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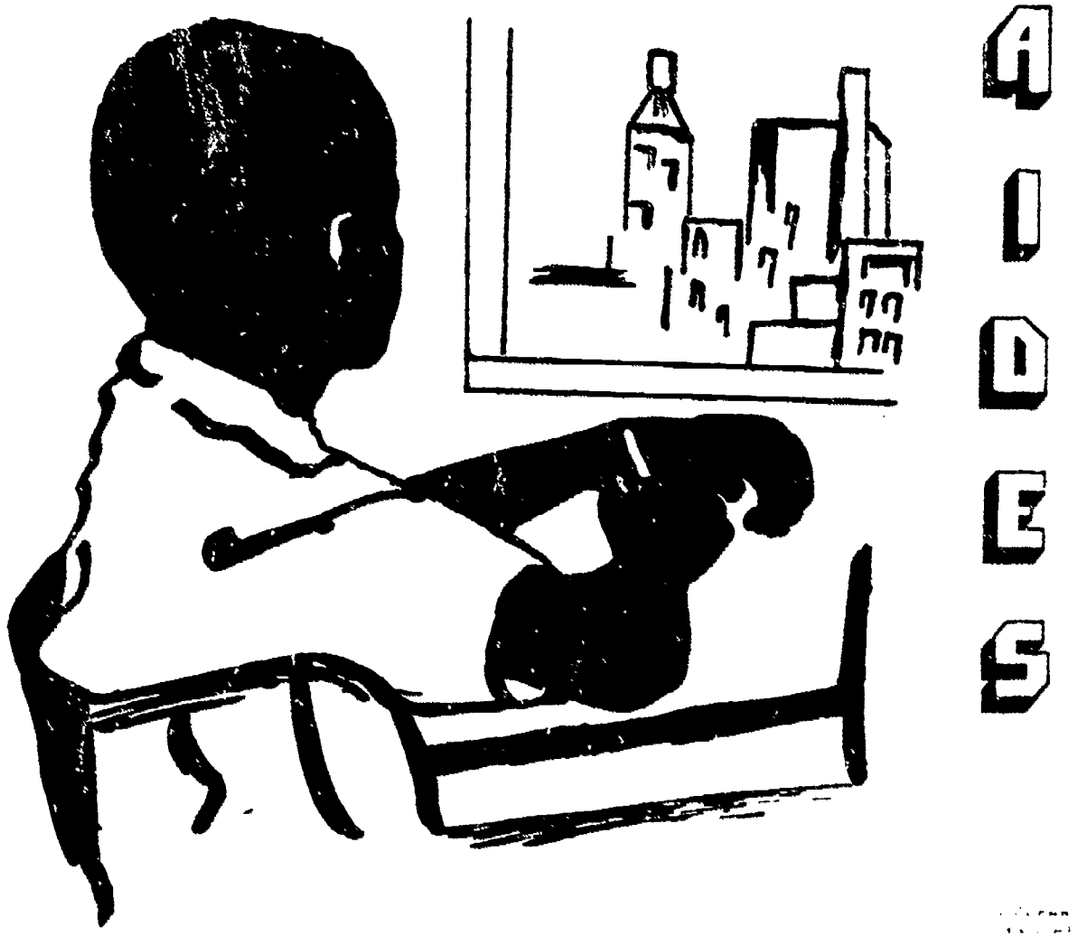
ABSTRACT

This report of the Community Educational Aides in Open Space School project evaluates the role and function of educational paraprofessionals in open space schools, in this case the elementary-level Bruce-Monroe School in Washington, D.C. The project entailed the employment of 13 aides during the 1973-74 school year to assist 23 Bruce-Monroe teachers. The evaluation assessed all aides, teachers, and students at the school. Two criterion-referenced tests--the Prescriptive Reading Test--as well as self-observation scales were administered to the students. Aides completed two questionnaires--Role and Function Study and Aide Time Allotment Study. Teachers completed Educator's Professional Values Scale and Teacher Time Allotment Study. The purpose of the aides program was seen as the selection, training, and utilization of citizens of the local community as education aides; the encouragement of career advancement; increased school/community communication; improvement in the teaching/learning environment; training for paraprofessionals; and improvement in student and adult self-concept. Detailed analyses of results are included. (JCW)

PUBLIC SCHOOLS OF THE DISTRICT OF COLUMBIA

COMMUNITY EDUCATIONAL AIDES



ESEA TITLE III EVALUATION
FINAL REPORT

OFFICE OF PLANNING, RESEARCH, AND EVALUATION
Division of Research and Evaluation
August, 1974

ANNUAL EVALUATION REPORT
1973-74

COMMUNITY EDUCATIONAL AIDES
IN OPEN SPACE SCHOOLS
AN ESEA TITLE III PROJECT

PUBLIC SCHOOLS OF THE
DISTRICT OF COLUMBIA

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CONTENTS

I. EXECUTIVE SUMMARY AND RECOMMENDATIONS

Community Educational Aides (Aides) in Open Space Schools, an ESEA Title III Project is located at Bruce-Monroe School in Washington, D.C. Aides is an innovative project designed to assimilate the role and function of the education para-professional into open space schools. During 1973-74, thirteen aides were employed by this project to assist twenty-three Bruce-Monroe teachers.

IBEX, Incorporated, a not-for-profit educational agency incorporated in the District of Columbia, was contracted in April, 1974 to evaluate the Aides project. Preliminary to this end-of-year evaluation report, an evaluation design document and an instrument catalog were submitted and approved.

Briefly, the dimensions of the evaluation included all aides, teachers and students at Bruce-Monroe, including the administrative staff. In the fall and spring of the school year the appropriate levels of the D.C. Prescriptive Mathematics Test (PMT) and the Prescriptive Reading Test (PRT) were administered to the Bruce-Monroe children. In the spring of 1974 the Self Observation Scales (SOS) - Primary and Intermediate levels, was given to all children (K-6). In addition, aides completed two questionnaires; 1) Role and Function Study and 2) Aide Time Allotment Study. Teachers took the Educator's Professional Values Scale and completed the Teacher Time Allotment Study. Since this (1973-74) is the first year of the study,

a major purpose of the evaluation was to establish benchmark data for continuing evaluations.

The following are findings and conclusions from the evaluation:

- Primary grade children (K-3) at Bruce-Monroe show above national averages on School Affiliation and Achievement Motivation.
- Bruce-Monroe students at all grades (K-6) are at or above national averages in Self-Acceptance. This evidence supports earlier findings that indicate that the basic message "black is beautiful" is reaching our children.
- Primary children at Bruce-Monroe are below national averages on Social Maturity and Self-Security. This finding has definite programmatic aspects (see recommendations).
- Bruce-Monroe students show greater self-security and less anxiety as they move through their school grades.
- For Bruce-Monroe intermediate students, Social Confidence is below national norms. This is a measure of how one "expects to be treated" in social contacts. This finding also has programmatic aspects (see recommendations).
- Teacher and School Affiliation scores (3-4), though slightly below the national norm, do not show the dramatic decline often found during close-of-school testing in these areas.

- Bruce-Monroe students in grades one through four are mastering the necessary mathematics skill at a reasonable rate and within expectancy ranges.
- Fifth and sixth grade results are indicative of a serious sequencing problem in the mastery of necessary skills in arithmetic.
- Reading skills mastery is shown to be on schedule with few serious problems.
- The use of criterion reference tests negate a comparison of Bruce-Monroe students with local or national norms on reading and mathematics achievement.
- The use of educational aides does free the teacher for greater expenditure of time on instructional activities.
- Teachers now indicate that they spend less than half their time in instructional activities.

Recommendations

- A careful review needs to be made of the fifth and sixth grade mathematics curriculum. Present data suggests that there are sequencing problems. It may be necessary to intensify the use of aides in this area to assure mastery of mathematics skills.
- Aides should assist in implementing a program of affective education to increase social confidence of Bruce-Monroe students. Inservice education in self development and human relations should be instituted.

- Teachers and aides should set goals regarding time allotment for various activities so that each task is completed capitalizing on the specific talents of each.
- Teachers should agree on a reasonable allotment of time for instruction and strive for that goal.
- Efforts should be continued to employ male aides.

II. PROGRAM DESCRIPTION

The role, function and preparation of the educational aide or the paraprofessional in our schools continues to receive attention among the variety of programs proposed to improve our schools. Not only are educational aides being added to school staffs, they are being assigned to schools with unusual structures (such as open spaces), students or assignment patterns (such as non-graded). These assignments are being accomplished during a period of time when the preparation, role and function of the educational paraprofessional are not clearly defined.

The Community Educational Aides for Open Space Schools Project in the Bruce-Monroe School of the District of Columbia Schools, is an ESEA Title III project that proposes to select, train and utilize citizens of the local community as educational aides. Such a process provides or encourages:

(a) a career ladder for community persons
(b) increased school/community communications
(c) improvements in the teaching/learning environment
(d) training for paraprofessionals
(e) improvement in student and adult self concept.

It is the purpose of the project evaluation to clarify and meet the information needs of the project. Not only should the

evaluation determine if the project is accomplishing its objectives, but, more importantly, an information system must be instituted which will provide clear and timely data to project decision makers. Such is the function of information based evaluation.

If the Community Educational Aides project successfully accomplishes its assigned tasks, only a portion of its mission is fulfilled. The role of ESEA Title III is to provide other school systems with exemplary models for possible adoption. District of Columbia Schools has this greater responsibility. The evaluation process must provide information to local, state and national decision makers on the value, role and impact for the paraprofessional.

III. THE EVALUATION DESIGN

A close examination of the expanding literature on educational evaluation indicates a transfer of the focus of attention from philosophical discourses on the need and desirability of educational evaluation to a critical appraisal of the tools and methodologies available. This shift in emphasis has paralleled the realization that evaluation can be an aid to rational thought and action within the decision making process. In order to approach the study of educational evaluation in a systematic manner, we must conduct a more thorough examination of its components and elements than is generally found in the literature.

Evaluation is a continuous process, and involves the constant re-examination of programs, trends, policies, and tendencies so that rational decisions can be made between competing alternatives. Evaluation is not an end, but a means for making better use of the resources available; it provides the information required for guiding the future course of an enterprise. Since evaluation is future-oriented, it becomes imperative that decision makers requiring information learn to identify these information needs.

Educational evaluation can be usefully defined as follows:

> Evaluation is the process of clarifying a set of decision needs and collecting, analyzing, and reporting information to alleviate those needs.

This definition includes several different elements. A short discussion of these elements will serve to clarify the meaning of the above definition and present some of the topics which will be expanded in later sections.

1. Evaluation is a Process . . .

Evaluation is a process, i.e., a continuous activity requiring an expenditure of resources in order to be sustained. Evaluation as a process should be distinguished from a "plan". A "plan" is a set of decisions impacting on the future and can be developed through evaluation feedback or through some other method of decision making.

2. Of Clarifying . . .

The evaluation process seldom includes the definition of information needs. This is the province of management. The role of evaluation is to clarify these identified information needs in such manner that valid data can be secured to alleviate these management needs.

3. A Set of Decision Needs . . .

Information needs seldom are singular in nature. More often, a decisionmaker requires information on a number of variables, many of which are inter-related. "A set of decision needs" then, refers to a systematically inter-related matrix of choices among alternatives.

4. And Collecting . . .

The collection of information which will impact on the decision making process involves an economically selective approach. Rarely is no information available which will impact on a decision situation. Generally, there is an

abundance of information, and the problem becomes one of maximizing the amount and quality of the information collected within fixed resource constraints.

5. Analyzing . . .

Analysis involves the massaging of the collected information in such a way that the decision needs can be best alleviated. Just as the collection element involves a number of options and requires selectivity, so does the analysis element. More commonly, evaluation data is massaged too little rather than too much.

6. And Reporting Information . . .

All previous elements are meaningless academic exercises unless the results of the evaluation process can be communicated to the right decisionmakers in a timely, precise, and readily understandable format and language.

7. To Alleviate Those Needs . . .

The alleviaton of need implies that the preceding elements of the definition were adequately realized. As previously mentioned evaluation is not an end in itself; the end, rather, is the provision of accurate information to decisionmakers. The decisionmakers solicit this information in the hope that an adequate knowledge base can be realized.

Information Based Evaluation

The strategy upon which this evaluation builds is called Information Based Evaluation (IBE)*. This strategy

*A. Jackson Stenner, Information Based Evaluation Series Book 1: An Overview of Information Based Evaluation: A Design Procedure Arlington, Virginia IDEA, Inc. 1972

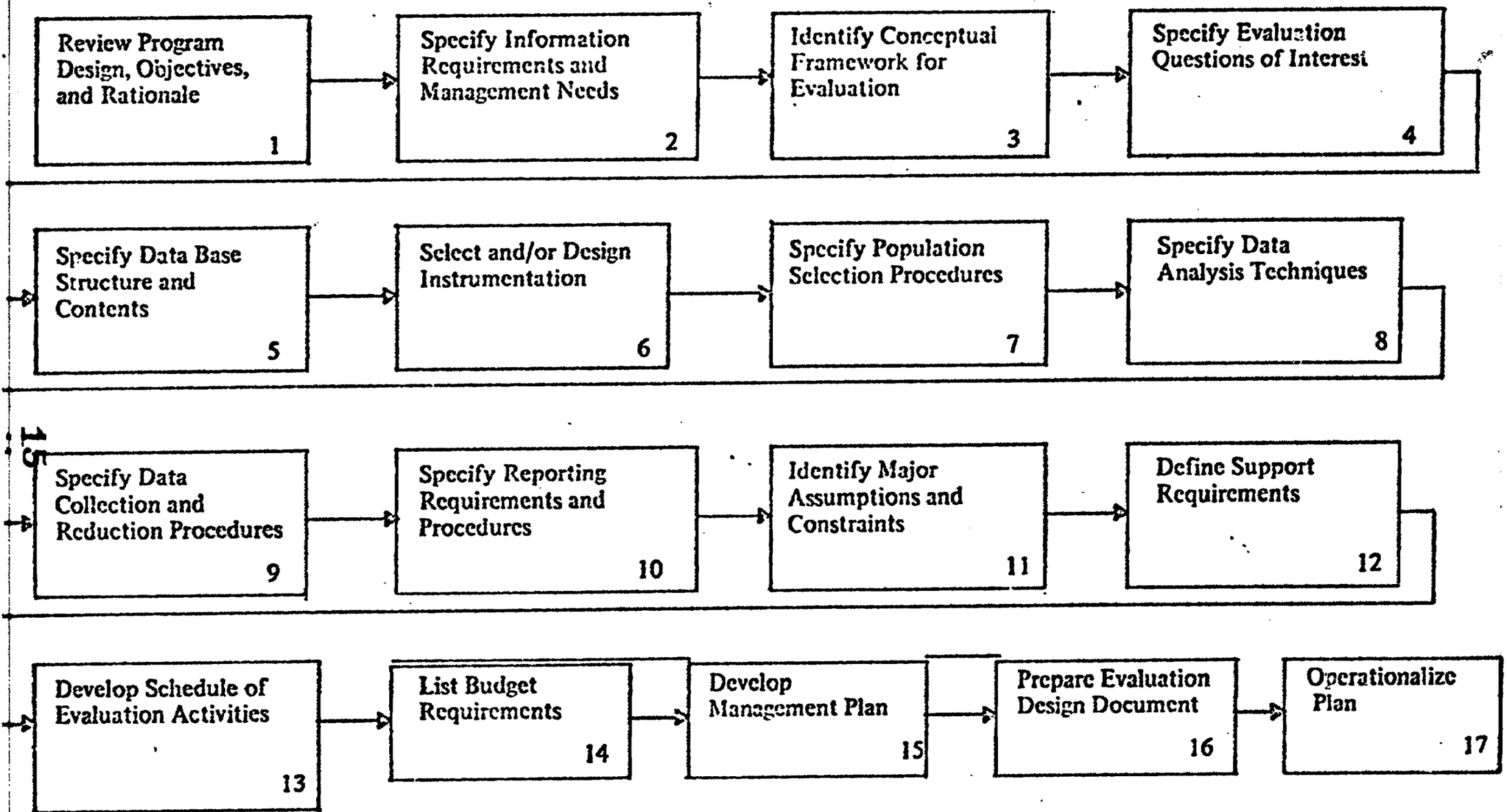
has been successfully implemented on some forty projects at both the state and local level over the past two years. The schema for IBE is shown on the following pages.

The concept of information utility is the overriding characteristic that differentiates "good" evaluation from "poor" evaluation and differentiates undisciplined data collection from information gathering. Judged by even modest standards of utility, educational research and evaluation has a pitifully poor record, and the unfortunate educational manager or policy maker operating within this void must sift through mountains of data for those kernels of desired information.

In the social sciences in general, and in education in particular, the mechanisms do not exist for supplying information to those who need it. The traditional evaluation mechanism has not added much to the meager research contribution. Theoretically, evaluation should be a suitable mechanism but it has suffered from growing pains and an obsession to separate itself clearly from the research model. The Information Based Evaluation Model, hopefully, suffers from no such obsessions, except perhaps that of adhering strictly to the concept of information utility.

Another contributing factor to the inadequacy of present day evaluations has been the relationship between evaluation

FLOW CHART FOR DEVELOPING AN EVALUATION DESIGN



and the performance objectives movement. The symbiotic growth these two concepts have enjoyed has served to reduce the full potential of educational evaluation. The crucial role performance objectives play in program management are obvious; however, the question arises as to what place objectives should have in evaluation. The Information Based Evaluation approach views program objectives as a focus of evaluation activity, but by no means the focus. More traditional approaches to evaluation have used performance objectives as the foundation for the planning and execution of evaluation activities. This procedure is considered inadequate for several reasons:

1. Basing evaluation on performance objectives restricts the focus of evaluation to intended outcomes, thus overlooking unintended outcomes which are potentially just as important.

2. Performance objectives provide a very inflexible basis for evaluation in that they are seldom changed during the program year, and thus, information needs (which are fluid) cannot be adequately addressed.

3. Even if information on the attainment of all performance objectives is provided, important information is invariably ignored because

objectives are not developed with information needs in mind, but, rather, are developed as guide-posts for program management.

4. Objectives based evaluation often views each objective as a unique area of focus and thus, important relationships are often overlooked.

If program objectives are inadequate as a foundation for evaluation, what are the alternatives? How do we define the parameters of evaluation, i.e., what are the reference points? In objectives based evaluation, the reference points are the program objectives. In information based evaluation the reference points become the information users for the program and the information domains (needs). Capitalizing on these two reference points, a technique called domain analysis can be used to define and focus the direction of the evaluation.

Information based evaluation should not be considered as "objective free" evaluation. Information based evaluation recognizes the importance of program objectives, but only to the extent to which feedback on the objectives is considered important to information users. The overriding consideration is the type of questions about which relevant individuals desire answers. Priorities are established in both the information domain category (e.g., student cognitive growth)

and the information user category (e.g., local superintendent) and the evaluation resources are expended to meet these identified priorities. An additional check on the adequacy of evaluation information is the extent to which the information leads to action. If no relationship exists between information and action, then the adequacy and/or quality of the evaluation effort is in doubt.

In polling the various information users, the evaluation team can often develop evaluation questions that relate to "unintended outcomes" or "shadow benefits". These questions occur because all information users are probably not supportive of the program procedures and/or objectives; thus, their information needs will highlight aspects of the program that would not receive attention in an objectives based evaluation effort. Program developers and program staff generally have a highly developed commitment for the program and are myopic in viewing the outcomes of the program. The possibility that the program may cause some negative side effects is very difficult for them to comprehend, let alone accept. However, individuals or factions that have been against the program from the start are generally more than capable and willing to identify potential weaknesses and unintended outcomes. Therefore, in serving each information user, the evaluation team can gain a balanced view of the program.

Information based evaluation recognizes that an evaluation must be dynamic if it is to be responsive. Program objectives rarely change during the project year, thus the objectives based evaluation is static and methodical in responding to the information requirements. Information based evaluation accepts the fact that information needs are fluid, and new questions are posed throughout the program cycle. An IBE Procedural Flow Chart can be found on page 11.

Information based evaluation rests on three major components: information users, information domains, and evaluation questions. At an evaluation design conference with Bruce-Monroe staff, these three components were carefully viewed and given priority rank in the Community Aides evaluation. The design conference participants included teachers, principal, central office administrative personnel, as well as the entire aide staff.

Information Users

Those who need or desire information about a particular project or program in the semantics of IBE are called information users. For the Community Aides Evaluation, the following priority list of users was adopted:

Project Staff
Principals
Aides
Teachers
Central Staff
Superintendent
Board of Education
USOE

Information Domains

Domains in IBE are defined as those general areas that are of concern to project staff and other information users. For this project, the domains were considered in two phases: student outcomes, and teacher and aide activities. Student outcomes were as follows:

A. Student Achievement
   1. Language Arts
      a. Reading
   2. Mathematics

B. Student Attitudes
   1. self acceptance
   2. self image
   3. school affiliation
   4. peer affiliation
   5. teacher/aide affiliation
   6. social maturity
   7. social confidence
   8. achievement motivation

Teacher and aide process or activity domains were considered as follows:

A. Teacher Functions
   Role change
   Relationships
   Time allotments
   Professional attitudes

B. Aide Functions
   Role
   Time allotment
      clerical
      housekeeping
      materials and resources
      community liaison
      monitoring duties
   Teacher/Aide relationships
   Inservice education
   Career ladder

Evaluation Constraints

The following were discussed and agreed upon as the factors constraining the evaluation.

- There would be no opportunity for a control group to participate, thus an experimental-control design could not be used.
- There were no non-cognitive tests given in the Fall of 1973 since no evaluation contracts have been negotiated, thus growth patterns could not be analyzed.
- The CRT and CMT were given in the Fall of 1973. Requests made to the proper authorities allowed a post (Spring) administration of the same instruments. Thus, there will be opportunity to study achievement patterns for this evaluation.
- A total of $7,700 is available for the study.
- All testing and surveys must be completed by June 7, 1974.

Evaluation Questions

The following are the major evaluation questions which will be explored in this study.

Student Outcomes

1. What achievement growths were shown between September and May for students in the AIDES project? (interest growths are language arts, reading and mathematics)
2. How do AIDES children compare in non-cognitive (affective) areas with similar non-AIDES students? (areas of interest are self acceptance, self security, social maturity, social confidence, peer affiliation, school affiliation, teacher/aide affiliation and achievement motivation)

Teacher/Aide Activities

1. How does the role of the teacher with an aide differ from the teacher without one?
2. What are the professional attitudes of teachers with aides?
3. What is the role and function of an aide in open-space classrooms?
4. How does an aide allot his/her time among the various functions?

5. How does the community feel about aides in the schools?

Instrument Catalog

The following is a list of the instruments recommended by IBEX for the AIDES evaluation. Except for the achievement tests, copies of each instrument are to be submitted as the Interim Report.

Prescriptive Mathematics Test (D.C. Edition)
Prescriptive Reading Test (D.C. Edition)

Self Observation Scales: Primary (K-3)
- Self Acceptance
- Self Security
- Social Maturity
- School Affiliation
- Achievement Motivation

Self Observation Scales: Intermediate (4-6)
- Self Acceptance
- Self Security
- Social Maturity
- Social Confidence
- Peer Affiliation
- School Affiliation
- Teacher Affiliation
- Achievement Motivation

Educator's Professional Values Scale

Role and Function Study: School Aides

Time Allotment Study: Aides

Time Allotment Study: Teachers

Study Population

Three major groups are a part of this evaluation:

(1) Students at Bruce-Monroe School, Washington, D.C., grades 1-6, approximately 600 of them whose teachers are part of the aides program.

(2) Teachers at Bruce-Monroe School, at grades 1-6 who are working with the community aides, twenty-three of them.

(3) Community aides at Bruce-Monroe School employed in the ESEA Title III project.

IV. EVALUATION RESULTS

Presentation of the results of the evaluation of the Community Aides project is arranged according to the information domains presented in Section III of this report. Information provided in this section will respond to the evaluation questions that are also presented in Section III.

Student Achievement

It is the policy of the Board of Education for the District of Columbia to use as a system wide testing program, criterion referenced rather than norm referenced tests. CTB McGraw-Hill developed and designed, especially for Washington, D.C. Schools, the Prescriptive Reading Test (PRT) and the Prescriptive Mathematics Test (PMT). The PRT and the PMT are criterion referenced tests (CRT) designed for grades one through six.

The following brief description of the PMT and the PRT is paraphrased from material provided by CTB McGraw-Hill. Its purpose is to provide the reader with a brief review of criterion referenced testing.

A CRT shows whether an individual student has learned certain skills. The reading and mathematics skills included in the test were judged by teachers to be some of the most important skills for children to learn. Each skill has been written as

a behavioral objective that states the skill in a way that tells what the student must do to show that he has learned the skill. An example of this is seen in the objective: "The student will be able to identify the silent letters within given words." When a student answers the required number of test items written for an objective he is said to have "mastered" the objective.

The main purpose of a CRT is to show how an individual student is progressing toward mastery of important skills. He is evaluated according to his progress rather than according to how his performance compares with that of other students.

CRT reports are divided into large sections that represent major instructional areas in mathematics or reading. Each section contains short descriptions of objectives that fall within that instructional area. Each objective description has a box beneath it containing a "+" or "-". The "+" tells that the child has mastered that objective; a "-" tells that the objective was not mastered; if the box is blank one knows that the items for that objective were omitted in testing. The number of items answered correctly by the student appears beneath each box.

CRT's are not usually used for project evaluation. However, since all students at Bruce-Monroe took the PMT and the PRT in the fall of 1973, and since it tapped important learnings, it was agreed that it was applicable to the Community Aides Project.

Thus, in the spring of 1974 approximately twenty-five children at each grade level took the appropriate level of the PMT and the PRT. Results were scored by CTB and reported in the D.C. printouts by percent of students at each grade level who had mastered this skill.

Students who took the test in the spring of 1974 were matched to their full 1973 test results and the percent who mastered each skill was computed.

Tables 2 through 7 present the results of pre-post testing on the Prescriptive Mathematics Tests (PMT) for grades 1 through 6 respectively. A careful review of their data reveals that the mathematics curriculum moves smoothly through the first four grades with students making consistent improvement in mastering the measured skills. However, results are indicative of a serious sequencing problem in grades five and six mathematics instruction. Students in these two grades show little or no gain in the mastery of mathematics skills. Results seem, at first, to indicate some deficiency in testing procedures, however, occasional increases in percent mastering does occur, indicating gains are being made. If one compares levels of mastery for fifth and sixth graders with those in other grades the conclusion that there are problems in fifth and sixth grade math is inescapable.

This information is supported by a review of the fall pre-test data for all sixth and fifth grade students now on file in the school.

TABLE 2

The Schools of the District of Columbia
Community Educational Aides in Open Space Schools
An ESEA Title III Project 1973-74

Results of Pre-Post Testing on the Prescriptive Mathematics Test
Percent of Students Who Mastered Each Skill on
Pre and Post Testing

Grade: 1 Level: A N = 25

		% Mastered Pre Test	% Mastered Post Test
	Sets and Numbers		
1.	Equivalent/Nonequivalent Sets	56	100
2.	Cardinality	65	100
3.	Cardinality - Grouped	8	96
4.	Greater Than/Equal To/Less Than	4	80
5.	= / ≠	52	84
6.	Subsets	56	100
7.	Ordinal Numbers	78	100
8.	Order of Numbers	30	76
9.	Betweenness	47	92
10.	Equivalent Parts of a Whole-Halves/ Thirds/Fourths	73	100
11.	1/2 - 1/3 - 1/4 of a whole	56	92
12.	Equivalent Parts of a Set - Halves/Fourths	4	72
13.	1/2 - 1/4 of a set	4	56
14.	Identify 1/2 - 1/4	17	80
	Numeration		
15.	Number Line	8	72
16.	Numerals	82	100
17.	Numbers - Word Names	13	100
18.	Sets of 10	78	92
19.	Place Value	13	40
20.	Different Names For a Number	17	84
	Operations and Their Properties		
21.	Union	65	84
22.	Number Property - Joining Sets	52	80
23.	Add - Two - Digit	47	92
24.	True Number Sentences +/-/=	8	56
25.	Number Property - Separating Sets	43	88
26.	Joining Sets	43	60
27.	Subtract - 1 - Digit from 10 or less	13	100
28.	Zero as an Addend	34	96
29.	Zero - Identity Element	8	52
30.	Commutative/Associative Property - Addition	8	52
31.	Add - Four 1-Digit	21	68
32.	Add - Two 2-Digit, No Regrouping	21	88
33.	Subtract - Two 2-Digit	0	92
	Problem Solving		
34.	Solve Oral Word Problem	43	96
35.	Identify Open/Closed Sentence	0	32
36.	Solve Open Sentence - Addition	8	96
	Measurement		
37.	Instruments of Measure	73	96
38.	Clock - Hour/Half-hour	13	40
39.	Set of 12-dozen	8	88
40.	Liquid Measure	82	96
41.	Coins	78	92
42.	Read Money Expressions	78	100
	Geometric Concepts		
43.	Square/Triangle/Rectangle/Circle	95	100
44.	Line/Line Segment	56	96
45.	Point on a Number Line	17	36

TABLE 3

The Schools of the District of Columbia
Community Educational Aides in Open Space Schools
An ESEA Title III Project 1973-74

Results of Pre-Post Testing on the Prescriptive Mathematics Test
Percent of Students Who Mastered Each Skill on
Pre and Post Testing

Grade: 2 Level: B N = 25

		% Mastered Pre Test	% Mastered Post Test
	Sets and Numbers		
1.	Cardinality	88	96
2.	Order of Numbers	64	96
3.	Betweenness	44	84
4.	Odd/Even Numbers	8	36
5.	Number Sequences	52	84
6.	Cardinality - Grouped	12	56
7.	Greater Than/Equal To/ Less Than	20	84
8.	/=/	24	56
9.	Sums/Differences /=/	8	40
10.	Sums/Differences = / ≠	36	68
11.	Ordinal Numbers	68	96
12.	Equivalent Parts of a Whole - Thirds/Sixths	48	84
13.	1/3 - 1/6 - 1/8 of a Whole	60	96
14.	Equivalent Parts of a Set - Fourths	40	68
15.	1/4 of a Set	40	0
16.	Identity 1/3 - 1/6 - 1/8	84	92
	Numeration		
17.	Numerals	76	92
18.	Sets of 100	48	76
19.	Place Value	8	36
20.	Expanded Notation	8	48
21.	Renaming Numerals	4	16
22.	Different Names for a Number	24	44
	Operations and Their Properties		
23.	Odd-two 1- Digit	84	84
24.	True Number Sentences +/-/=	52	96
25.	Number Property - Separating Sets	56	88
26.	Joining Sets	48	84
27.	Subtract - 1-digit from 18 or less	48	84
28.	Addition/Subtraction-Number Line	8	56
29.	Commutative/Associative Property-Addition	4	36
30.	Add - 1 - Digit to 10	72	100
31.	Add Three/Four 1-Digit	48	72
32.	Add - 1 - digit to 2-digit, No Regrouping	32	88
33.	Add - two 2-digit	28	80
34.	Subtract- 1-or 2-digit from 2-digit	16	72
35.	Add Four 2-digit	16	48
36.	Add-Two 3-digit	28	76
37.	Subtract	8	64
38.	Add 1-or 2- digit to 2-digit	16	60
39.	Subtract 1-or2-digit from 2-digit	0	24
40.	Union of Sets	64	92
41.	Disjoint Sets	20	72
	Problem Solving		
42.	Solve Word Problem	56	80
43.	Identify Open/Closed Sentence	20	88
44.	Solve Open Sentence - Addition	56	76

TABLE 3 (cont'd.)

The Schools of the District of Columbia
Community Educational Aides in Open Space Schools
An ESEA Title III Project 1973-74

Results of Pre-Post Testing on the Prescriptive Mathematics Test
Percent of Students Who Mastered Each Skill on
Pre and Post Testing

Grade: 2 (cont.) Level: B N = 25

		% Mastered Pre Test	% Mastered Post Test
	Measurement		
45.	Clocks - 5/15/30 Minute Interval	20	64
46.	Liquid Measure	4	68
47.	Convert Liquid Measure	8	48
48.	Measurement - Nearest Inch	44	88
49.	Temperature	76	96
50.	Coin Names	68	92
51.	Coins - Equivalent Values	44	64
	Geometric Concepts		
52.	Pentagon/Octagon	32	88
53.	Closed Curves	16	60
54.	Locating Points/Curve	60	80
55.	Three-Dimensional Shapes	68	84

TABLE 4

The Schools of the District of Columbia
Community Educational Aides in Open Space Schools
An ESEA Title III Project 1973-74

Results of Pre-Post Testing on the Prescriptive Mathematics Test
Percent of Students Who Mastered Each Skill on
Pre and Post Testing

Grade: 3 Level: C N = 24

	Sets and Numbers	% Mastered Pre Test	% Mastered Post Test
1.	Whole Numbers	52	63
2.	Cardinality - Grouped	38	50
3.	Order of Numbers	33	63
4.	Number Sequences	9	25
5.	Equivalent Parts of a Whole - 1/6ths / 1/8ths / 1/10ths	80	96
6.	Tenths	71	79
7.	Identify - 1/6 / 1/8 / 1/10	47	67
8.	Name a Whole - $\frac{2}{2}$ / $\frac{3}{3}$ / $\frac{4}{4}$ / $\frac{6}{6}$ / $\frac{8}{8}$	52	79
9.	Fractional Part - thirds, fourths/sixths/eighths	0	13
10.	Equivalent Parts of a Set - Thirds	14	54
11.	1/3 of a Set	23	4
	Numeration		
12.	4-Digit Numeral	4	46
13.	Place Value	9	29
14.	Expanded Notation	19	42
15.	Renaming Numerals	28	67
16.	Different Names for a Number	19	54
17.	Rounding	19	38
18.	Roman/Arabic Numerals	28	46
	Operations and Their Properties		
19.	Subtraction-Inverse of Addition	33	50
20.	Add - Four 1 - or 2-Digit, No Regrouping	47	88
21.	Add- 1- or 2-Digit to 2-Digit	66	100
22.	Subtract - 1-or 2-Digit from 2-Digit	14	38
23.	Add - Two 3-Digit	38	92
24.	Add - Four 1-,2-, or 3-Digit	38	63
25.	Subtract - 1-,2-, or 3-Digit from 3-Digit	28	54
26.	Multiply - 2-9 by 1,2,3,4,5	19	83
27.	True Number Sentences x/÷/=	9	25
28.	Multiplication/Division - Number Line	0	13
29.	Array - Multiplication Facts	14	46
30.	Division - Facts	23	50
31.	Multiply by 0	23	54
32.	Multiply by 1	23	92
33.	Multiply - 2-Digit by 1-Digit, No Regrouping	9	54
34.	Multiply - Multiples of 1000 by 1-Digit	9	67
35.	Multiply - 3-Digit by 1-Digit, No Regrouping	0	46
36.	Multiply - 2-Digit by 1-Digit	4	42
37.	Divide - 2- or 3-Digit by 1-Digit	14	25
38.	Divide - 1-Digit, R.	4	17
39.	Divide - 19 or Less by 1-Digit, R.	0	13

TABLE 4 (contd.)

The Schools of the District of Columbia
Community Educational Aides in Open Space Schools
An ESEA Title III Project 1973-74

Results of Pre-Post Testing on the Prescriptive Mathematics Test
Percent of Students Who Mastered Each Skill on
Pre and Post Testing

Grade: 3 (contd.) Level: C N = 24

	% Mastered Pre Test	% Mastered Post Test
Problem Solving		
40. Solve Word Problem	42	58
41. Identify Open/Closed Sentence	19	63
42. Solve Open Sentence - Addition	28	67
43. Solve Open Sentence - Multiplication	14	71
Measurement		
44. Clock - 5-115-Minute Intervals	57	79
45. Days of the Week	52	79
46. Months of the Year	42	88
47. Convert Measures	0	13
48. Measurement - Abbreviations	9	67
49. Measurement - Nearest Half-inch	14	46
50. Read Money Expressions	28	67
51. Coins Equivalent to a Dollar	28	42
52. Add/Subtract Money	23	63
53. Picture/Bar Graph	61	71
54. Temperature	47	63
Geometric Concepts		
55. Characteristics - Square/Rectangle/Triangle/ Circle	33	50
56. Region	4	25

TABLE 5

The Schools of the District of Columbia
Community Educational Aides in Open Space Schools
An ESEA Title III Project 1973-74

Results of Pre-Post Testing on the Prescriptive Mathematics Test
Percent of Students Who Mastered Each Skill on
Pre and Post Testing

Grade: 4 Level: D N = 25

		% Mastered Pre Test	% Mastered Post Test
	I. Sets and Numbers		
1.	Cardinality	4	20
2.	Ordinal Numbers	18	52
3.	Betweenness/GreaterThan/Less Than	31	64
4.	Even/Odd Numbers	22	32
5.	Numbers Divisible by 2,5, or 10	27	60
6.	Terms of a fraction	18	20
7.	Fraction/Greater Than	0	8
8.	Like Fractions	4	24
9.	Equivalent Fractions	13	20
10.	Equivalent Parts of a Whole - 100th's/ 10th's	54	76
11.	Identify 1/10, 1/100	27	28
12.	Name a Whole - 10th's/100th's	36	52
	II. Numeration		
1.	Face 1 Place Value	4	16
2.	Separating Numerals by Comma	18	44
3.	Numbers through Ten thousands	31	40
4.	Powers of Ten	4	8
5.	Renaming Numbers	4	28
6.	Rounding	31	36
7.	Roman/Arabic Numerals	0	20
8.	Roman Numerals - In Context	13	48
9.	Fractions/Names One	4	16
10.	Fractions - Number Line	31	48
	III. Operations and Their Properties		
1.	Commut/Assoc.Prop./Zero as Ident. Element-Add	9	16
2.	Commut/Assoc./Dist./One as Ident. Element-Mult.	4	28
3.	Add- 3/More Addends	77	92
4.	Add 1-/2-/3-/4-Digit Numerals	72	88
5.	Subtraction-Inverse of addition	36	52
6.	Add through 10,000	59	80
7.	Subtract through 10,000	9	44
8.	Division - Inverse of Multiplication	68	80
9.	Multiply 2-3-digit by 1-digit	9	68
10.	Multiply by Multiple of 10/100	4	36
11.	Multiply 2-digit by 2-digit	4	44
12.	Multiply 3-digit by 2-digit	0	52
13.	Divide	0	52
14.	Fractional Part of Whole	9	44
15.	Add Fractions/Like	4	12
16.	Subtract Fractions/Like	13	36
	IV. Problem Solving		
1.	Sufficient Information	18	36
2.	Observations	18	8
3.	Idenfity Open Sentence	9	28
4.	Solve Open Sentence	9	64
5.	Solve the Problem	9	56

TABLE 5 (contd.)

The Schools of the District of Columbia
Community Educational Aides in Open Space Schools
An ESEA Title III Project 1973-74

Results of Pre-Post Testing on the Prescriptive Mathematics Test
Percent of Students Who Mastered Each Skill on
Pre and Post Testing

Grade: 4 (cont.) Level: D N = 25

		% Mastered Pre Test	% Mastered Post Test
	V. Measurement		
1.	Clock-Minutes	27	80
2.	Time - a.m./p.m.	50	68
3.	Time	18	24
4.	Date	18	52
5.	Add/Subtract Money	36	64
6.	Multiply Money	4	40
7.	Compare Liquid Measures	27	56
8.	Convert Measures	0	4
9.	Compare Measures	31	68
10.	Add/Subtract Measures	0	0
11.	Picture/Bargraph	22	36
	VI. Geometric Concept		
1.	Closed/Open Curves	59	68
2.	Line/Line Segment	13	16
3.	Quadrilateral	4	4
4.	Ray	4	0
5.	Right Angle	4	32
6.	Right Triangle	0	24

TABLE 6

The Schools of the District of Columbia
Community Educational Aides in Open Space Schools
An ESEA Title III Project 1973-74

Results of Pre-Post Testing on the Prescriptive Mathematics Test
Percent of Students Who Mastered Each Skill on
Pre and Post Testing

Grade: 5 Level: E N = 23

	% Mastered Pre Test	% Mastered Post Test
Sets and Numbers		
1. Multiples	26	39
2. Common Multiples	17	4
3. L.C.M./Multiples	0	4
4. L.C.M./2 Non-Multiples	17	13
5. L.C.M./3 Non-Multiples	8	0
6. Numbers divisible by 3,9	8	22
7. Factors	0	0
8. Greatest Common Factor	0	30
9. Primes	0	0
10. Primes/Composites	8	26
11. Division as Fractions	0	9
12. Fractional Values	0	4
13. Like/Unlike Fractions	0	13
Numeration		
1. Face/Place Value	26	26
2. Numbers Through Thousands	17	22
3. Powers of Ten	13	57
4. Renaming Numbers	0	0
5. Rounding Off	0	0
6. Roman/Arabic Numerals	0	0
7. Simplify Fractions	0	9
8. Rename Fractions	8	4
9. Fractions/Whole Numbers	0	4
10. Naming Common Fractions	0	4
11. One's Place/Decimals	8	0
12. Tenth's Place/Decimals	39	39
13. Fractions to Decimals	0	4
Operations and Their Properties		
1. Add/Subtract Through 100,000's	8	35
2. Multiplication	0	13
3. Division	0	30
4. Divide by Multiple of Ten	0	22
5. Two-Digit Divisor	0	43
6. Add Fractions	0	26
7. Subtract Fractions	0	0
8. Add Fractions/Unlike	0	0
9. Subtract Fractions/Unlike	0	0
Problem Solving		
1. Sufficient Information	8	22
2. Operations	8	9
3. Find the Average	0	0
4. Find Amount of Tax	4	4
5. Solve Open Sentences	26	22
6. Solve the Problem	17	22

TABLE 6 (contd.)

The Schools of the District of Columbia
Community Educational Aides in Open Space Schools
An ESEA Title III Project 1973-74

Results of Pre-Post Testing on the Prescriptive Mathematics Test
Percent of Students Who Mastered Each Skill on
Pre and Post Testing

Grade: 5 (contd) Level: E N = 23

Measurement	% Mastered Pre Test	% Mastered Post Test
1. Hours	0	0
2. Years	4	4
3. Temperature	0	22
4. Measurement Tables	8	4
5. Convert Measures	0	4
6. Stand.Unit to Rational No.	0	0
7. Add/Subtract Measures	0	0
8. Fractional Part of Dollar	0	4
9. Add/Subtract Money	26	43
10. Multiply/Divide Money	0	4
11. Line Graphs	17	30
12. Perimeter/Polygons	17	26
13. Perimeter/Rectangle	8	9
Geometric Concepts		
1. Parallel Lines	4	0
2. Identify Parallelogram	0	0
3. Classify Square	4	4
4. Identify Triangles	0	0
5. Circles and Related Terms	0	4
6. Congruent Figures	0	4
7. Classify Angles	0	4
8. Identify Pyramid	8	4

TABLE 7

The Schools of the District of Columbia
Community Educational Aides in Open Space Schools
An ESEA Title III Project 1973-74

Results of Pre-Post Testing on the Prescriptive Mathematics Test
Percent of Students Who Mastered Each Skill on
Pre and Post Testing

Grade: 6 **Level:** F N = 17

		% Mastered Pre Test	% Mastered Post Test
	I. Sets and Numbers		
1.	L.C.M.	0	0
2.	Primes	0	0
3.	Primes/Composites	5	6
4.	Fraction Products	5	6
5.	Ratio	41	35
	II. Numeration		
1.	Face/Place Value	5	0
2.	Whole Numbers	35	6
3.	Exponents	47	41
4.	Exponential Notation	5	6
5.	Rounding Off	5	0
6.	Roman Numerals	29	6
7.	Arabic/Roman Numerals	5	0
8.	Bars/Roman Numerals	0	0
9.	Fractions	0	0
10.	Place Identification	0	0
11.	Decimal Fractions	0	0
12.	Simplify Decimal Fraction	5	0
13.	Fractions to Percents	0	0
14.	Fraction as Ratio	11	-
	III. Operations and Their Properties		
1.	Operations/Whole Numbers	47	53
2.	Multiply	5	0
3.	Divide	5	6
4.	Add Unlike Fractions	0	6
5.	Add Fractions	0	12
6.	Subtract Fractions	0	0
7.	Multiply Fractions	0	0
8.	Divide Fractions	0	0
9.	Operate/Decimal Fractions	0	0
10.	Multiply Decimal Fractions	0	0
11.	Divide Decimal Fractions	0	0
12.	Divide by Tenths	0	0
13.	Divide Decimal by Decimal	0	0
14.	Percent of Number	0	-
	IV. Problem Solving		
1.	Sufficient Information	23	12
2.	Operations	29	12
3.	Percent	9	0
4.	Open Sentence	17	6
5.	Solution/Open Sentence	17	6
6.	Answer	23	6

TABLE 7 (contd.)

The Schools of the District of Columbia
Community Educational Aides in Open Space Schools
An ESEA Title III Project 1973-74

Results of Pre-Post Testing on the Prescriptive Mathematics Test
Percent of Students Who Mastered Each Skill on
Pre and Post Testing

Grade: 6 (contd) Level: F N = 17

		% Mastered Pre Test	% Mastered Post Test
	V. Measurement		
1.	Time Zones	0	0
2.	Denominate Number	29	12
3.	Ratio	0	0
4.	Proportions	11	12
5.	Operations on Money	0	0
6.	Circle Graph	23	0
7.	Centimeter/Inch	5	0
8.	Meter/Yard	0	0
9.	Measurement	5	0
10.	Area	5	-
11.	Area of Formula	23	0
12.	Triangle Area	5	0
13.	Parallelogram Area	0	0
	VI. Geometric Concepts		
1.	Polygon Vertices	11	0
2.	Polygons	0	0

Results of the pre-post administration of the Prescriptive Reading Test (PRT) for grades 1 through 6 are presented in Tables 8 through 13, respectively. An examination of these tables reveals that students at each grade level are mastering more of the necessary reading skills as they go through the grades. Pre-post testing indicates accomplishment of desired growth from year to year. This finding is also supported by the fall results for all Bruce-Monroe students on file with the school office.

Although, as would be expected, some children are having difficulty developing reading skills, evidence supports the conclusion that the reading program is reaching the overwhelming majority of students at Bruce-Monroe.

Student Attitudes

Few problems in education are more elusive than the measurement of students' attitudes toward self and others. For the Community Aides Project, the Self Observation Scales (SOS) Primary and Intermediate, was chosen as the assessment instrument. The SOS, published by National Testing Service, Inc., was published in 1974 and is based, theoretically, on the development of self concept in elementary school children.

TABLE 8

The Schools of the District of Columbia
Community Educational Aides in Open Space Schools
An ESEA Title III Project 1973-74

Results of Pre-Post Testing on the Prescriptive Reading Test
Percent of Students Who Mastered Each Skill on
Pre and Post Testing

Grade: 1 Level: A N = 25

		% Mastered Pre Test	% Mastered Post Test
	Auditory Perception		
1.	Spoken Words/Pictures	96	96
2.	Rhyme Words	64	88
3.	Word Sounds	20	96
4.	Beginning Sounds	60	96
5.	Final Sounds	28	92
6.	Medial Sounds	44	88
7.	Syllables/Number	12	36
	Visual Perception		
8.	Differences In Shapes/Pictures	92	100
9.	Matching Capital/Lowercase letters	92	100
10.	Letter Forms/Word Forms	68	100
	Comprehension Development		
11.	Complete Sentence	56	72
12.	Missing Word	92	100
13.	Main Ideas	48	92
14.	Recall Details	84	100
15.	Related Ideas	92	100
16.	Sequences/Series	24	40
17.	Sequences/Selected Event	28	92
18.	Inferences	60	92
19.	Irrelevant Words	72	96
20.	Drawing Conclusions	36	44
21.	Inflectional Endings	88	100

TABLE 9

The Schools of the District of Columbia
Community Educational Aides in Open Space Schools
An ESEA Title III Project 1973-74

Results of Pre-Post Testing on the Prescriptive Reading Test
Percent of Students Who Mastered Each Skill on
Pre and Post Testing

Grade: 2 Level: B N = 25

		% Mastered Pre Test	% Mastered Post Test
	Word Perception		
1.	Letter Identification	92	100
2.	Vowels	56	100
3.	Words/Similar Configuration	100	100
4.	Context/Complete Sentence	88	96
5.	Beginning Consonant Sounds	100	100
6.	Medial/Final Consonant Sounds	92	100
7.	Initial/Final Consonant Substitution	72	92
8.	Consonant Blends/Substitution	64	92
9.	Consonant Digraphs	36	48
10.	Affixes	72	92
11.	Words, Medial, Short Vowel Sounds	76	80
12.	Vowel Patterns	40	64
13.	Word Endings/Er	16	68
	Comprehension and Interpretation		
14.	Prove/Disprove Statements	44	76
15.	Theme	48	92
16.	Literal Meaning	32	88
17.	Relating Phrases/Story	28	68
18.	Identify Details	48	88
19.	Inference	0	32
20.	Multmeaning Words	48	52
21.	Relevant/Irrelevant, Concrete/Abstract	40	44
22.	Sequence	68	96
23.	Predicting Outcome	20	72
24.	Cause/Effect	60	88
25.	Character's Feelings	64	96
26.	Author's Purpose	20	32
27.	Sensory Imagery	72	100
28.	Analogy	72	92
29.	Idioms/Figurative Language	24	48
30.	Story/Factual-Fanciful	60	80
31.	Punctuation Marks	60	96
32.	Evaluate Accuracy of Illustrations	88	96
33.	Story Problem/Alternate Solutions	76	72
34.	Title/Explanation	40	72
35.	Main Idea	44	80
36.	Characterization/Person-Situation	36	56
	Study - Reading		
37.	Summary	64	92
38.	Picture Dictionary/Consonants	60	80
39.	Table of Contents/Page Numbers	72	100
40.	Table of Contents/Titles	68	96
41.	Information from Pictographs	72	80
42.	Following Directions	72	92
43.	Picture Dictionary/Vowels	84	80
44.	Table of Contents/Inclusive Pages	16	40
45.	Following Directions/Two-Step	48	88

TABLE 10

The Schools of the District of Columbia
Community Educational Aides in Open Space Schools
An ESEA Title III Project 1973-74

Results of Pre-Post Testing on the Prescriptive Reading Test
Percent of Students Who Mastered Each Skill on
Pre and Post Testing

Grade: 3 Level: C N = 23

		% Mastered Pre Test	% Mastered Post Test
	Word Perception		
1.	Words/Medial, Short Vowel Sounds	90	100
2.	Vowel Patterns	85	83
3.	Vowel Digraphs	60	83
4.	Word Endings/Final Y	95	91
5.	Word Endings/Er	60	61
6.	Contractions	100	100
7.	Compound Words	90	96
8.	Homonyms	75	96
9.	Phoentic Principles/Structural Analysis	80	100
10.	R-Controlled Vowel	70	70
11.	Adjective Forms	65	87
12.	Syllabication	30	83
13.	Silent Letters	65	65
	Comprehension and Interpretation		
14.	Title/Explanation	80	96
15.	Main Idea	85	100
16.	Character Traits	50	87
17.	Character Action	65	91
18.	Characters/Compare-contrast	70	78
19.	Characterization/Person-Situation	80	96
20.	Cause/Effect	65	96
21.	Story Titles	70	87
22.	Literal Meaning	80	87
23.	Relationships	20	52
24.	Compare/Contrast	65	96
25.	Anticipate Outcomes	40	83
26.	Conclusions	85	96
	Study-Reading		
27.	Picture Dictionary/Vowels	70	100
28.	Alphabetize/First Letters	55	48
29.	Word Meanings	65	91
30.	Table of Contents/Inclusive Pages	45	78
31.	Cardinal Directions	9	9
32.	Locating Information	80	100
33.	Following Directions/Two-Step	80	100
34.	Identify Books/Topic	75	91
35.	Alphabetize/Two Letters	35	70
36.	Multiple Meanings	15	65
37.	Table of Contents	5	52
38.	Intermediate Directions	20	17
39.	Book Titles	45	83

TABLE 11

The Schools of the District of Columbia
Community Educational Aides in Open Space Schools
An ESEA Title III Project 1973-74

Results of Pre-Post Testing on the Prescriptive Reading Test
Percent of Students Who Mastered Each Skill on
Pre and Post Testing

Grade: 4 Level: D N = 25

		% Mastered Pre Test	% Mastered Post Test
	I. Word Preception		
1.	R-Controlled Vowels	90	100
2.	Adjective Forms	52	64
3.	Syllabication	52	68
4.	Affixes/Inflections	80	96
5.	Silent Letters	23	44
6.	Context Clues	90	92
7.	Word Attack Skills	76	88
8.	Compound Words	38	44
9.	Accent/Like Consonants	47	64
10.	Accent /LE Words	9	32
11.	Accent Long Vowels	47	40
	II. Comprehension and Interpretation		
1.	Main Idea	47	56
2.	Literal Meaning	42	32
3.	Relationships	47	72
4.	Compare/Contrast	57	68
5.	Anticipates Outcome	76	84
6.	Conclusions	57	84
7.	Character Traits	57	80
8.	Real/Make-Believe	66	72
9.	Subtopics	76	76
10.	Key Words/Topic Sentence	28	28
11.	Facts/Opinions	42	48
12.	Character Actions	47	68
13.	Compare Time/Place	57	68
14.	Mood	66	72
	III. Study Reading		
1.	Alphabetize 12 letters	4	20
2.	Alphabetical Sequence	9	36
3.	Root Words	28	68
4.	Multiple Meanings	28	52
5.	Tables of Contents	28	40
6.	Intermediate Directions	4	8
7.	One-Point Outline	47	56
8.	Book titles	52	80
9.	Alphabetize/? letters	4	16
10.	Guide Words	28	24
11.	Simple Charts	38	64
12.	Two-Point Outline	9	32

TABLE 12

The Schools of the District of Columbia
Community Educational Aides in Open Space Schools
An ESEA Title III Project 1973-74

Results of Pre-Post Testing on the Prescriptive Reading Test
Percent of Students Who Mastered Each Skill on
Pre and Post Testing

Grade: 5 Level: E N = 24

	% Mastered Pre Test	% Mastered Post Test
I. Word Perception		
1. Word Attack Skills	79	83
2. Compound Words	33	42
3. Accent/Like Consonants	62	58
4. Accent/Le Words	16	21
5. Accent/Long Vowels	33	54
6. Accent/3 = 1 Syllable Words	25	33
7. Accent/Ending	37	58
8. Schwa Vowel	45	50
9. Phonetic Analysis	87	71
II. Comprehension and Interpretation		
1. Main Topic	70	75
2. Subtopics	41	58
3. Key Words/Topic Sentences	54	63
4. Relevant/Irrelevant	20	38
5. Summarize/Conclude	33	54
6. Realism/Fantasy	87	75
7. Facts/Opinions	29	38
8. Character Actions	54	75
9. Compare Information	29	38
10. Compare Time/Place	75	79
11. Mood	75	88
12. Character Inferences	62	71
13. Critical Reading	41	33
III. Study - Reading		
1. Alphabetize/ 1,2,3 Letters	16	21
2. Guide Words	16	21
3. Choose Meaning	41	71
4. Map/Color Shading	62	71
5. Interpreting Maps	54	58
6. Simple Charts	33	38
7. Summary	62	71
8. Two-Point Outline	29	33
9. Outlines	62	63
10. Pertinent Information	20	25
11. Follow Directions	58	46
12. Card Catalog	45	67
13. Alphabetize/ 4 Letters	20	17
14. Interpret Graphs	45	54
15. Three-Point Outline	37	42

TABLE 13

The Schools of the District of Columbia
Community Educational Aides in Open Space Schools
An ESEA Title III Project 1973-74

Results of Pre-Post Testing on the Prescriptive Mathematics Test
Percent of Students Who Mastered Each Skill on
Pre and Post Testing

Grade: 6 Level: G N = 25

	% Mastered Pre Test	% Mastered Post Test
I. Word Perception		
1. Word Attack Skills	95	92
2. Blend Sounds	43	48
3. Digraphs	17	20
4. Final Vowel	34	36
5. Two Vowels	13	16
6. Final E	21	24
7. Phonetics/Structural Analysis	73	76
II. Comprehension and Interpretation		
1. Character Inferences	30	32
2. Errors in Conclusion	47	52
3. Chapter Summary	30	28
4. Altered Syntax	13	28
5. Purpose	52	60
6. Point of View	39	48
7. Main Idea	34	36
8. Story Detail	34	48
9. Inferences	75	52
10. Character Comparison	47	52
11. Feelings/Motives	82	64
12. Character Traits	56	52
13. Multiple Meanings	43	60
14. Establish Meaning	21	24
15. Punctuation	65	76
16. Language Interpretation	60	60
17. Relationship Perception	8	8
18. Sensory Imagery	47	40
19. Author Purpose	69	56
III. Study - Reading		
1. Alphabetize Words	26	32
2. Distionary Location	30	52
3. Simple Index	43	60
4. Printed Directions	65	80
5. Contents/Index	65	76

Self Concept Development

Between the ages of five and twelve the self concept begins to crystalize. During this period (termed the latency period by many authors), the child matures considerably in the physical, cognitive and affective areas. He confronts his enivronment with an increasingly stable set of feelings, attitudes and behaviors which are based, to a large extent, on his self concept which is, likewise, stabilizing. As the child becomes older he becomes more sure of what he likes and dislikes, who he likes and dislikes, what he enjoys doing and what he dislikes doing, how he sees his future and what he will be doing in this future. He begins to plan and his aspirations and hopes tend to be consistent with the way he values himself, which, in turn, is dictated in large part by how he perceives others value him.

Although the early school years are characterized by a crystalization of self, the child also begins to differentiate. The self concept of the five year old is a relatively simple construct. The five year old views most things as a dichotomy: people are good or bad, food is good or bad, places are happy or sad places to be, other children are friendly or mean. As the six year old enters first grade new demands are placed on him. He is expected to interact with unfamiliar children and authority figures and, to a great extent, his well being is determined by how successfully he negotiates these new demands. It is these early school years that have a truly

profound impact on the child's self concept development. Never before has he been consistently, objectively and sometimes coldly, judged by peers and adults. He is unable to separate himself from his actions so that reprimands and criticism often become viewed as direct threats to self. With this background information we now turn to the correlates of a positive and negative self concept, respectively.

The Positive Self Concept*

Children (ages 5-8) with positive self concepts are, first of all, confident about their ability to meet everyday problems and demands. They are confident about their relationships with other people and take pleasure in mutual interdependence, in needing others and in being needed. Autonomy and independence are beginning to take shape. Children with strong self concepts view themselves as desirable and valuable contributors to the well being of those around them. They see themselves as deserving of attention and love and feel they are capable of reciprocating. They compare themselves favorably with their peers and feel that authority figures are supportive and interested in them as individuals.

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* The profiles for a "positive" and "negative" self concept are drawn from the results of the national validation and norming of the Self Observation Scales.

These children tend to be comparatively independent and reliable. These qualities may stem from their feelings of sufficiency and adequacy in new and challenging situations. They are relatively free from anxiety, nervousness, excessive worry, tiredness and loneliness. They report being happy with the way they look and would not change their appearance if they could.

Children with a positive view of themselves enjoy interacting with their peers and see themselves as on a par with their peers in most situations, while occasionally professing superiority in certain areas. They recognize the social consequences of certain "asocial" actions and see the benefits of give-and-take in social interactions. These children are able to admit that they make mistakes and that they sometimes hurt other people, but they apparently do not view these admissions as major threats to self.

Behaviorally, these children are seldom designated as problem children. They usually appear comparatively calm, keep their hands to themselves and, although they are frequently competitive, they express aggression when external considerations warrant aggressive behavior. They express dissatisfaction with their own poor performances but relatively seldom make self deprecating remarks. They react positively to constructive criticism, can accept praise well, and derive obvious pleasure from a job well done.

Scholastically, children with positive self concepts tend to be above expectation in reading and mathematics. They tend to attain higher scores on standardized achievement tests than would be predicted from ability tests. These children are positive toward school and view it as a happy, worthwile place to be.

The Negative Self Concept

Children with poor self concepts are insecure and pessimistic about their ability to meet everyday problems and demands and they are unsure about their relationships with others. They often tend to be either overly dependent and withdrawn or overly aggressive with apparently minimal overt needs for social interaction and, in each case, growth toward autonomy appears stunted and retarded. These children view themselves as undesirable and, through their often inappropriate behavior (which is, although inappropriate, usually quite consistent with the way the children feel about themselves), they are regularly reinforced in these feelings.* They report not being needed by significant others and do not feel that others care about them as individuals. They compare themselves unfavorably with their peers and frequently report being inferior to their peers in age-appropriate activities. Authority figures represent a threat to children with poor self concepts.

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* Modifying the truism from the financial world that "the rich get richer and the poor get poorer" we can say that children with strong self concepts get positive reinforcement and, thus, get stronger, while those with weak self concepts net negatively reinforced and thus get weaker.

These children are threatened in social interactions and prefer to play with younger children. They report a desire to dominate in peer oriented activities, i.e., always wanting to be first or always wanting to be the leader, and yet, would prefer to play alone if given a choice. They tend to be quitters and are satisfied with poor performance (again, poor performance is consistent with the way these children view themselves). These children find it difficult to admit to even common mistakes and are quite insensitive to other people's feelings.

Behaviorally, these children are frequently labeled as problem children. The acting out, aggressive, verbally disruptive child has a markedly lower self concept than does the "healthy" child. Likewise, the insecure, withdrawn, quiet child also has a low self concept, but his inadequacies are manifested differently from the aggressive child. These children respond negatively to criticism and, surprisingly, they often respond inappropriately or even negatively to praise because positive feelings are inconsistent with the way these children feel about themselves.

Scholastically, children with poor self concepts tend to be below average in reading and mathematics. They tend to obtain lower scores on standardized achievement tests than would be predicted from ability tests. These children are negative toward school and view it as an unhappy place to be.

In an attempt to measure children's self concepts, the Self Observation Scales were used in this evaluation. The Self Observation Scales (SOS) is a direct, self report, group administered instrument comprised of forty-five items at the primary level (K-3) and sixty items at the intermediate level (4-6). The SOS (primary level) measures five dimensions of children's affective behavior:

SUBSCALE I - SELF ACCEPTANCE

Children with high scores view themselves positively and attribute to themselves the qualities of happiness, importance, and general competence. These children see themselves as important to other people including authority figures and their peers. Children with low scores view themselves as inadequate, unsuccessful, and undesirable. They do not see themselves as happy, and they view themselves as relatively unimportant to authority figures and their peers. Three items highly descriptive of this subscale are: (1) Do you feel good about yourself most of the time? (2) Do people listen to you? (3) Are you a happy person?

SUBSCALE II - SOCIAL MATURITY

Children with high scores view their relationships and interactions with other people (especially peers) positively. They view themselves as independent, persistent, and sensitive to other people's needs and feelings. Children with low scores view themselves as quitters and loners. They see themselves as wanting to dominate in peer situations yet would prefer to be alone if they had a choice. Low scores reflect an uncertainty

in social interactions. Three items highly descriptive of this subscale are: (1) Do you always have to be boss? (2) Can you only do your work if someone helps you? (3) Do you give up easily?

SUBSCALE III - SCHOOL AFFILIATION

Children with high scores view school as a positive influence in thier lives. They enjoy going to school, and they enjoy the activities associated with school. Children with low scores view school as an unhappy place to be. They do not enjoy most school related activities and are negative about the importance of school to their lives. Three items highly descriptive of this subscale are: (1) Do you like school? (2) Is school a happy place for you to be? (3) Do you like arithmetic problems at school?

SUBSCALE IV - SELF SECURITY

Children with high scores report a low level of anxiety and a high level of emotional stability. These children view themselves as in harmony with significant people around them, and they are confident about new experiences and their ability to perform adequately. Low scoring children report being anxious, depressed, and unsure of themselves. New experiences tend to be anxiety provoking stemming from an uncertainty about their ability to perform. Three items highly descriptive of this subscale are: (1) Do you make mistakes most of the time you try to do things? (2) Do you forget most of what you learn? (3) Do you get tired a lot?

SUBSCALE V - ACHIEVEMENT MOTIVATION

This subscale measures aspects of affective behavior that distinguish over-achieving children (relative to measured ability) from under-achieving children. Children with high scores tend to possess certain attributes characteristic of over-achieving children, while children with low scores possess certain attributes characteristic of under-achieving children. Several items highly descriptive of this subscale are: (1) Do you make mistakes most of the time you try to do things? (2) Do you give up easily? (3) Are you pretty good at everything?

The SOS (intermediate level) measures the same five dimensions as the primary level plus three new dimensions:

SCALE VI - SOCIAL CONFIDENCE

Children with high scores on this scale feel confident of their ability to relate successfully in social situations. They feel confident that they can make friends easily, and that they are valued and enjoyed by their friends. Children with low scores have difficulty making friends, do not feel valued by others and see other people as being more socially adept than themselves. Three items highly related to this scale are: "People are always picking on me"."It is hard for me to make friends"."My classmates like me".

SCALE VII - TEACHER AFFILIATION

Children with high scores on this scale like their teachers. They see the teacher as helpful, attentive, understanding, and generous. Children with low scores on this scale see the

teacher as arbitrary, inconsiderate of children, and/or a source of emotional pain. Three items highly related to this scale are: "My teacher likes to help me". "I like my teacher". "My teacher makes sure I understand what she wants me to do".

SCALE VIII - PEER AFFILIATION

Children with high scores on this scale consider their relationships with other children to be both of high quality and of considerable importance to them. They see themselves as approved of and valued by their peers. They like to be with other children. Children with low scores do not see their peer relationships as an asset. They see other children as unfriendly, they have few friends, and do not accept the responsibilities of friendship easily. Three items highly related to this scale are: "I don't have many friends", "Often I don't like to be with other children", "The other children in my class are not friendly toward me".

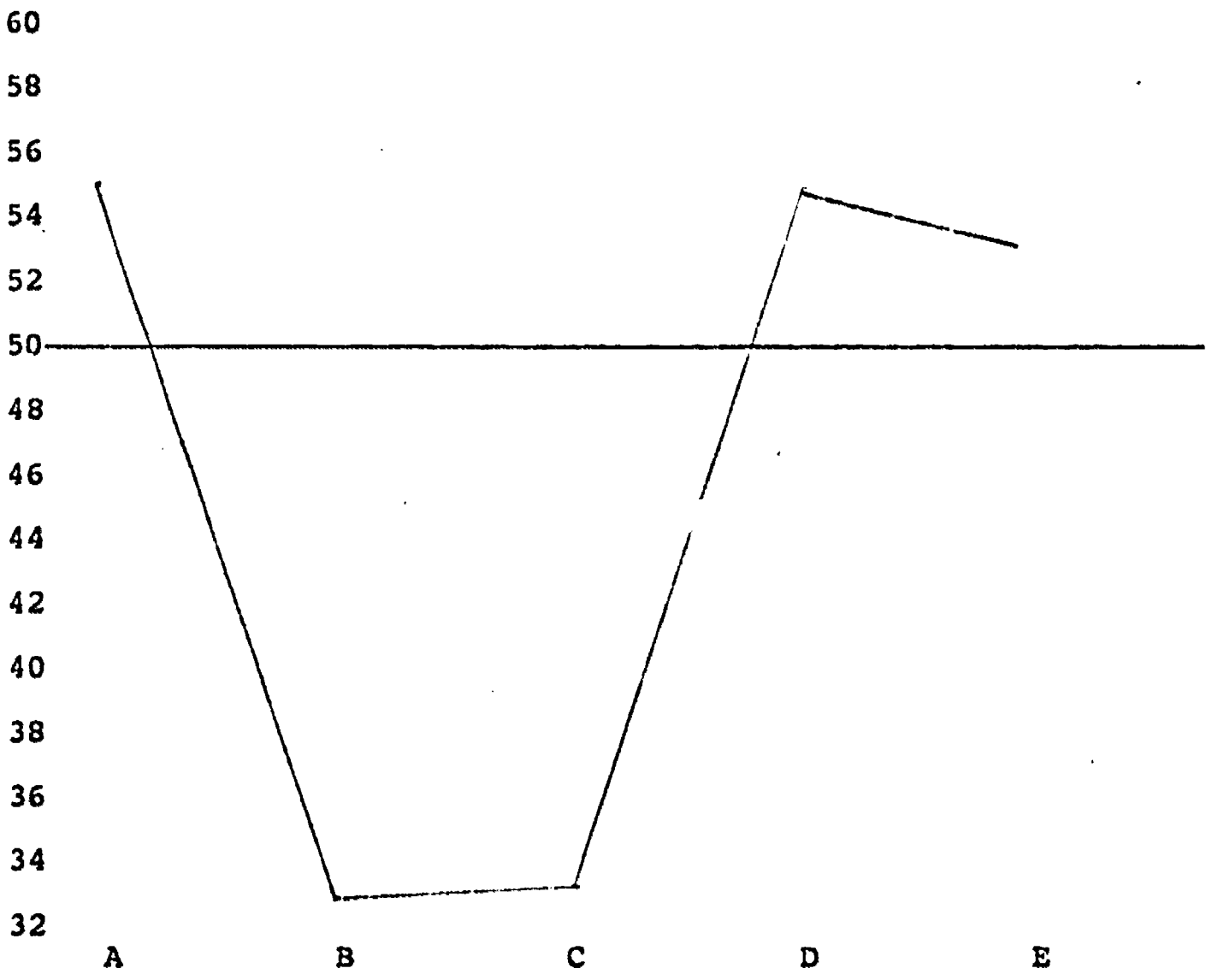
The scales at both the primary and intermediate levels have been developed factor analytically and have been normed and validated on a sample of approximately 30,000 children nationally. From that national sample, representative samples of primary and intermediate children were drawn using scientific sampling methodology to assure that normative groups were in fact representative of the national group.

Results of the administration of the SOS Primary and Intermediate are presented in this report as base line data for the 1974-75 evaluation of the Community Aides Project. Conclusions regarding the effects of the Aides projecton change in student self concept must, of course, await the administration of the post assessment. However, an examination of the preceding tables reveals the following findings·

- Primary grade children (K-3) at Bruce-Monroe show above national averages on School Affiliation and Achievement Motivation.
- Bruce-Monroe students at all grades (K-6) are at or above national averages in Self-Acceptance. This evidence supports earlier findings that indicate that the basic message "black is beautiful" is reaching our children.
- Primary children at Bruce-Monroe are below national averages on Social Maturity and Self-Security. This finding has definite programmatic aspects (see recommendations).
- Bruce-Monroe students show greater Self-security and less anxiety as they move through their school grades.

Grade - K Number - 42

		$\bar{X}$	S.D.
A.	Self Acceptance	54.71	3.70
B.	Social Maturity	33.14	6.59
C.	Self Security	33.50	8.24
D.	School Affiliation	54.40	3.28
E.	Achievement Motivation	53.74	5.92

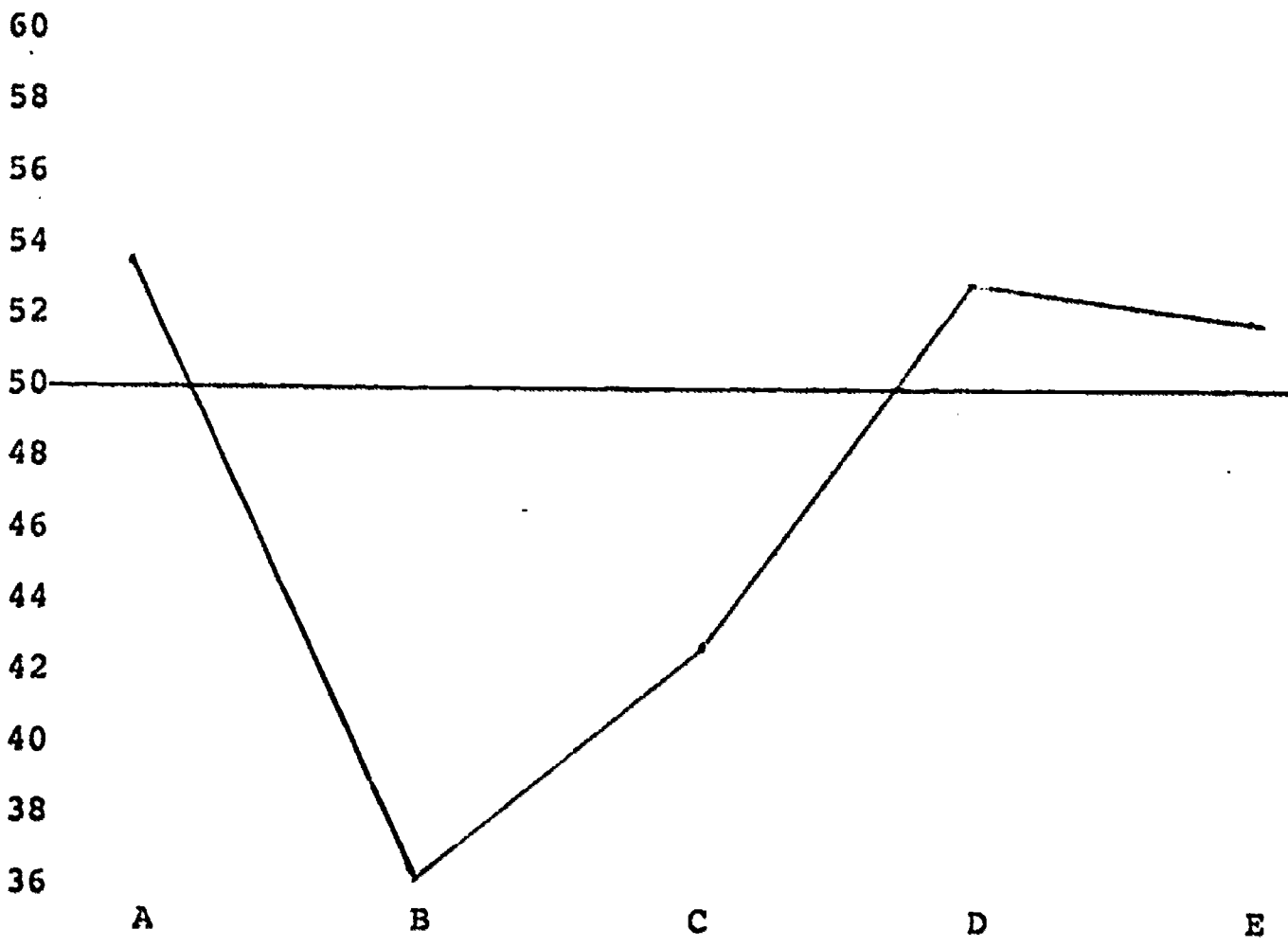


TABLE

The Schools of the District of Columbia
Community Aides in Open Space Schools
1973-74
Intermediate: Self Observation Scales

Grade - 1 Number - 89

		$\bar{X}$	S.D.
A.	Self Acceptance	53.61	6.12
B.	Social Maturity	36.47	7.83
C.	Self Security	43.39	11.36
D.	School Affiliation	53.39	6.31
E.	Achievement Motivation	52.64	8.56

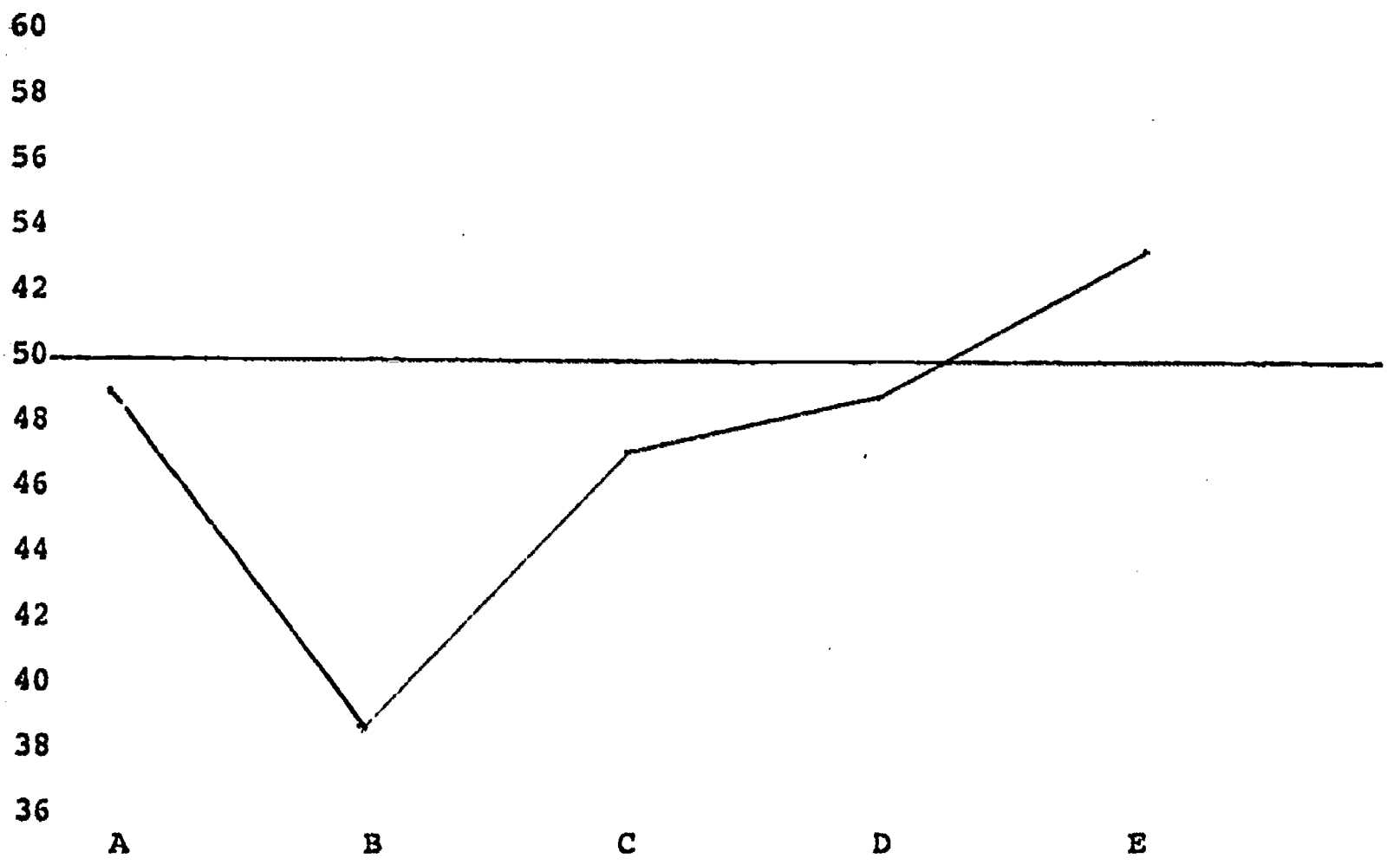


TABLE

The Schools of the District of Columbia
Community Aides in Open Space Schools
1973-74
Intermediate: Self Observation Scales

Grade - 2 Number - 78

		$\bar{X}$	S.D.
A.	Self Acceptance	48.63	7.55
B.	Sound Maturity	38.17	8.84
C.	Self Security	47.14	8.67
D.	School Affiliation	48.50	8.17
E.	Achievement Motivation	53.78	10.38

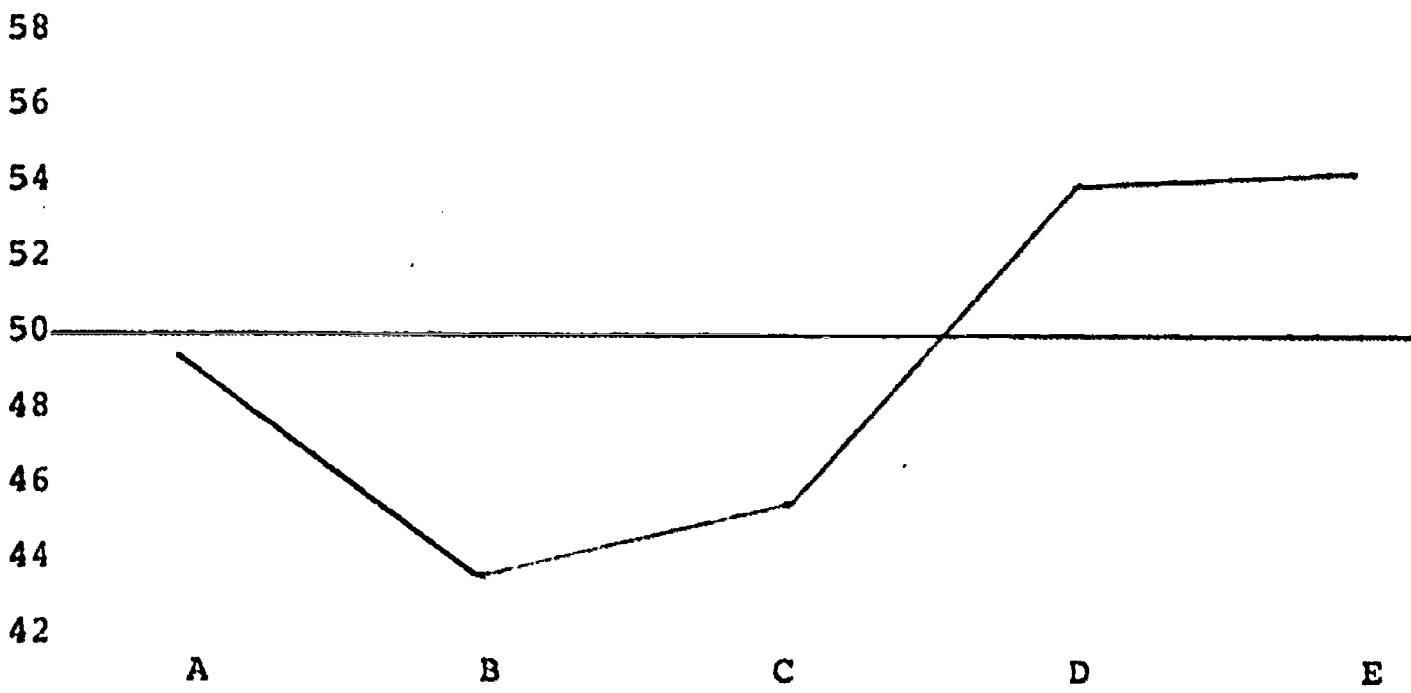


TABLE

The Schools of the District of Columbia
Community Aides in Open Space Schools
1973-74
Intermediate: Self Observation Scales

Grade - 3 Number - 98

		$\overline{X}$	S.D.
A.	Self Acceptance	49.32	9.18
B.	Sound Maturity	43.89	8.84
C.	Self Security	46.01	9.19
D.	School Affiliation	52.77	9.06
E.	Achievement Motivation	52.80	9.67

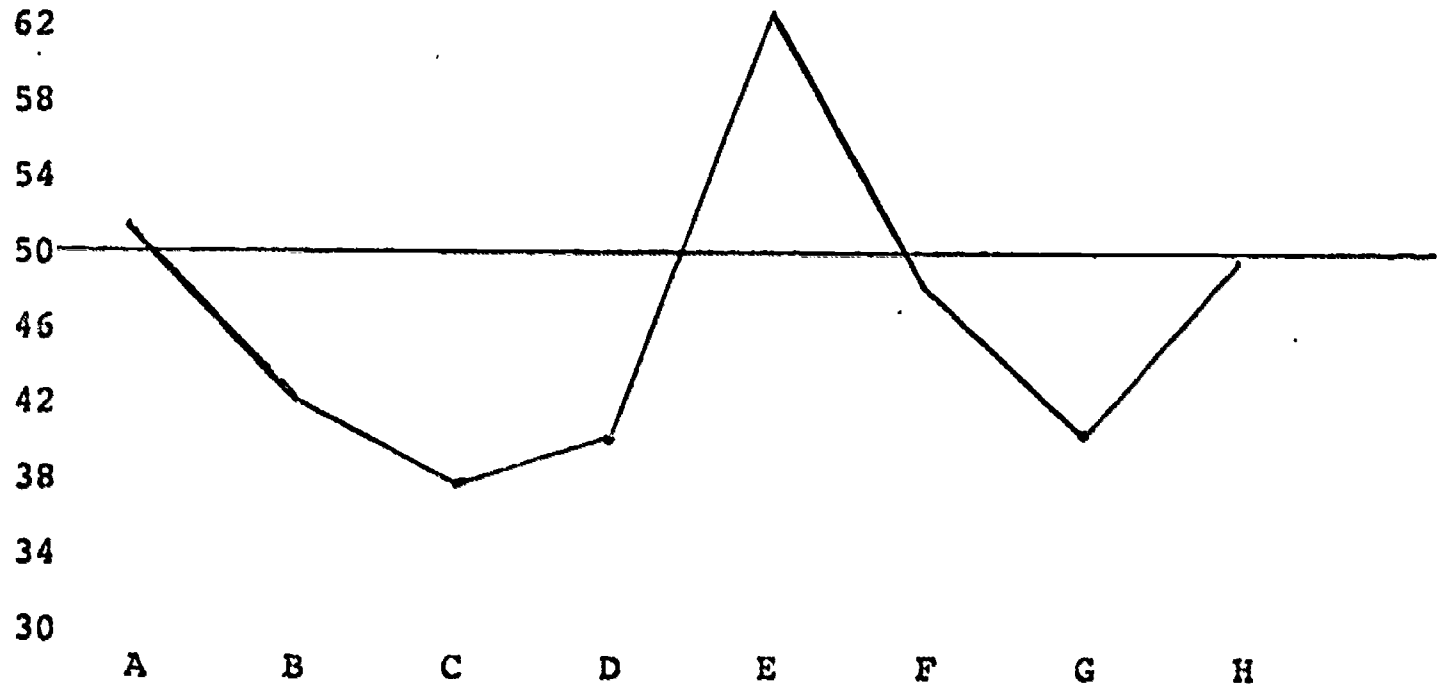


TABLE

The Schools of the District of Columbia
Community Aides in Open Space Schools
1973-74
Intermediate: Self Observation Scales

Grade - 4 Number - 82

		$\bar{X}$	S.D.
A.	Self Acceptance	50.63	7.36
B.	Self Security	42.12	7.70
C.	Social Maturity	37.15	11.03
D.	Social Confidence	39.10	6.50
E.	School Affiliation	60.76	9.21
F.	Teacher Affiliation	48.72	7.54
G.	Peer Affiliation	41.86	8.40
H.	Achievement Motivation	49.59	9.69



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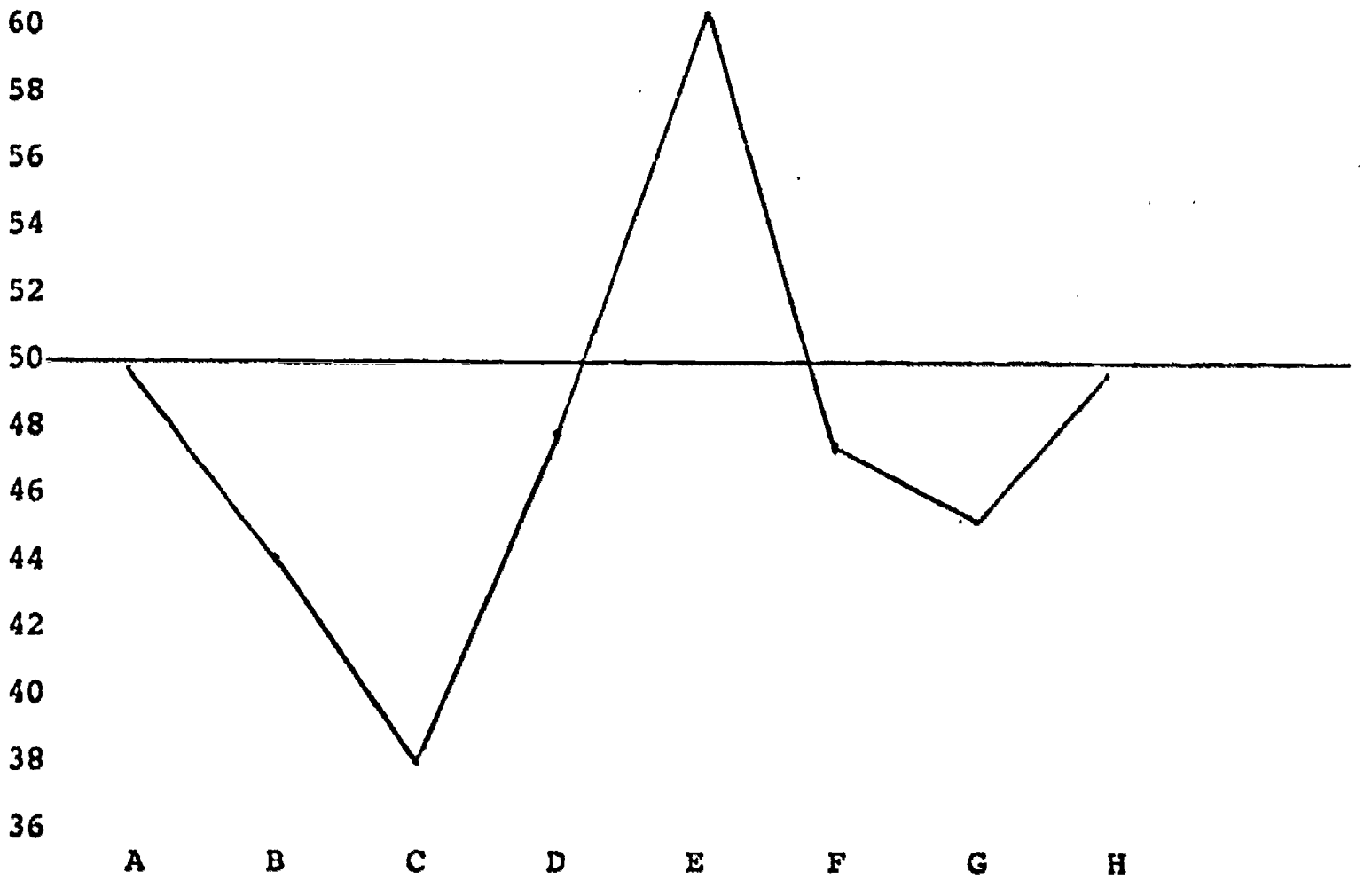
The Schools of the District of Columbia
Community Aides in Open Space Schools
1973-74
Intermediate: Self Observation Scales

Grade - 5 Number - 79

		$\bar{X}$	S.D.
A.	Self Acceptance	49.77	10.39
B.	Self Security	43.86	7.95
C.	Social Maturity	38.52	13.28
D.	Sound Confidence	37.91	6.02
E.	School Affiliation	60.34	9.75
F.	Teacher Affiliation	48.14	8.38
G.	Peer Affiliation	44.77	9.90
H.	Achievement Motivation	49.61	10.99

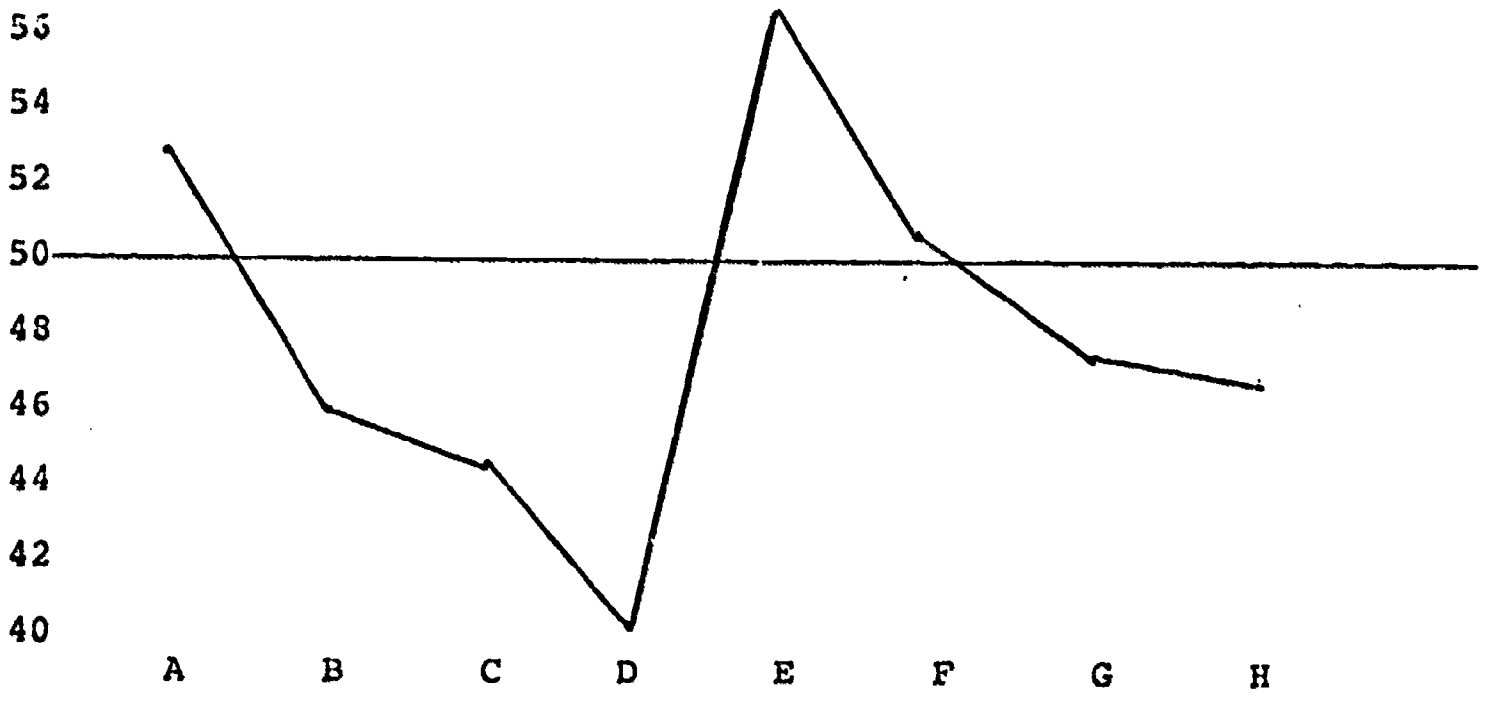


TABLE

The Schools of the District of Columbia
Community Aides in Open Space Schools
1973-74
Intermediate: Self Observation Scales

Grade - 6 Number - 78

		$\bar{X}$	S.D.
A.	Self Acceptance	52.63	9.58
B.	Self Security	46.81	9.40
C.	Social Maturity	45.12	9.44
D.	Social Confidence	40.60	7.73
E.	School Affiliation	56.46	8.78
F.	Teacher Affiliation	50.62	7.85
G.	Peer Affiliation	48.86	9.79
H.	Achievement Motivation	48.62	9.32



TABLE

The Schools of the District of Columbia
Community Aides in Open Space Schools
1973-74
Intermediate: Self Observation Scales

- For Bruce-Monroe intermediate students Social Confidence is below national norms. This is a measure of how one "expects-to-be-treated" in their social contacts. This finding also has programmatic aspects. (see recommendations).
- Teacher and School Affiliation scores, though slightly below the national norm, do not show the dramatic decline often found during close-of-school testing in these areas.

Teacher and Aide Roles

A major purpose for the addition of a community aide to the classroom is to alter the role of the teacher in such a manner that she/he will spend more time on instructional activities and less time on the support activities which become more the responsibility of the aide. To determine if this were the case at Bruce-Monroe, teachers (23) and aides (13) were asked to provide the evaluator with their best estimates of time allotments across the following activities:

Instructional
Community Liaison
Monitorial
Planning
Technical
Clerical
Housekeeping

Characteristics of Aides

Bruce-Monroe, through the ESEA Title III project, employs thirteen (13) community educational aides, all of them are black females though repeated attempts have been made to employ males. The average age of the aides is 32 years. Sixty-one percent (8) of the aides are married. All aides have completed high school; four have some post high school education.

All but one of the aides are planning to continue their educational advancement, thus, they seem to view their roles as educational aides as a step in a career ladder. All aides feel the program should continue.

Aides were asked to complete the following scale:

Using a high of 5 and a low of 1, rate the following:

Your assessment of:

your total job

your acceptance by the teacher

your contribution

the technical assistance provided

the quality of supervision provided

the pre service training provided

the inservice training provided

your acceptance by the students

Results of the administration indicate that all aides rate all items as 4 or 5, thus the interpretation of the data shows that aides have an extremely high assessment of the role and its relation to others.

All aides responded that the Principal is their immediate (building) supervisor and that Mr. Diggs is their supervisor from the D.C. Central Office. The aides line and staff relationships seem to be clearly understood.

Results of the study of aide characteristics indicates that aides are making a significant contribution to Bruce-Monroe, that they see themselves at one rung in a career ladder and most important they really want to work with children.

The Schools of the District of Columbia
Community Educational Aides in Open Space Schools
Average Percent of Time Teachers (23) and Aides (13) Spent on Certain Activities
1973-74

Activities	Teachers	Aides
Instructional	43.52%	21.53%
Community Liaison	6.67	9.23
Monitorial	9.50	20.76
Planning	13.39	8.46
Technical	6.65	10.38
Clerical	10.43	13.76
Housekeeping	8.30	11.61
Other	1.08	4.61

One of the interesting results is that for teachers the range for instructional activities was from 20 to 90, for aides the range for the same activity was from 10 to 40. Obviously, the teacher who spent 20% of her/his time on instructional activities needs assistance in planning and implementing her/his program.

Bruce-Monroe staff may wish to set some goals in the areas of time allotments to provide a total educational program balance for students as well as for aides and teachers.