DOCUMENT RESUME

ED 111 562 40 RC 008 743

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TITLE Responsive Environment Program for Spanish American Children (REPSAC): Fourth-Year Evaluation Study. Final Evaluation Report, 1974-75.
INSTITUTION Clovis Public Schools, N. Mex.
SPONS AGENCY Bureau of Education for the Handicapped (DHEW/OE), Washington, D.C.; New Mexico State Dept. of Education, Santa Fe.
BUREAU NO H0010SK
PUB DATE May 75
GRANT OEG-0-73-0710
NOTE 57p.; For related document, see ED 096 086

EDRS PRICE MF-$0.76 HC-$3.32 Plus Postage
DESCRIPTORS *Academically Handicapped; Bilingual Education; Early Childhood Education; *Educationally Disadvantaged; Followup Studies; *Handicapped Students; Intelligence Quotient; Language Development; Perceptual Development; Personality Development; *Program Evaluation; Self Concept; *Spanish Americans
IDENTIFIERS *New Mexico (Clovis)

ABSTRACT

An intervention program for 3, 4, and 5-year-old "high risk" (of low birth weight and with various handicaps) Spanish American children, REPSAC aims at providing successful experiences using the concept of responsive environment in English and Spanish language development and in improving cognitive and affective development. During 1974-75, 32 low birth weight children handicapped by physical difficulties, learning aptitude (IQ), 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. The evaluation design focused on the instructional component and a follow-up study of former REPSAC students. Language development in English and Spanish, IQ, sensory and perceptual development, and school readiness were measured using pre and posttests. Periodic subjective evaluation of the students' self concept and personality development were conducted. Using a time-series analysis, personal interviews, and questionnaires, 27 former REPSAC students were studied. Some major findings were: students made significant gains in language ability, sensory and perceptual discrimination, and school readiness; showed positive and continuous self concept and personality growth; however, significant gain was not evident in learning aptitude. (Author/NQ)

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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 1974-75. This was the fourth year of operation of REPSAC and was the last year of the demonstration phase. Beginning 1975-76, the name of REPSAC will be changed to the Responsive Environment Early Education Program and will be funded through the Elementary Secondary Education Act (Title III).

This report is the result of a continuing external 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 report for this year is not as lengthy as prior year reports because emphasis was not placed upon the narrative description of the operation of the program. Personnel interested in a detail description of the program, as well as evaluation data for prior years, can obtain copies of the evaluation reports from the Educational Resources Information System (4827 Rugby Avenue, Bethesda, Maryland, 20014). The appropriate ERIC document number can be obtained from the Bibliography of this report.

The evaluation team recognizes and hereby expresses appreciation to the director, faculty, and staff of REPSAC 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 for 1974-75 dated May 3, 1974, the Educational Evaluation Agreement dated October 4, 1974, and letter from the project director dated February 22, 1975.

Billy E. Askins

Billy E. Askins, Ed.D
Coordinator of Evaluation and Research
May, 1975

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SECTION I

INTRODUCTION

This report describes an external evaluation study of the Responsive Environmental Program for Spanish American Children (REPSAC) during 1974-75 which was its fourth year of operation*. This report is part of a continuation evaluation study by an independent consultant and service organization with its direction primarily through various faculty members of Texas Tech University, University of Texas at Austin, and the Texas Tech Medical School.

Purpose of Program

The major purpose of REPSAC 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.

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. REPSAC 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 (parts translated in Spanish) are used.

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*For references pertaining to the first, second, and third years of operation, see Bibliography (4, 5, and 6).

Rationale for Development of the Program

Rationale for the development of this program stems from recent research which indicates that children with a very low birth weight, coupled with other factors, generally experience childhood difficulties in the cognitive areas of development which can result in subsequent retardation as they progress through their formal education. 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. 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.

Recognizing that approximately 22% of the total school population of Clovis were children with a Spanish surname and that approximately 39% of children enrolled in special education were of Spanish origin, and accepting the premise that a high percentage of "high risk" children come from this particular ethnic group, the idea of an early educational intervention became a reality in the form of REPSAC. The program officially started in September, 1971 with 32 students. Thus, the 1974-75 academic year is the fourth year of operation for this program.

Target Children and Criteria for Selection of Participants

The target group children of the REPSAC project are 3-, 4-, and 5-year-old low birth weight Spanish American children who are considered educationally handicapped. Criteria used to select children to participate in the program are: 1) Low birth weight - 5½ pounds or less; 2) Health history of child; 3) Level of education of parents; 4) Educational attainment of siblings; 5) Home language - Spanish or English; and 6) Income of family.

Number of Participants and Background Data

The program is designed to serve approximately 40 children. The number of students participating in the program this year ranged from 42 to 32.

At the beginning of the 1974-75 school year, there were 38 students (6 third-year students, 11 second-year students, and 21 children initially started the program).

At the end of the school year, there were 32 students (6 third-year students, 10 second-year students and 16 first-year students) enrolled in REPSAC.

Some summary background data of students who were in REPSAC as of September 15, 1974 are presented in Table 1. This includes such background factors as: education of parents; dominant language used in the home; family status and size; monthly income; and birth weight. The source of this information was the "Student Information Sheet" obtained from the project director.

TABLE 1

BACKGROUND DATA OF REPSAC STUDENTS

Background Factor	Mother	Father
Education of Parents		
Grade School	14%	31%
Junior High	33%	31%
Some High School	42%	12%
High School Graduate	11%	27%
Dominant Language Used in Home		
English	14%	
Spanish	0	
Both	86%	
Family Status (Parents at Home)		
One	33%	
Two	66%	
Family Size (No. of Children)		
0 - 2	19%	
3 - 5	33%	
6 - 8	22%	
9 - 11	22%	
Income (Monthly)		
0 - 100	03%	
101 - 200	19%	
201 - 300	25%	
301 - 400	14%	
401 - 500	17%	
over 500	22%	
Birth Weight		
Less Than 4 lbs.	06%	
4-0 to 4-8	08%	
4-9 to 4-15	0	
5-0 to 5-8	42%	
over 5-8	44%	

Incidence of Handicapping Conditions

This data is updated from the Interim Evaluation Report (November 15, 1974) to include information concerning four additional subjects who were not enrolled at the beginning of the school year of the project year. Also added is a descriptive classification of handicapping conditions according to Bureau of Education for the Handicapped (BEH) categories. The latter categorization was made by the educational psychologists during the pretesting phase. Thus, the incidence of handicapping conditions is based upon 42 students who were enrolled in the program as of December 15, 1974.

Since the beginning of the REPSAC program in 1971, there have been annual (biennial in some areas) assessments of the children in several areas. The subjects for 1974-75 were checked in the categories of: Low Birth Weight, Economic Deprivation, Language Orientation, Language Development (vocabulary) in both English and Spanish, Perception, and Learning Aptitude. The standards used were the same as in previous years, although one measure was eliminated since it had not been found to discriminate differences. In addition, a different instrument (described later) was used to assess Spanish vocabulary development. The categorizations for the BEH format reflect additional assessment and analysis.

This assessment of handicapping conditions present does not include clinical examination by a physician. It is probable that additional handicapping conditions would be detected if such physical examinations were made.

The REPSAC program is, however, an educational endeavor developed for group intervention. The assessment has been developed around educationally related conditions, with limited clinical involvement. Conditions such as economic status of the family, cultural and language orientation, and educational environment have been included each year since the relationship of these factors to educational development has been much discussed and described over the past several years.

The BEH categorization of handicapping conditions are shown in Table 2, with the number reflecting the individual children who are best described by the condition. Each child is counted only once in this listing, although multiple conditions may have been evident.

TABLE 2

LIST OF SINGLE HANDICAPPING CONDITIONS

Category	Number of Children
Trainable Mentally Retarded	0
Educable Mentally Retarded	2
Hearing impaired	2
Deaf	0
Speech impaired	1
Visually impaired	1
Emotionally disturbed	2
Crippled (physically handicapped)	5
Other Health impaired (heart murmer)	1
Multiple handicapped	0
Not handicapped*	16
Other (language deficiency)	12
Total	42
* High Risk basis - low birth weight, included in totals above	4

The relative precedence or importance of the various handicapping conditions are not implied by the ordering in this report. Rather, the same order of reporting as used in previous years is made in the following descriptive material for ease in comparison with previous subject groups. Weighting of the various conditions is not attempted; instead, the incidence of multiple handicapping conditions is shown in a subsequent listing.

The following table indicates the incidence of the handicapping conditions studied. Presence rather than degree or effect of condition is shown.

TABLE 3

SUMMARY DATA OF INCIDENCE OF SINGLE HANDICAPPING CONDITIONS

REPSAC, 1974-75

Handicap*	Incidence	Measure
Low Birth Weight	57%	Birth and Hospital Records applied to WHO** Standards
Economic Deprivation	64%	Parental Response
Educational Deprivation	60%	Parental Response
Visual Perception	51%	Clinical Test (Frostig)
Home Speech	86%	Parental Response
Language - English	88%	PPVT
Language - Spanish	89%	TACL
Learning Aptitude	37%	Hiskey Test

*LEGEND

**World Health Organization

Birth Weight	5½ 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.
Home Language	Language most often used in the home was Spanish or use of both languages in about the same amount.
Spanish	Score one year or more below chronological age on the TACL
English	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.

It appears to be important that a number of children are subject to more than one handicapping condition. The incidence of multiple handicapping conditions is shown in Table 4, listed on the following page.

TABLE 4

SUMMARY DATA OF MULTIPLE INCIDENCE OF HANDICAPPING CONDITIONS*

1974-75

Subject	Birth Weight	Economic	Educational	Home Language	Span PPVT	Engl PPVT	Hiskey IQ	Visual	Total
1.	X	X			X	X		X	5
2.			X	X	X	X			4
3.	X	X	X	X	X	X	X	X	8
4.		X	X	X	X	X	X	X	7
5.		X	X	X	X	X		X	5
6.			X	X		X			3
7.			X	X	X				3
8.	X	X		X	NA	X			4
9.		X		X	NA	X			3
10.	X	X	X	X	X	X			6
11.	X	X	X	X					4
12.	X			X	X	X	X	X	6
13.					X	X	X	X	4
14.	X				X	NA	X		3
15.		X	X	X	X				4
16.	X	X	X	X	X	X			6
17.	X	X	X		X	X			5
18.	X	X		X	X	X	X	X	7
19.		X	X	X	X				4
20.	X	X	X	X	X	X			6
21.					X	X		X	3
22.				X	NA	NA		X	2
23.	X			X	NA	NA	X	X	4
24.	X			X	X	X	X		5
25.				X	X	X	X	X	5
26.	X				X	X	X	X	5
27.		X	X	X	X				4
28.	X	X	X	X	X	X		X	7
29.				X	X	X		X	4
30.	X	X		X	X	X	X	X	7
31.	X	X	X	X	X	X			6
32.	X	X	X	X					4
33.	X			X	X	X	X		5
34.		X	X	X		X			4
35.	X	X	X	X	X	X		X	7
36.	X	X	X	X	X	X	X		7
37.		X	X	X	X	X		X	6
38.		X	X	X	X	X		X	6
39.	X	X	X	X	X	X	X		6
40.	X	X	X	X	X	X			6
41.	X	X		X		X			4
42.		X	X	X		X			4

*See Table 4 for Legend

The number of deficiencies which appear per individual is shown in summary form in Table 5. This summary illustrates the need for a variety of educational approaches to assist with the many different conditions which may affect an individual.

TABLE 5

MULTIPLE HANDICAPPING CONDITIONS

Number of Deficiencies	Number of Subjects
8	1
7	5
6	10
5	8
4	12
3	4
2	2
	N= 42

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 5½ 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). The children contacted were defined as "Spanish-American" either by virtue 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. The TACL (Carrow) was developed for the Southwest. Accuracy of norms in terms of age placement is not as important as the determination of change from pre to post test.

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-half 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.

Another condition perhaps worthy of note is the fact that seventeen (or 40%) of the subjects, reside with one (single, widowed, divorced or separated) rather than two parents.

The Hiskey-Nebraska Test was used to assess academic aptitude. The test is not dependent upon verbal responses and was 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.

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 Association , the U.S. Office of Education, and the General Electric Company. In addition, the Piaget-Early Childhood Curriculum (parts have been translated into Spanish) developed by Celia S. Lavatelli is being used for concept development of young children.

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

Major Goals and Objectives of the Program

Program Goals

The major goals of the program 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, and 2) to improve the capability of the educational environment to respond positively to the cultural patterns and mores of Spanish American families so as to reduce communication gaps which interfer with learning and contribute to lags in intellectual development.

Program Objectives

Based upon the forementioned long range goals, specific program objectives have been developed which include:

1. Development of a model program for early childhood education for children from similar circumstances.

2. Development of a scope and sequence of bilingual and early childhood instruction for 3-, 4-, and 5-year-old children.

3. Development of confidence, abilities, and skills in the second language so that each child performs adequately and comfortably in the second language in verbal and cognitive areas.

4. Development of a comprehensive or "integrated" approach to early childhood education imcorporating some theoretical constructs of Piaget, Montessori, Omar K. Moore, technical innovations, and new curriculum materials.

5. Development of community communication and awareness regarding values and expectations in multi-ethnic communities and societies.

6. Development of statewide communication and awareness regarding "high risk" and handicapped children.

7. Development of a comprehensive approach to involve parents in the educational process.

These program goals and objectives give direction to the organization and administration of various elements of the program commonly referred to as program components. Specific objectives have been developed for each component.

Instructional Component

This component is considered the heart of the program as this is where the teaching-learning activities are conducted. Activities of this component are conducted in two half-day sessions five days a week. Approximately, twenty students attend the morning session and twenty students attend the afternoon session. The students are transported to and from school by a small bus provided by the program.

Eating the noon meal with attendant language involvement is developed as a learning activity; therefore, all of the students are served a hot lunch. The morning group is served prior to leaving school, and the afternoon group is served immediately upon arrival for the afternoon session

Objectives

The objectives of the instructional component include:

1. Cognitive/Psychomotor Domain

   a. To develop the child's conceptual and problem solving ability.
   b. To develop language ability in both Spanish and English.

c. To improve the child's sensory and perceptual discrimination.
d. To develop the child's speech.
e. To enhance the child's psychomotor development.

2. Affective Domain

a. To maintain or develop in children a favorable self-image.
b. To develop in children a favorable perspective toward their cultural heritage and that of other children.

Instructional Activities

To achieve these objectives, specific learning activities are planned for the children for each three-hour day. These learning activities can be generally classified 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 the Peabody Language Development Kit).

Staff Development Component

Another major element of REPSAC is the staff development component. Activities of this component serve the two teachers, three teacher-aides, and the home-visitor. The major objectives of this component include: 1) To help the staff develop their general knowledge of the difficulties encountered in early childhood education in the areas 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, speech pathology, and mental retardation; and 3) To assist the staff to recognize various problems which are often unnatural in young children so as to make necessary referral for assistance.

Community-Parental Involvement Component

The program includes the development of a comprehensive community and parental involvement component. In an effort for community involvement, various newsletters were sent to various community organizations making them aware of the program and soliciting their assistance in various activities. Efforts, through the work of the home-visitor, was made by the program to assist parents with understanding and practice of underlying principles od child care. One of the responsibilities of the home-visitor is to demonstrate that given proper supervision, guidance, and training parental influences can make a marked difference on the child's performance in school.

The major objective of this component is extension, that is, the inclusion and involvement of parents, the home, and community environments in the education of the child. Some ancillary objectives are as follows: 1) To motivate parents' interest in the preschool education of their children; 2) To provide extension training for parents in child development and in techniques of preschool education which may be applied to the home; 3) To facilitate an enrichment of the home environment through home tutoring of children in school-related activities and providing parents with information and linkage to available community services (i.e., welfare, counseling, medical care, babysitting, night school, etc.); and 4) To provide for parent participation in school activities.

Media Component

One of the objectives 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 professionally staffed by a media specialist from Eastern New Mexico University. He primarily prepares various types of instructional media for use in the program for dissemination of information. Some projects completed by this component include: videotape presentations; slide programs; 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 consists 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. 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.

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 consists of two houses with an adjourning yard. One house, which is a renovated former single family dwelling, is used as the main teaching facility, and the other building serves as office and workroom which is a renovated former beauty shop.

SECTION III

EVALUATION

External Evaluation

The external evaluation of the REPSAC program was conducted for the fourth year by B. E. Askins and Associates (formerly 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 and the Texas Tech Medical School. Names of the evaluation team members are listed on the cover page of this report.

Purpose

The major purpose of the external evaluation function is to collect and provide information necessary for continuous decision-making relative to pupil progress and program progress. Specifically, the external evaluation study for 1974-75 was conducted by:

1. Developing and following the evaluation design for the instructional component.

2. Providing pertinent feedback information concerning the students for diagnostic purposes (report of handicapping conditions, background data on students, preparation of educational prescriptions, and baseline data).

3. Providing in-service training seminars which focused on interpretation of test scores and suggested remedial activities.

4. Preparing a longitudinal analysis of progress of first, second, and third-year students enrolled in REPSAC as well as a follow-up study of former REPSAC students who were this year in the first, second, and third grades.

5. Providing the necessary professional personnel required in the evaluation activities including: psychologist, research/statistian, testors, consultants, nurse, and clerical assistance.

6. Providing the evaluation data with 2 interim reports and this final report.

Evaluation Design of the Instructional Component

The evaluation design of this component was based upon the component objectives as previously stated. From the objectives, the evaluation design was developed which included: Hypotheses; Procedure/Time-Schedule for Collecting Data; Statistical Treatment of Data; and Use of Test Data for Diagnostic Purposes.

Hypotheses

Based upon the objectives of the instructional component, various questions were developed to be tested through the collection and interpretation of data. These questions were developed into the form of research hypotheses which are as follows:

1. The REPSAC program for 1974-75 will serve as an effective educational intervention for 3-, 4-, 5-year-old "high risk" Spanish American children. Evidence of effectiveness will be determined by comparing pretest performance with posttest performance as measured by standardized tests selected to measure ability in the areas of: learning aptitude; language ability (Spanish and English); sensory and perceptual discrimination; and school readiness.

   a. Children participating in REPSAC 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) school readiness

   b. Children participating in REPSAC 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) school readiness

   c. Children participating in REPSAC 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) school readiness

d. Children participating in REPSAC during their third 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) school readiness

e. The 3-year-old children participating in REPSAC 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) school readiness

f. The 4-year-old children participating in REPSAC 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) school readiness

g. The 5-year-old children participating in REPSAC 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) school readiness

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

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

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

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

   a. Hiskey-Nebraska Test of Learning Aptitude
   b. Peabody Picture Vocabulary Test
   c. Test for Auditory Comprehension of Language
   d. Developmental Test of Visual Preception
   e. Readiness Test for Disadvantaged Pre-School Children

Procedure and Time-Schedule for Collecting Data

Data to test the hypotheses were collected with the use of standardized tests within the framework of a quasi-experimental design commonly referred to as a "Time Design" or "Pretest-Posttest Design Only." A reference for this design is Campbell and Stanley (13). This design involved a single experimental group without a control group. The experimental group (REPSAC students) were measured on a dependent variable (pretest) and was given the experimental treatment (instructional activities). Following the treatment, the group was measured again on the same variable (posttest) and statistical analysis was made between the means of the two measurements.

A summary of the objectives and abilities as referred to in the hypotheses and the standardized tests used in the measurements are as follows:

Objectives/Abilities	Tests
·Learning Aptitude	Hiskey-Nebraska Test of Learning Aptitude
·Language ability in Spanish	Test for Auditory Comprehension of Language - Spanish (Carrow)
·Language ability in English	Peabody Picture Vocabulary Test - English (Dunn)
·Sensory and perceptual discrimination	Developmental Test of Visual Perception (Frostig)
·School readiness	Readiness Test for Disadvantaged Preschool Children (Walker)
·Self concept and personality development	Developmental Profiles (Bessell and Palomares)

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

Form B of the Peabody and the Walker tests were used as posttests, and Form A of all other tests (except Developmental Profiles) were used as both pre and posttests.

The "Pretest-Posttest Design" did not apply to the use of the Developmental Profiles. This instrument was completed three times during the year for each child by both of the classroom teachers.

Schedule of Testing. Pretests were administered September 3-6, 1974, and posttesting was conducted May 5-16, 1975. The Developmental Profiles were completed every three months: October, February, and May.

Statistical Treatment of Data. A mean gain score was computed for each test (posttest score minus pretest scores) by age and year in program. As concerns the Developmental Profiles, the mean for each student was computed for each marking period and was plotted on a standardized scale to show direction and rate of change.

Hypotheses 1a-1g were treated by a t-test to determine the significance of the gain scores. Hypotheses 2-4 were treated by statistical summary and plotted on a standardized score showing direction and rate of change. Hypotheses 5 was tested with the Pearson product moment correlation technique.

Use of Test Data for Diagnostic Purposes

Test and observational data pertinent for diagnostic purposes and subsequent instructional planning were made to the project director as a means of providing feed-back into the internal operation of the program. These procedures are described in detail in the Diagnostic Section of this report.

SECTION IV

EVALUATION DATA OF THE INSTRUCTIONAL COMPONENT

Summary of Evaluation Design

The evaluation design of the instructional component was based upon the component objectives as translated into hypotheses (refer to Section II for list of objectives and Section III for a detailed description of the evaluation design including the complete list of the research hypotheses). Data to test the hypotheses were collected with the use of standardized tests within a framework of a pretest-posttest design.

Subjects in REPSAC were measured at the beginning of the year on five factors: 1) learning aptitude; 2) language ability in English; 3) language ability in Spanish; 4) sensory and perceptual discrimination, and 5) school readiness. At the end of the year, REPSAC subjects were again measured on the same factors. Progress was determined by the amount of gain accomplished between pretests and posttests and decisions on the hypotheses were made by statistically testing the differences between pretest scores 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 the .05 level.

Two additional analyses were made. First, self concept and personality development were measured at three intervals by the two REPSAC teachers. Change/growth was determined by averaging the two ratings and plotting the results on a standardized scale. Group change was determined by taking an average of the individual rating for each of the seven areas measured. The second analysis was made concerning the relationship between birth weight of REPSAC students and performance on the areas measured. Birth weight was converted to ounces, and the statistical technique used to determine this relationship was the Pearson r.

Analysis and Presentation of Data

Hypothesis 1a infers that subjects participating in REPSAC will make significant gains in the areas measured. The data indicate that this hypotheses can be supported for four of the five areas. Significant gains were found for sensory and perceptual discrimination, language ability in

Spanish, language ability in English, and school readiness. The area not showing a significant gain was learning aptitude. Data relating to hypotheses 1a are presented in Table 6.

TABLE 6

PRE AND POSTTEST PERFORMANCE OF REPSAC STUDENTS

TEST	N	MEANS	MEAN GAIN	s	t
FROSTIG	32	PRE 16.42	21.73	6.15	6.12*
		POST 38.15		10.23	
HISKEY	32	PRE 91.14	4.22	7.89	1.77
		POST 95.36		6.32	
CARROW (SPANISH)	32	PRE 20.18	31.12	13.84	5.13*
		POST 51.30		6.28	
PEABODY (ENGLISH)	32	PRE 21.20	46.40	16.81	7.14*
		POST 67.60		13.60	
WALKER	32	PRE 22.17	16.13	10.13	3.11*
		POST 38.30		7.21	

*p < .001

As reflected in Table 6, 32 students were available for both pre and posttesting of the 5 areas measured. In the area of sensory and perceptual discrimination (as measured by the Frostig test), there was a mean gain score of 21.73; learning aptitude (Hiskey) indicated a gain of 4.22; language development in Spanish (Carrow) indicated a gain score of 31.12; language development in English (Peabody) showed a gain score of 46.40; and school readiness (Walker) indicated a mean gain score of 16.13. With the exception of the mean gain score of learning aptitude (Hiskey), each mean gain score was significant at better than the .001 level of significance.

Hypotheses 1b, 1c, and 1d stated that subjects participating in REPSAC for the first, second, and third year will show significant gains in all abilities measured. The data indicate that these hypotheses can be supported with the exception of learning aptitude. Data for these hypotheses are presented in Table 7.

TABLE 7

YEAR IN PROGRAM AND TEST PERFORMANCE OF REPSAC STUDENTS

TEST	YP	N	MEAN GAIN	t
FROSTIG	1	16	22.13	4.36*
	2	10	20.18	4.92*
	3	6	17.21	3.91***
HISKEY	1	16	5.21	1.63
	2	10	4.16	1.26
	3	6	2.83	1.01
CARROW (SPANISH)	1	16	36.12	5.14*
	2	10	29.14	4.51*
	3	6	24.23	3.98***
PEABODY (ENGLISH)	1	16	58.40	9.41*
	2	10	44.16	6.13*
	3	6	38.12	6.01*
WALKER	1	16	22.21	3.16*
	2	10	16.70	2.96**
	3	6	9.31	2.77***

*p < .001
**p < .01
***p < .05

Hypotheses 1e, 1f, and 1g imply that children participating inREPSAC 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 abilities measured except learning aptitude. Data for these hypotheses are presented in Table 8.

TABLE 8

AGE AND TEST PERFORMANCE OF REPSAC SUBJECTS

TEST	AGE	N	MEAN GAIN	t
FROSTIG	3	5	22.16	5.14*
	4	15	18.66	4.10*
	5	12	16.21	3.92**
HISKEY	3	5	4.86	1.33
	4	15	3.21	1.21
	5	12	2.01	.73
CARROW (SPANISH)	3	5	31.18	4.17*
	4	15	36.21	5.01*
	5	12	28.33	3.77*
PEABODY (ENGLISH)	3	5	47.13	6.23*
	4	15	52.18	7.01*
	5	12	37.21	5.16*
WALKER	3	5	11.41	2.97**
	4	15	21.15	4.87*
	5	12	10.83	2.87**

*$p \leq .001$
**$p \leq .01$
***$p \leq .05$

Hypotheses 2-4 infer that subjects participating in REPSAC will develop or maintain a favorable self-image. This measurement was obtained from three subjective evaluations by the two classroom teachers using the Developmental Profile.Results of the self-concept and personality development measures for first, second, and third year students are presented in figures 1, 2, and 3 which are presented on the following pages. As reflected in these figures, positive and continuous growth was made by the students.

Developmental Profile

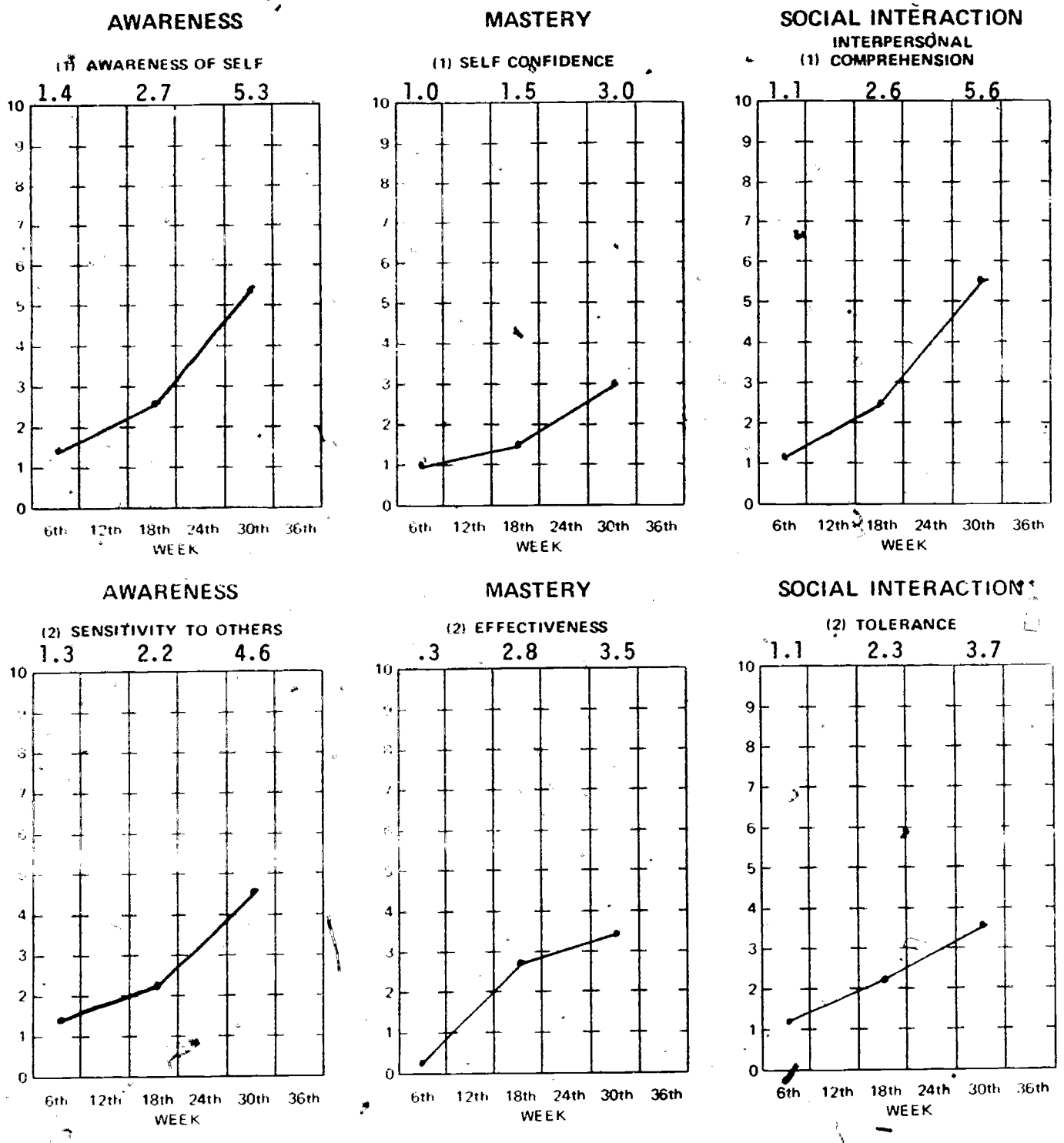


FIGURE 1 - PERSONAL DEVELOPMENT PROFILE FOR FIRST YEAR REPSAC STUDENTS

Developmental Profile

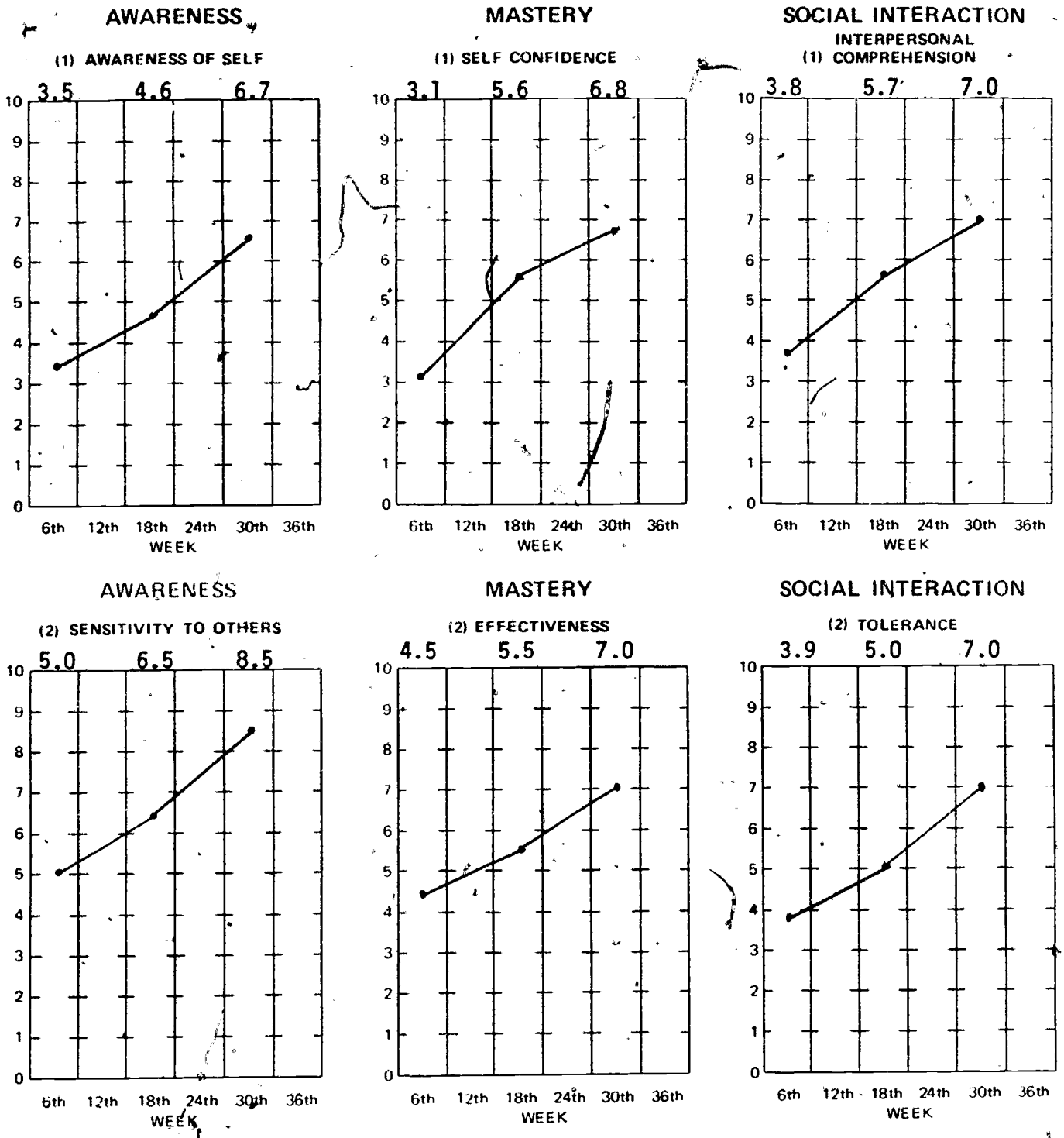


FIGURE 2 - PERSONAL DEVELOPMENT PROFILE FOR SECOND YEAR REPSAC STUDENTS

Developmental Profile

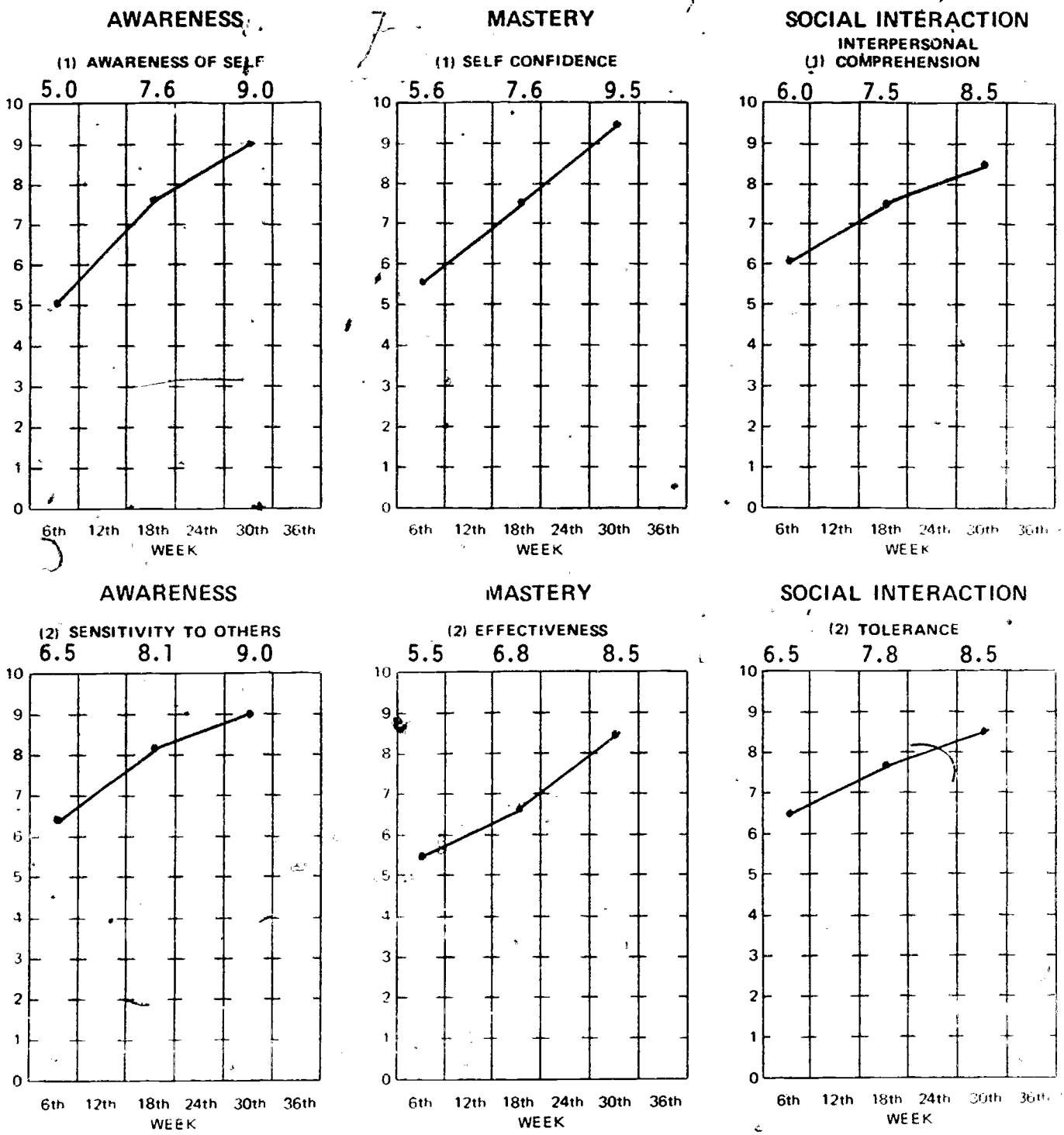


FIGURE 3 - PERSONAL DEVELOPMENT PROFILE FOR THIRD YEAR REPSAC STUDENTS

Hypothesis 5 pertained to the relationship between birth weight of the REPSAC students and the gain scores on the five areas measured. Birth weight was converted to ounces and comparisons were made using the Pearson r. These data are presented in Table 9.

TABLE 9

RELATIONSHIP BETWEEN BIRTH WEIGHT AND REPSAC SUBJECTS' GAIN SCORES

TEST	r	P
FROSTIG	.22	N.S.
HISKEY	-.19	N.S.
CARROW (SPANISH)	.17	N.S.
PEABODY (ENGLISH)	.08	N.S.
WALKER	.24	N.S.

N.S. = Not Significant

As reflected in Table 9, the correlation ranges from -.19 to .24; therefore, hypothesis 5 cannot be supported.

Summary of Evaluation Data

A summary of the evaluation data concerning the instructional component is as follows:

1. REPSAC students made significant gains in all areas measured except learning aptitude (IQ).

2. The first, second, and third year REPSAC students made significant gains in all areas measured except learning aptitude.

3. The 3-, 4-, and 5-year-old REPSAC students made significant gains in all areas measured except learning aptitude.

4. Positive and continuous growth was made by all REPSAC students concerning self concept and personality development.

5. No significant relationships were found between birth weight and and areas measured.

SECTION V

DIAGNOSTIC PROCEDURES

Pertinent collected pretest and observational data which could be used for diagnostic purposes and subsequent instructional planning were made available to the project director as a means of providing feedback into the internal operation of the program.

Data from Pretesting

The pretest data from the various tests for each student were posted to a form "Individual Student Test Data for 1974-75." This is a specially designed form to record this data. This form, containing the baseline data for each child, was provided to the project director. The posttest results were also posted to this form which could become a part of the students record.

Educational Prescriptions

In addition to providing baseline data, a short, written educational prescription was prepared for each student. This took the form of strengths/weaknesses of the student and a translation of test results into a recommended educational prescription. These prescriptions were prepared by Dr. Charles Jones, psychologist.

Seminars

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

DATE	TOPIC	PERSON RESPONSIBLE
Sept 13	Interpretation of Motor Test Scores and Developmental Gymnastics for Preschool Children	Dr. Gene Coleman
Nov 14	Assessing Health Needs of the Individual Child	Mrs. Elizabeth Pounds, RN
Nov 26	Diagnostic Prescriptions	Dr. Charles Jones
Dec 5	Interpretation of the TACL and Language Development	Dr. Ralph Carter and Dr. Betty Criscoe

Other Data

Other types of feedback information made available to the project director and teachers for diagnostic purposes included the "Report of Handicapping Conditions" and "Summary of Background Data of the Students."

SECTION VI

FOLLOW-UP STUDY OF FORMER REPSAC STUDENTS: 1971-1975

The basic assumption on which early intervention programs is based, such as REPSAC, is that stimulation for children who possess characteristics not conducive to school achievement will increase their chances of achieving in the regular school program. REPSAC, a planned intervention program for "high risk" Spanish-American pre-school children, was developed and has been operating to offer 3-, 4-, and 5-year-old children educational and social stimulation designed to assist them to achieve in school.

Purpose

The purpose of this follow-up study is to test this assumption in the case of children who attended REPSAC during the years 1971-1973. More specifically, the study attempted to answer the following questions:

1. What type of changes in learning aptitude, language development in English, and language development in Spanish have accurred from time of entry into REPSAC to the end of the regular school year 1975?

2. What is the status of former REPSAC students with regard to:

   a. Grade placement

   b. Promotion/Retention

   c. Special assistance

3. How do teachers view former REPSAC students with regard to:

   a. Academic performance

   b. Social adjustment

   c. Overall school performance

   d. Major strengths and weaknesses

Subjects

Subjects for the study were 27 former REPSAC students currently living and attending school in Clovis, New Mexico. Of the 27 subjects included in the study, 10 were in the first grade, 15 in the second grade, and 2 in the third grade. All but one of the subjects were attending public school.

Procedure

The procedure for this study consisted of the following steps:

1. Identifying the former REPSAC students by location and grade level. This step was accomplished by the current REPSAC staff.

2. Conducting a questionnaire survey of teachers. This step, also conducted by a member of the REPSAC staff, sought information from former REPSAC students' teachers.

3. Conducting personal interviews with former REPSAC students' teachers. This was conducted by a member of the evaluation team, and the interviews sought the teachers' views regarding various aspects of the subject's performance.

4. Testing students who were in the second and third grade. It was determined that test information on students who had been out of REPSAC for at least two years would be more indicative of learning aptitude and language development stability. The instruments used were the same as those used in the evaluation of REPSAC. The tests used were: the Hiskey-Nebraska Test of Learning Aptitude and the Peabody Picture Vocabulary Test (English and Spanish versions).

Data were analyzed by descriptive measures and by use of a time-series analysis.

Findings

The findings of this study are as follows:

1. Test performance of the 17 former REPSAC students tested indicate that:

   a. Learning aptitude scores (IQ) have remained relatively stable from the initial testing in the Fall of 1971 to the testing in the Spring of 1975. The largest increase occurred following the first year of interventions.

   b. Language development scores in English gained substantially after the first year of intervention and again at the end of the second year of intervention. From the REPSAC exit point in the Spring of 1973, scores have tended to remain stable.

   c. Language development scores in Spanish show the largest increase at the end of the second year of intervention. A rather substantial decrease was noted from the REPSAC exit point in the Spring of 1973 to the Spring of 1975.

d. The time-series analysis of the data indicate that the trend set in terms of past perfo· ance is departing substantially from the expected growth pattern toward a downward trend for language development in Spanish, a slightly upward trend for language development in English, and a rather stable trend for learning aptitude.

Table 10 and Figures 4, 5, and 6 present these data.

TABLE 10

MEAN TEST SCORES OF FORMER REPSAC STUDENTS, 1971-1975

TEST	FALL 71	SPRING 72	FALL 72	SPRING 73	SPRING 75
HISKEY (IQ)	89.00	98.71	94.64	99.45	99.65
PEABODY (ENGLISH)	27.82	41.94	40.45	59.82	60.82
PEABODY (SPANISH)	16.94	28.53	28.09	66.64	59.76

FIGURE 4

LANGUAGE DEVELOPMENT SCORES IN SPANISH OF FORMER REPSAC STUDENTS, 1971-1975, ORIGINAL DATA AND TREND LINE

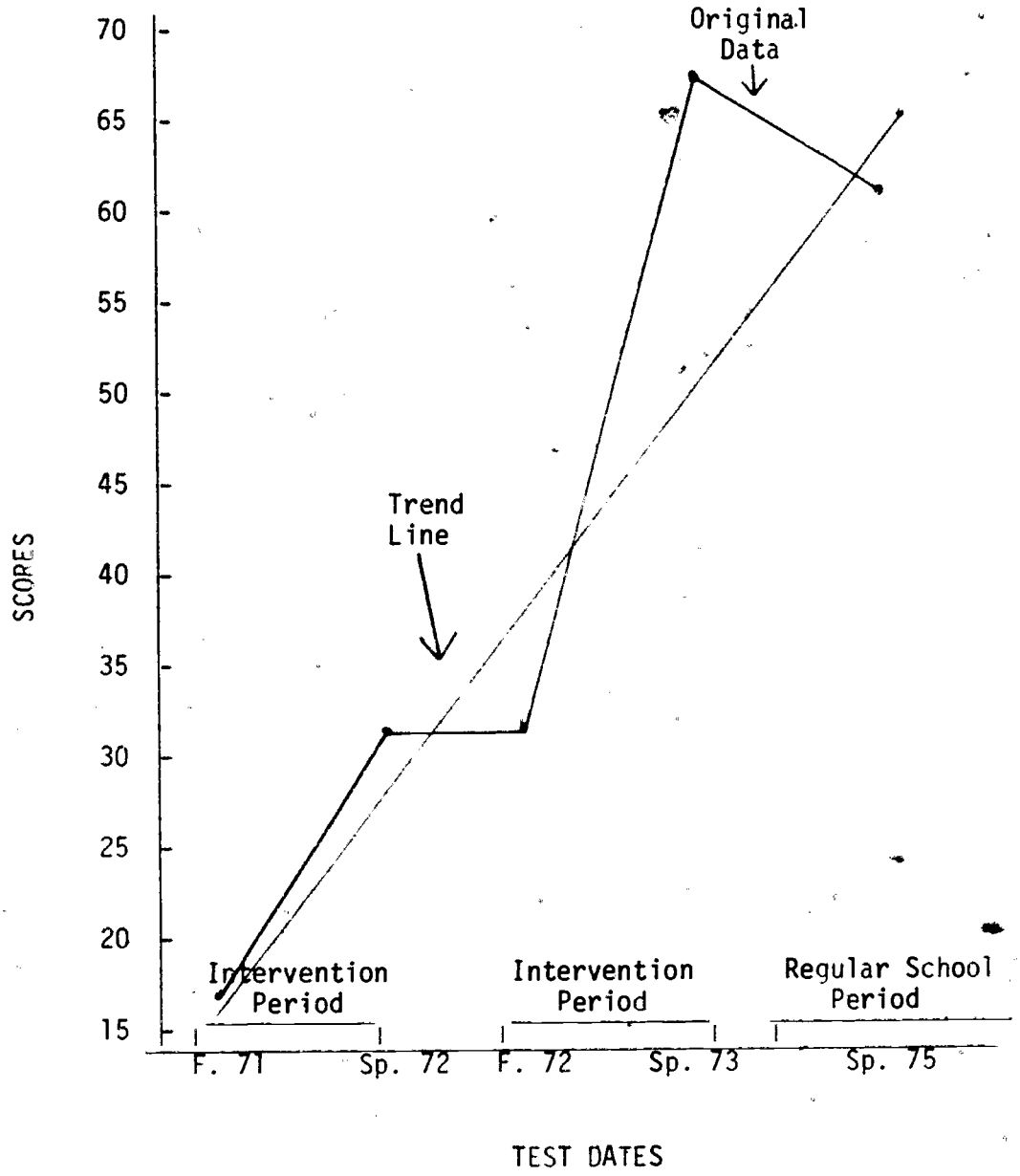


FIGURE 5

LANGUAGE DEVELOPMENT SCORES IN ENGLISH OF FORMER REPSAC STUDENTS, 1971-1975, ORIGINAL DATA AND TREND LINE

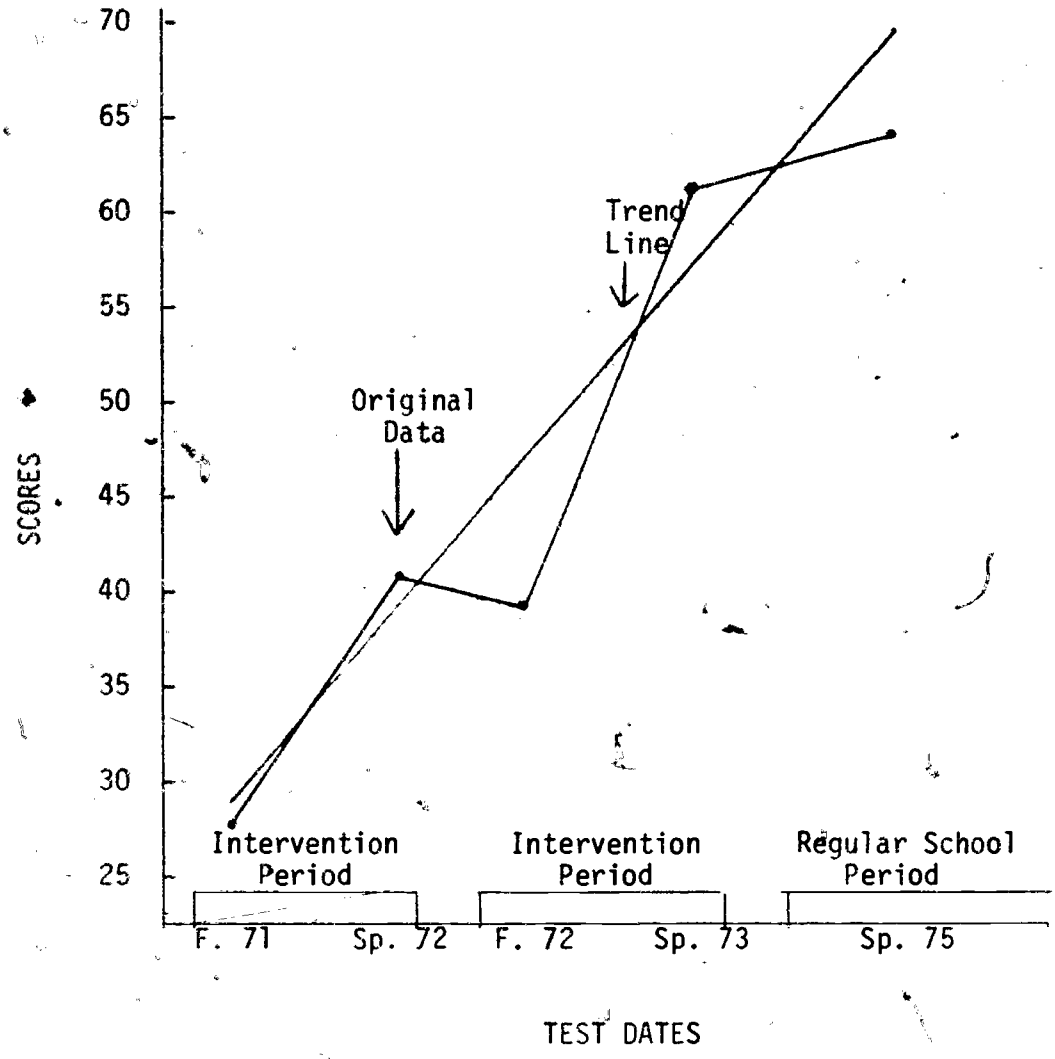
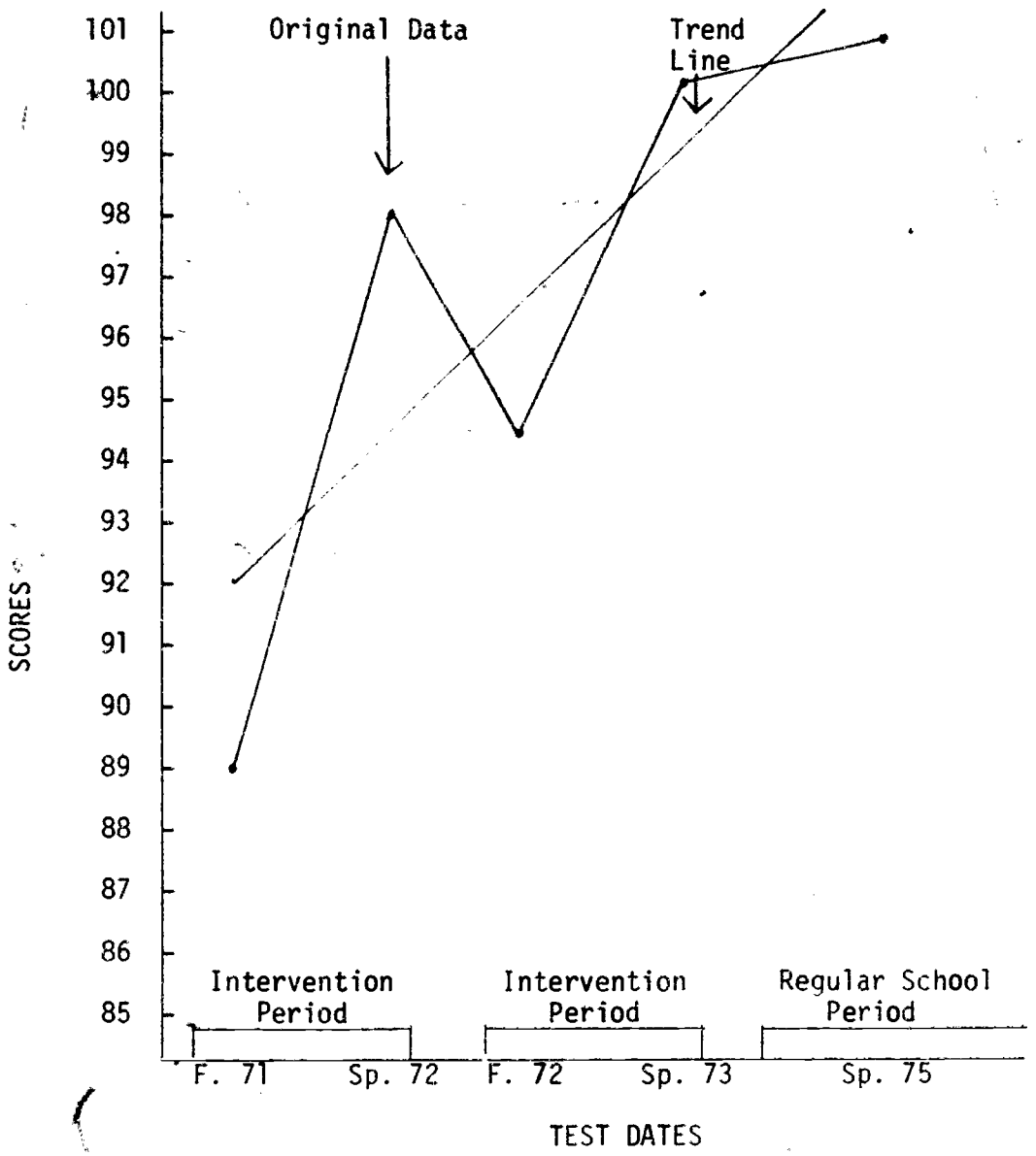


FIGURE 6

LEARNING APTITUDE SCORES OF FORMER REPSAC STUDENTS, 1971-1975, ORIGINAL DATA AND TREND LINE



2. The data indicate that 25 (93%) of former REPSAC students are in regular classrooms, and 2 (7%) in special education classes. Only one of the 17 students now in the second or third grade gave been retained, and only 3 of the 27 students in the first three grades have required special assistance.

This information is provided in table 11.

TABLE 11

CURRENT STATUS OF FORMER REPSAC STUDENTS

STATUS VARIABLES	TYPE	NUMBER	PERCENTAGE
GRADE PLACEMENT	REGULAR	25	93
	SPECIAL	2	7
GRADE LEVEL	1	10	37
	2	15	56
	3	2	7
PROMOTION/RETENTION	PROMOTED	16	94
	RETAINED	1	6
SPECIAL ASSISTANCE REQUIRED	YES	3	11
	NO	24	89

Tables 12, 13, and 14 present the results of teachers views regarding academic performance, social adjustment, and overall school performance of former REPSAC students. As noted in these tables, 48% were rated in the middle one-third of their class on academic performance, 26% in the upper one-third, and 26% in the lower one-third. With regard to social adjustment, 44% were rated in the upper one-third, 44% in the middle one-third, and 12% in the lower one-third. On overall school performance, 48% were rated average, 9% were rated good, and 5% were rated poor.

The final table, table 15, presents a summary of teacher comments concerning the strengths and weaknesses, listed in order of frequency of mention, of former REPSAC students.

TABLE 12

TEACHER RATINGS OF FORMER REPSAC STUDENTS ON ACADEMIC PERFORMANCE

RATING CATEGORY	NUMBER	PERCENTAGE
UPPER ONE-THIRD	7	26
MIDDLE ONE-THIRD	13	48
LOWER ONE-THIRD	7	26

TABLE 13

TEACHER RATINGS OF FORMER REPSAC STUDENTS ON SOCIAL ADJUSTMENT

RATING CATEGORY	NUMBER	PERCENTAGE
UPPER ONE-THIRD	12	44
MIDDLE ONE-THIRD	12	44
LOWER ONE-THIRD	3	12

TABLE 14

TEACHER RATINGS OF FORMER REPSAC STUDENTS ON OVERALL* SCHOOL PERFORMANCE

RATING CATEGORY	NUMBER	PERCENTAGE
GOOD	9	33
AVERAGE	13	48
POOR	5	19

*Teachers were asked to rate each student in terms of overall performance, i.e., motivation, willingness to learn, attention, academic progress, etc.

TABLE 15

TEACHER PERCEPTIONS OF MAJOR STRENGTHS AND WEAKNESSES OF FORMER REPSAC STUDENTS: SELECTED COMMENTS

WEAKNESSES
Eye-hand coordination problem
Getting along with people
Difficulty in decoding sounds
Insecurity
Shyness
Short Attention Span
STRENGTHS
Good at following directions
Good social adjustment
Reading
General behavior
Math concepts
Working independently

Conclusions

From the data obtained and analyzed for this study, the following conclusions appear warranted:

1. In general, former REPSAC students are performing quite well in the regular school programs. The majority of the students have followed regular grade placement, been promoted, required no special help, were rated by their teachers in the middle one-third of their class on academic performance, were rated by their teachers in the middle or upper one-third of their class on social adjustment, and were rated as average on overall school performance.

2. Based on the test information and analysis, a trend toward a substantial decline in language development in Spanish is present, a slight increase, but less than normal, in language ability in English can be expected, and a definite leveling of measured learning aptitude seems apparent.

3. Growth, particularly with respect to language development in English and Spanish, was found to be much different than what might be expected.

Discussion

It should be noted at this point that the performance of former REPSAC students can be interpreted more accurately by considering their situation at time of entry into REPSAC. The mean IQ of this group was 89.00 with English and Spanish scores of 27.82 and 16.94 respectively. This low performance level, along with other personal and social characteristics, placed these children in a "high risk" category with respect to school survival. Considering this, the achievement of these children in 1975 is quite remarkable.

SECTION VII

DISSEMINATION OF INFORMATION

Information concerning the project has been disseminated by such means as:

1. Progress reports were available to the local central administration office, school board, local area news media including near by Cannon Air Force Base, the State Department of Education, the U.S. Office of Education, and the U.S. Senators from New Mexico.

2. Site visitation by many interested individuals, groups and parents.

3. Copies of the Final Evaluation Report for 1973-74, as well as prior year evaluation reports, have been disseminated throughout the states of New Mexico and Texas. Also, these reports have been accepted into the network of the Educational Resources Information Center (ERIC) in the Clearinghouse of Rural Education and Small Schools, Las Cruces, New Mexico (4, 5, and 6).

4. The project uses student teachers from nearby Eastern New Mexico University and thereby disseminates information through the University.

5. Publication of articles in various professional journals and presentation of papers at various state and national professional organizations (1, 2, 3, 7, 8, 9, 10, 11, and 20).

6. The REPSAC program was nominated by the American Institute 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 better in the nation. Data concerning this nomination was submitted to AIR by the project director and the external evaluator.

7. A 16mm, 28 minute color film, was commercially prepared so as to disseminate information concerning the program as well as for use in the in-service training program.

8. A brochure, including pictures of the facilities and students, was prepared which was used in the dissemination effort.

9. The REPSAC program was presented as a TV program in the series of Open Door to Education, KTXT-TV (Lubbock, Texas), June 28, 1974.

10. The REPSAC project added an outreach component effective December 1, 1974. The purpose of this component is to assist other school districts who are interested in replicating the project within their district. Presently, four school districts in New Mexico have expressed an interest in replication - Carlsbad, Ft. Sumner, Artesia, and Loving. Thus, dissemination of information concerning this project has been further expanded by the addition of this component.

SECTION VIII

SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This is the fourth end-of-year evaluation study of REPSAC. External evaluation of the project has been conducted for the four years by B. E. Askins and Associates (formerly of Adobe Educational Services), Lubbock, Texas, which is an independent consultant and service organization.

The major purpose of REPSAC 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 program can provide the experiences necessary to succeed and remain in the educational mainstream.

For operational purposes, REPSAC is divided into four 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 1974-75 pertained only to the instructional component. The evaluation design of this component was based upon the component objectives and within a framework of evaluating the program or development of the students in certain areas/abilities using a pre and post-test design.

In addition, a follow-up study was conducted of former REPSAC students who were, this year, in grades 1, 2, and 3.

Findings

The major findings of the evaluation for this year as pertains to the instructional component and the follow-up study were:

1. REPSAC students made significant gains in: language ability in English; language ability in Spanish; sensory and perceptual discrimination; and school readiness. Significant gain was not evident in learning aptitude (IQ).

2. The 3-, 4-, and 5-year-old REPSAC students made significant gains in language ability in English; language ability in Spanish; sensory and perceptual discrimination; and school readiness. Significant gain was not evident in learning aptitude (IQ).

3. First, second, and third-year REPSAC students made significant gains in: language ability in English; language ability in Spanish; sensory and perceptual discrimination; and school readiness. Significant gain was not evident in learning aptitude (IQ).

4. Positive and continuous growth was made by all REPSAC students as concerns self concept and personality growth.

5. No significant relationship was found between birth weight and the mean gain scores of the areas measured.

6. REPSAC students were found to be very cooperative, willing to try various tasks without fear of failure, and an unusually long attention span for this age and type of children.

7. During the past four years of operation of REPSAC, only 7 students have dropped from the program - all moved from the Clovis community.

8. As pertains to the follow-up study, test performance of former REPSAC students now in grades 2 and 3 indicated that:

a. Learning aptitude scores (IQ) have remained relatively stable from the initial testing in the Fall of 1971 to the testing in the Spring of 1975. The largest increase in scores accrued following the first year of intervention.

b. Language development scores in English gained substantially after the first year of intervention and a gain at the end of the second year of intervention. From the REPSAC exit point in the Spring of 1973, scores have tended to remain stable.

c. Language development scores in Spanish show the largest increase at the end of the second year of intervention. A rather substantial decrease was noted from the REPSAC exit point in the Spring of 1973 to the Spring of 1975.

d. The time-series analysis of the data indicate that the trend set in terms of past performance is departing substantially from the expected growth pattern toward a downward trend in the areas of language development in Spanish, a slightly upward trend in the area of language development in English, and a rather stable trend for learning aptitude (IQ).

e. It was found that 25 (93%) of former REPSAC students were in regular classrooms, and 2 (7%) were in special education classes. Only 1 of the 17 students now in the second or third grade has been retained, and only 3 of the 27 students in the first three grades have required any type of special assistance.

Conclusions

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

1. The instructional component operated as planned and was effective. The component had the organization, curriculum, materials, facilities, and a qualified and motivated faculty to provide the desired educational experiences for the target group of children and parents.

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

3. In general, former REPSAC students were performing quite well in the regular school program. The majority of the students have followed regular grade placement, been promoted, required no special assistance, were rated by their teachers in the middle one-third of their class on academic performance, were rated by their teachers in the middle or upper one-third of their class on social adjustment, and were rated as average on overall school performance.

4. Based on the test data and analysis of the former REPSAC students, a trend toward a substantial decline in language development in Spanish is predicted, a slight increase (but less than normal) in language ability in English can be expected, and a definite leveling of measured learning aptitude (IQ) seems apparent.

5. In short, REPSAC functioned as planned and in accordance with the approved proposal document during the 1974-75 program year; therefore, it is concluded that REPSAC is serving as an effective educational intervention for the target group children.

Recommendations

Based upon the findings and conclusions of this study, the following suggestions or recommendations are made:

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

2. That the objectives of the instructional component be reviewed and possibly re-formulated in performance terms.

3. That the follow-up study of former REPSAC students be expanded to a longitudinal study for at least 2-3 additional years.

4. That the program develop a brochure describing the various components and overall operation of the program. Such a brochure could be used to answer various correspondence and to assist in the replication process.

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APPENDIX A

DESCRIPTION OF TESTS

A brief non-technical description of each of the tests used during 1974-75 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

The Hiskey-Nebraska Test was administered individually by a psychologist. 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). This test has a background of psychological and special education testing use. The test 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 Development

English

The Peabody Picture Vocabulary Test (Dunn) is designed to provide an estimate of a student's "verbal intelligence" through measuring his hearing vocabulary. The test also has wide utility as a clinical tool. Besides being effective with average students, it has special value with certain other groups. Since students 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 apparently appropriate for at least some perceptually impaired persons. According to the Test Manual, the scale is appropriate for students between 2½-18 years who are able to hear words, see the drawings, and have the facility to indicate "yes" and "no" in a manner which communicates.

Spanish

The test for Auditory Comprehension of Language (Carrow) (5th edition) is designed to measure the child's understanding of language structure (Spanish). The test is administered in Spanish using 101 oral stimuli using a pictorial response mode. According to the test manual the TACL can be used to diagnose the language competence of bilingual and mentally

retarded children as well as those with hearing articulation, or language disorders, ages 3-6.

Sensory and Perceptual Discrimination

The Developmental Test of Visual Perception (Frostig) is administered individually to young children. It seeks to measure five operationally-defined perceptual skills as follows: eye-motor coordination; figure-ground (figures against increasingly complex ground); 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.

School Readiness

The Readiness Test for Disadvantaged Pre-School Children (Walker) was adpated 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 similiarities, differences, numerical analogies, and missing parts.

Self Concept and Personality Development

The Developmental Profiles (Bessell and Palomares) 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.