R E P O R T R E S U M E S

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EVALUATION OF THE LANGUAGE RETARDATION UNIT OF THE COMMUNICATION SKILLS CENTERS PROJECT, 1965-66.

DETROIT PUBLIC SCHOOLS, MICH.

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THE 1965-66 EVALUATION OF AN ELEMENTARY AND SECONDARY EDUCATION ACT, TITLE I PROGRAM WHICH PROVIDES INTENSIVE THERAPY FOR PRESCHOOL CHILDREN WITH SEVERE LANGUAGE HANDICAPS IS PRESENTED IN THIS REPORT. THERE IS A BRIEF SUMMARY OF THE SPEECH TEACHERS' EVALUATIONS OF THE PROGRESS OF EACH OF THE TEN PARTICIPATING PUPILS. IN ADDITION TABULAR DATA IS GIVEN ON THE CHANGE IN THE PUPILS' PRETREATMENT BEHAVIOR CHARACTERISTICS (MOTOR COORDINATION, SOCIALIZATION, RECEPTIVE LANGUAGE, ABILITY TO FOLLOW DIRECTIONS AND PERFORM TASKS, AND VERBAL COMMUNICATION). THE PROGRAM'S SUCCESS SEEMED TO VARY. THE COST PER CHILD FOR 1 YEAR IS ESTIMATED TO BE ABOUT $1,250. AMONG THE RECOMMENDATIONS MADE IN THE REPORT IS THE SUGGESTION THAT THE PROGRAM BE CONTINUED WITH THE SAME CHILDREN AND, IF FINANCIALLY POSSIBLE, EXTENDED TO INCLUDE EVEN MORE. (LB)

Detroit Public Schools

SUMMARY OF PROJECT EVALUATION (ESEA, TITLE I)

Research and Development January, 1967*

Title Evaluation of the Language Retardation Unit of the Communication Skills Centers Project

Purpose To evaluate the effectiveness of the Language Retardation Unit in developing communication abilities in language-retarded preschool children and in providing new insights into the causes, nature and treatment of speech disorders.

Investigators Research and Development Department, Program Evaluation Section

Participants Two teacher specialists in speech correction, ten preschool children severely retarded in speech and language development, and parents of the children.

Period Mid-March through June, 1966

Procedures The nature of the project is such that no formal evaluation design could be used. A descriptive technique was used to show changes in each child's behavior while under therapy.

Analysis Gross analysis and tabulation was made of types of disorders displayed and the degree of correction achieved. In general, however, each case was considered as unique and reported separately.

Findings Language retardation among the ten children in most cases was associated with lack of motor coordination, deviant behavior patterns, and personality disorders, such as extreme withdrawal or aggressiveness, hyperactivity, and low frustration tolerance. Varying degrees of success were attained in treatment of behavioral symptoms and in the development of communications skills. The per pupil costs of this facet of the project is estimated at about $525 for the three and one-half month's period of its operation.

Conclusions No cost-benefit analysis can be made of this project until data are obtainable regarding its long-range effects on the children.

On the basis of the available evidence, it is recommended that the project be continued with the same children, and if funds are available, expanded to include other children.

A full case study report should be made on each child, such a report to contain findings of examinations of the child, the therapy applied, evidences of improvement, and recommendations for further treatment.

*Revised: March 6, 1967; the estimated cost has been changed from $585 to $525.

EVALUATION OF THE

LANGUAGE RETARDATION UNIT OF THE COMMUNICATION SKILLS CENTERS PROJECT

1965-66

Research and Development Department
Program Evaluation Section
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January, 1967

EVALUATION OF THE LANGUAGE RETARDATION UNIT OF THE COMMUNICATION SKILLS CENTERS PROJECT*

Background

The Problem

A recent survey conducted by the Speech and Hearing Clinic of the Detroit Public Schools revealed that there are rather large numbers of preschool children in Detroit who are severely retarded in speech and language development. Experience has shown that such children generally are totally unable to adjust or to learn in the regular school program. Although the need is evident, there have not been funds available for the development and operation of the kind of intensive training program required to meet these children's special educational needs.

Purpose of the Language Retardation Unit

Basically, the Language Retardation Unit, initiated in March, 1966, is an exploratory effort to determine the benefits to be derived from exposing preschool language-retarded children to a daily program of intensive language therapy. The basic purpose of the project is to help the children enrolled learn to communicate well enough to give them a good chance for success in the regular school program or in appropriate special education classes. An important subsidiary objective of the project is to develop new insights into the nature, causes, and treatment of language disorders in preschool children.

The Operation of the Unit

In February, 1966, the Speech and Hearing Clinic selected for participation in the unit ten preschool children who had previously been referred to the clinic because of their severe retardation in speech and language development. On March 14, these children began attending daily language therapy sessions in two classrooms at the Campbell Annex School. Each child was assigned to one of two groups of five children each, with one group attending for two and one-half hours in the morning, and the other for two and one-half hours in the afternoon. They were transported to and from the Campbell Annex, where classes were held, five days a week by taxicab.

Language therapy and instruction at the center was provided by two teachers who had formerly served as speech correctionists on the staff of the Speech Correction and Hearing Conservation section of the Special Education Department of the Detroit Public Schools. Both teachers qualified for their work in the Language Retardation Unit through taking post graduate courses, attending special meetings and workshops concerning language disorders in children, and reading in the literature of this field.

The children in the program were taught individually or in groups of two or three children. The periods of intensive instruction were brief and separated by other kinds of activity, such as language oriented play therapy. The teachers used a variety of teaching techniques specifically geared toward language development and another group of techniques designed to meet children's needs for non-verbal training. The instructional materials used included toys, dolls, puppets, games, raised figures, records, tape recorders, large mirrors, a play village, stories, books, blackboards, bulletin boards, and flannel boards.

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*Funded under the Elementary and Secondary Education Act, Title I, as part of the Communication Skills Centers Project.

During the first two months of the program each child was given thorough pediatric, neurological, audiometric, psychological and psychiatric examinations at the Children's Hospital of Michigan. The results of these examinations provided a comprehensive diagnosis of each child's problems and guided the development of a program of therapy to meet his individual needs.

Another important feature of the project was the active participation of the parents of the children enrolled. The parents were required to take their children to Children's Hospital for their physical and psychological examinations and to attend regularly scheduled meetings with the teachers.

The first operational phase of the program was concluded in June at the end of the school year, 1965-66. At this time the children had received about three and one-half months of treatment.

Pupil Progress

While no systematic assessment was made of the effectiveness of services provided by the Language Retardation Unit during its first year of operation, the two teacher therapists were asked to write brief summary reports of the progress made by each child enrolled in the program. These reports are presented verbatim, on pages 4 through 6, except that ficticious names have been substituted for the children's real names.

Study of the reports show that, in practically every case, the lack of ability to communicate was accompanied by other deviations from normal behavior: lack of motor control, extreme withdrawal, inability to follow directions and perform simple tasks, and in some cases, hyperactivity and lack of emotional control. Associated with the lack of ability to communicate orally was lack of receptive language ability. Cases ranged in severity from one child who did not have even the motor control necessary for the action of swallowing, to another child who could "read with full comprehension" even though he could "only speak in vowels and very immature sentences."

The reports of the speech therapists are briefly summarized in the following table, which gives a rough estimate of each child's motor control and his relationships with his peers, as well as his abilities to understand spoken language, follow directions, perform simple tasks, and communicate verbally. In the table, a "0" indicates almost complete absence of a characteristic or ability, "1" a very low degree of ability, and "3" a fair degree of ability. One to three plus signs (+) are used to indicate slight to considerable improvements from initial to final treatments at the unit, as these improvements were reported by the speech therapists.

Some Pre-Treatment Behavioral Characteristics and Degree of Improvement of Children in the Language Retardation Unit

Child	Behavioral Characteristic*					
	Motor Coordination	Social-ization	Receptive Language	Follow Directions	Perform Tasks	Verbal Communication
A	1 +			0 +	0 +	0 +
		(Extremely hyperactive ++)				
B		0 +	0	+		0 +
C	1	1 +	3	2 +		0 +
D		0 +	1			1 ++
E		0 +	+	0 +		0
F	2 ++	0 ++		3	3	2 +
		(Extremely hyperactive ++; able to read)				
G		3 +		2 +		1
H			1	1 ++		0 +++
I	0 +					0 +
J		1		2 +		2 ++
		(able to read)				

*Legend: 0 indicates almost complete absence of a characteristic or ability; 1, very little; and 3, some display of the characteristic. Plus signs indicate reported improvement: +, some improvement; +++, considerable improvement.

Individual Pupil Reports

Arthur: When Arthur first entered the program in March, 1966, it was necessary to physically restrain him due to his high degree of hyperactivity and distractability. He uttered no meaningful sounds and was unable to follow the simplest directions. He displayed no ability to learn even simple tasks and motor coordination was virtually non-existent. The greatest change in his behavior has been the dramatic decrease in hyperactivity and distractibility. His gross motor coordination has noticeably improved, he is able to carry out simple directions, attempts to use language meaningfully, and in general, has learned some of the simple tasks presented to him.

Bert: In March, 1966, Bert came to school and sat for 2½ hours totally ignoring his environment. He gave no impression of hearing or comprehending anything. He would indulge in autistic-type behavior and would have to be physically restrained. He used no language, and the only sounds he uttered were gross noises meant only for himself. He exhibited a very low frustration tolerance, and would bite and smack himself and then scream. He was placed on seizure-control medication through the efforts of CHM, which served to control him enough so that he began to respond to the environment and to his peers. His behavior has changed considerably, and he now exhibits interest in, and takes part in some of the class activities. He follows simple directions, makes his needs known, relates to his peers (although often in an aggressive manner), and makes occasional attempts to use words or provide animal sounds when called for.

Carl: Carl came to the program in March, 1966, with virtually no intelligible language. He was well-behaved but showed no interest in socializing with his peers. He seemed to comprehend all that was said to him but carried out directions hesitatingly, as if he were unsure of himself. He displayed some motor difficulty in activities which required gross coordination, and was very poor in visual-motor coordination. At present, although his speech is still unintelligible, he is able to say many different words quite well. He carries out directions with confidence and has a very good understanding of the abstract. He relates well to his peers and enjoys their company.

Dennis: At first Dennis was totally withdrawn and made no attempts at spontaneous use of language. He seemed to be totally oblivious of his peers, and gave the teachers the impression that he had receptive language difficulties. He would crouch when he walked or ran, and displayed almost constant compulsive behavior about things in the classroom as well as on his own person. Although his behavior remains somewhat bizarre, he is using language very well, with relatively complete and correct sentences. He is also more socialized.

Earl: Earl came to the program in March totally withdrawn, giving no indication of hearing or comprehension. He did not respond to his name, did not follow even the simplest of directions, showed no startle response, and never attended to anything. When he so chose, he would get up and run around the room, indulging in autistic-like behavior. Frequently, he would cover his ears and utter a prolonged /m/ sound. He made no attempt to produce more than the prolonged /m/ or an occasional prolonged vowel. He failed to perform in any way unless he was carried through the activity by one of the teachers. He totally ignored the environment and did not even respond to

physical contact, and he even began to enjoy some of the other children. It is only recently however, that he is unable to block out the environment. He tries to withdraw, but seems to be caught up in the activity which is going on around him. He has not yet attempted to use language or to make his needs known, except in a negative manner such as shaking his head.

Fred: Early in March the teachers learned that Fred, while not yet four years old, read with full comprehension, even though he spoke only in vowels and very immature sentences. He was extremely hyperactive and distractible, even while on medication, and he had to be physically restrained. He refused to make eye contact when spoken to or attempting to communicate on his own. He did not relate to his peers. Although he performed all tasks well, he did so in a very hurried manner, often without looking because he was distracted by other things he saw and heard. When any attempt was made to have him produce consonants, he would close his mouth quickly and withdraw. He showed total confusion in laterality, and was extremely awkward and clumsy. He was unable to do anything slowly, and would always run rather than walk. At present, he has no further need of medication to control his hyperactivity and distractibility; he is able to exercise control over himself. He has begun to use a few consonants. He can move more slowly if reminded. There has been a slight increase in gross motor coordination.

George: At first George gave the impression that he did not comprehend language. He continually perseverated in both play and language attempts. Most of what he said was mumbled. He was often unable to carry out simple directions and would frequently become oblivious to his environment. He was unable to learn to identify his locker, either through recognizing his name or the location of the locker. At present, although he does not follow directions given to the whole group unless his name is specifically called, he shows less confusion in carrying out simple tasks. He can now recognize his name so that he can find his locker. Also, he is using language, (although not a great deal), correctly. He seems happier and quicker to respond. He is much more socialized.

Harry: Harry showed great difficulty in receptive language ability. He was unable to retain either a sequence of directions or a sequence of sounds. He would begin to carry out directions, but become so confused that he would wander about the room, lost. He had few, if any, words he could produce correctly; he was simply unable to produce the sounds. He has shown a phenomenal growth in both language usage and intelligibility. He is able now to use phrases and sentences most of the time, although he still exhibits some difficulty in the rhythm of words. His comprehension has improved greatly, and he seldom shows confusion when given a direction.

Irving: In March, 1966, Irving came to the program with many severe physical disabilities. He was unable to even perform the primitive and important task of swallowing. He simply tipped his head back and let gravity do the work. He was unable to chew and drooled constantly because he couldn't close his lips or swallow. His tongue was almost completely immobile, and as a result, most of the sounds he produced were very nasal vowels. At present, he is able to swallow, although it is still quite a chore for him. His drooling is much more controlled because he has learned to close his lips. He is able to drink through a straw as well as blow through it, and just recently, he was able to protrude his tongue over his bottom lip. Until his articulators begin to function, few if any intelligible words can be produced.

John: When John first entered the program, although he did use some meaningful language, his sentences and parts of speech were extremely immature. He would often, throughout the class period, lapse into long periods of complete jargon which he would continue endlessly unless one of the teachers interrupted him. He was able to read anything presented him; however, he lacked full comprehension of what he was reading. He was able to perform most tasks, and if presented with something he was unable to do, he would either begin to cry or, more often, lapse into his jargon. He showed total confusion in laterality and in body schema. John would usually block out his environment when things became too much for him. At present, John displays almost a complete absence of jargon. He uses good, complete sentences with correct pronouns, and he uses this correct language more readily and appropriately.

Cost Analysis*

The combined pay of the speech therapists assigned to this project for ten months is $12,525. With therapists carrying a pupil load of ten pupils between them, the yearly cost is relatively high, $1,250 per pupil for therapy alone. Added to this is the cost of the school housing, special equipment and pediatric, neurological, audiometric, psychological and psychiatric examinations at the Children's Hospital. A rough estimate puts the cost per child at more than $1,500 for ten months' service; $525 for the three and one-half months' service covered by this project to June, 1966.

To balance this expenditure are the increase in the teachers' knowledge about the causes and treatments of severe language disorders, and the reported improvements in the children, as follows:

the hyperactivity of two boys has been controlled,
three boys show improvement in motor control,
seven relate better with their peers and show less withdrawal,
one seems to understand oral communication better,
eight can follow directions better than before,
one shows more ability to perform simple tasks,
eight show improvement in verbal communication, and
one seems to be happier.

Beyond these simple and unpretentious statistics is only speculation, and here the evaluation of this project departs from objectivity to speculate and to ask the answers to questions which may be unanswerable:

What would the results have been if the children had received a full ten months of therapeutic treatment?

How does one measure in dollars and cents the alleviation of misery or the increasing of one individual's happiness?

What would be the savings to society if an expenditure of $1,500 could take away the necessity of placing one of these children in an institution?

What would be the contribution to society if one of these children could become a self-sufficient, self-supporting adult instead of a welfare recipient?

What would be the saving to the school system if one of these children were enabled to attend regular rather than "special education" classes?

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*Revised March 6, 1967; cost estimates have been changed to correspond to actual expenditures for salaries.

When the children have received more treatment, when a long-range follow-up has been made of the preschool children in this project, and when the answers have been given to some of the questions stated above, then--and only then--can a cost-benefit analysis of the project be made.

Conclusions

The study has shown:

Severe language retardation is accompanied by physical and psychological abnormalities. In some cases, physical abnormalities must be corrected before improvement can be made in speech; in others, speech therapy tends to correct psychological and personality difficulties.

After slightly more than three months' treatment, some progress, varying from very slight to very great, was made in improving the communication abilities of eight of the ten children in the project.

On the basis of the data contained in this report and other evidence, the following recommendations are made:

A full case study report should be made of each of the children in this project. The report should contain findings of physical and psychological examinations, the therapeutic methods employed, anecdotal records, and evidences of improvement made by the child.

The project should be continued with the same children for at least one full year, and, if funds are available, the project should be expanded to include more children.