores, however, since the Wide Range Achievement Test scores are sampling word recognition primarily and the sample may not be an adequate reflection of the words which the children have learned in this particular case. Therefore, more reliance should probably remain on the individual records of the children rather than the standardized scores.

Of the 25 children in the two classes, four did not participate because the teacher felt that their language proficiency had not advanced to a sufficient state to allow them to participate profitably in a reading program. One student began the program on November 1 and remained in the program for 58 days, but then was removed from the program because of poor attention span. Thus, 20 remained in the program.

Of these 20, 9 students, numbers 2, 8, 13, 22, 23, 26, 28, 29, and 32 indicated significant improvement in reading based upon their individual records during the period from November through May. It is interesting to note that seven of these children are age 9 and below. It is also interesting to note that in 6 of the 9 cases parents actively participated. Their progress is such that given continued learning through the next academic years, it would be anticipated that they should reasonably expect to function at a primary reading level. This should allow them greater vocational opportunities in that they should be able to read functional directions and should be able to achieve some enjoyment from basic reading. Programs for these children should definitely be intensified to maximize their capabilities.

Relative to the other children, at least 6 of them demonstrated an ability to read with a capability beyond that normally expected of trainable children who are taught to learn only functional living words or survival words. These children should be maintained on a reading program which will allow them to learn certainly the functional and survival words, but which will also allow them to be taught to read basic instructions which may be allied to vocational opportunities. More will be said on this particular subject in a discussion of Objective 2 since this requires a special reading program. The 8 children who are identified for this type of program are students numbers 3, 7, 10, 21, 24, and 27. It is interesting to note that in four of the six cases parents were actively assisting their children in the programs.

Among the remaining 5 children, functional and survival words should certainly be taught and the progress of the child in this learning should be carefully monitored to determine whether any of them develop to the stage where they may be able to progress into a more advanced reading program. It is interesting to note that in none of these instances was there parent participation.

2. To modify and adopt for a TMR population programmed reading material utilizing presently available, pre-reading materials and programmed reading materials.

The materials developed for TMR reading programs essentially are five.

The first of these is the Doman reading program as described in *Teach Your Baby to Read* by Glenn Doman. This is a sight reading program which indicates to the teacher that the child has the capability of learning a wide variety of words.

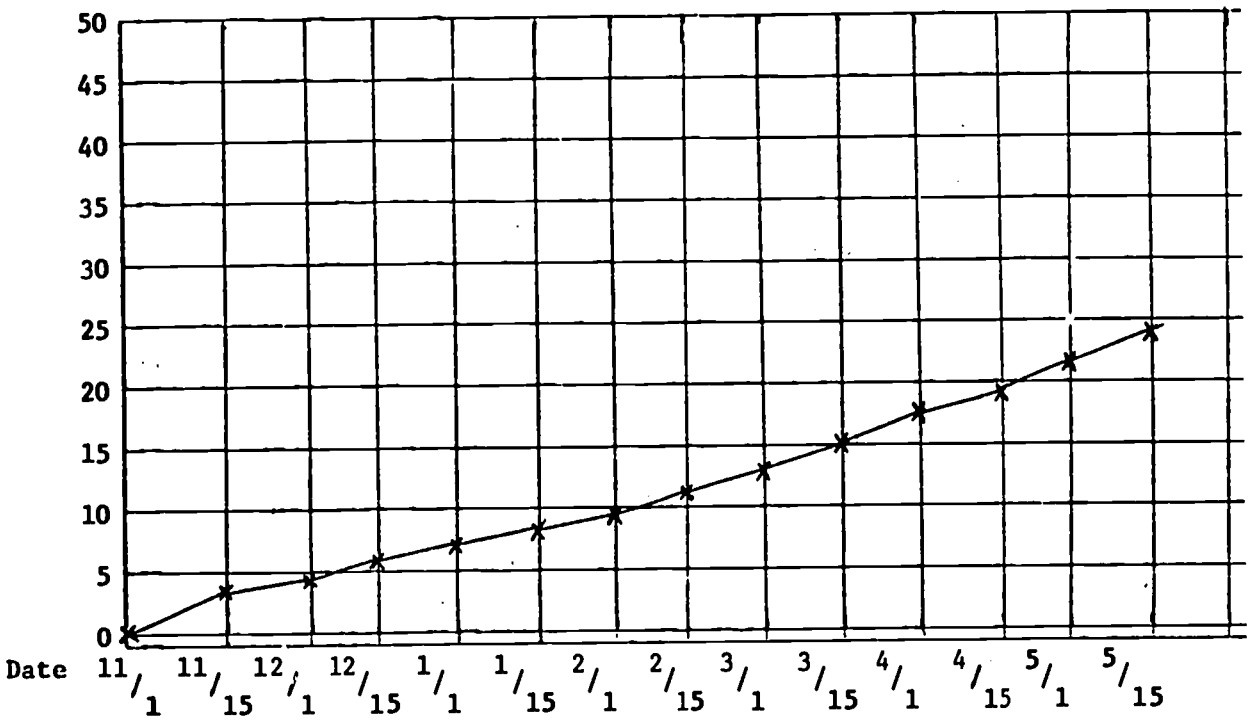
If the child progresses in the Doman reading program, he should move to the Dr. Seuss Beginning Reading Program which will utilize many of the same words in the Doman Reading Program, but will put them in story form which

should appeal to the young child. Again, utiiizing the Dr. Seuss reading program, the individual words in the program should be placed on flash cards, similar to the techniques used in the Doman program and presented to the child individually so that he can learn those words and thus read them when he comes to them in the book.

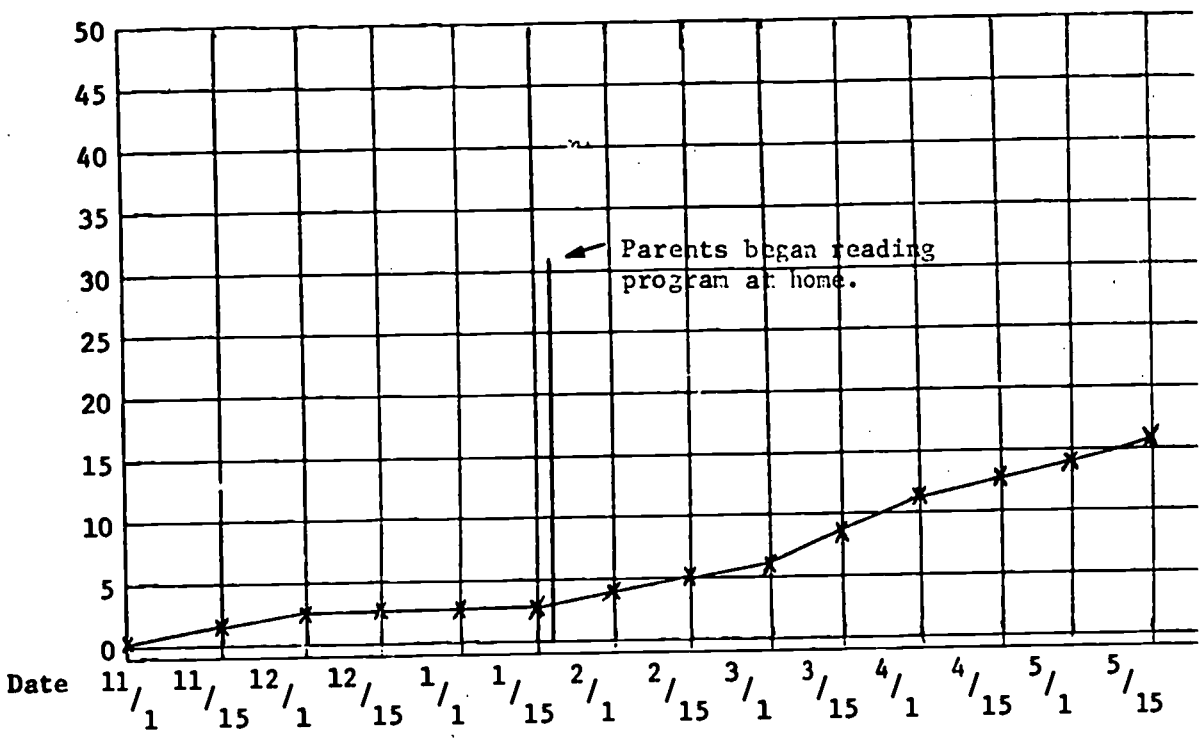
Table I
WRAT Scores
Advanced Class

Student II	CA	Pre (Nov 1 - 15) Score	Pre (Nov 1 - 15) Reading Level	Post (May 15 - 30) Score	Post (May 15 - 30) Reading Level
21	13	28	1.4	25	1.2
22	17	31	1.5	34	1.7
23	12	28	1.4	34	1.7
24	13	4	Pk 2	9	Pk 9
25	10	2	N 8	1	N 5
26	8	2	N 8	17	Kg 6
27	16	31	1.5	35	1.8
28	9	15	Kg 5	17	Kg 6
29	7	0	0	4	Pk 2
30	16	14	Kg 4	18	Kg 7
31	18	2	N8	0	0
32	8	30	1.5	35	1.8

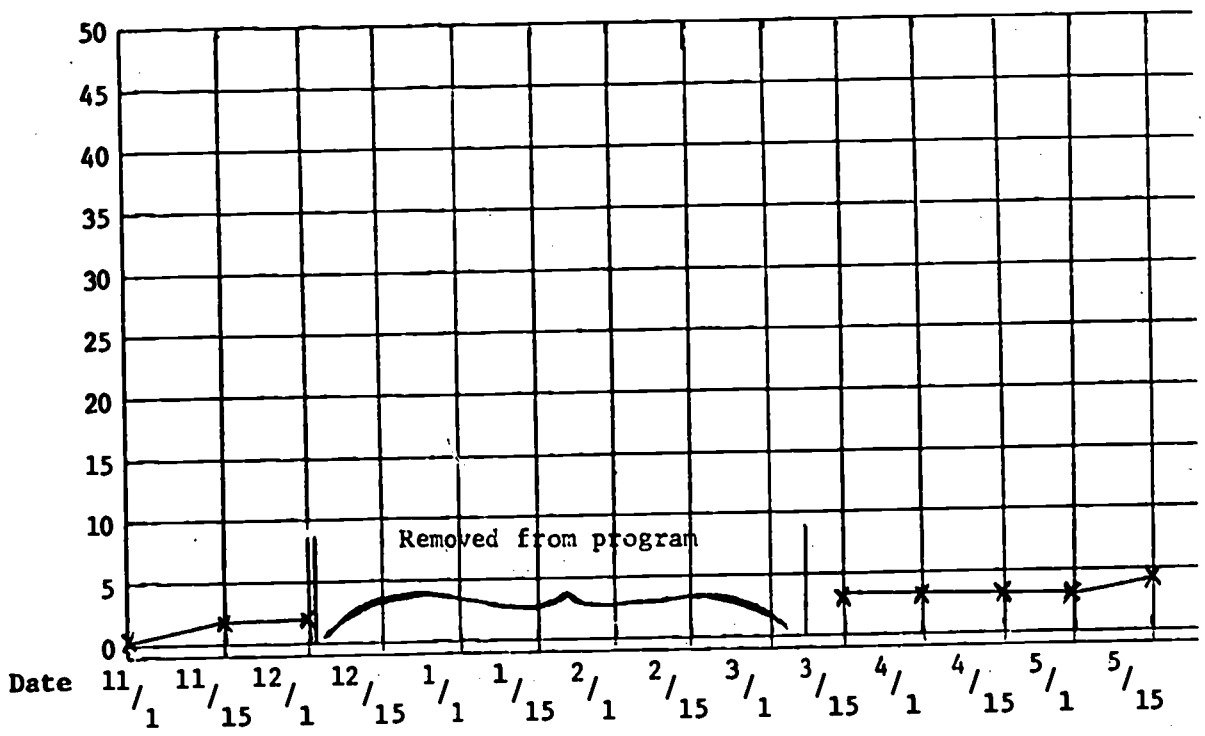
Student #2
CUMULATIVE NUMBER OF WORDS
CA 8, Undetermined Brain Damage



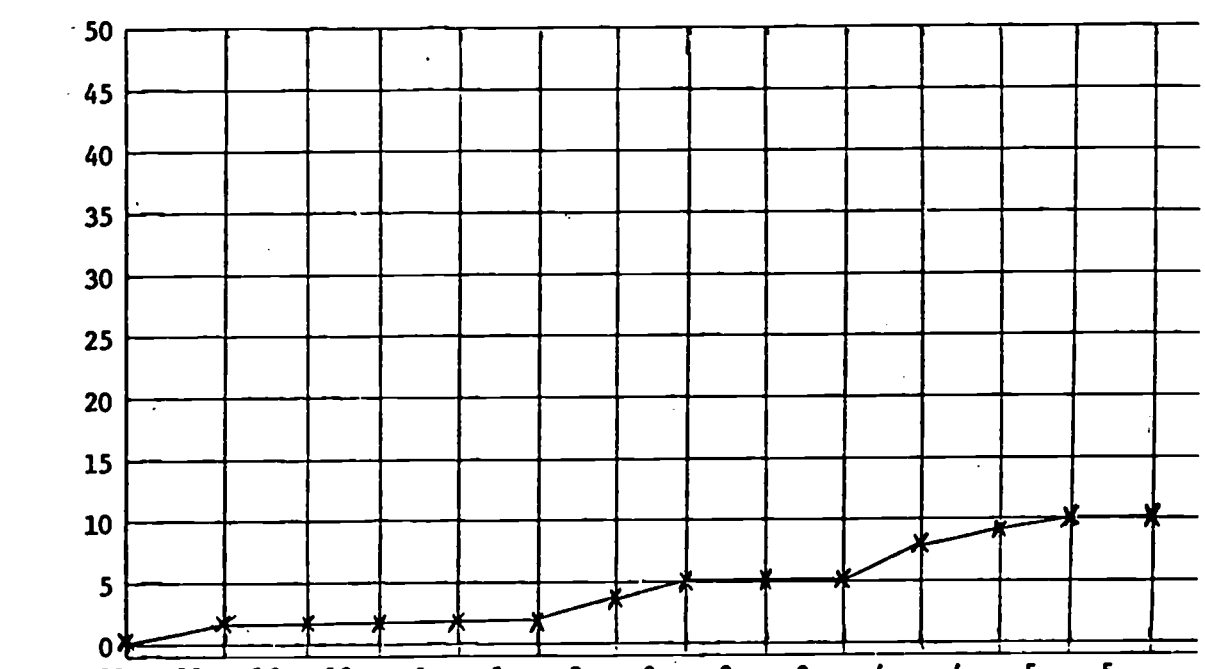
Student #3
CUMULATIVE NUMBER OF WORDS
CA 6, Down's Syndrome



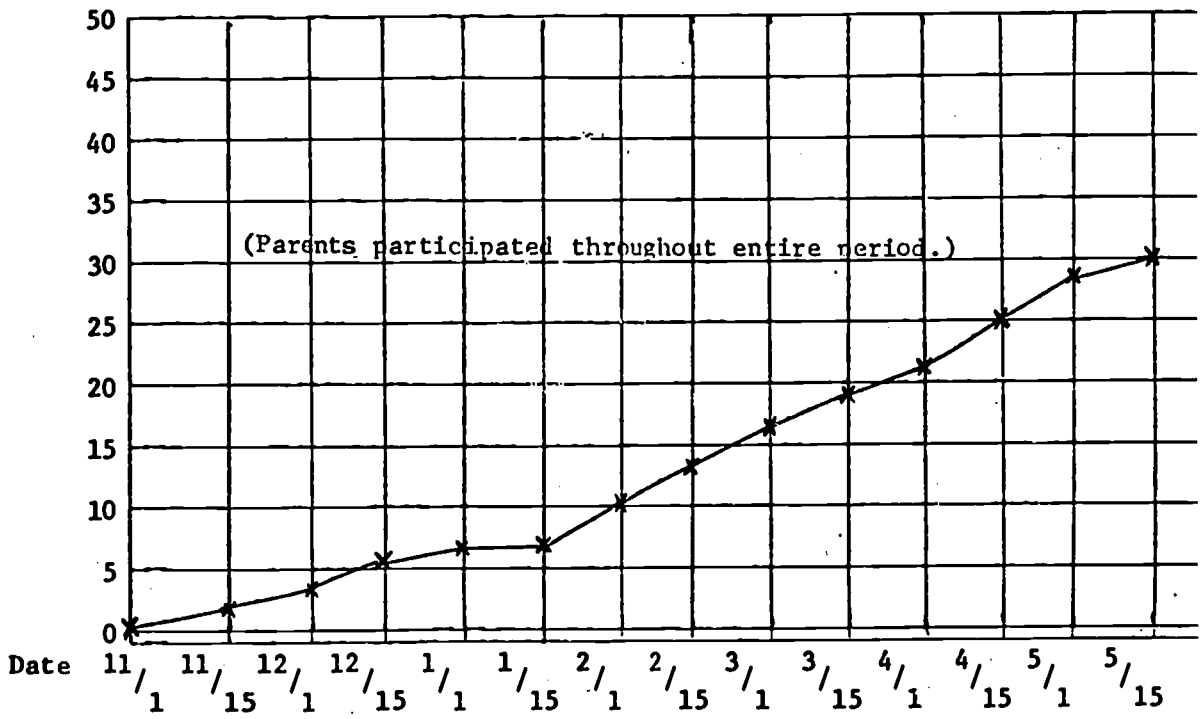
Student #6
CUMULATIVE NUMBER OF WORDS
CA 11, Undetermined Brain Damage



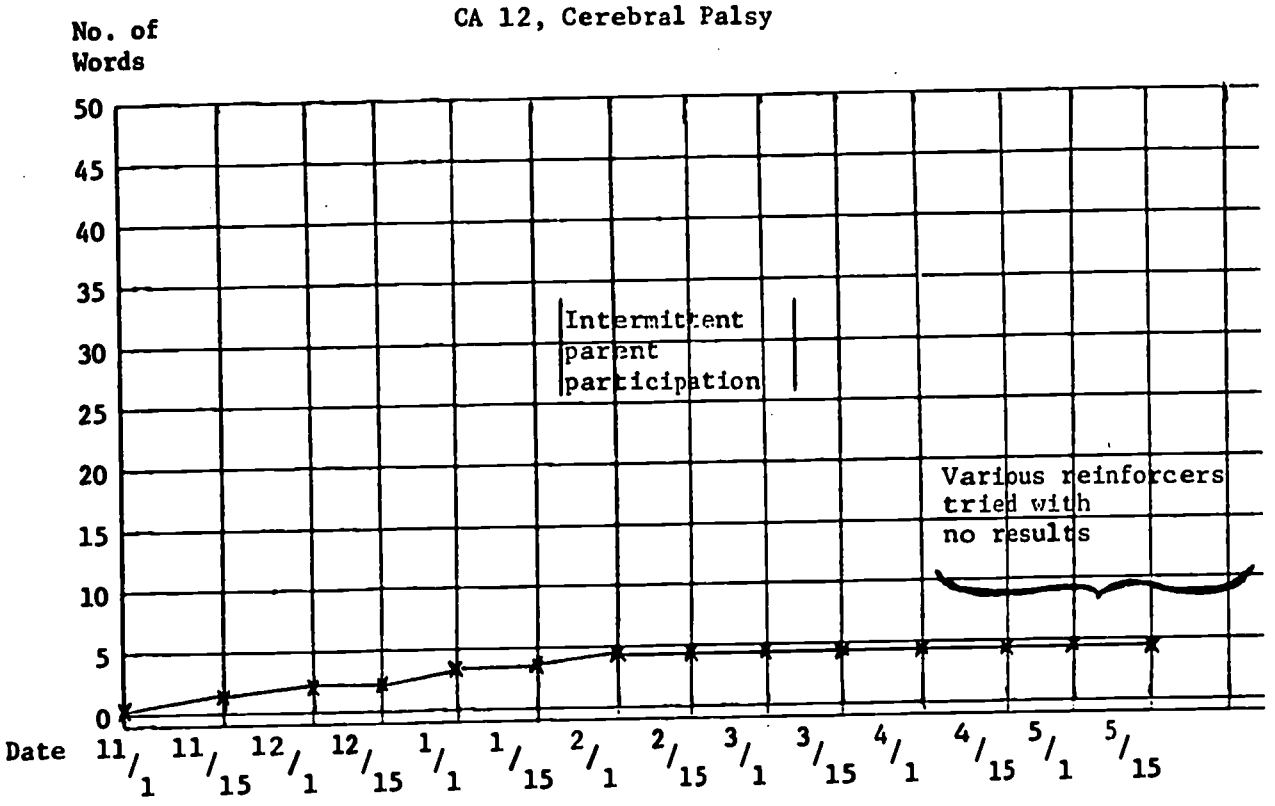
Student #7
CUMULATIVE NUMBER OF WORDS
CA 6, Down's Syndrome



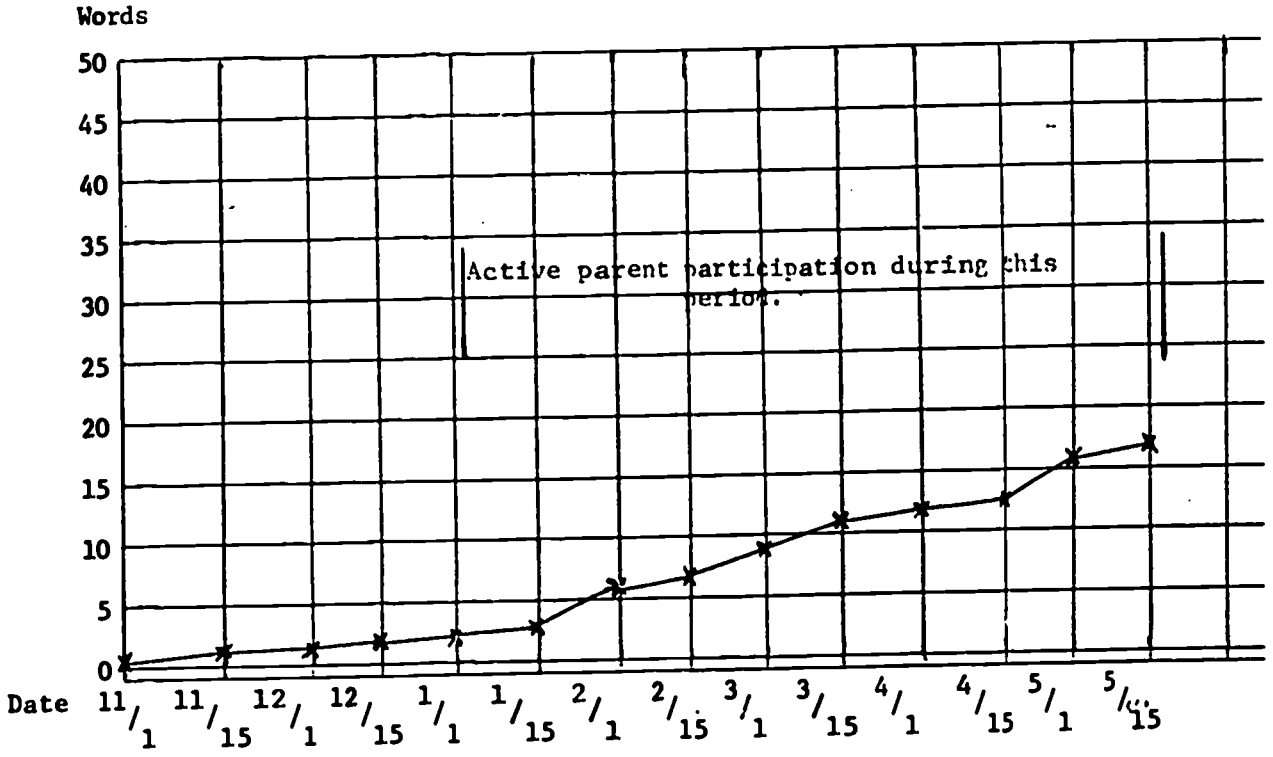
Student #8
CUMULATIVE NUMBER OF WORDS
CA 6, Unspecified Brain Damage



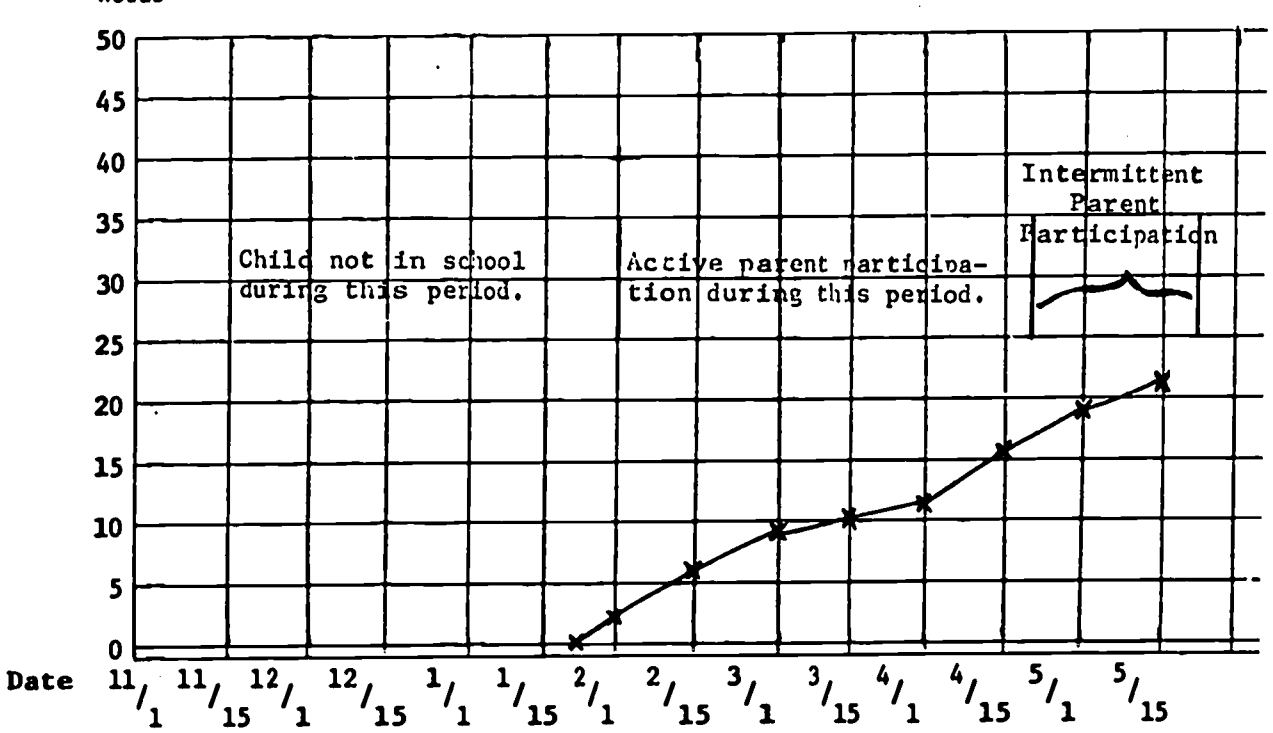
Student #9
CUMULATIVE NUMBER OF WORDS
CA 12, Cerebral Palsy



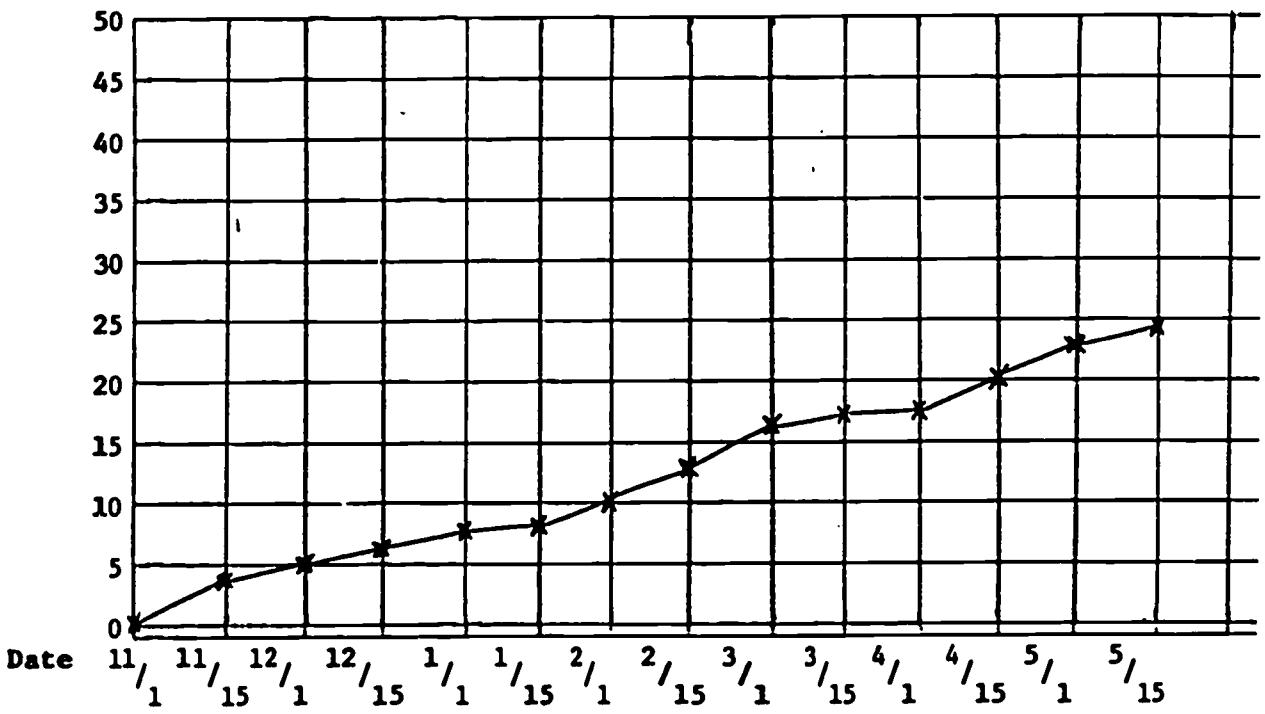
Student #10
CUMULATIVE NUMBER OF WORDS
CA 9, Unspecified Brain Damage



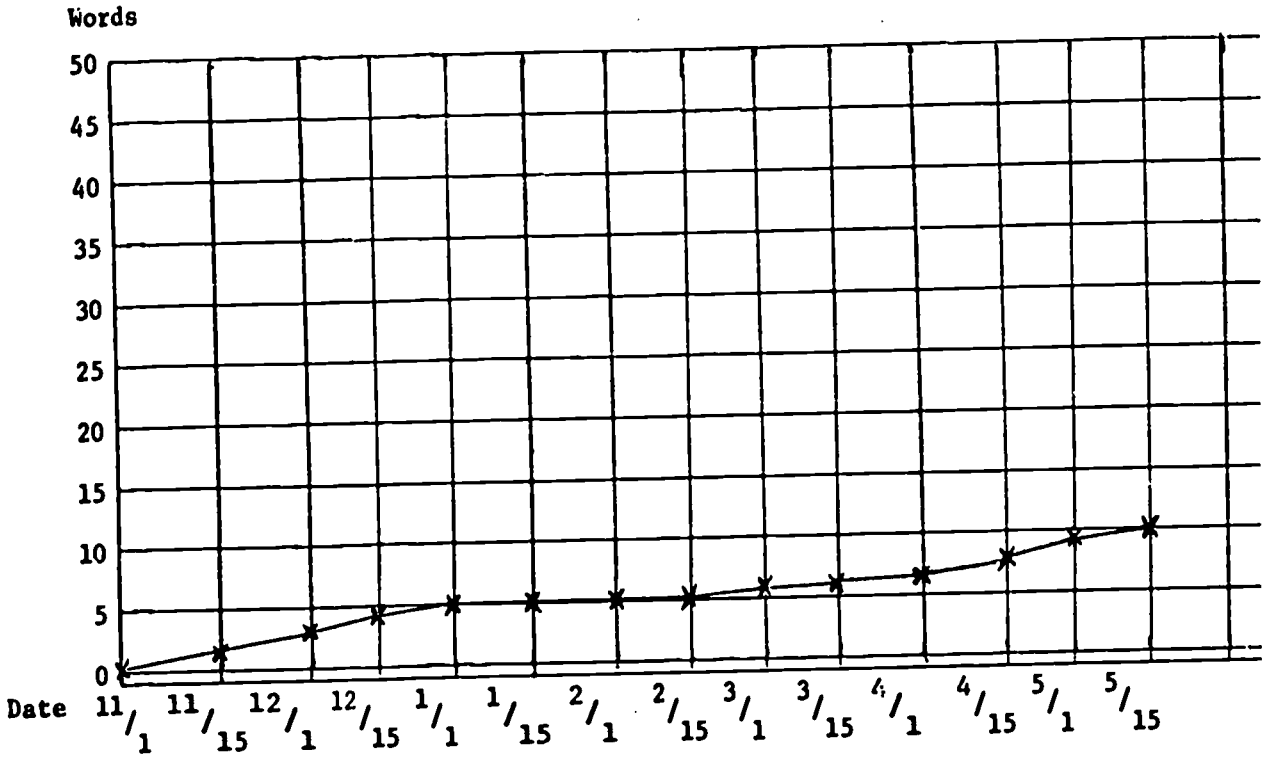
Student #13
CUMULATIVE NUMBER OF WORDS
CA 6, Brain Damaged



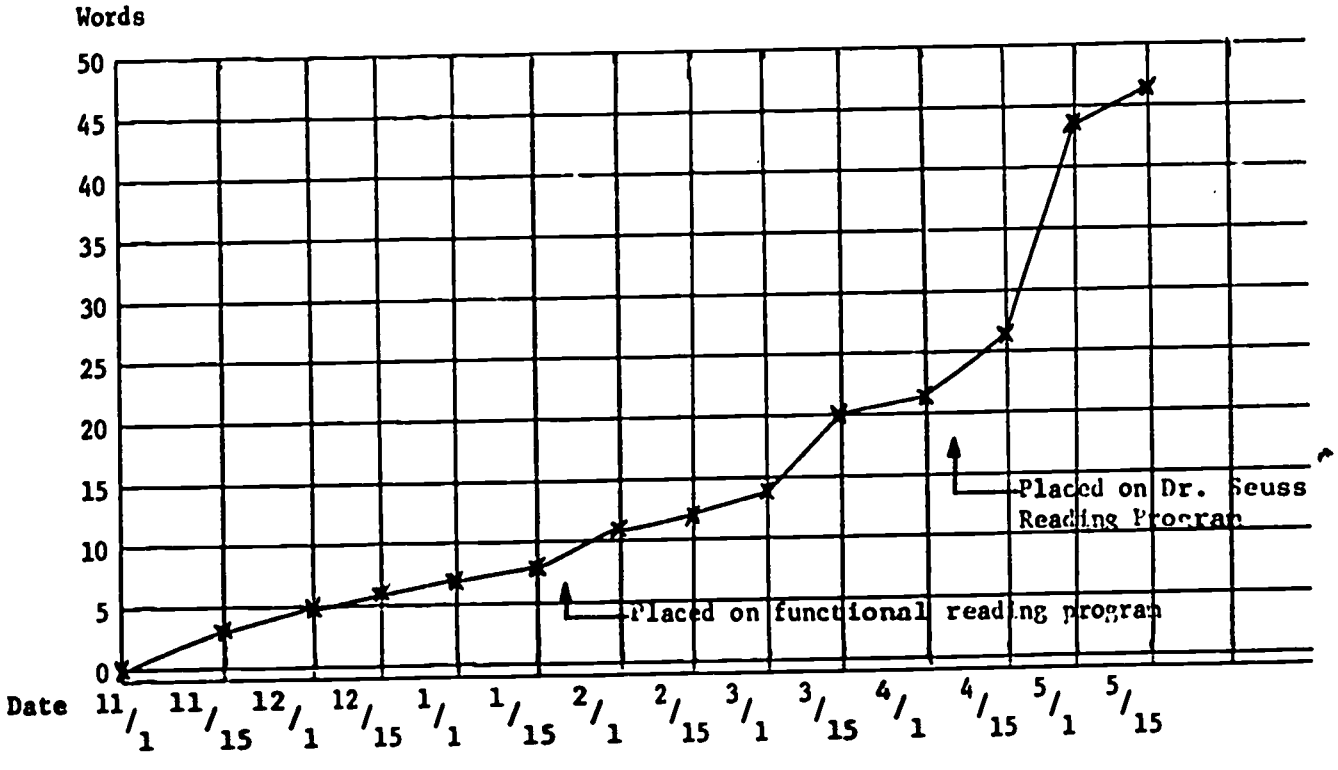
Student #24
CUMULATIVE NUMBER OF WORDS
CA 13, Unspecified Brain Damage



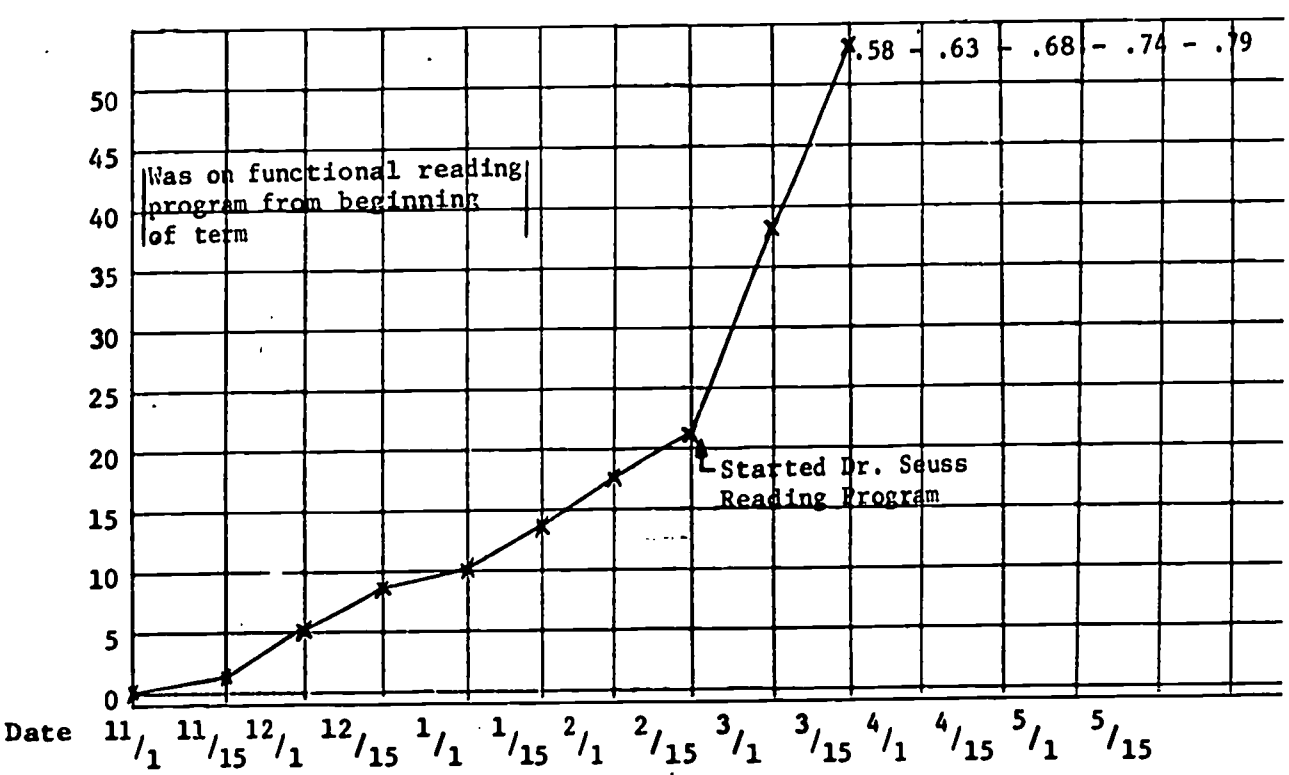
Student #25
CUMULATIVE NUMBER OF WORDS
CA 10, Unspecified Brain Damage



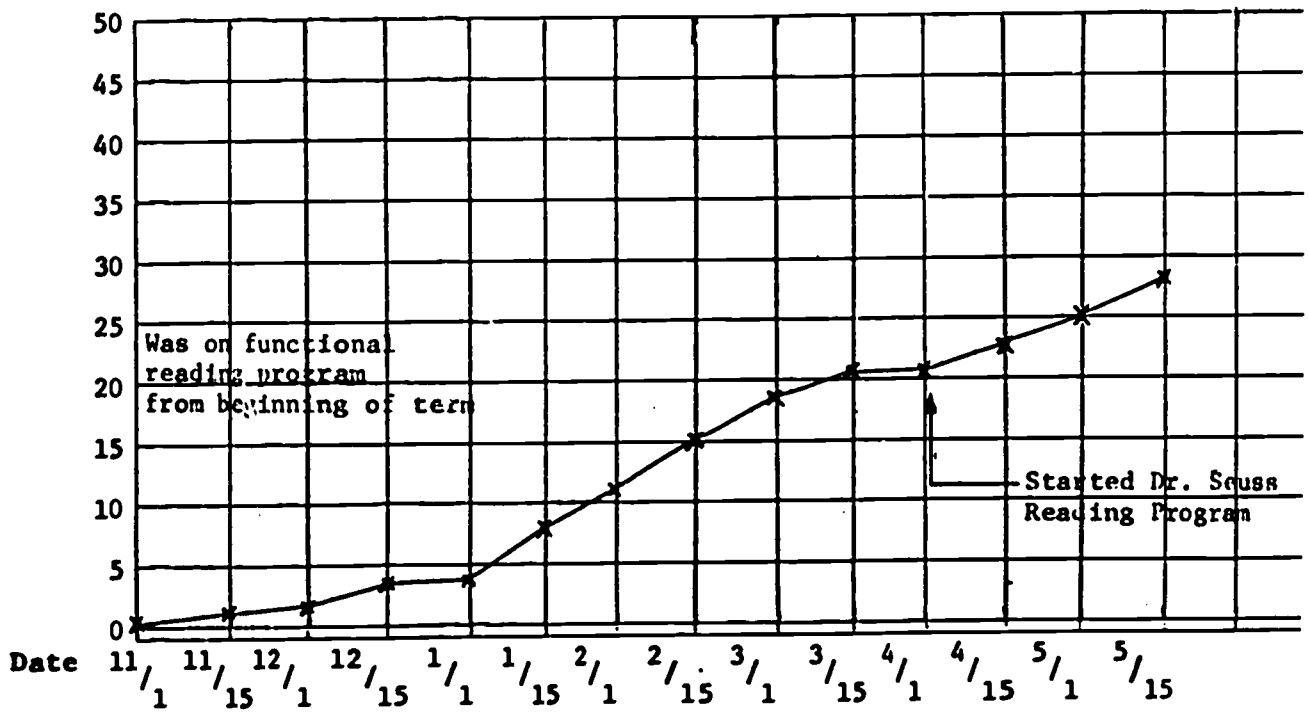
Student #26
CUMULATIVE NUMBER OF WORDS
CA 8, Down's Syndrome



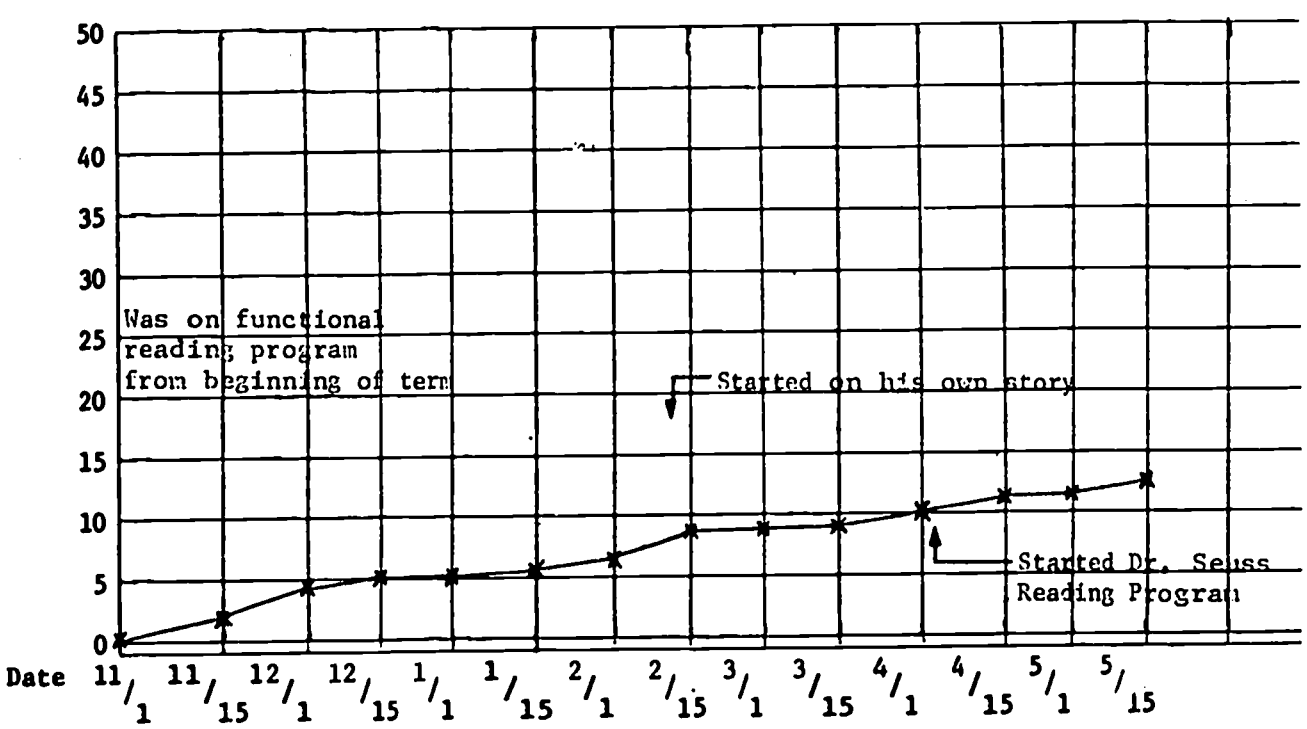
Student #28
CUMULATIVE NUMBER OF WORDS
CA 9, Undetermined Brain Damage



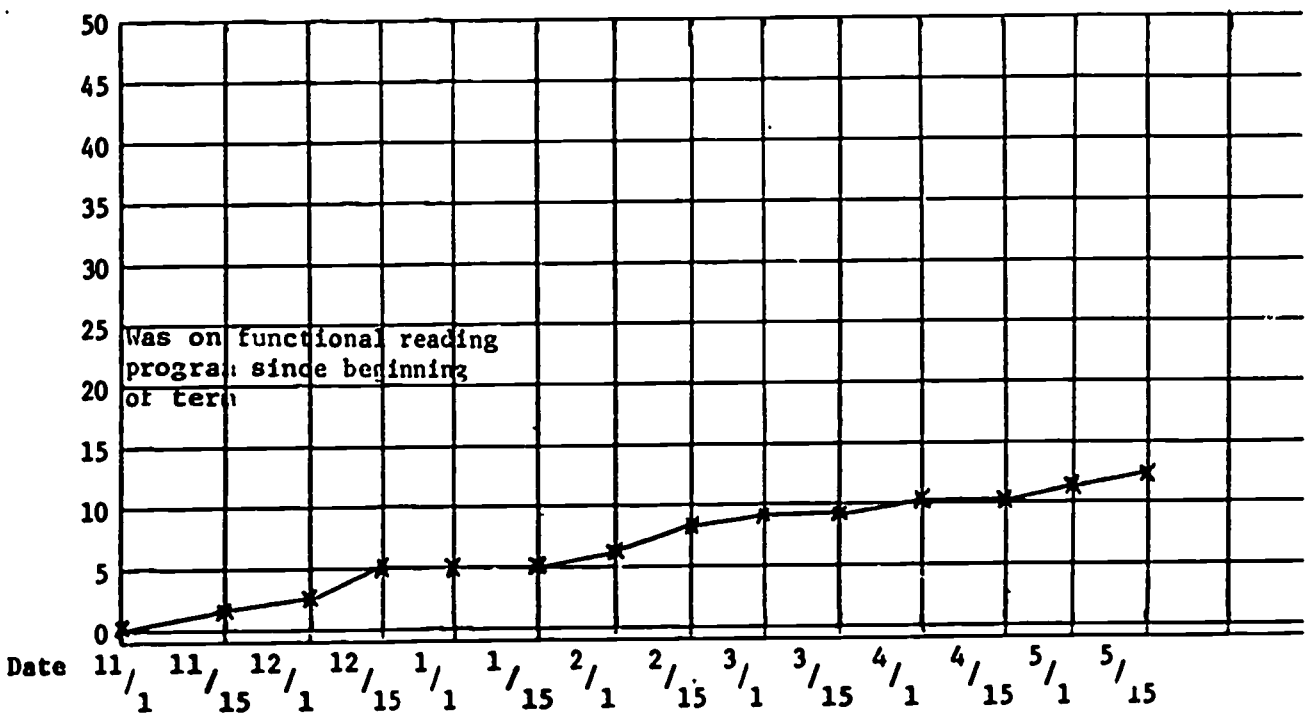
Student #29
CUMULATIVE NUMBER OF WORDS
CA 7, Undetermined Brain Damage

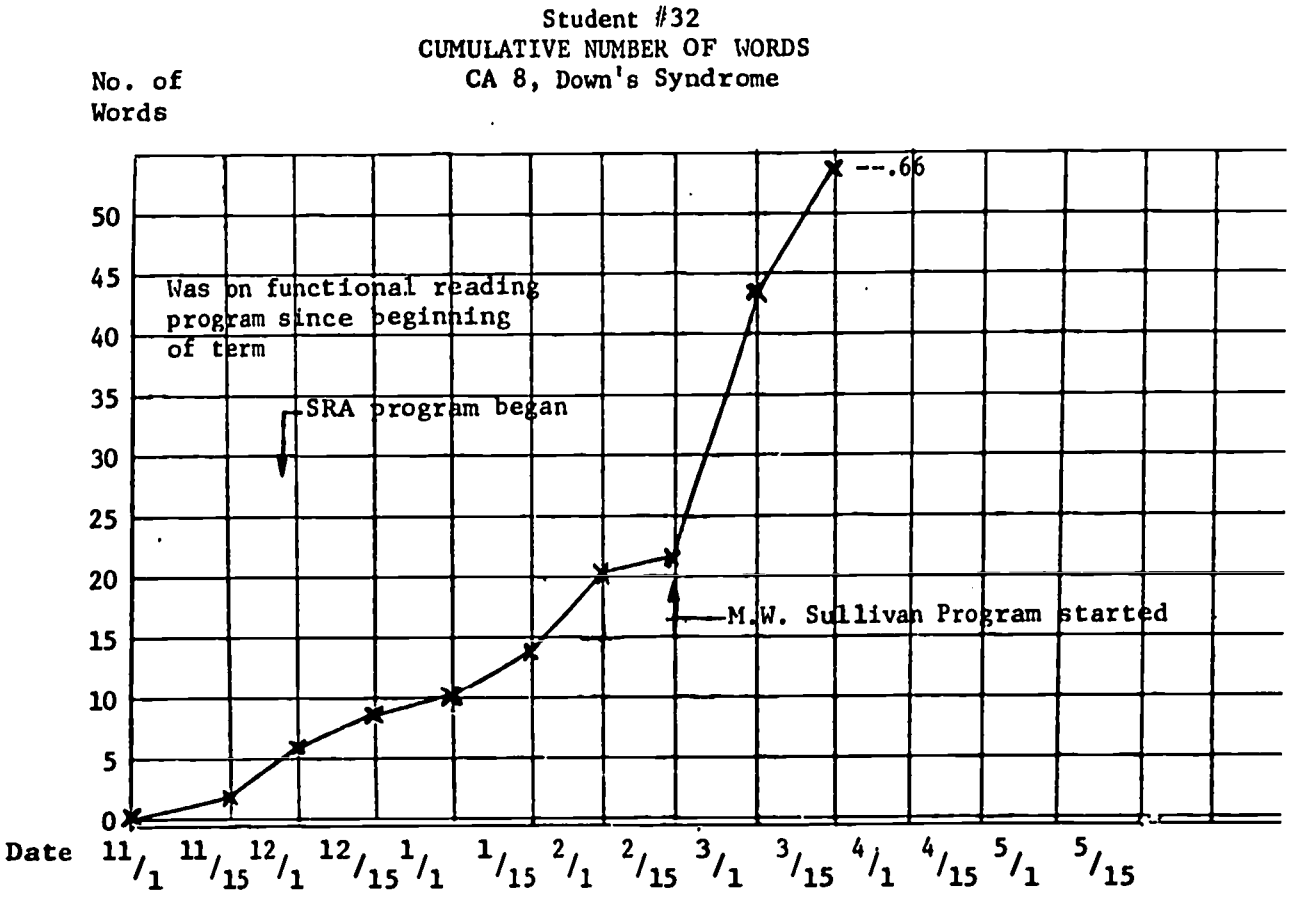


Student #30
CUMULATIVE NUMBER OF WORDS
CA 16, Undetermined Brain Damage



Student #31
CUMULATIVE NUMBER OF WORDS
CA 17, Brain Damage





Both SRA and Sullivan materials are suitable for the child who is demonstrating a greater proficiency in reading. The child who is able to go through the Doman program and the Dr. Seuss program should be taught with the Sullivan BRL series and SRA reading program. It may be necessary, however, to move the child through the lessons more slowly than is advocated by the programs. It may, in fact, also be necessary to provide additional learning lessons within the program for the child. If a child were able to advance one-third of a year in one year's academic time, it is believed that the program is worthwhile and should be conducted for the child, for it is anticipated that with that type of progress he should be able to read at the third or fourth grade level by the time he leaves school, thus providing him a functional reading ability. It is believed that this level of reading ability will provide the child additional skills to function better in our society.

The final reading technique is a functional reading program and is recommended for two reasons: (1) It provides the survival and skill words necessary for a person to function in our society. (2) It is useful for the child who does not show promise in the beginning Doman program; this may be the extent of his abilities throughout his school years. It is believed that if the child is progressing through the Doman program and the Dr. Seuss program, that the functional reading program may be unnecessary and that those words may be taught separately to him sometime during his academic years.

3. To determine what type of children can succeed in this particular type of program and what methods make this achievement most possible, thereby providing some prognostic information for other teachers in schools for the trainable retarded. An examination of the results indicates that there is no etiological basis for including or not including a child in a reading program. However, the evidence is rather strong that all children with Down's Syndrome can function rather well on the programs and should probably be included in a reading program. No other etiological basis can be drawn from the data available in this study. It is believed that all children should be tried on the Doman program initially until it is determined that they cannot cope with the program.

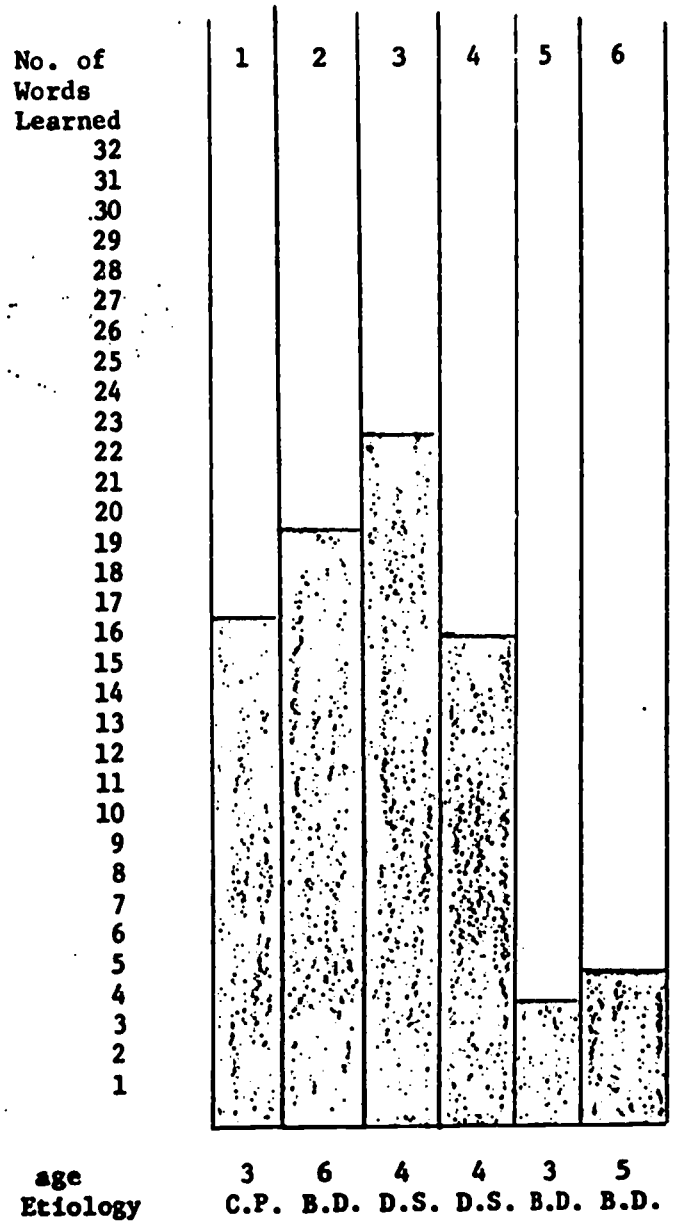
Probably the most important point that should be made as a result of the data gathered in this study is that it is apparent that young children are especially amenable to the Doman program and probably to the Dr. Seuss program. The evidence indicates that those children who made the greatest gains were below the age of 9 and show the most promise.

The advantage of course to starting a child at a young age is that he will have the advantage of many years of instruction in reading abilities, thereby providing him adaptive behaviors in our society which should allow him to function at a much higher level and to be more valuable in a vocational setting later on in life.

There is one other bit of evidence which has not yet been presented which should be presented to support the idea of commencing a reading program at an early age.

Although this program was funded in one school district with two classrooms, the program had an ancillary benefit in that the preschool program in the Corvallis School District requested that they be allowed to participate in the program. The Doman materials were furnished to the preschool teacher and she did try the program with a number of her children. The results are summarized in Table II. As can be seen from Table II, the results are parallel to those achieved in the two classrooms in the Linn-Benton IED. Four of the students in a class of 10 were able to progress very satisfactorily in the Doman program. These children, of course, are the ones who should be continued in an active reading program. The important point, however, to note here is the early age at which some of these children started. At age 3 with a severely handicapped child it is not too early to achieve rather significant results.

Table II
Summary of Results of
Corvallis Preschool Project



B.D. = Brain damage; D.S. = Down's Syndrome; C.P. = Cerebral Palsy

There is also strong, almost conclusive, evidence to indicate the importance of parent participation in reading programs. In ten out of eleven cases at Linn-Benton IED, the inclusion of parents in the program insured an acceleration in reading performance. Of the four children in Corvallis who showed significant improvement, three had active parental participation. Of the total number (20) of children on reading programs at Linn-Benton, 15 showed sufficient improvement to demonstrate that they should be kept on such programs. Ten of these had parent participation. (In two of these ten cases, improvement was not significant until parents participated in the program. Of the five children who showed little progress in reading none had active parent participation.)

Significance of project:

It is believed that this project indicates a possible major modification in curriculum for trainable mentally retarded children. Previously, the main emphasis for trainable mentally retarded children has been on self-help skills and vocal language. It may be also important to commence at an early age on a reading program for trainable children.

The second advantage to teaching the child to read is in the area of recreation. Certainly we have seen in our experiences with trainable children that many of them enjoy listening to stories and will sit enthralled with someone reading to them. Those trainable children who have previously demonstrated their ability to read are noted for the fact that they spend a good deal of time reading. Thus, it is believed that the ability to read will provide for many trainable children and adults greater enjoyment of their free time activity.

It should be noted that the change being recommended in the TMR curriculum as a result of this study does not state that a child should demonstrate proficiency in verbal language prior to the commencement of a reading program. Three of the children described in this project have low verbalization levels. Almost all have serious articulation problems. This should not prevent them from participating in a reading program. Most notable of these children is child number 1 in the Corvallis pre-school project who does not speak at all, but who looks at the words and points to what they mean.

It is recommended, therefore, that the results of this project be passed to the Mental Health Division for promulgation to TMR projects throughout the state.

Third Party Evaluator's Comments:

This is a good example of a project that was able to achieve its original objectives by relying on the individual child's performance and daily records rather than standardized tests used pre and post. Although standardized tests were used pre and post on the project, if one looked at those results alone, he would be hesitant to say that the objectives of improving reading level were in fact achieved. The standardized test in many cases is not sensitive to the small increments of change that must occur in most children and the test is usually administered in a manner that is foreign to the child and does not insure maximum performance on his part.

When the individualized records are examined in terms of the child's progress through the various programmed materials, the number of words that he can now read, and the steady growth that occurred, it is obvious that these data support the fact that the child has developed many new reading skills and therefore achieved the major objective of the project.

These very interesting achievements can be noted by looking at this project in detail. First the project was entered to demonstrate that there are at least five approaches to reading that can be utilized with this type of youngster and that they can be modified and sequenced in such a way that one type of reading program can lead to success in the other. The children showing the most success were those below the age of 9 which is another glaring reason for suggesting that reading programs be used with very young children regardless of their handicapping condition.

Related to handicapping conditions, one of the major objectives was to look at the types of handicapping conditions and the effects of the reading program. This project suggests that there is no discernible difference between the type of handicap and success in the reading program. It further suggests that programming must be done on an individual basis and that children cannot be placed in the programs adequately as a result of their etiological diagnosis.

The project had some side effects in that another school district became interested and subsequently became involved in reading activities generated from this project. In addition, some interesting data were collected concerning the effectiveness of parent involvement. In nearly all cases the inclusion of parents in a home training program similar to the school's provided assurance that the child would progress through the reading program. In some cases the parents were introduced to the program after the child had begun and noticeable increases in his effectiveness were obvious after the parent program began. These results do not suggest that materials can just be sent home and hope that parents will in fact aid in the training of the child. If one, however, takes a systematic approach to training parents, informing them about the materials and how to utilize them and collect data, then parents can be used as a powerful adjunct to the school system.

In summary, these results are very encouraging and the project personnel should be commended for an excellent job.