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ABSTRACT

The Responsive Environment Program for Spanish American Children (REPSAC) is a group educational program for "high risk" (of low birth weight and with various handicaps) Spanish American children. It aims to provide successful experiences for these children in both English and Spanish language learning and in improving cognitive and affective development. During 1973-74 (REPSAC's third year of operation), twenty-nine 3, 4, and 5 year old low birth weight children handicapped by physical difficulties, learning aptitude, perceptual and motor problems, language handicaps, and economic, cultural, and education deprivation participated at Clovis, New Mexico. The program was divided into comprehensive components: instructional, staff development, community-parental involvement, and media development. The evaluation design that assessed REPSAC's effectiveness used pre- and posttests. The abilities measured were: learning aptitude, language development in English and Spanish, sensory and perceptual development, speech development, school readiness, and psychomotor development. A periodic subjective evaluation of the students' self concept, observations, and interviews was also conducted. Some major findings were: students made significant gains in language ability in English and Spanish, sensory and perceptual ability, school readiness, and psychomotor development; students developed and maintained a favorable self-image; and parents maintained a positive attitude toward the program. (NQ)

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REPSAC

RESPONSIVE ENVIRONMENT PROGRAM FOR SPANISH AMERICAN CHILDREN

FINAL EVALUATION REPORT
1973-74

RESPONSIVE ENVIRONMENT PROGRAM FOR SPANISH AMERICAN CHILDREN (REPSAC): THIRD-YEAR EVALUATION STUDY

Sponsored by:

Handicapped Children's Early Education Program
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May, 1974

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FOREWORD

The following end-of-year evaluation report describes the effect of the Responsive Environment Program for Spanish American Children (REPSAC) during 1973-74 which was its third year of operation. This report is the result of a continuation evaluation study conducted by an independent consultant and service organization with its direction primarily through various faculty members of the College of Education, Texas Tech University and the University of Texas at Austin. The design of the continuation evaluation study for this year was basically the same as the last two years with the exception that a control group was not used this year.

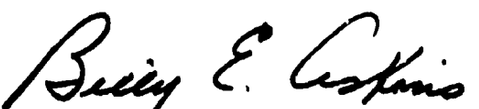
This report is more lengthy than most evaluation reports because much emphasis was placed upon the narrative description of the program (including several appendices). This was for the benefit of local education agencies which have requested such information as they are considering replicating this program in some fashion.

The purpose of the external evaluation in this program was to design and conduct a procedure necessary for decision making relative to: diagnostic work for the students; student achievement; and component/program development and assessment. Thus, the evaluation team attempted to serve in a role to assist the program to improve rather than simply to prove.

The evaluation team recognizes and hereby expresses appreciation to the director, faculty and staff of the program for their excellent cooperation during the evaluation process, especially during the periods of testing the young children.

The invaluable assistance of the various professional and paraprofessional personnel on the evaluation team is also acknowledged and appreciated.

This report was prepared and submitted in accordance with the Approved Continuation Evaluation Proposal dated March 23, 1973 and revised October 12, 1973, and the Educational Evaluation Agreement dated September 7, 1973 and revised November 15, 1973.



Billy E. Askins, Ed.D.
Coordinator of Evaluation and Research
May, 1974

ABSTRACT

RESPONSIVE ENVIRONMENT PROGRAM FOR SPANISH AMERICAN CHILDREN (REPSAC): THIRD-YEAR EVALUATION STUDY (1973-74)

The Responsive Environment Program for Spanish American Children (REPSAC) serves as early intervention for 3-, 4-, and 5-year-old "high risk" (of low birth weight and with various types of handicaps) Spanish American children living in the area served by the Clovis Municipal Schools, Clovis, New Mexico. REPSAC is a group educational program as contrasted to an individual-clinical project. The program aims at providing successful experiences (using the concept of responsive environment) for Spanish American children in the areas of developing language ability in English and Spanish and in improving cognitive and affective development. The REPSAC program is considered a demonstration project and in developing has drawn heavily upon three experimentally developed models in early childhood education: the New Nursery School; the responsive environment concept; and Project LIFE (Language Instruction to Facilitate Education). Also, the Piaget-Early Childhood Curriculum is used.

Location and Physical Facilities

The project is located about six blocks southwest of the central business area of Clovis, and the physical facilities blend into the surrounding buildings and are not discernable from the rest of the community except by a sign on one of the houses. The physical facilities of the program consist of two houses with an adjoining yard. One house is used as the main teaching facility which is a renovated former single family dwelling, and the other building serves as office and workroom which is a renovated former beauty shop.

Target Group

The target group children who participated in REPSAC were 3-, 4-, and 5-year-old low birth weight Spanish American children who were considered educationally handicapped. There were 15 students participating in the program for their third year; 8 students for their second year;

and 6 were in their first year. The target group reflected a high incidence of various handicaps such as physical difficulties, learning aptitude, perceptual and motor problems, language handicaps, and economic, cultural and educational deprivation. A major selection criterion for participation in the program was low birth weight. Most of the children were below the 5½ pound standard as set by the World Health Organization. These handicaps contribute to the educational "high risk" character of the group.

Major Goals of the Program

Major goals of the program include: 1) Early intervention to prevent placement of children in classes for the retarded or other types of special education; 2) Provision of media and learning activities which will enhance and develop a favorable self-concept; 3) Provision of media and learning activities which will strengthen or develop favorable attitudes toward his own and other cultural groups; and 4) Formulation of plans and activities to increase parental interest and involvement in this program and in the education of their children.

In addition to these goals, there were general instructional objectives. To accomplish these goals and objectives and for operational purposes, the program was divided into comprehensive components: instructional; staff development; community-parental involvement; and media development.

Program Activities

To achieve these objectives, the program activities were planned and conducted within the organization of comprehensive program components: instructional; media, staff development; and community-parental involvement. Activities of the major component, the instructional, were divided into group activities (story telling, reading, painting, cutting, manipulative toys, playground activities, and the lunch period) and individualized or small-group activities (Piaget-Early Childhood Curriculum, Project LIFE, Responsive Typing Booth, and Peabody Language Development Kits).

Evaluation

The external evaluation of the program was performed by an independent evaluation team that maintained continuing contact and

observation in the program. The evaluation team included psychologists, a speech therapist, bilingual testing personnel, and specialists in early childhood and educational evaluation and research.

Evaluation focused on three components: instructional, staff development, and community-parental involvement. The evaluation design of the instructional component was based upon the general instructional objectives and within a framework of evaluating the students in certain areas/abilities using a pre and posttest design. The abilities measured were: learning aptitude, language development in English, language development in Spanish, sensory and perceptual development, speech development, school readiness, and psychomotor development. Also, subjective evaluation was periodically conducted of the self-concept of the REPSAC students. Research hypotheses were formulated but were treated in the null form when statistically treated. The difference between the pretest and pottest scores (mean gain score) was the basic unit used in the statistical treatment of the data and subsequent decisions made concerning the hypotheses.

A formative type of evaluation was conducted on the other two components and was primarily conducted within a subjective framework using observations and interviews.

Findings

Some of the major findings of this study included: REPSAC students made significant gains in language ability in English, language ability in Spanish; sensory and perceptual ability; school readiness; and psychomotor development (significant gains were not evident in learning aptitude and speech development); REPSAC students developed and maintained a favorable self-image while participating in the program; activities of the staff development component were a well-balanced fusion of theoretical and practical approaches enriched by an obvious concern of the staff for the development of each child in the program; parents of the REPSAC students maintained a positive attitude toward this program; activities of the community-parental involvement component did assist, in varying degrees, in parental involvement, provided for some extension training, and provided as linkages between home, school and community; as measured by the Henderson Environmental Learning Process Scale (HELPS), no significant relationships were found between factors in the home environment and the criterion variables used to measure school achievement; only 2 of the 14 former REPSAC students completing the first grade this year

will be assigned to special education classes; and the 2 students completing the second grade this year were reported as doing excellent work.

Conclusions

Some of the conclusions were: the three components evaluated operated as planned and functioned so as to complement each other; the program is in an active and positive process of accomplishing the long range goals; and, in short, the REPSAC program functioned as planned for the target group and parents and in accordance with the approved proposal document during the 1973-74 year. Thus, it was concluded that the REPSAC program is presently serving as effective intervention for the target children and parents.

Recommendations

Some of the recommendations made by this evaluation team were: that the REPSAC program continue to develop and serve as a bilingual early childhood intervention program and as a demonstration and replication model; and that the objectives of the community-parental involvement component be reviewed and possibly reformulated.

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SECTION I

INTRODUCTION

This report describes a continuation evaluation study of the responsive Environment Program for Spanish American Children (REPSAC) during 1973-74 which was its third year of operation.*

The REPSAC project serves as an early intervention for 3-, 4-, and 5-year-old "high risk" Spanish American children. Children are considered "high risk" as a result of their low birth weight, 5 1/2 pounds or less, and who will probably have accompanying handicaps as they enter the first grade. This program attempts to demonstrate that such an intervention can provide such children the experiences necessary to succeed and remain in the educational mainstream.

REPSAC is a group educational project as contrasted to an individual-clinical project. The program aims at providing successful experiences (using the concept of responsive environment) for Spanish American children in developing language ability in English and Spanish and in improving cognitive and affective development. The REPSAC project is considered a demonstration project and in developing has drawn heavily upon three

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*For references concerning the first and second year of operation, see Bibliography (3, 4, 5, 9, 17).

experimentally developed models in early childhood education: the New Nursery School; the responsive environment concept; and Project LIFE (Language Instruction to Facilitate Education). Also, the Piaget-Early Childhood Curriculum (parts translated in Spanish) are used.

Background and Significance of the Program

The development of this program stems from recent research which indicates that children with a very low birth weight generally experience childhood difficulties in the cognitive areas of development which can result in subsequent retardation as they progress through their formal education (8 pp. 532-534; 13, pp. 607-611; 1).* Spanish American children with such a low birth weight, coupled with a language different from that used in the American educational setting, have additional handicaps (1).

Further, Spanish American children with the foregoing handicaps whose home environment often does not include toys, materials, games, and media which can enrich their childhood experiences enter the first grade with a notable disadvantage in comparison to children with such advantages (15, pp. 674-675).

The forementioned handicaps frequently prevent Spanish American children from normal advancement in the schooling process, even to the point of often being "mislabeled" and inheriting a stigma which usually

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*The scientific method of documentation or footnoting is used. The information in the parenthesis refers to the document and page number respectively in the numbered Bibliography located at the end of this report.

dooms them to poor education, poverty, and lack of higher educational and vocational training.

Recognizing that approximately 38% of the school population of New Mexico has a Spanish surname and the low educational level of the Spanish surname population, and recognizing that a high percentage of "high risk" or low birth weight children come from this particular ethnic group in Clovis (1), a cooperative effort was started between the Clovis Municipal Schools and the U. S. Office of Education which resulted in the planning and implementation of an early intervention program commonly referred to as REPSAC.

The REPSAC program officially started in September, 1971,with 32 students; thus, the 1973-74 academic year is the third year of operation. Initially, REPSAC was funded by Media Services and Captioned Films, Division of Educational Services, Bureau of Education for the Handicapped, U. S. Office of Education. In November, 1972, the source of funding was transferred to the Handicapped Children's Early Education Program, Bureau of Education for the Handicapped, U. S. Office of Education.

There are very few effective early childhood education programs in the Southwest and few, if any, bilingual early childhood programs (not to mention an intervention program where low birthweight is a major selection criteria); therefore, this program is designed to provide or serve as a demonstration model for bilingual and early

childhood education for the state of New Mexico as well as for other southwestern states.

Area Served and Locale of the Program

The area served by this program is the total attendance area served by the Clovis Municipal Schools, Clovis, New Mexico. The site location is 420 West Grand Avenue, a few blocks southwest of the central business area of the city. This locale is in the section of town where there is a high concentration of the "target group" children.

The Target Group Children

The target group children for this program were three, four, and five-year-old low birth weight Spanish American children who are considered educationally handicapped. This target group comes from the area served by the Clovis Municipal Schools. The school population of Clovis is about 21% Spanish American as compared to the city population which is estimated to be approximately 25% Spanish American.

Criteria for Selection of Participants

The selection criteria for the REPSAC project were proposed by a group of consultants appointed by the Bureau of Education for the Handicapped, United States Office of Education, in August, 1970. Based on the knowledge and research background of the consultants, criteria were selected and given a priority ranking. These included: 1) low birth weight; 2) health history; 3) level of education of the parents; 4)

educational attainment of siblings; 5) home language, and 6) disadvantaged (low family income plus other factors which constitute this condition). The criterion of low birth weight was the primary factor in the selection of the participants. Other factors were weighted 5, 4, 3, 2, 1.

Number of Participants and Incidence of Handicapping Conditions

Number of Participants

The program is designed to accomodate approximately 30 children per year, and this program has been operating with this optimum number during the past three years. The program experienced an unusual drop-out rate (only 3 in 3 years). For the 1973-74 school year, the program started with an initial enrollment of 31 students.

Incidence of Handicapping Conditions

In order to provide comparison with previous years of the program, the 1973-74 subjects were assessed as to handicapping conditions by similar standards and instruments as those begun in 1971. The categories applied in previous years were also used. They included: Low Birth Weight, Economic Deprivation, Language Orientation, Language Development (Vocabulary), Learning Aptitude, Visual and Speech problems.

Since REPSAC is an educational program being developed for group intervention, there has been limited clinical assessment of individuals. The conditions which would appear to affect the educational development

have been given greater attention. Related conditions such as economic standing of the family, cultural orientation, and educational environment are shown since the literature in education is replete with reference to those conditions and educational development.

While the weighting of the various handicapping conditions would obviously differ, they are reported in the following by percentages of the group that manifest the conditions. A later table illustrates the incidence of multiple handicaps. Presence, rather than degree of handicap, is indicated in the following table.

TABLE 1

SUMMARY DATA OF INCIDENCE OF SINGLE HANDICAPPING CONDITIONS

REPSAC, 1973-74

Handicap*	Incidence	Measure
Low Birth Weight	70%	Birth and Hospital Records applied to WHO** Standards
Economic Deprivation	42%	Parental Response
Educational Deprivation	42%	Parental Response
Visual Perception	39%	Clinical Test (Frostig)
Speech	39%	Clinical Test (Templin-Darley)
Hearing	3%	Clinical Observation
Home Speech	90%	Parental Response
Language - English	42%	PPVT - English
Language - Spanish	81%	PPVT - Spanish
Learning Aptitude	39%	Hiskey Test (Pre-Test)

* LEGEND

** World Health Organization

(See next page)

Birth Weight	5 1/2 pounds or less (WHO standard)
Economic	Annual income below poverty level, adjusted for family size.
Educational	Father (or single parent) has no formal education beyond junior high school.
Visual	Scores below 35% on Frostig Test of Visual Perception.
Speech	Clinical observation of response to Templin-Darley Test.
Hearing	Clinical observation during testing and other activities.
Home Language	Language most often used in the home was Spanish or use of both languages in about the same amount.
Spanish PPVT	MA score one year or more below chronological age on Peabody Picture Vocabulary Test.
English PPVT	MA score one year or more below chronological age on Peabody Picture Vocabulary Test.
Learning Aptitude	Scores of less than 85, or slow learner range on Hiskey Test.

In accordance with program regulations, data have been provided on OE Form 9037 in regard to handicapped children served. The data was developed by the psychologist from his clinical determination and from use of other test data, (particularly for the area of specific learning disabilities. According to that screening the following handicaps were reported:

TABLE 2

HANDICAPPING CONDITIONS EVIDENT

Type of Handicaps	Number of Children (age 3-5)
Educable Mentally Retarded	5

Specific Learning Disabilities		10
Visually Handicapped		2
Speech Impaired		8
Hearing Defects		1
	Total	26
Of the total, the number of multi-handicapped		17

There was some variation in the findings when pre-test results were used in that multiple handicaps appear to exist in each of the subjects when the birth weight, economic, and language factors are included. Those results appear in Table 3 (See next page).

TABLE 3

SUMMARY DATA OF MULTIPLE INCIDENCE OF HANDICAPPING CONDITIONS*

1973-74

Subject	Birth Weight	Economic	Educational	Home Language	Span PPVT	Engl PPVT	Hiskey IQ	Visual	Speech	Hearing	Total
1.				X	X			X	X		5
2.	X		X	X	X						4
3.				X	X		X		X		4
4.				X	X		X		X		4
5.				X	X			X			3
6.	X			X	X	X	X		X		6
7.	X	X	X	X	X	X	X		X	X	9
8.		X	X	X							3
9.	X				X						2
10.	X	X		X	X						4
11.	X	X		X	X				X		5
12.		X	X	X	X				X		5
13.	X		X	X	X		X	X	X		7
14.	X			X	X						3
15.	X			X	X		X				4
16.	X	X		X		X					4
17.	X			X	X	X	X	X			6
18.				X	X	X	X	X			5
19.	X	X	X		X			X			5
20.	X	X	X	X	X	X		X	X		8
21.	X			X	X			X			4
22.	X			X	X						3
23.	X	X	X	X		X	X		X		7
24.			X	X		X					3
25.	X			X	X	X	X		X		6
26.	X			X	X			X			4
27.	X	X	X	X	X						5
28.	X	X	X	X	X	X	X				7
29.			X	X							2
30.	X	X		X		X		X	X		6
31.	X	X	X		X	X		X			6
	22	13	13	28	25	13	12	12	11	1	

*See Table 2 for Legend

The number of deficiencies which appear per individual is shown in summary forms in the following table. This summary illustrates the need for a variety of educational approaches to assist with the many different conditions which may affect an individual.

TABLE 4

MULTIPLE HANDICAPPING CONDITIONS

Number of Deficiencies	Number of Subjects
8	2
7	4
6	5
5	5
4	8
3	5
2	2

In addition to the handicapping conditions noted, there will undoubtedly be physical deficiencies which could be assessed by a physican's examination.

The high incidence of low birth weight children is a result of the selection procedures developed to include those children. Research which illustrates the relationship of low birth weight to deficits in performance is developed in the proposal for the REPSAC project, and in previous evaluation reports. The World Health Organization standard of 5 1/2 pounds or less is used as a definition of low birth weight.

The home language of each child was assessed by direct query of one of the adults in the home (usually the Mother) Since the children contacted were defined as "Spanish-American" either by virture of a Spanish

surname or parental self-report. Because of the bicultural nature of the majority of Spanish surnamed persons in New Mexico, if the parent reported that most conversation in the home was in "both" languages or in Spanish, the primary home language was considered to be Spanish. Previous testing of children in New Mexico and West Texas with Spanish language backgrounds indicate the likelihood that those children exhibit lack of command of the English language.

The language (vocabulary) tests are used primarily as an indication of gain during the year. Since the tests yield a mental age score, a score of more than a year below chronological age is an indication of deficit. Although regionalized as to translation the tests were not developed for this cultural group, they do have a history of use throughout the Southwest, however.

Since low birth weight children are more prevalent among non-white parents than among white parents, and since there is a higher incidence of economic deprivation among the same groups, it is to be expected that a large percentage of the families would reflect economic difficulties. In fact, more than one-third of the pupils were so rated.

The educational level of the parent has long been associated (along with low economic standing) with establishment of social class in sociological research. While any establishment of educational level as a criterion may be said to be arbitrary and to be affected by other factors, a level lower than high school graduation was used. If the father, or single parent with whom the child lived, had no formal education beyond junior high school the educational handicap designation was applied.

From the two indices discussed immediately above, the 1973-74 group may be said to reflect a somewhat higher socio-economic standing than that of the previous year. Although the socio-economic standing is up, the incidence of handicapping is still much greater than would be found in an unselected group of children.

The Hiskey-Nebraska Test was used to assess academic aptitude. The test is not dependent upon verbal responses and is administered individually by a psychologist with long experience in its use. The information derived is for research and evaluation use and is not made available to teachers or aides in order to prevent labeling of children.

The project faculty/staff has been made aware of handicapping conditions through seminars provided by members of the evaluation team. Specific prescriptive teaching has been outlined by clinicans in the program, taking into account the types of handicaps exhibited. As noted previously, it is not merely the incidence of simple handicaps, but the interrelated multiple handicaps which increase the problems of education for this particular group of children.

Physical Facilities of the Program

The program is located at 420 West Grand which is southwest of the central business area of Clovis. The physical facilities are located on a readily accessible main street in the target area and blends so that the buildings are not discernable from the rest of the community except

by a neatly lettered sign on the front of the office building. The physical facilities provide for most program needs without looking like a "school house."

The physical facilities consist of two houses and adjoining yard. One facility consists of a fairly large older house on a corner lot with a relatively modern building, formerly used as a beauty shop, located immediately to the east. The house was renovated inside as the teaching facility but the exterior is relatively unchanged. The remodeling included removing two interior walls to provide large open space for group and individual activities. One room was divided to provide individual teaching cubicles for the Responsive Environment Typing Booth and Project LIFE activities. Another part of that room was fitted with speakers and one-way glass to provide for observation and monitoring. Another room was maintained as a kitchen, serving, and activity area. The remaining room is utilized as a testing and storage area. The existing bathroom was kept and an additional water outlet was installed. Carpet in areas other than the kitchen and bath completed the changes except for additional heating and electrical (including strategic microphones for monitoring) installations.

The second building, consisting of two rooms and a bath, was renovated as an office. It provides work space for the Director, secretary, home-visitor and shared space for the teaching teams. It has a very small meeting area which is frequently used by staff and visitors.

The two buildings have a common yard, enclosed by a low chainlink fence with a large gate which allows for entrance for loading and unloading children. Some playground equipment, including items such as a sandpile, swings, and a climbing frame are provided.

In summary, the evaluation team from many visits during the year, attests to the functional arrangement of the facility, and applauds its relation to the target community and location. The size of the facility is adequate for the teaching program. It would be advantageous to have additional office space (with some privacy) and dining space, although it is recognized that the possibilities of developing such areas are somewhat remote.

Organization of the Remainder of the Report

The remainder of this report describes the REPSAC program/project and the results of evaluation of selected components is organized and presented by sections which are: Description of the Program; Program Evaluation; Evaluation Data of the Instructional Component; Evaluation Data of the Community-Parental Involvement Component; Follow-Up Studies of Former REPSAC Students; Findings, Conclusions, and Recommendations.

SECTION II

DESCRIPTION OF THE PROGRAM

The REPSAC program is designed to serve as an effective educational intervention for 3-, 4-, and 5-year-old "high risk" Spanish American Children. Children are considered "high risk" as a result of their low birth weight and who will probably have various types of handicaps as they enter the first grade.

For program development, organizational and operational purposes, the program is divided into various components. In developing the REPSAC program and the various components, three experimentally developed models in early childhood education were extensively used. These models were: 1) The New Nursery School concept developed at the University of Northern Colorado by Glen Nimnicht and Oralie McAfee; 2) the Responsive Environment Concept of Omar K. Moore, utilized and evaluated by the Far West Laboratory Model; and 3) Project LIFE (Language Instruction to Facilitate Education) developed by the National Education Association, the U. S. Office of Education, and the General Electric Company. In addition, the Piaget-Early Childhood Curriculum developed by Celia S. Lavatelli is being used for concept development of young children.

Upon completing this program (1-3 years depending upon the child's age at entry), the children will enter the first grade. Follow-up activities, or longitudinal studies are planned for these students as they enter the mainstream of formal education.

Major Goals and General Instructional Objectives

The major goals of REPSAC include: 1) To improve, through positive educational intervention, the learning potential of "high risk" preschool Spanish-American children most likely to become classified as mentally retarded in the formal school setting; 2) To improve the capability of the educational environment to respond positively to the cultural patterns and mores of the Spanish-American families so as to reduce communication gaps which interfere with learning and contribute to lags in intellectual development; 3) To develop a model program for early childhood education for children from similar circumstances; 4) To develop a scope and sequence of bilingual (Spanish-English) and early childhood instruction for children ages 3, 4, and 5 incorporating theoretical constructs of Piaget, Montessori, Omar Moore, technological innovations and new relevant curriculum materials; 5) To formulate plans and activities to increase parental interest and involvement in the education of their children; and 6) To assist in the development of a statewide communication and awareness program concerning "high risk" and handicapped children.

The major instructional objectives of the project from which specific behavioral objectives are developed include:

1. To develop the child's conceptual and problem solving ability.
2. To develop language ability in both Spanish and English.
3. To improve the child's sensory and percentual discrimination.
4. To develop the child's speech.

5. To enhance the child's psychomotor development.
6. To maintain or develop in children a favorable self-image.
7. To develop in children a favorable perspective toward their cultural heritage and that of other children.

These broad goals and general objectives give direction to the organization and administration of various elements of the program commonly referred to as program components. The major components of REPSAC are: Instructional; Media Development; Staff Development; Community-Parental Involvement. Specific objectives exist for each component, and the operation of each component fully supports the others. A description of the major components is presented in the following paragraphs.

Instructional Component

The instructional component is considered the heart of the program as this is where the teaching-learning activities are conducted; however, this component does not function exclusive of the other components. Objectives used in this component are developed from the general instructional objectives as previously listed.

Organization

The program has an enrollment of 30 students, and the students are divided into two equal groups. One group attends the morning session from 8:30 a.m. until noon, and the other group attends the afternoon session from noon until 3:15 p.m. The children are transported to/from the project by the little "Yellow Bus."

The children are provided the noon meal which is transported in a mobile server from a public school cafeteria. This meal is planned as a learning activity as the morning group is served prior to leaving school, and the afternoon group is served immediately upon arrival for the afternoon session (2, pp. 25-27).

A part of each daily session is devoted to structured or directed learning activities, and the remainder of the time is devoted to free choice activities. Concepts presented during the structured learning periods are planned to be reinforced during free choice and play activities. The structured learning activities can be generally classified into group activities and individualized or small group activities. Both types of activities are planned and conducted using the "concept of responsive environment."

Concept of Responsive Environment

The concept of responsive environment was initially developed by Omar K. Moore as a result of numerous studies of early learning in pre-nursery, nursery, kindergarten, and first grades, where children are in the process of acquiring complex symbolic skills (20, pp. 184). The responsive environment concept can be generally described as a learning setting or environment which facilitates the learning of complex symbolic skills. Such an environment is partly a mechanical system; in part it is a social system; and in part it is a cultural system (20, pp. 218). All parts work interrelatedly. Specifically, a responsive

environment is one which satisfies the following conditions (20, pp. 184; 14, pp. 194).

1. It permits the learner to explore freely.

2. It informs the learner immediately about the consequences of his actions.

3. It is self-pacing, i.e., events happen within the environment at a rate determined by the learner.

4. It permits the learner to make full use of his capacity for discovering relations of various kinds.

5. Its structure is such that the learner is likely to make a series of interconnected discoveries about the physical, cultural, or social world.

This concept of responsive environment was later modified or adapted so as to be used in an early childhood bilingual setting. This was accomplished by the New Nursery School in Greely, Colorado (18). This approach as developed by the New Nursery School is the one commonly used in this program in selecting and conducting the various types of learning activities.

Group Activities

The group activities are planned and conducted using the responsive environment concept in a bilingual (Spanish and English) setting. Approximately half of the daily activities conducted in Spanish and the other half in English. When one language is used, the other is employed for reinforcement purposes and to maintain motivation for students of limited bilingual ability. This approach is used in the group activities such as: story-telling; reading; painting; cutting; working in the block area; manipulative toys; playground activities; snacks, and the lunch

period activities.

Individualized or Small Group Activities and Materials

These activities are also planned and conducted using the responsive environment concept when appropriate. The individualized or small group activities are conducted primarily using the following curriculum materials; Piaget-Early Childhood Curriculum; Project LIFE (Language Improvement to Facilitate Education); Responsive Environment Typing Booth; the Peabody Language Kits; and Other Materials. A brief description of these materials is presented in the following paragraphs.

Piaget-Early Childhood Curriculum. These materials were developed by Professor Celia Lavatelli and consist of a Piaget designed currimulum drawing upon 22 sets of materials with more than 100 activities in the following areas: classification; number; measurement; space and seriation. The materials stress the use of the child's language and thought processes; therefore, expansion of language and concepts are based on child-initiated talk and activities. The Teacher's Guidebooks for these materials have been translated into Spanish. These materials are used by all children approximately twice a week.

Project LIFE (Language Improvement to Facilitate Education). These materials were developed by the National Education Association, the U.S. Office of Education and the General Electric Company. These materials consisting of over 300 filmstrips are designed to provide a programmed language system to teach handicapped as well as non-handicapped children. The instructional concept employed by these materials is a systematic

approach to assist the child to acquire a functional language system. This is accomplished primarily by the child interacting with specifically designed programmed instructional materials using the machine, the Student Response Program Master. The programmed materials, used in conjunction with the machine, deal with the areas of perception-cognition, thinking skills, and basic vocabulary and language skills. The programs in each area are carefully sequenced so that the child can make satisfactory progress through the various sub-systems in each area, working in an independent manner but in close conjunction with the teacher or aide and other curriculum materials. The children identified, or needing these materials, use them about three times per week.

Responsive Environment Typing Booth. This typing or learning booth was developed by Dr. Omar K. Moore in Hampton, Connecticut, and was later tested in the New Nursery School in Greeley, Colorado. The purpose of this typing booth is to develop problem solving ability and language skills. The booth is used in accordance with the equipment, methods, and materials as developed by the Far West Laboratory for Educational Research and Development. The booth is manned by a teaching aide and equipped with a Smith-Corona 250 Electric Typewriter--large print with a colored keyboard. Activities on the typewriter can be classified into four phases: 1) free exploration; 2) search and match; 3) discrimination, and 4) words and stories. Each student is given an opportunity to use the typing booth for about ten minutes each instructional day.

Peabody Language Development Kits. The Peabody Language Kits is published by the American Guidance Service, Incorporated, and Level #P is used in this program. This material is designed for children whose mental age is in the range 3 to 5 years. Level #P is designed to be effective in areas of urban and rural communities. This level of the Kit is designed primarily to stimulate the receptive, associative, and expressive components of oral language development. The Kit stresses an overall oral language development program, rather than specific training in selected psycholinguistic processes. Level #P of the PLDK is contained in two metal carrying cases which include such materials as the: Teachers Manual (contains 180 "Daily Lessons" which are flexible and can be adapted to local needs); manipulative materials; stimulus cards; visual closure templates; story posters; music cards; sound recordings; and puppets. Each student is given an opportunity to work with the Peabody Language Development Kit approximately 20-30 minutes each day.

Other Materials. Additional instructional materials used include: Captioned Films; Light Table; Autosort Language Arts Program (ALAP); Sadler Social Science Series -"Who Am I?"; and various types of playground equipment.

Typical Schedule of Learning Activities

To illustrate how these various activities and materials are used, a Typical Schedule of Learning Activities is listed as Appendix A.

Staff Development Component

Another major element of the REPSAC program is the staff development component. The major objectives of this component are: 1) to help the staff develop their general knowledge of the difficulties encountered in early childhood education in the area of language, bilingualism, and child growth and development; 2) to acquaint the staff with various problems faced in special education such as defects in hearing, vision, and speech; 3) to assist the staff to recognize various problems which are unnatural in young children so as to make the necessary referral for assistance; and 4) to assist the staff to become efficient in the use of various media and equipment as used in the Instructional Component.

To achieve these objectives, various in-service activities were provided. A very important element of this component is the training provided the teachers and aides by the New Nursery School of the University of Northern Colorado under the direction of Mrs. Oralie McAfee.

This training program is divided into two parts--on campus formal classroom training and a remote (on-site) in-service training program.

The formal classroom training consists of the staff members going to the New Nursery School on the campus of the University of Northern Colorado for two weeks of intensive classroom training.

The second part of the training program starts as the staff returns to their classroom duties and simultaneously teach and begin the tasks of the remote in-service training. This consists of completing sixteen lessons which are specifically prepared by the faculty of the New Nursery

School. Each lesson or training unit is divided into four learning episodes. One episode of each lesson is on film for the staff member to view and implement into practice in the classroom with the children.

The learning episodes are short and specifically designed to produce an end result which is an observable behavior on the part of the child and/or teacher. The episodes normally are situations in which the teacher is involved because teacher training is a major objective of the program. After completion of each lesson, the necessary forms are completed and sent to the New Nursery School for grading and a critique which is returned to the staff member.

Upon successful completion of the program, five hours credit in early childhood education can be granted through the University of Northern Colorado.

Also, the seminars as provided by the evaluation team (See Diagnostic Work as described in Section III) were used as in-service activities.

Community-Parental Involvement Component

The program includes the development of a comprehensive "Parental Involvement" component. Much effort is made by the program to assist parents with understanding and practice of underlying principles of child care. This component attempts to demonstrate that given proper supervision, guidance and training, parental influences can make a marked difference on the child's performance in school. Some objectives of this

component include:

1. At least one of the home parents of the REPSAC children will attend 90% of the scheduled conferences.

2. At least one of the home parents will participate in classroom activities for a minimum of 4 hours a month.

3. At least one of the parents will demonstrate a time increase in the amount of parent/child educational interaction of the home by 10% over base line information.

4. Siblings of REPSAC children will demonstrate a time increase in the amount of sibling/child interaction in the home by 10% over base line data.

5. At least 70% of all households will attend 80% of the scheduled parents nights.

6. At least one of the parents of the REPSAC children will attend 70% of the sessions conducted by the public health nurse.

Media Development Component

One of the major goals of the REPSAC program is the development of a model curriculum which includes various types of media; therefore, the media component is a very necessary element of the program. This component is assisted by a media specialist from Eastern New Mexico University who prepares various types of instructional media for use in the program or for dissenimation of information. Some projects completed by this component include: videotape presentations; slide programs; a color-sound motion picture and still pictures in both black/white and color; dubbed sound material for use in cassettes; preparation of various transparencies and various other miscellaneous instructional media. Also, the media

specialist repairs audio-visual equipment, provides advice concerning purchase of media equipment, prepares information for release to news media, and prepares informational brochures.

Faculty/Staff of the Program

Members of the faculty/staff of REPSAC consist of: the director; two certified teachers (1 Mexican American and 1 Anglo); one home-visitor (activities of the home-visitor is supervised by the Home-Visitor Coordinator who coordinates/supervises the parental involvement component of the REPSAC program and a satellite program of REPSAC which is a Title VII project named the Clovis-Portales Bilingual Early Childhood Program); one secretary, and one custodian/bus driver.

In addition to the regular faculty/staff, there is the Professional Advisory Board and the external evaluation team (Adobe). The purpose of the Professional Advisory Board is to provide the director with guidance and direction of the activities of the program and the development of the various program components. The board consists of individuals who can provide expertise in the fields of special education, early childhood education, bilingual and bicultural education, educational technology, and the responsive environment concept.

Names of personnel associated with the REPSAC project are listed on the back of the cover page of this report.

Dissemination of Information

Information concerning the REPSAC program has been disseminated by various means which included:

1. Progress reports were made available to the local central administration office, school board, local area news media including nearby Cannon Air Force Base, the State Department of Education, and the U.S. Office of Education.

2. Site visitation by interested individuals and groups, both from in and out-of-state. The out-of-state visitors included: personnel from the Migrant Education Program, Education Service Center - Region XV, San Angelo, Texas; various faculty of the College of Education, Texas Tech University, Lubbock, Texas; and teachers from the Headstart Program of the Public Schools of Del Rio, Texas.

3. Copies of the end-of-year-Evaluation Reports for the REPSAC program have been disseminated throughout the states of New Mexico and Texas. The evaluation reports for 1971-72 and 1972-73 were accepted into and are presently available from Educational Resources Information Center (ERIC). Both of these reports are abstracted in Research In Education (3, 4). Also, this final report (1973-74) will be submitted to ERIC for dissemination.

4. Publication of articles in various professional journals and presentation of papers at various state and national professional organizations (2, 5, 7, 9, 17). Copies of the paper presented at the annual

meeting of the American Educational Research Association at Chicago on April 19, 1974 have been requested by various universities and public school systems throughout the nation.

5. The Technical Assistance Development Systems (TADS) of the University of North Carolina is starting plans to develop replication packages for the REPSAC program.

6. The REPSAC program was nominated by the American Institutes for Research, as part of the National Right to Read Program of the U. S. Office of Education, as a program which may qualify as having a reading readiness program among the best 25 in the nation. Information concerning this nomination has been submitted to AIR by the project director and Adobe Educational Services.

7. Information concerning the effectiveness of the REPSAC program was disseminated by Senator Montoya as he spoke to members of the U. S. Senate. His comments concerning the success of the REPSAC project were recorded in the Congressional Record dated January 24, 1974.

8. A videotape program and 8mm film have been made to explain the program as well as for use in in-service training. Also, the REPSAC program will be part of a special television program "Innovative Early Childhood Programs" to be filmed (June, 1974) by the educational channel of Texas Tech University.

9. The REPSAC program uses student teachers from nearby Eastern New Mexico University and thereby disseminates information through the University.

SECTION III

PROGRAM EVALUATION

External evaluation of the REPSAC program consisted of procedures of collecting and providing information necessary for continuous decision-making relative to pupil progress and program progress/development.

The external evaluation of REPSAC was conducted for the third consecutive year by Adobe Educational Services, Lubbock, Texas. This is an independent consultant and service organization with its direction primarily through various faculty members of the College of Education, Texas Tech University and the University of Texas at Austin. Names of members of the evaluation team are listed on the back of the cover page of this report.

Function of the External Evaluation

The evaluation function was recognized to be a way to improve rather than simply to prove. The evaluation function was divided into several areas by program components. The evaluation design of some components was objective in nature while it was more appropriate to evaluate other components by descriptive or subjective means.

Specifically, the evaluation function for program year 1973-74 was conducted by:

1. Developing and following the evaluation design for each of the major components of the program. These components were recognized to be: instructional; staff development; and parent involvement.

2. Analyzing data collected in the program; subject data, when appropriate, to statistical treatment which included:

   a. Providing summaries of data and narrative descriptions of findings.
   b. Synthesizing case data and individual psychological tests.
   c. Preparing a longitudinal analysis of progress of first, second, and third year students enrolled in the REPSAC program as well as a follow-up study of former REPSAC students who are this year in the first and second grades.

3. Providing the Project Director with pertinent feedback information concerning the students for diagnostic purposes (educational prescriptions). Such data was used in the internal program planning and operation.

4. Assessing a limited number of other emphases as mutually developed with the Project Director.

5. Providing a variety of professional personnel appropriate to the evaluation function which included:

   a. Coordinator of Research and Evaluation
   b. Psychologist
   c. Research Associate
   d. Testing Specialists (two were bilingual)
   e. Consultants (Includes personnel for such services as: seminars and written reports for diagnostic purposes; evaluation for the staff development and community and parental involvement components; and preparation of longitudinal studies).
   f. Clerical assistance.

6. Providing Interim Evaluation Reports (November 15, 1973 and March 15, 1974), and this Final Evaluation Report.

Evaluation Design of the Program Components

External evaluation for this year pertained to three components: instructional; staff development; and the community-parental involvement components. The evaluation design of these components is described in the following paragraphs.

Instructional Component

The evaluation design of this component was based upon the general instructional objectives (See Section II). Areas of the evaluation design are: Hypotheses Tested; Relationship of Time Exposure to Various Instructional Activities; Test Instruments Used; Procedure/Time-Schedule for Collecting Data; and Statistical Treatment of Data.

Hypotheses Tested. Based upon the objectives of the instructional component, various questions and ideas were developed to be tested through the collection and interpretation of data. These questions were stated in the form of research hypotheses, but were statistically treated as null hypotheses. The research hypotheses were as follows:

1. The REPSAC program for 1973-74 will serve as an effective educational intervention for 3, 4, 5 year-old "high risk" or handicapped Spanish American children. Evidence of effectiveness will be determined by comparing pre-test performance with posttest performances as measured by standardized tests selected to measure ability in the areas of: learning aptitude; language ability (Spanish and English); sensory and perceptual discrimination; speech development; psychomotor development; and school readiness.

    a. Children participating in the REPSAC program will show a significant gain in the areas of:

        1) learning aptitude
        2) language ability in Spanish
        3) language ability in English
        4) sensory and perceptual discrimination
        5) speech development
        6) psychomotor development
        7) school readiness

    b. Children participating in the REPSAC program during their first year will show a significant gain in the areas of:

1) learning aptitude
2) language ability in Spanish
3) language ability in English
4) sensory and perceptual discrimination
5) speech development
6) psychomotor development
7) school readiness

c. Children participating in the REPSAC program during their second year will show a significant gain in the areas of:

1) learning aptitude
2) language ability in Spanish
3) language ability in English
4) sensory and perceptual discrimination
5) speech development
6) psychomotor development
7) school readiness

d. Children participating in the REPSAC program during their third year will show a significant gain in the areas of:

1) language aptitude
2) language ability in Spanish
3) language ability in English
4) sensory and perceptual discrimination
5) speech development
6) psychomotor development
7) school readiness

e. The 3-year old children participating in the REPSAC program will show a significant gain in the areas of:

1) language aptitude
2) language ability in Spanish
3) language ability in English
4) sensory and perceptual discrimination
5) speech development
6) psychomotor development
7) school readiness

f. The 4-year old children (regardless of year in program) will show a significant gain in the areas of:

1) language aptitude
2) language ability in Spanish
3) language ability in English

4) sensory and perceptual discrimination
5) speech development
6) psychomotor development
7) school readiness

g. The 5-year old child (regardless of year in program) will show a significant gain in the areas of:

1) learning aptitude
2) language ability in Spanish
3) language ability in English
4) sensory and perceptual discrimination
5) speech development
6) psychomotor development
7) school readiness

2 Children participating in the REPSAC program during their first year will maintain or develop a favorable self-image as reflected from the personal profile rating scales.

3. Children participating in the REPSAC program during their second year will maintain or develop a favorable self-image as reflected from the personal profile rating scales.

4. Children participating in the REPSAC program during their third year will maintain or develop a favorable self-image as reflected from the personal profile rating scales.

5. There will be a significant correlation between birth weight of REPSAC children and gain scores on the:

A. Hiskey-Nebraska Test of Learning Aptitude
B. Peabody Picture Vocabulary Test (English)
C. Peabody Picture Vocabulary Test (Spanish)
D. Developmental Test of Visual Perception (Frostig)
E. Templin-Darley Test of Articulation
F. Motor Ability Test for Pre-School Children (Coleman)
G. Readiness Test for Disadvantaged Pre-School Children (Walker)

Relationship of Time Exposure to Various Instructional Activities.

In an attempt to evaluate more closely the effects of the various instructional activities on the progress of the children, an additional

analysis was conducted for this first time this year. Specifically, this analysis focused on the internal operation of the instructional component in an effort to determine the relationship between the quanity (time) of exposure to specific instructional activities (i.e.,Project LIFE, Typing Booth, Peabody Kit, etc.). A student-log was developed and maintained by the teachers which recorded the amount of exposure each child had to the activities. Thus, the planned activities which are designed to bring about educational change were isolated and measured in terms of quanity of experience.

Questions which were posed and investigated concerning this relationship were:

1. What is the relationship between gains made in learning aptitude and; A) selected personal factors (age, birth weight, incidence of handicapping, socio-economic status, year in program), and B) selected formal instructional activities (quanity of exposure).

2-7. The same question was posed for four other areas which were:

2. ---between gains in language ability in Spanish---.
3. ---between gains in language ability in English---.
4. ---between sensory and perceptual discrimination---.
5. ---between school readiness---.

Test Instruments Used. Instruments selected to measure the various abilities as referred in the objectives and hypotheses were as follows:

1. Learning Aptitude
   Hiskey-Nebraska Test of Learning Aptitude

2. Language Ability
   Peabody Picture Vocabulary Test (English)
   Peabody Picture Vocabulary Test (Spanish)

3. Sensory and Perceptual Ability
   Developmental Test of Visual Perception (Frostig)

4. Speech Development
   Templin-Darley Test of Articulation

5. Self Concept
   Developmental Profiles (Bessell and Palomares)

6. Psychomotor Development
   Motor Ability for Pre-School Children (Coleman)

7. School Readiness
   Readiness Test for Disadvantaged Pre-School Children (Walker) (Form A & B)

A brief non-technical description of each of these tests is listed in Appendix B.

Procedure/Time-Schedule for Collecting Data. With regard to the hypotheses previously stated, the data to evaluate the instructional component was collected within the framework of an one-group, pre-test, post-test design. The tests used as pre and posttests are listed in the preceeding paragraph and Appendix B. The dates for administering the pre-tests were September 4-14, 1973, and the posttests were administered May 6-13, 1974.

In addition to administering the forementioned as part of the pre and posttesting procedure, the Illinois Test of Psycholinguistic Abilities was administered at mid-year (Dec. 10-14, 1974). This test was administered solely for diagnostic purposes.

In addition, the Developmental Profiles was completed every three months by the REPSAC teachers: November 9, 1973; February 28, 1974; and May 13, 1974. Such a time schedule was necessary for this test because of

its nature.

Statistical Treatment of Data. Hypotheses 1a-3 were treated by a t-test to determine the significance of gain. Hypotheses 2-4 were treated by analysis and summary of the profile rating scales. Hypothesis 5 was treated using the Pearson Product-moment correlation technique.

The additional analysis concerning the investigation of the relationship between time exposure to various instructional activities was performed with a multiple regression technique.

Staff Development Component

The evaluation design of this component was based upon the objectives of this component (Section II). The attainment of these objectives by the faculty was determined by observation at various intervals, discussion with the staff, and the findings and conclusions are described by subjective and narrative means.

Evaluation of this component was conducted on a consultancy basis by Dr. Doris Webb.

Community and Parental Involvement Component

During this academic year, evaluation of this component was conducted on two levels. One level was to continue with quarterly site visits so as to conduct observation with respect to the stated objectives of this component. Collection of such data involved site interviews and participation observation with: the project director; the home-visitation coordinator and her staff; project teaching staff; parents of REPSAC

children; and some community representatives at large who had contact with or directly participated in the project. Analysis of data from this level was subjective but provides a directional overview of reaction to the project.

The second level of evaluation involved the collection of quantitative data relating home environment to school success. Quantitative data measuring parent involvement was obtained through the administration of the Henderson Environmental Learning Process Scale (HELPS). This bilingual instrument has been developed to measure the extent to which characteristics are present in the home environment which are related to intellectual development and scholastic success in young children (See Appendix B).

Data collection using the HELPS instrument, involved training the home visitor to administer the instrument. Training of the home-visitors was completed in January, 1974. Results describing the presence or absence of a supportive home environment in relation to intellectual development and school success are described in Section VI.

Evaluation of this component was conducted on a consultancy basis by Dr. Leo Juarez.

Diagnostic Work

As part of the external evaluation function, various types of diagnostic work for the students was performed. The purpose of this diagnostic work was to collect and provide various types of feedback into the

internal operation of the program. Such data served as a base for instructional planning and program adjustments, mainly in the instructional component. Sources and types of activities used in the diagnostic function were: Use of pretest Data; Preparation of Educational Prescriptions; Seminars, and Mid-Year Testing.

Use of Pretest Data

The pretest data from the various tests were posted to the student's records ("Individual Student Test Data for 1973-74"). This information was made available to the Project Director and faculty for individual work and planning. Also, data from pretesting was a major source for the preparation of the educational prescriptions.

Educational Prescriptions

A short written educational prescription was prepared for each student. This took the form of strength/weakness of each student and a translation of the test results into a recommended educational prescription. These prescriptions were prepared by Dr. Charles Jones, psychologist. An example of an educational prescription is listed as Appendix C.

Seminars

As part of the diagnostic function (and as an element of staff development), various seminars were conducted by the evaluation team. These seminars were:

DATE	TOPIC	PERSON RESPONSIBLE
Aug 27	Interpretation of Motor Test Scores	Dr. Gene Coleman
Sept 21	Speech Defects and Prescriptions	Mr. Noel Clifton
Sept 28	Movement Exploration/Education	Dr. Mary Owens
Oct 12	Childhood Diseases and Play ground injuries	Mrs. Elizabeth Pounds, RN
Oct 26	Diagnostic Prescriptions	Dr. Charles Jones
Jan 25	Interpretation of Mid-Year Testing	Dr. Charles Jones

Mid-Year Testing

The Illinois Test of Psycholinguistic Abilities (ITPA) was administered on a mid-year basis and was used primarily as a diagnostic instrument. Data from the ITPA regarding the three-year results for children in the program this year are included in Appendix D. As previously stated, interpretation of the test results was presented in the seminar on January 25, 1974.

Follow-Up Study of Former REPSAC Students

The purpose of this follow-up study was to determine how well the former REPSAC students were performing in the public and parochial schools. The procedure for this follow-up consisted of a questionnaire containing questions relative to the student's performance in school. In addition, personal interviews were conducted with some of the teachers to obtain additional information concerning the children.

SECTION IV

EVALUATION DATA OF THE INSTRUCTIONAL COMPONENT

Summary of Evaluation Design

The evaluation design for this component was within a framework of comparing the REPSAC students' pretest scores and posttest scores on the designated areas/abilities measured in this evaluation. A detailed description of the areas/abilities measured and test instruments used are listed in Section III, along with the hypotheses which were tested.

Subjects in REPSAC were measured at the beginning of the year on seven factors: 1) learning aptitude; 2) language ability in English; 3) language ability in Spanish; 4) sensory and perceptual ability; 5) speech development; 6) school readiness; and 7) psychomotor development. At the end of the year, REPSAC subjects were measured again on the same factors and progress was determined on the basis of gain scores. Decisions on the hypotheses were made on the basis of the difference between the pre and posttest scores.

In addition, gain scores were used to compare performance between first, second, and third year students. Also, gain scores were used to compare performance of 3-, 4-, and 5-year-olds participating in the program. All of these comparisons were tested using the t-test with significance being determined at better than the .05 level.

Three additional analyses were made. First, self concept change was measured at three intervals by the two REPSAC teachers. Change was determined by averaging the two ratings and plotting them on a graph.

Group change was determined by taking an average of the individual ratings for each of the seven areas measured. The second analysis was made regarding the relationship of birth weight of REPSAC subjects and performance on the seven areas measured. The statistical technique used to determine this relationship was the Pearson r. As in the other analysis, gain scores were the primary index of performance. The third analysis was an attempt to determine the relationship between various internal factors of the program and the performance of REPSAC students. Records were kept during the year relating to the amount of exposure each student had on each major activity of the program. The total time spent on each activity was used as the independent variables in the analysis along with various personal data. A multiple regression procedure was used for this analysis.

Presentation and Analysis of the Data

Hypothesis 1 infers that subjects participating in REPSAC will make significant gains in the seven areas measured. The data indicate that this hypothesis can be supported for five of the seven factors. Significant differences or gains were found for language ability in English; language ability in Spanish; sensory and perceptual ability; psychomotor development; and school readiness. Areas not indicating significant gains were: learning aptitude; and speech development. Data relating to hypothesis 1 are presented in Table 5.

TABLE 5

PRE AND POSTTEST PERFORMANCE OF REPSAC STUDENTS

TEST	N	MEANS	MEAN GAIN	s	t	P
FROSTIG	29	PRE 15.58 POST 33.34	17.76	7.43 9.84	5.12	.001
TEMPLIN	29	PRE 30.48 POST 37.30	6.82	10.41 8.16	1.63	N.S.
PEABODY (SPANISH)	29	PRE 21.19 POST 53.20	32.01	11.83 7.28	4.68	.001
PEABODY (ENGLISH)	29	PRE 20.97 POST 79.60	58.63	14.44 12.62	7.31	.001
MOTOR	29	PRE 37.71 POST 49.17	11.46	14.16 13.12	3.34	.001
WALKER	29	PRE 21.87 POST 37.40	15.53	9.10 6.34	2.97	.001
HISKEY	29	PRE 90.94 POST 94.23	3.29	6.32 5.12	1.27	N.S.

Hypotheses 1_b, 1_c, and 1_d stated that children participating in REPSAC for the first, second, and third time will show significant gains in all seven areas measured. The data indicate that these hypotheses can be supported for each program level and area except learning aptitude for all three program levels and speech development for second and third year students. It can be noted from Table 6 that first year students made higher gains on all areas except sensory and perceptual ability than either

second or third year students. However, when interpreting this table, the fact that second and third year students had a higher mean pretest score should be considered. Data for these hypotheses are presented in Table 6.

TABLE 6

YEAR IN PROGRAM AND TEST PERFORMANCE OF REPSAC SUBJECTS

TEST	YP	N	MEAN GAIN	t	P
FROSTIG	1	15	18.13	4.26	.001
	2	8	19.00	4.83	.001
	3	6	16.17	3.86	.05
TEMPLIN	1	15	11.40	1.97	.05
	2	8	6.75	1.23	N.S.
	3	6	1.83	.86	N.S.
PEABODY (SPANISH)	1	15	39.14	5.43	.001
	2	8	32.26	4.78	.001
	3	6	24.82	3.93	.01
PEABODY (ENGLISH)	1	15	62.18	8.63	.001
	2	8	58.21	7.42	.001
	3	6	54.36	7.01	.001
MOTOR	1	15	13.83	3.68	.001
	2	8	11.41	3.23	.01
	3	6	10.15	3.16	.01
WALKER	1	15	21.16	3.41	.001
	2	8	16.72	3.02	.01
	3	6	10.15	2.79	.05
HISKEY	1	15	4.31	1.47	N.S.
	2	8	3.82	1.36	N.S.
	3	6	2.16	1.16	N.S.

Hypotheses 1_e, 1_f, and 1_g imply that children participating in REPSAC at age three, four, and five will show a significant gain in the areas measured. The data indicate that these hypotheses can be supported for all ages and all areas except speech development for age five and learning aptitude for all ages. It can be noted that students of age four made greater gains in all areas except learning aptitude than either three or five year olds. These data are presented in Table 7.

Tables 8, 9, and 10 present the results of the self-concept measures for first, second, and third year REPSAC subjects. As reflected in these tables, positive and continuous growth was made by subjects participating in the program. It can be noted that third year subjects had higher average scale points than either second or first year subjects with second year subjects having the second highest scale averages. These scales are, of course, highly subjective in nature and should be interpreted with caution.

Hypothesis five sought a decision regarding the relationship between birth weight of REPSAC subjects and mean gain scores on the seven areas measured. As reflected in Table 11, the Pearson r correlations ranged from -.48 for speech development to a +.21 for psychomotor development, hypothesis 5 cannot be supported.

TABLE 7

AGE AND TEST PERFORMANCE OF REPSAC SUBJECTS

TEST	AGE	N	MEAN GAIN	t	P
FROSTIG	3	12	16.75	3.86	.001
	4	8	20.25	5.42	.001
	5	9	18.89	4.11	.001
TEMPLIN	3	12	10.08	5.16	.001
	4	8	12.63	4.12	.001
	5	9	1.56	.36	N.S.
PEABODY (SPANISH)	3	12	28.33	3.87	.001
	4	8	38.38	5.14	.001
	5	9	33.89	4.82	.001
PEABODY (ENGLISH)	3	12	58.23	7.44	.001
	4	8	66.14	8.31	.001
	5	9	51.61	7.12	.001
MOTOR	3	12	8.68	3.21	.001
	4	8	13.43	5.16	.001
	5	9	11.52	4.18	.001
WALKER	3	12	15.22	3.86	.001
	4	8	19.13	4.12	.001
	5	9	10.41	2.79	.05
HISKEY	3	12	4.75	1.23	N.S.
	4	8	3.11	1.03	N.S.
	5	9	1.97	.63	N.S.

METHODS IN HUMAN DEVELOPMENT

NAME: _____ (Last) (First) (Middle)

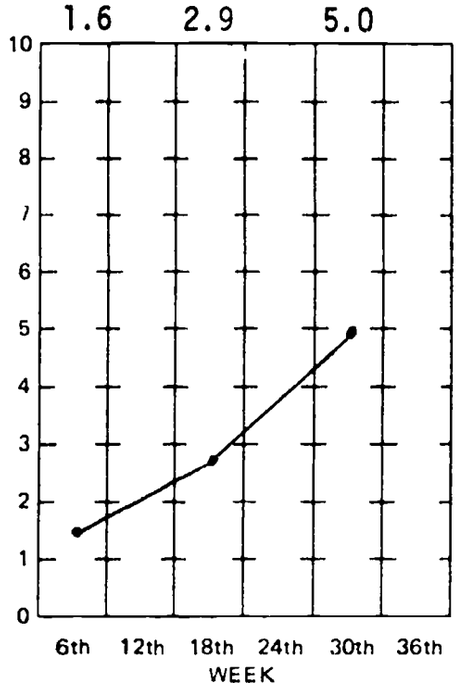
GRADE: _____ SCHOOL: _____

TEACHER: _____ YEAR: _____

Developmental Profile

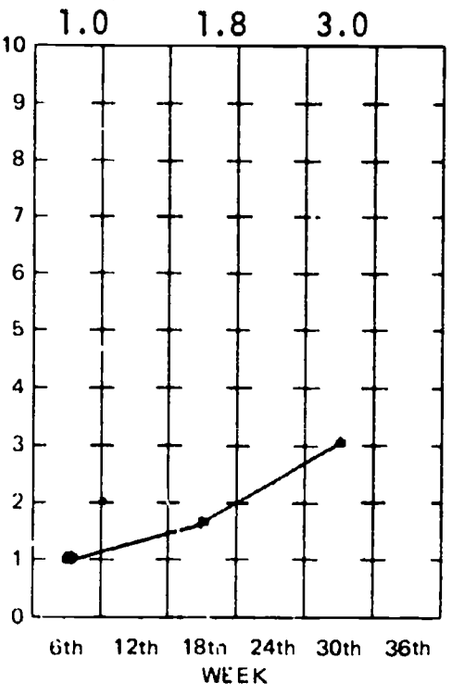
AWARENESS

(1) AWARENESS OF SELF



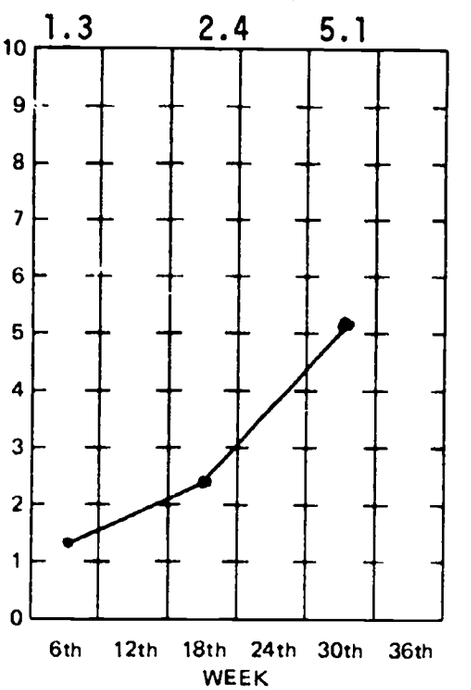
MASTERY

(1) SELF CONFIDENCE



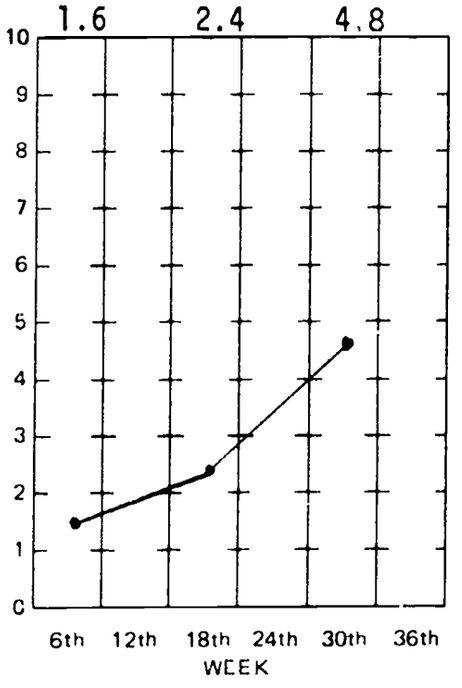
SOCIAL INTERACTION

INTERPERSONAL
(1) COMPREHENSION



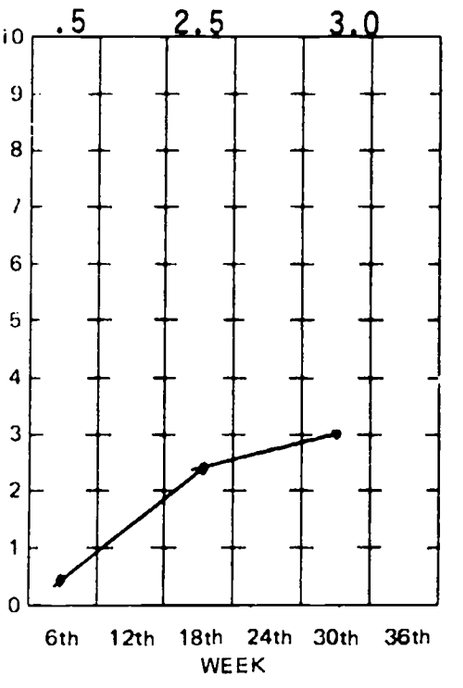
AWARENESS

(2) SENSITIVITY TO OTHERS



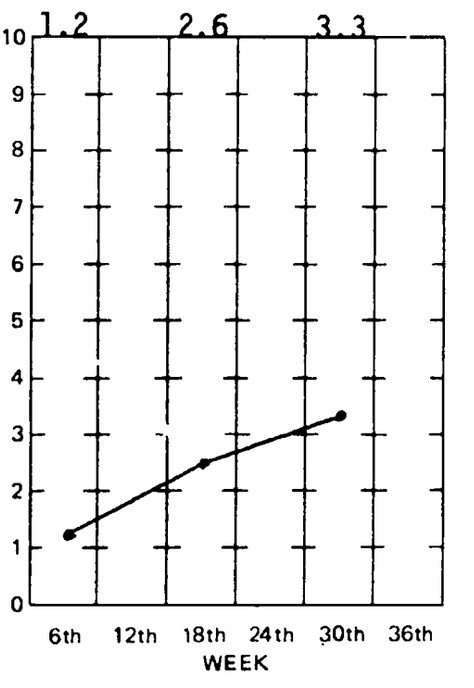
MASTERY

(2) EFFECTIVENESS



SOCIAL INTERACTION

(2) TOLERANCE



COMMENTS: _____

TABLE 9 PERSONAL DEVELOPMENT PROFILE FOR SECOND YEAR REPSAC STUDENTS

METHODS IN HUMAN DEVELOPMENT

NAME: _____ (Last) (First) (Middle)

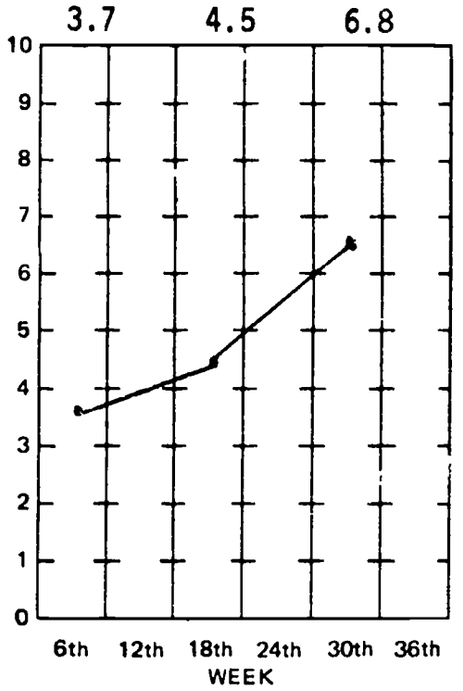
GRADE: _____ SCHOOL: _____

TEACHER: _____ YEAR: _____

Developmental Profile

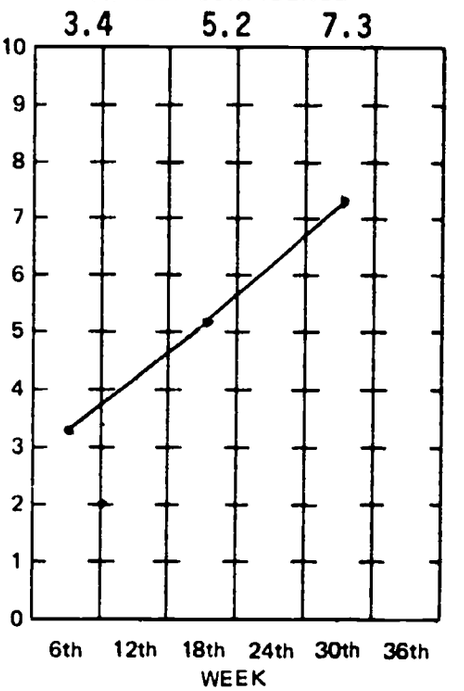
AWARENESS

(1) AWARENESS OF SELF



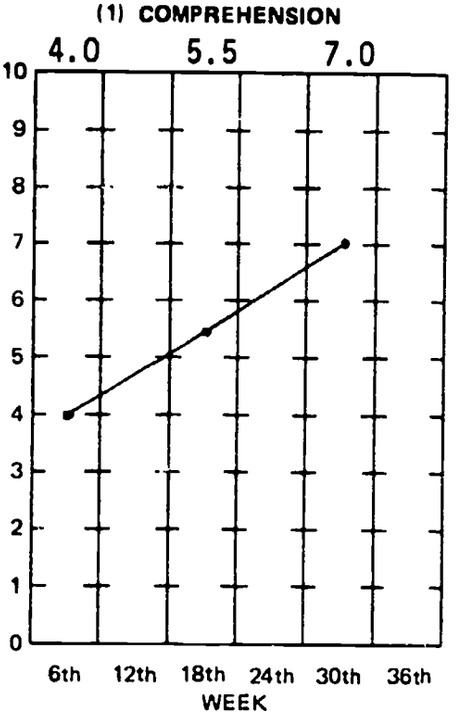
MASTERY

(1) SELF CONFIDENCE



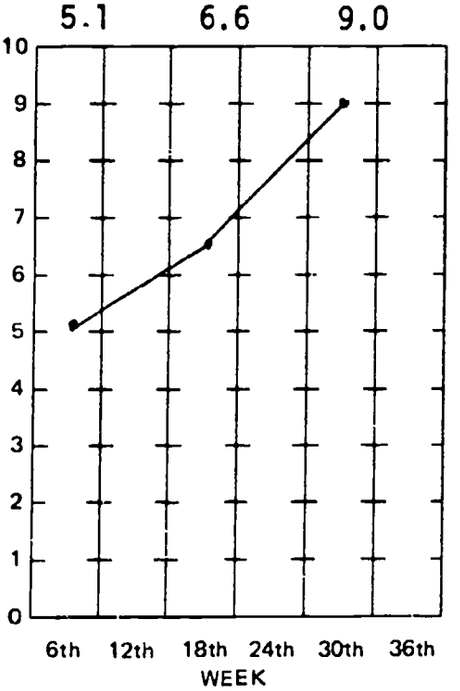
SOCIAL INTERACTION

INTERPERSONAL
(1) COMPREHENSION



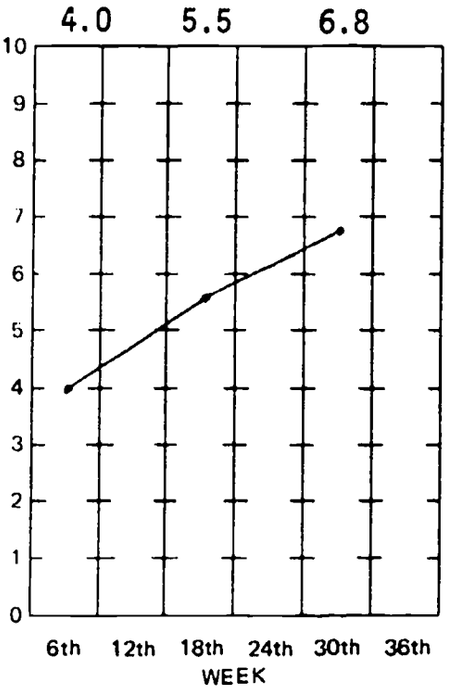
AWARENESS

(2) SENSITIVITY TO OTHERS



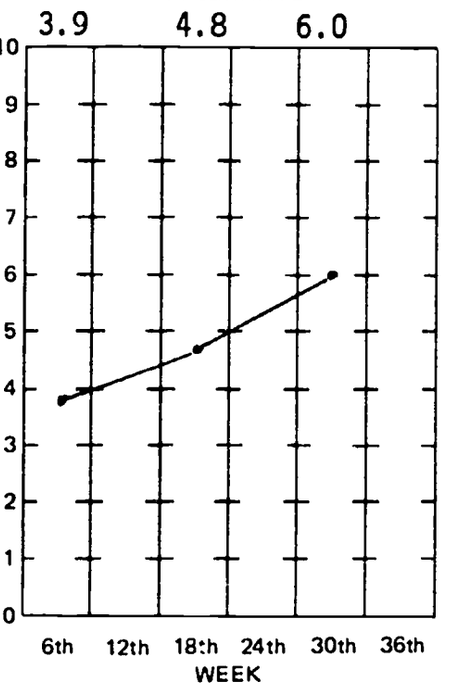
MASTERY

(2) EFFECTIVENESS



SOCIAL INTERACTION

(2) TOLERANCE



COMMENTS: _____

METHODS IN HUMAN DEVELOPMENT

NAME: _____ (Last) (First) (Middle)

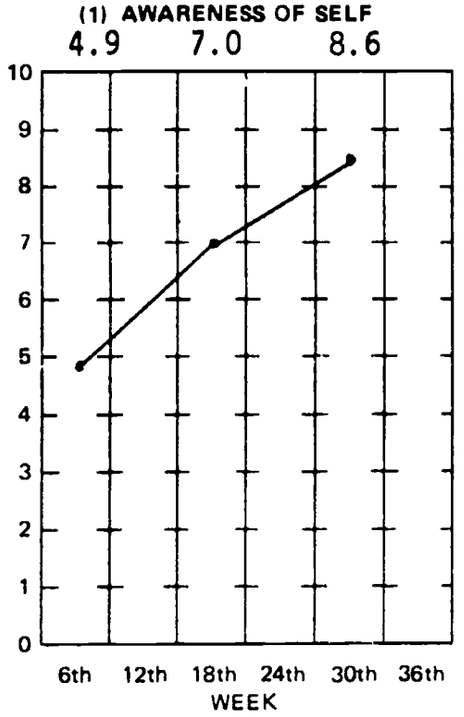
GRADE: _____ SCHOOL: _____

TEACHER: _____ YEAR: _____

Developmental Profile

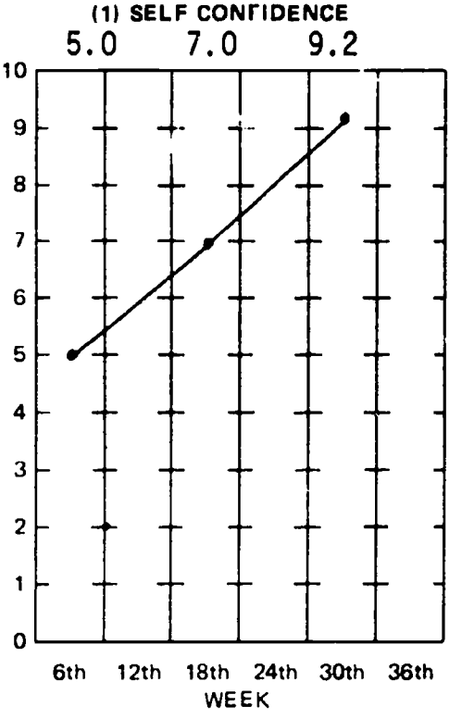
AWARENESS

(1) AWARENESS OF SELF



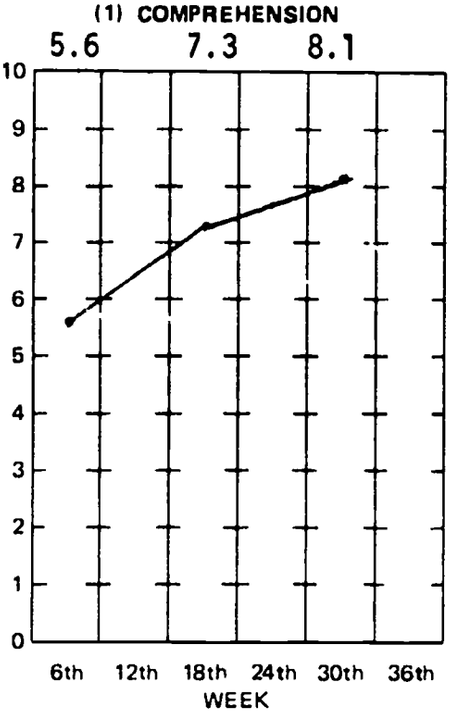
MASTERY

(1) SELF CONFIDENCE



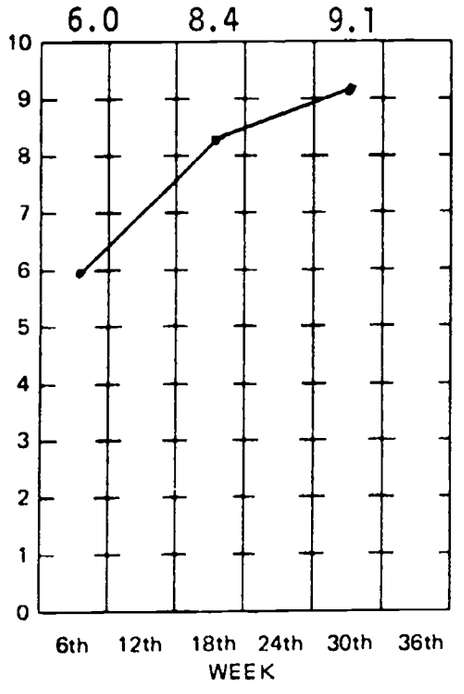
SOCIAL INTERACTION

INTERPERSONAL (1) COMPREHENSION



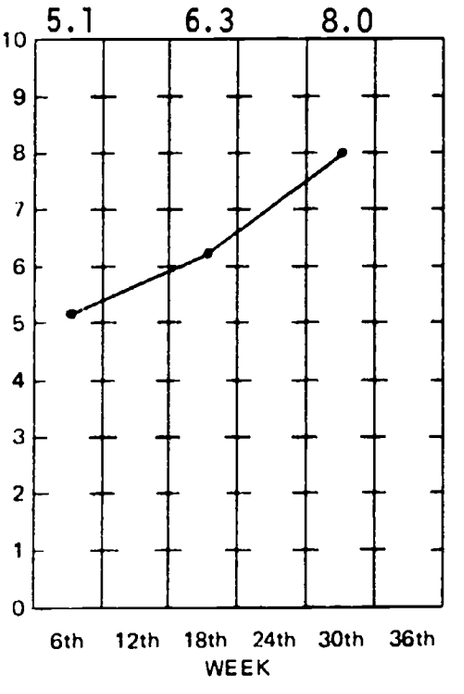
AWARENESS

(2) SENSITIVITY TO OTHERS



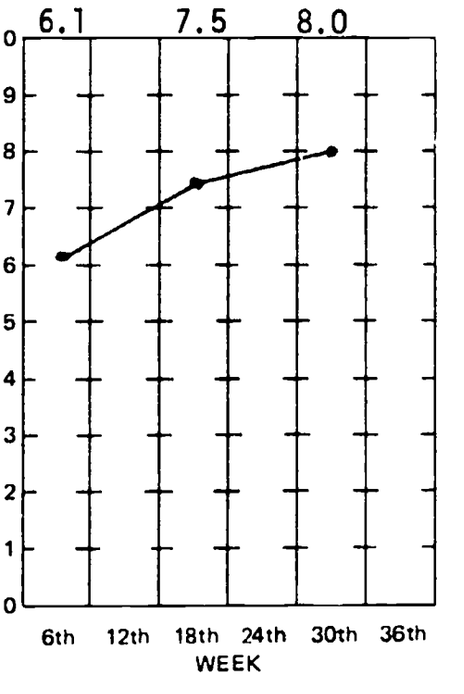
MASTERY

(2) EFFECTIVENESS



SOCIAL INTERACTION

(2) TOLERANCE



COMMENTS: _____

TABLE 11

RELATIONSHIP BETWEEN BIRTH WEIGHT AND REPSAC SUBJECTS' GAIN SCORES

TEST	r	p
TEMPLIN	-.48	.01
MOTOR	.21	N.S.
WALKER	.13	N.S.
PEABODY (ENGLISH)	.05	N.S.
PEABODY (SPANISH)	.07	N.S.
FROSTIG	.19	N.S.
HISKEY	-.17	N.S.

Summary of Evaluation Data

In summary, evaluation data concerning the instructional component revealed that:

1. REPSAC students made significant gains in all areas measured except learning aptitude and speech development.

2. First year REPSAC students made significant gains in all areas measured except learning aptitude.

3. Second year REPSAC students made significant gains in all areas measured except learning aptitude and speech development.

4. Third year REPSAC students made significant gains in all areas measured except learning aptitude and speech development.

5. Three-year old REPSAC students made significant gains in all areas measured except learning aptitude.

6. Four-year old REPSAC students made significant gains in all areas measured except learning aptitude.

7. Five-year old REPSAC students made significant gains in all areas measured except speech development and learning aptitude.

8. Positive and continuous growth was made by all REPSAC students with regard to personal growth.

9. No significant relationship was found between birth weight and the areas measured with the exception of a -.48 between birth weight and speech development.

RELATIONSHIP BETWEEN INSTRUCTIONAL ACTIVITIES AND PERSONAL FACTORS AND POSTTEST SCORES

This section reports the results of an analysis designed to determine the relationship between the amount of time REPSAC subjects were exposed to specific structured program experiences and their posttest performance. In addition, personal factors were employed in the analysis to determine their contribution to posttest performance.

Data were gathered for program experiences from a log supplied by the teachers of REPSAC subjects. Each day, teachers recorded the amount of time each student was exposed to a specific experience. The data for each variable represents the total time spent during the school year.

A multiple regression analysis was run for each of the measures used in the evaluation except the Motor Test and the Templin Test. For each run, the analysis consisted of one dependent variable and sixteen independent variables (ten program variables and six personal variables).

Tables 12, 13, and 14 present correlations, intercorrelations, and multiple coefficients for this analysis. When interpreting these tables, the correlations for each posttest can be entered on the top line of the intercorrelations. In this way, it is possible to see the entire analysis for each run. Since the intercorrelations are the

same for each posttest, they are presented only one time.

Table 15 presents a summary of the relationships illustrating those variables which correlated .50 or above with each posttest score. From the table, we note that the factors most highly correlated with performance on the Frostig Test were: Age, .83; Project LIFE, .61; and the Typing Booth, .57. For performance on the Spanish version of the Peabody we have: Age, .64; Education of Mother, .58; Monthly Income, .50; and the Typing Booth, .50. For the Walker we note: Age, .60; Typing Booth, .55. None of the factors reached the .50 mark for either the English version of the Peabody or the Hiskey test.

To illustrate how these tables are interpreted, consider the factor of Project LIFE (X_9). In Table 12, we locate the variable X_9 across the top of the table. We then locate the correlation coefficient which corresponds to each test. For example, the amount of time spent with Project LIFE relates .29 with performance on the Spanish version of the Peabody. Put another way, the Project LIFE experience accounts for 8 percent of the variance in performance on this test.

Table 13 consists of intercorrelations between each of the independent variables. This table is read by matching a variable across the top with a variable down the side. For example, the correlation between Project LIFE (X_9) and Age (X_{13}) is .65. When significant, intercorrelations exist, it indicates that the two variables are not independent of each other.

The information resulting from this analysis provides an interesting insight into the impact of various program or instructional activities and student performance. The Evaluator plans to use these data for further analysis.

TABLE 12

CORRELATIONS BETWEEN TIME EXPOSED TO VARIOUS PROGRAM ACTIVITIES, PERSONAL FACTORS, AND POSTTEST PERFORMANCE

POST TEST	VARIABLES*															
	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}	X_{11}	X_{12}	X_{13}	X_{14}	X_{15}	X_{16}	X_{17}
PEABODY SPANISH	.43**	-.36*	.07	-.47**	-.35	-.25	.50**	.29	-.31	.44**	-.17	.64***	.08	-.26	.58***	.50**
PEABODY ENGLISH	.27	-.33*	.24	-.42**	-.23	-.18	.23	.08	-.20	.36*	.08	.31*	.18	-.38*	.25	-.23
WALKER	.29	-.27	-.24	-.24	-.27	-.03	.55***	.35	-.20	.44**	-.30	.60***	.12	.02	.11	-.17
HISKEY	.28	-.07	-.15	-.26	-.04	-.05	.07	.04	-.15	.29	-.07	-.01	.18	.22	.08	.17
FROSTIG	.15	-.32*	-.15	-.24	-.21	-.08	.57***	.61***	.12	.35*	-.35*	.83***	.06	-.07	.23	-.05

*Significant at the .05 level
**Significant at the .01 level
***Significant at the .001 level

*Legend: Note - X_2 through X_{11} represent the measurement of the amount of time each child was exposed to the identified activities; X_{12} - X_{16} represent personal factors

X_2 = Peabody Kit (Eng.)
X_3 = Piaget Materials (Eng.)
X_4 = Language Master
X_5 = Peabody Kit (Span.)
X_6 = Piaget Materials (Span.)
X_7 = Language Master (Sp.)
X_8 = Typing Booth
X_9 = Project LIFE
X_{10} = Frostig Kit
X_{11} = Art Activities
X_{12} = Birth Weight
X_{13} = Age
X_{14} = HELPS Score
X_{15} = No. of Siblings
X_{16} = Education of Mother
X_{17} = Monthly Income

TABLE 13

INTERCORRELATIONS BETWEEN TIME EXPOSED TO STRUCTURED PROGRAM ACTIVITIES AND SELECTED PERSONAL VARIABLES

	VARIABLES*															
	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}	X_{11}	X_{12}	X_{13}	X_{14}	X_{15}	X_{16}	X_{17}
X_2		-.17	-.27	-.59***	-.04	-.40**	.35	.17	-.31	.42**	.10	.24	.14	.12	.25	.01
X_3			-.12	.25	.35	.38*	-.14	-.18	.01	-.08	.13	-.29	-.13	-.14	.06	.58***
X_4				-.09	-.23	.02	-.19	-.06	.07	-.12	.24	-.10	-.32	-.29	.13	-.39*
X_5					.34*	.52***	-.19	.10	.61***	-.30*	-.12	-.34	-.17	.01	-.46	.01
X_6						.21	-.27	.04	.01	-.26	.23	.36	.21	.21	-.16	.42***
X_7							.02	.09	.22	.02	-.29	-.09	.03	.04	.06	.08
X_8								.42**	.09	.45**	-.46**	.70***	.19	.01	.12	-.17
X_9									.07	.19	-.29	.65***	.09	.08	.14	.10
X_{10}										.04	-.22	-.26	-.11	.02	-.59***	-.28
X_{11}											-.31*	.41**	.22	-.31*	.10	-.20
X_{12}												-.39**	-.06	-.19	-.10	.20
X_{13}													.09	-.12	.38*	-.14
X_{14}														.11	.08	.14
X_{15}															-.26	.10
X_{16}																-.01
X_{17}																

*Significant at the .05
**Significant at the .01
***Significant at the .001

*See Table 12 for Legend

TABLE 14

MULTIPLE REGRESSION OEFFICIENTS OF POSTTEST SCORES AND SIXTEEN PROGRAM AND PERSONAL VARIABLES

TESTS	r
FROSTIG	.89
PEABODY (SPANISH)	.93
PEABODY (ENGLISH)	.71
WALKER	.75
HISKEY	.67

TABLE 15

FACTORS CORRELATING .50 OR ABOVE WITH POSTTEST SCORES

FROSTIG FACTOR	r	PEABODY (SP.) FACTOR	r	PEABODY (ENG) FACTOR	r	WALKER FACTOR	r	HISKEY FACTOR	r
AGE	.83	AGE	.6	NONE		Age	.60	NONE	
PROJECT LIFE	.61	EDUCATION OF MOTHER	.58			TYPING BOOTH	.55		
TYPING BOOTH	.57	MONTHLY INCOME	.50						
		TYPING BOOTH	.50						

SECTION V

EVALUATION OF THE STAFF DEVELOPMENT COMPONENT

Staff members of REPSAC have shown a remarkable growth in professional knowledge and skills. It has been a pleasure to observe the ways they have been able to bring out undeveloped and sometimes unsuspected talents in the children with whom they work. Teachers and aides exhibit an objectivity and perception that is based upon sound concepts and practical experience working with children who were once judged "high-risk."

In the light of such progress, the staff development component may be judged successful in implementing the objectives listed below--objectives which have served as guides since the inception of REPSAC:

1. Helping the staff to develop general knowledge of difficulties encountered in early childhood in the areas of language, bilingualism, and child growth and development.

2. Acquainting the staff with various problems faced in special education; such as defects in hearing, vision, speech pathology, and mental retardation.

3. Assisting the staff to recognize various problems which may be unnatural in young children so that proper referral may be made.

Soon after pretesting was completed ADOBE EDUCATIONAL SERVICES sponsored several seminars to assist teachers and aides in understanding test results. Speakers and topics discussed included the following:

Dr. Gene Coleman--Interpreta ion of Motor Test scores and expectations for individual children in the light of norms for each age level.

Dr. Mary Owens--Importance of movement exploration as a method of teaching physical education and activities for 3-5-year olds to develop body awareness and qualities of movements.

Mr. Noel Clifton--Prescriptions for speech defects.

Mrs. Elizabeth Pounds, R.N.--Discussion of childhood diseases and playground injuries.

Dr. Charles Jones--Diagnostic prescriptions for classroom instruction based upon synthetization of information gained from the whole battery of tests.

At midyear, Dr. Jones administered the Illinois Test of Psycholinguistic Abilities and later interpreted the results to teachers, aides, and home-visitors.

Teachers and aides reported participation in professional meetings and organizations of an unusual variety, including a workshop conducted by Dr. Oralie McAfee, the district convention of TESOL (Teaching English to Students of Other Languages), for which Mrs. Paz Martinez is membership chairman; and the BEH meeting for project directors in Warrenton, Virginia, which Mrs. Holland attended.

Efforts were made to strengthen the home-visitation program, an area identified in the 1972-73 evaluation report as needing more emphasis. The home-visitor employed had some college training and experience working with Dr. McAfee in the New Nursery School. For the first time a

Social Work Coordinator was employed, and REPSAC was included in that service at no cost to BEH. Staff meetings were held each Friday afternoon to help home-visitors with such activities as making toys, planning visitations, role-playing of parent interviews, and the like. Dr. Leo Juarez, Texas Tech University, worked with the home-visitors twice in explaining the administration of the Henderson Environmental Learning Process Scale, which was used with parents.

The continuing interaction of the staff--teachers, aides, home-visitors, and director--appeared to be a strong element in maintaining a high level of efficiency and morale. The experiences involved in receiving visitors and demonstrating activities of REPSAC and sharing the philosophy upon which the program is based have been of vital importance. The understanding and skill of these people are at the level of master teachers. Their ability to share their approach and techniques with others is the keystone of the staff development component.

SECTION VI

EVALUATION DATA OF THE COMMUNITY-PARENTAL INVOLVEMENT COMPONENT

Evaluation data for the community-parental involvement component was obtained from interviews and observation of faculty, from a content analysis of program records, and from analysis of data obtained through the administration of the Henderson Environmental Learning Process Scale (HELPS).

Objectives

The 1973-74 school year should be regarded as the first year of operation of the community-parental involvement component in the sense that this year's activities were, for the first time, under the direct supervision of a certified professional. The Home-Visitor Coordinator, whose services were loaned from the satellite program (Clovis-Portales Bilingual Early Childhood Program), happened to assume responsibility for an ongoing program with a minimum of orientation. Consequently, program objectives and directions were interpreted according to her immediate perceptions of program needs. These objectives seemed to be as follows:

1. Orientation concerning the role and responsibilities of the home-visitor especially in the purpose, construction, and use of educational materials provided for home visitation.
2. Outreach tutoring of children in the home, focusing upon the development of skills and attitudes related to achievement in the school program.

3. Outreach parent involvement, principally through encouraging participation in weekly 1/2 hour home tutoring sessions for children, through the training of parents in the construction and use of educational materials, through the loan of educational toys, and through parent attendance and participation in school activities.

4. Materials development, involving the construction of educational toys out of local materials such as medicine containers, clothespins, hangers, etc.

5. Community involvement, through advertising the program in the local community, through the solicitation of materials for use in the program from community members, businessmen, and other professionals, through the active involvement of community members in the construction of program materials, and through the involvement of the community in needs assessment surveys and parent training demonstrations.

6. Program dissemination, through regional demonstrations of program activities and materials, through program site visits, and lectures.

Evaluation Procedures

Quantitative evaluation of the community-parental involvement component is restricted to objectives 2 and 3, parent training and home tutoring. Such evaluation is provided through a content analysis of the individual reports which are filed by home-visitors after each visit. Categories for analysis are determined by adjusting the general objectives stated for home-visitation to comments which emerged from the home-visitor reports.

Parent involvement is directed principally toward the home tutoring of children in school related activities and toward parent training to supplement school instruction. General objectives of the school

program are to develop children's cognitive and psychomotor skills and to develop attitudes considered appropriate for school and general social adjustment. The limited nature of home visitation record keeping permits only the following broad categories of content analysis: 1) Parent Participation, whether parents are mentioned as participating or not participating in the home tutoring session; 2) Objective Achievement, whether the objectives of the lesson plan for the tutoring session are mentioned as achieved or not achieved; 3) Visit Completion, whether the home visits attempted on a weekly basis were completed or cancelled. Results of the content analysis of home visitation report sheets are summarized in the following paragraphs.

In addition to the above, the Henderson Environmental Learning Process Scale (HELPS) was administered to parents and guardians of children in the program. This scale is designed to measure the presence of factors in the home environment positively related to intellectual growth and school achievement. Factors measured include the following: 1) Extended Interests and Community Involvement: this refers to parents' interest and opportunities to pursue activities related to events and information outside the home environment and, also, to opportunities for the child to share in this interest. 2) Valuing Language and School Related Behavior: this refers to parent activities in the home that show the extent to which parents value language and school related behavior and the extent to which parents communicate those values to their

children. 3) Intellectual Guidance: this refers to direct attempts on the part of parents to teach intellectual skills to their children. 4) Providing a Supportive Environment for School Learning: this refers to parents' attempts to prepare children to perform effectively in school in terms of behaviors which do not directly duplicate those of the teacher. 5) Attention: this refers to the variety of behaviors mothers engage in which contribute to the development of children's learning, motivation, and skills. Results of data collection and analysis are reported in the following paragraphs.

Results: Data Analysis of the Home Visitation Protocols

Content analysis of home-visitation report sheets yielded the following information.

TABLE 16

CONTENT ANALYSIS OF HOME VISITATION PROTOCOLS (REPSAC)

Parent Participation	No Parent Participation	Objectives Achieved	Objectives Not Achieved	Home Visits	Home Visits Not Completed
159	311	146	324	470	359
33.83%	66.17%	31.06%	68.94%	56.70%	43.3%
$x^2=10.469$		$x^2=14.353$		$x^2=1.803$	
p .01		p .001		p .20	

Chi Square was used to determine whether a significant difference exists between the proportions of category responses coded from the home visitation protocols. Data from Table 16 indicate a significant

lack of parent participation mentioned during the weekly parent/child tutoring sessions (66.17%). In addition, the data indicate a significant lack of objective achievement mentioned for the lesson plans which provide the content of the home visit (68.94%). Finally, a non-significant proportion of home visits attempted are completed (56.70%).

In addition to the above, the Henderson Environmental Learning Process Scale was administered to determine whether any significant relationships exist between children's school achievement and environmental factors present in the home which are hypothesized to relate positively to school achievement. School achievement is measured according to several criterion variables reflecting linguistic ability and school readiness; respectively these are the Peabody (English), Peabody (Spanish), and the Walker Test of School Readiness, the Hiskey-Nebraska and the Frostig Test of Visual Perception. Table 17 summarizes the results of data analysis.

TABLE 17

COMPARISON OF HELPS SCORES WITH REPSAC CHILDREN'S SCHOOL ACHIEVEMENT SCORES

Criterion Variables	HELPS r	p
Peabody (English)	.18	N.S.
Peabody (Spanish)	.08	N.S.
Walker	.12	N.S.
Hiskey-Nebraska	.18	N.S.
Frostig	.06	N.S.

The computation of Pearson r revealed no significant relationships between environmental factors measured by the HELPS and school achievement as measured by the criterion variables as previously stated.

Conclusions: Quantitative Analysis

Analysis of the data presented thus far suggests little evidence of a positive relationship between home visitation and school achievement. Parent involvement,defined in terms of home visitation of children and parent training,suggests no positive relationship to children's achievement as measured by a content analysis of home visitation protocols and by a comparison of subjects'scores on the following criterion variables: HELPS; the Peabody (English); Peabody (Spanish); Walker; Hiskey-Nebraska; and the Frostig.

Discussion and Recommendations

Adequate attention to record keeping and over-extension of responsibilities are substantial problems in this component. This evaluator is intuitively convinced that the potential of this component is of high quality and that the project will eventually have as a model outreach parent involvement component. While the data presently do not support this intuition, it should be noted that such data should be collected longitudinally, and, as mentioned in the introduction to this section this year represents in many ways a beginning of component operation. Review of home visitation protocols, interviews and observation suggest

that component objectives have been well accomplished where community program advertisement, the securing of donations of materials, materials construction, and the donation of services from the community are concerned.

However, the ultimate test of a parent involvement component is in the impact such a component has upon children's school achievement. Component development to accomplish and evaluate the extent of such achievement requires a clearly articulated and time-phased developmental program model. Such a model should include the objectives to be reached by the children at year's end. It should also include the stages or plateaus children must reach on the way to goal accomplishment, and the activities (with specified relationships) which must be performed as evidence of either plateau or ultimate goal accomplishment. Faculty should have a clear understanding of the relationship of each activity to program plateaus and goals, and, of the position of the child in relation to those activities and stages. Records should be organized by program and by child (preferrably in alphabetical order for easy access) of the stages of activity and accomplishment that each child has met.

Present record keeping and materials development in the community-parent involvement component does not meet such criteria. Record keeping forms are general and unspecific in nature and filed in a fashion which makes access to data on a child's progress extremely difficult.

Materials and activities developed within the component, while of high individual quality, do not appear to be integrated to a time phased developmental model. Program dissemination and materials development without adequate consideration of an integrated model with clear sequencing presents children with a diet of program activities reminiscent of a behavioral buffet rather than of a well planned and integrated meal.

This discussion, in effect, suggests that a temporary re-direction of component practices are in order. Priorities should be placed upon the allocation of time for planning with total faculty or at a minimum load - staff participation. Such planning should emphasize a reorganization of curriculum to meet a time phased developmental model; the restructuring of materials development activities to fit the developmental phases established in the model; staff orientation to the model and its component phases, materials, and instructional methods; and finally, a commitment of time and effort to record-keeping which will facilitate quantitative evaluation which focuses upon the relationship between parent involvement and school achievement.

This evaluator is favorably impressed with the potential of the component and with the capacity and dedication of faculty to meet such program and component goals.

SECTION VII

FOLLOW-UP STUDY OF FORMER REPSAC STUDENTS

Purpose

The purpose of this follow-up was to determine how well the former REPSAC students were performing in the public or parochial schools. Pretest data taken on these students while in REPSAC indicated a high probability of failure; therefore, the intervention program (REPSAC) they attended was designed to help these students enter the mainstream of education and perform more closely to their potential. This follow-up study was designed to determine if these students were coping with the school situation in an acceptable manner.

Number of Students

Fourteen former REPSAC students were identified as currently enrolled in public or parochial first grade in the Clovis area. An additional ten former students were identified as attending second grade. Of the twenty-four total, 21 were found to be attending public school, 2 attending parochial school, and no record could be found on one child. At the time of posttesting and follow-up activities 16 students were located. Of the 16 students located, 14 were in the first grade and 2 in the second grade.

Procedure

The procedure for the follow-up consisted of a questionnaire containing questions relative to the students performance in school and

was completed by teachers of the former students. In addition to the questionnaire, personal interviews were conducted with some of the teachers to obtain additional information about the child.

Findings

The findings of the follow-up are reported in terms of the responses given by the teachers to the questions concerning the students' performance in school.

The two second-graders were found to be performing very well and received excellent ratings on all of the questions asked. The following responses, therefore, will concern those students currently in the first grade.

1. Has the student received special help (special education assistance, remedial help, etc.) during the current year?

   Yes - 6

   No - 8

2. What is your estimate of the student's reading ability?

   Excellent - 0

   Good - 5

   Poor - 9

Of the test scores reported, the following was the highest for the first grade students participating in the study.

California Achievement Test-Lower Primary

Reading Vocabulary =2.1

Reading Comprehension -1.6

Total Reading -1.9

3. What is your estimate of the student's reading ability?

Excellent - 1

Good - 7

Poor - 6

Of the test scores reported, the following was the highest for the first grade students participating in the study.

California Achievement Test

Arithmetic Reasoning = 1.8

Arithmetic Comprehension = 2.1

Total = 1.9

4. What is your estimate of the student's ability to do school work?

Excellent - 0

Good - 7

Poor - 7

5. What is your estimate of the student's ability to relate to teachers and students?

Excellent - 1

Good - 10

Poor - 3

6. Will the student pass to the next grade?

Yes - 11

No - 3

Two of the three students that failed will be placed in special education for the coming year. The third student was held back because "he lacks enough maturity to do school work."

Summary

The follow-up study indicates that the majority of the former REPSAC students are surviving in the school situation with only two students being assigned to special education classes for the coming year. Although the level of performance in many cases is low, pretest data taken on these students at the time of entry to REPSAC indicated a high probability of school failure.

During the coming year, an extensive follow-up will be made on all former REPSAC students which will include administering the same series of tests given at the time of entry to REPSAC.

SECTION VIII

SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This is the third end-of-year evaluation study of the Responsive Environment Program for Spanish American Children (REPSAC). Evaluation of this project has been conducted for the past three years by Adobe Educational Services, Lubbock, Texas. This is an independent consultant and service organization with its direction primarily through various faculty members of the College of Education, Texas Tech University and the University of Texas at Austin.

The major purpose of the REPSAC program is to serve as an effective early educational intervention for 3-, 4-, and 5-year old "high risk" Spanish American children living in the area served by the Clovis Municipal Schools, Clovis, New Mexico. Children are considered "high risk" as a result of their low birth weight, 5½ pounds or less, and who will probably have accompanying handicaps as they enter the first grade. This program attempts to demonstrate that such an early intervention can provide such children the experiences necessary to succeed and remain in the educational mainstream.

As concerns organizational and operational purposes, the REPSAC program is divided into four comprehensive components: instructional staff development; community-parental involvement; and media. Specific objectives exist for each component; however, each component

complements each other.

The evaluation design for 1973-74 pertained to three components: instruction; staff development; and community-parental involvement.

The evaluation design of the instructional component was based upon the objectives of this component and within a framework of evaluating the progress or development of the student in certain areas/abilities using a pre and posttest design. Also, as part of the evaluation of this component, an additional analysis was made. This analysis was employed this year for the first time in an attempt to determine the relationship between the quanity of exposure to specific program components and the scores made on the various tests.

The evaluation of the staff development component was based upon the objectives of the component. The attainment of these objectives by the faculty was determined by observation at various intervals, and discussion with the faculty.

The evaluation of the community-parental involvement component was conducted on two levels or phases. One level involved site visits so as to conduct observation with respect to the stated objectives of this component. Collection of such data involved site interviews and participant observation with: the project director; the home visitation coordinator and her staff; project teaching staff; parents of REPSAC children; and some community representatives at large who had contact with or directly participated in the project. The second

level of evaluation involved the collection of quantative data relating home environment to school success. Quantitative data measuring parent involvement was obtained through the administration of the Henderson Environmental Learning Process Scale (HELPS).

Findings

The major findings of this study pertaining to the evaluation of the instructional, staff development, and the community-parental involvement components were:

Instructional

1. REPSAC students made significant gains in: language ability in English; language ability in Spanish; sensory and perceptual ability; school readiness; and psychomotor development. Significant gains were not evident in learning aptitude and speech development.

2. First year REPSAC students made significant gains in all areas measured except learning aptitude.

3. Second year REPSAC students made significant gains in all areas measured except learning aptitude and speech development.

4. Third year REPSAC students made significant gains in all areas measured except learning aptitude and speech development.

5. Three-year old REPSAC students made significant gains in all areas measured except learning aptitude.

6. Four-year old REPSAC students made significant gains in all areas measured except learning aptitude.

7. Five-year old REPSAC students made significant gains in all areas measured except speech development and learning aptitude.

8. Positive and continuous growth was made by all REPSAC students with regard to personal growth.

9. No significant relationship was found between birth weight and the areas measured with the exception of a -.48 between birth weight and speech development.

10. Various significant correlations were found between time exposure of the children to various instructional activities, personal factors, and posttest performance (See Table 12, p. 54). Some of the more positive correlations included:

a. Posttest performance in Spanish and:

(1) Monthly income of parents
(2) Education of Mother
(3) Age
(4) Amount of time spent on Typing Booth

b. Posttest performance in school readiness and:

(1) Amount of time spent on Typing Booth
(2) Age
(3) Amount of time spent on art activities

c. Posttest performance in sensory-perceptual ability and:

(1) Amount of time spent on Typing Booth
(2) Amount of time spend on Project LIFE
(3) Age

11. Various significant intercorrelations were detected between time exposure of the children to various instructional activities and selected personal variables (See Table 13, p. 55); however, the primary function of these intercorrelations is to gauge the independence of the correlations presented in Table 13. In a practical sense, no further interpretations can be made at this time.

Staff Development

12. Activities of the staff development component appeared to be considered by the faculty and staff as an integral and necessary part of the on-going program.

13. Activities of the staff development component appeared to be a well balanced fusion of theoretical and practical approaches enriched by an obvious concern of the faculty for the development of each child in the program.

14. The continuing interaction of the faculty and staff--teachers, aides, home-visitors, and director--appeared to be a strong element in maintaining a high level of efficiency and morale. The experiences involved in receiving visitors and demonstrating activities of REPSAC and sharing the philosophy upon which the program is based have been of vital importance. The understanding and skill of these people are at the level of master teachers. Their ability to share their approach and techniques with others is the keystone of the staff development component.

Community-Parental Involvement

15. Activities of the community-parental involvement component did

assist in varying degrees in parent involvement, provided for some extension training, and provided as linkages between home, school and community.

16. There were over 400 home visits made during the year, and data indicated that a significant number of parents participated during the home tutoring sessions.

17. As measured by the HELPS instrument, no significant relationships were found between factors in the home environment and children's scores on criterion variables used to measure school achievement.

18. Parents of the children participating in the program appeared to have a positive attitude toward the program and the curriculum and co-curriculum activities.

Follow-Up of Former Students

19. Twenty-four students have completed the REPSAC program. Of this number, 21 were identified as attending public school, 2 attending parochial school, and no record could be found on one child.

20. During the time of the posttesting and of the period of the follow-up activities, 16 of the 23 students were located. Fourteen were in the first grade and 2 in the second grade. The second graders were doing real well in school and only 2 students in the first grade will be assigned to special education classes for the coming year.

General Findings

21. The students in the program were found to be very cooperative,

willing to try various tasks without fear of failure, and an unusually long attention span for children of these ages.

22. During the past three years of operation of REPSAC, only 3 students have dropped from the program - all moved from the Clovis community.

Conclusions

Based upon the findings of this study, the major conclusions were:

1. The components evaluated (instructional, staff development, and the community-parental involvements) operated as planned and functioned so as to complement each other. Specifically, it was concluded that these components had the organization, curriculum, materials, facilities, and a qualified and motivated faculty/staff to provide the desired educational experience for the target group of children and parents.

2. The program is in an active and positive process of accomplishing the long range program major goals.

3. In short, the REPSAC program functioned as planned and in accordance with the approved proposal document during the 1973-74 program year; therefore, it is concluded that the REPSAC program is serving as effective intervention for the target group children and parents.

Recommendations

Based upon the findings and conclusions of this study, the following

suggestions or recommendations are made:

1. That the REPSAC program continue to develop and serve as a bilingual early childhood intervention program and as a demonstration and replication model.

2. That objectives of the community-parental involvement component be reviewed and possibly re-formulated.

3. That the instructional activities and materials development of the community-parental involvement component be re-formulated into an integrated sequential model which parallels the general instructional objectives. This is very important if the parent involvement element of this component continue to be mainly defined as home tutoring and parent training.

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APPENDIX A

TYPICAL SCHEDULE OF LEARNING ACTIVITIES

Group Activities

Language Development (Approximately 15 min.)

English: "Children, Children, look in the mirror. Tell me, tell me who you see." Use hand mirror in front of each child and have children name the child using first and last name.

"Put your finger on your nose." A song to stress body parts. Tell the story of the "Lonesome Hand" to also stress body parts.

Spanish: Talk about body parts, counting and colors.

Free Choice Activities

Art: Play dough and cookie cutters. Talk about the shapes formed by the cookie cutters. Good activity for small muscle development.

Center table: Flannel board faces with flannel features. Have hand mirror close by for children to see the arrangement of their own features as they put the features on the flannel board. Have children name each part as they put it on the head.

Light table: Trace and name triangle, circle, square and rectangle.

Block area: Blocks out with farm animals.

Language Master: Use cards for identifying body parts.

Small table: Colored beads for stringing, patterning and color scattered at many activities.
Book area: Records and stories. Use "The Gingerbread Boy," "The Ugly Duckling," "The Happy Man and His Dump Truck."

Individual Language Activities

(One child with one teacher or aide)

Piaget Early Childhood Curriculum (Approximately 10 min. with each child or small group of children. Present lesson in Spanish or English.)

Lesson: Conservation of Liquid Quantity.

Materials: Funnels, 2 oz., 4 oz., 8 oz., containers

Instruction: Set up an area where children can pour water from one container to another.
Have child estimate how many times he would have to fill a 2 oz. container to fill a 4 oz. container, an 8 oz. container. Then have the child perform the activity to see for himself.

Vocabulary: Funnel, cylinder; also words to describe dimensions of containers i.e., tall, short, skinny, fat, wide, narrow, taller than, shorter than, etc.

Project LIFE

Responsive Environment Typing Booth

Second Group Activity (Approximately 10 min.)

English: "Clap your hands in time to the music" (Autoharp accompaniment) Numerous verses such as "Stomp your feet." "Pat your head." "Swing your arms." "Jump up and down."

"My Hands Upon My Head I Place."

Count the children in the group. Boys in group stand, count boys. Girls in group stand, count girls. Teachers in group stand, count teachers.

"Blanca Vasquez, you may walk outside. Steve Baca, you may walk outside." Sing the children's names as they go outside for a play period.

Spanish: "Venga A Ver Mi Rancho," "Mi Papayo." Rhythm band with puppets.

Outside Activities

Swings

Monkey Bars

Sand Pile

Water Play

Water play (set up 3 stations near the fence). Put out syringes, basters, cans, funnels, eye droppers. Have children squirt the water through the fence. (Aide, keep this under close supervision. Only one child at each station.)

Put board between the two sets of steps. Have children jump on the board as you hold his hands and count the number of jumps. Count in English in the morning group. Count in Spanish in the afternoon group.

Snacks

Use the blender to make eggnog. "What shape is the egg?" Expect the older children to use the word oval. Ask the younger child if the egg is an oval or a square. Then expect the child to say oval. Let the children crack the eggs, add the milk and push the button to turn on the blender.

Cut toast into big triangle or little triangle. Ask children, "Would you like a big triangle or a little triangle of toast?"

APPENDIX B

DESCRIPTION OF TEST INSTRUMENTS

A brief non-technical description of the test instruments used during 1973-74 is listed in the following paragraphs. Personnel interested in more detail concerning the tests are invited to consult technical data provided by the publishers of the tests or refer to the Mental Measurements Yearbook, Buros, editor.

LEARNING APTITUDE

Hiskey-Nebraska Test of Learning Aptitude. This test does not depend entirely upon verbal communication for administration. It develops through sub-tests, a mental median and a derived operational level (IQ). It has a background of psychological and special education testing use. It contains eight subtests for this age group including bead patterns, memory for color, picture association, paper folding, visual attention span, block patterns and completion of drawings.

LANGUAGE ABILITY

Peabody Picture Vocabulary Test-English/Spanish (Dunn). This test is designed to provide an estimate of a subject's "verbal intelligence" through measuring his hearing vocabulary. The test also has wide utility as a clinical tool. Besides being effective with average subjects, it has special value with certain other groups. Since subjects are not required to read and the responses can be non-oral, the test is especially fair to non-readers and remedial reading cases. With the drawings free of fine detail and figure-ground problems, the test is appropriate for at least some perceptually impaired persons. According to the Test Manual, the scale is appropriate for subjects between 2 1/2-18 years who are able to hear words, see the drawings,and have the facility to indicate "yes" and "no" in a manner which communicates.

This test has had extensive use in the Southwest in recent years in both English and Spanish. There is no standardized test for the Spanish version, but the one used has been used widely. The test consists of sets of four line drawings to a plate and a vocabulary list. The subject points to the appropriate picture upon the examiner's pronunciation of the name or action word.

SENSORY AND PERCEPTUAL ABILITY

Developmental Test of Visual Perception (Frostig). This test is administered individually to young children. It seeks to measure five operationally-defined perceptual skills: eye-motor coordination; figure-ground (figures against increasingly complex grounds); constancy of shape; position in space; and spatial relationships. The subtests were selected

because clinical observation pointed to their seeming relevance to performance in nursery school, kindergarten and the elementary years." Normative data are available for 4 to 8 year-old children.

Illinois Test of Psycholinguistic Abilities (Kirk). This test is designed to measure certain operationally defined perceptual functions, and to pinpoint the age at which they normally develop. Four subtest scores were used: auditory, visual reception and auditory and visual association.

SPEECH DEVELOPMENT

Templin-Darley Test of Articulation. This instrument must be administered by a qualified Speech Pathologist. It is a general screening test of 50 items in English which require a mimicked response by the child. The items selected "have been found to discriminate between good and poor articulation of preschool and kindergarten children."

PSYCHOMOTOR DEVELOPMENT

Motor Ability Test for Pre-School Children (Coleman). This test was designed by Dr. Gene Coleman, Department of Physical Education, University of Texas at Austin. The purpose of the test is to measure children's growth in motor ability. The components of the tests are: dynamic balance; static balance; ball bounce; hand-eye coordination; and obstacle race. In general, the test measures coordination, speed agility, ability to change directions, sequence of moves, and ability to follow directions.

SCHOOL READINESS

Readiness Test for Disadvantaged Pre-School Children (Walker). This test was adapted from the final report of a project conducted by Dr. Wanda Walker, Northwest Missouri State College, and supported by the Office of Education. The test consists of multiple-choice items based on pictures and symbols which do not require reading ability and are designed to test a child's listening ability; visual acuity; and his recognition of similarities, difference, numerical analogies, and missing parts.

SELF CONCEPT

Development Profiles (Bessell and Palomares). This is a subjective evaluation of children's behavior under a variety of circumstances. These rating scales are prepared periodically jointly by two teachers. The teachers make ratings on a printed form according to six affective areas: awareness of self; self-confidence; interpersonal comprehension; sensitivity to others; effectiveness; and tolerance. Because of the inherently subjective nature of these profiles, there is no objective scale of accomplishment or standard in terms of age-achievement scores. The profiles

can provide a source of insight and understanding of emotional development.

PARENTAL INVOLVEMENT

Henderson Environmental Learning Process Scale (HELPS). This scale is designed to measure characteristics of the home environment which are related to the intellectual and scholastic performance of young children. It contains items designed to elicit quantifiable information on the aspiration level of the home, the range of environmental stimulation available to the child, the parental guidance or direct teaching provided in the family, the range of adult models available for emulation by the child, and the nature of reinforcement practices used in the family to influence the child's behavior.

APPENDIX C

EXAMPLE OF AN EDUCATIONAL PRESCRIPTION

SUGGESTED LEARNING EMPHASES

Re: _____

Sex: Female

Age: 5 Years (as September 1973)

EVALUATIVE INSTRUMENTS USED:

1. Hiskey-Nebraska Test of Learning Aptitude
2. Readiness Test for Disadvantaged Children (Walker)
3. Developmental Test of Visual Perception (Frostig)
4. Illinois Test of Psycholinguistic Abilities (Kirk)
5. Peabody Picture Vocabulary Test (Spanish and English versions) (Dunn)
6. Templin-Darley Screening and Diagnostic Tests of Articulation
7. Motor Ability Test for Preschool Children (Coleman)

DEVELOPMENTAL LEVELS:

1. Non-verbal I.Q. in the 105-110 range
2. Readiness Test - 89 percentile
3. Sensory and Perceptual Ability - 60 percentile (Frostig)
4. Vocabulary English, 3 years 8 months, 8 percentile
   Spanish, 3 years 2 months, 3 percentile
5. Speech Development - needs language therapy (borderline case); may need articulation help later
6. Psychomotor comparable to majority of 5-year-olds in this experimental group
7. Psycholinguistic Abilities- some difficulty in attending to auditory stimuli; associative relationships, both auditory and visual, slightly below age level

AREAS OF LEARNING NEEDING EMPHASIS:

1. Vocabulary Building - must have an intensive language development program in both English and Spanish. Suggested materials:

   a. DISTAR language program (use English version and translate to Spanish)
   b. Peabody Language Development Kit - Level I - use in both English and Spanish
   c. Language Master drills
   d. Provide opportunity for child to relate events
   e. Practice speaking in sentences (as in above experiences)

2. Associate Relationships

   a. Auditory Association (in addition to materials included in above Vocabulary Building)

      (1) Give increasingly more difficult oral instructions, beginning with one or two steps and gradually increase
      (2) Play "Simon Says" types of games
      (3) Train child's ability to find common characteristics
      (4) Practice finding similarities and differences and making analogies
      (5) Categorize or classify objects
      (6) Identify incongruities in stories
      (7) See enclosures I and II*

   b. Visual Association

      (1) Identify colors, objects, pictures, etc.
      (2) Practice in ability to label and describe simple pictures and objects
      (3) Sort objects by size, shape, color, usage
      (4) Sort pictures by classifying according to usage and relationships
      (5) Find incongruities, absurdities, or missing elements in pictures
      (6) See enclosure V - Conceptual Skills*

3. Visual Perception

   a. Figure-ground exercises as suggested by Marianne Frostig
   b. See attached suggestions (checked in red) on Visual-Motor Integration III and Visual-Motor Coordination IV*

4. Psychomotor

   a. See VI enclosure*

5. Speech therapy by qualified therapist

* Additional suggested techniques attached.

APPENDIX D

SUMMARY OF MID-YEAR TESTING (MEAN SCORES OF ITPA)

YEAR IN PROGRAM	MID-YEAR 1972				MID-YEAR 1973				MID-YEAR 1974			
	AR	VR	AA	VA	AR	VR	AA	VA	AR	VR	AA	VA
THIRD YEAR (6)	8.18	7.50	13.00	8.67	15.67	12.00	15.44	14.83	20.33	21.17	15.67	20.67
SECOND YEAR (7)					8.40	3.80	10.40	7.20	16.43	18.43	13.14	14.43
FIRST YEAR (17)									11.82	11.76	8.00	11.35

AR = AUDITORY RECEPTION
VR = VISUAL RECEPTION
AA = AUDITORY ASSOCIATION
VA = VISUAL ASSOCIATION