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ABSTRACT

A program was developed in the Ocean Hill-Brownsville Demonstration School District as a means of solving the problems of teacher training, inadequate use of community personnel, and the absence of a strong feedback and accountability system. Focus is on the teaching process in its direct relation to skill strengths and weaknesses of each child. A curriculum was developed by selected school staff and consultants, specifying behavioral objectives for reading, comprehension, and mathematics. From this curriculum an assessment instrument was constructed that could identify strengths and weaknesses of each child in basic skill areas, spot interests, and place each child clearly in a curricular sequence of basic skills. First assessment of 2,500 elementary children in six schools was conducted in fall 1969 by 15 teacher trainers and 60 parents (paraprofessionals) trained in 2 days to administer the instrument and analyze the record results for feedback to teachers showing where each child fit into the curriculum sequence. Then each school began special inservice training sessions and new educational programs to help the teachers and paraprofessionals maximize their abilities, use of materials, assessment information on the children, and the new curriculum. Assessment of children will take place three times a year with subsequent feedback to teachers, administrators, and parents for adjustment of instructional training and programing based on the objective data on each child's performance. (Author/JS)

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SKILL ASSESSMENT & INSTRUCTION PROGRAM*

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"...most educational change in the past has occurred only when the forces that tend to pressure the status quo are finally stretched to their breaking point.

In some respects we have lived from one crisis to the next with little impetus for planned change being generated in between. And while we have tried to put out the current fire, we of course, have little time to give constructive thought to the positive, long range direction of education endeavor."*

Unfortunately, the time has come when every day is a crisis. Educators must now look beyond the racial, political and other broader societal issues, and begin to develop solutions to the more immediate problem - that of raising the educational achievement of the children in our inner-city schools.

Through the implementation of various programs and a thorough investigation of the schools' management systems, teacher allocation, materials, and methodologies, major problem areas have been identified that must be resolved if we are to have more efficient schools that will raise the educational achievement of all their students.

Three basic problem areas that have been identified are:

1. <u>The inexperience and inadequate preparation of the average teacher in an inner-city school</u>. Some teachers are unaware of the

*Dean Corrigan, U.S. Office of Education, 1969

basic skills needed by the children and as a result are unable to gear their teaching towards the acquisition of these skills by their students. Even when there is an awareness of the skills needed for the children, many of the teachers do not have the tools to facilitate teaching these skills adequately.

2. The inability of schools to relate more closely to communities. Parents are demanding to play a role in the education of their children, and school systems are realizing that they need help. Unfortunately, many school systems are not prepared to train and make proper use of community resources; thus, they prevent many residents from playing a significant role in the educational programs and aims of the school.

3. The lack of feedback information among the child, parent, teacher and administrator. In most school systems, these important parties fail to communicate affectively, and consequently, many good ideas and much critical information are lost. Seldom are schools prepared to establish and make use of achievement measures as an aid to the revision of current programs and as a motivational system for students and staff.

Program Description

A program was developed in the Ocean Hill-Brownsville Demonstration School District as a means to solving the problems of teacher training, inadequate use of community personnel and the absence of a strong feedback and accountability system.

The main objectives of the program were:

1. to train teachers to be aware of and to be able to teach their children basic skills of reading, comprehension, and mathematics;

2. to train staff to more effectively use the materials which they have available;

3. to train parents from the community to work more effectively in the school as tutors, aids, and educational facilitators.

4. to develop a feedback system, which would enable parents, teachers, and administrators to be more significantly involved in the education of the children.

Feedback occurs when information travels from one person or group to another person or group, in such a form that the receiver can make use of it. In the current project, the results of an individual pupil assessment traveled along a number of feedback paths. The first feedback path was between the assessment results and the teacher, so that instruction could be improved. At the same time, feedback went from the assessment situation and the teachers to the authors of the instrument and skill sequence, so that both could be revised in order to better represent the goals of the instructional program. Further, feedback traveled to administrators of the district in order that they could better represent the goals of the instructional program, and better manage the dispersement of educational services to the children of the district.

Results from periodic assessment were transmitted to the community in the form of progress reports which explained to the parent the skills which the child had mastered and the skills he had yet to learn. Parents, when given this information, were able to assist their children in mastering the new skills in a context which supported the schools' efforts. From the community's standpoint, it is important that its members know how effective their school system is in educating their children.

The skills were specified, and the responsible people throughout the system were being held accountable for the teaching of these skills. An instructional hierarchy existed so that each staff member had designated responsibilities which had to be filled in order that the system functioned efficiently. Thus, by looking at the outcomes of the system, administrators would be able to make intelligent decisions about staff allocation, curriculum materials and various types of educational innovations.

The child was kept informed of his progress in the various component skills of reading, comprehension, and mathematics. He was told what skill he was working on and was aware of the point at which he achieved mastery. This feedback to the child provided motivation by allowing him to orient his behavior toward specific goals. (See Sample Contract, Figure I, Appendix B).

In order to train teachers to be able to teach their children the basic skills of reading, comprehension and mathematics, teachers must understand the specific components of these skill areas. Thus to meet this need, a curriculum sequence was developed, specifying behavioral objuctives for reading, comprehension and mathematics. (See Example, Figure II, Appendix B) The teachers were each given this sequence of basic skills to study and to serve as a guide for their teaching.

Corresponding to each skill in the sequence, was a listing of available materials that best taught each skill. This cataloging of the materials served as a tool which enabled the staff to be more efficient in their teaching (See Figure II, Appendix B).

Assuming that the teacher was aware of the basic skills and the materials that are best suited to teach these skills, she must then assess each child to discover his strengths and weaknesses in these areas. After assessment of each child, she would be better able to develope an instructional prescription according to the child's needs.

Thus, an assessment instrument (Diagnostic Skill Indicator) was constructed that provided this useful information to the teachers and helped them in their efforts to plan individualized instructional programs for the children (See Detailed Description, Appendix A).

Existing, commercially available assessment instruments proved impractical for use in inner-city school settings. They were either the standardized paper and pencil variety or the individually administered diagnostic tests. The standardized tests failed to accurately assess the child because of the cultural bias in their questions and the group format in which they are given. The individually administered diagnostic tests were found to be impractical because of the shortage of time, space, and qualified psychologists or testing specialists in the schools. Also, the information that was transferred to teachers from both these tests, was usually meaningless in terms of the instructional program.

To further the teaching process, tests must measure what is being taught - thus what is contained in the program's assessment instrument is also what is representative of the curriculum, giving the staff a valid system of measurement and placement. Also, to

solve the problem of shortage of time and staff, the assessment instrument was designed so that it could be administered individually by parents from the community in approximately one half hour. These paraprofessionals (mothers from the community) who worked in the schools, received two intensive days of workshops, in which they studied the instrument and administered it to each other to attain proficiency. As a result of the training, 2,500 children were tested by 40 paraprofessionals in two weeks' time. In this one half hour, a tester determined a child's strengths and weaknesses in word attack skills, comprehension skills, and arithmetic skills. These results were immediately transferred to a progress record which showed the sequence of steps in each skill area and the order in which they were to be mastered (corresponding to the skill sequence). On this progress record, marks were placed, indicating the highest level of achievement reached in the test and the resulting position of the student on the skill sequence (See Figure III, Appendix B).

The record then accompanied the child back to the classroom and served as a guide to the child's instructional program.

Program Outcomes and Implications

Immediately following the first testing, many teachers met by themselves and discussed how they could divide their classes into groups to maximize instruction. Since each teacher had similar progress records and scores on each child, the task of grouping the children according to their skill levels and then differentiating the staff's roles accordingly, become a reality.

Other teachers began individualizing instruction within their class, using paraprofessionals to teach specific skills, and having children who showed mastery of a skill, teaching other children.

The mere fact that teachers and paraprofessionals possessed the curriculum sequence and the results of the testing sessions made a noticeable contribution to their instructional effectiveness; for they now have a set of teaching objectives, giving the minimum acceptable performances for children and teachers, sequences in sufficiently small steps to suggest reasonable teaching strategies in getting from one step to the next, and a knowledge of where each student stands on these sequences.

However, implications for instructional change, using this program as facilitator, went beyond this. Trainers and administrators conducted workshops, demonstrations and presentations, designed to assist the teacher and paraprofessional in developing efficient ways to use the information provided. The chief areas covered by these workshops and demonstrations included:

1. The development of teaching strategies designed to move from one step to the next in each skill sequence;

2. The development of new materials, to supplement those existing or where none exist, to serve the particular needs which teachers have agreed upon (See Figure IV, Appendix B); and

3. Techniques of classroom management which promote the individualization of instruction; These techniques include grouping children working on the same or similar skills; methods of scheduling a variety of activities; and the development of a motivational system for keeping a rather complex social system running smoothly.

Through these workshops and the administering of the tests, the parents from the community have learned skills which enabled them to play a significant role in the educational of their children. They have become more familiar with children's learning problems, the basic skills that are involved in reading, comprehension and mathematics and the use of materials which are the most appropriate for teaching these skills.

Many have developed these skills so rapidly, that they have begun to teach the entire reading or math period in their schools. Others have acted as tutors and educational facilitators in their classrooms.

After the development of the test, training of personnel, assessment of the children, instructional workshops and training for four months, the children were again tested. The results from this test indicated the number of skills each child had learned since the first testing. (See flowchart of procedures, Figure V, Appendix B.)

These results were then given to the teachers, their administrators, and the children's parents. Thus the first feedback link was completed and accountability became a reality. Failure is no longer blamed on the child, but on those who have not taught the child. The results have began to bear this fact out. Since ability grouping was not used, the results identified the teachers who had been effectively teaching their children the basic skills, as opposed to those who had not.

Administrators have begun to speak with teachers whose children had shown no improvement in their skills over the last four months, in an attempt to assist them in improving their classes' performance.

Special teams are being formed from the district office to go into schools and select children who have not acquired their basic skills and give them intensive training until they master these skills. The results of the first, second and final testing, will finally be given to the Governing Board of the community, in order to plan educational programs for the next year.

The methods, techniques and materials, and the teachers' skills being used in the classrooms, are being studied along with school structures and training programs, in an attempt to isolate variables that effected educational change in the classrooms. Recommendations will then be made to the appropriate persons in the school system and community.

Feedback information in the educational system, which is probably the weakest link, has been strengthened. Parents are playing a more significant role in the education of their children. Teachers and principals are now being held accountable for their actions. Principals are warning teachers they better teach their children; teachers are responding by demanding workshops. And as a consequence the children are learning.

The curriculum sequence, progress record and diagnostic skill indicator formed the nucleus for a system of feedback and accountability which has begun to help urban schools raise the educational achievement of their children.

APPENDIX A

Description and Development of Instruments

Curriculum Sequence: The Curriculum Sequence was developed by initially studying the needs of inner-city children and the materials and sequences available to the teachers. Then together with reading and mathematics specialists, plus the curriculum and development staff of an urban school district, a workable sequence was constructed that not only met the needs of the children and their teachers, but also correlated to national curriculums. This sequence was also matched with standardized achievement tests, to guarantee that the curriculum would teach the skills that were tested on these well formulated standardized instruments which serve as the yardsticks of educational achievement.

Finally, over the four months in which the school staff used the sequence to guide their instruction, information was gathered to make necessary revisions based on the experience of the teachers and trainers in teaching these skills to their children.

Assessment Instrument: The assessment instrument (Diagnostic Skill Indicator) was constructed directly from the Curriculum Sequence. The instrument assesses reading skills in two areas: word-attack or decoding skills, and comprehension skills (or skills of "deriving meaning" from the printed page).

The word-attack or decoding skills ("mechanics of reading") include: the prereading and reading readiness skills of auditory and visual discrimination; letter naming; a sample of the child's knowledge of the Dolch 220 common words ("sight vocabulary"); and level of skill in attacking words, beginning with regular single syllable words, and progressing through the use of blends, diagraphs, and double vowels to multi-syllable words unfamiliar to the child.

The comprehension portion of the instrument sampled both comprehension of written materials, and of similar materials presented orally. The aim of this procedure was to differentiate between the more basic skill of comprehension per se and reading comprehension. Comprehension skills included, following direction, responding to questions about written material, getting main ideas, etc. These skills were sequenced according to linguistic complexity.

The mathematics portion of the assessment instrument covered the basic computational skills required in addition, subtraction, multiplication, division and the manipulation of fractions.

APPENDIX B

SAMPLE CONTRACT BETWEEN CHILD, TEACHER AND ACADEMIC ASSIGNMENT

SKILL #5 - WORD ATTACK SKILLS

OBJECTIVE: The student can read aloud any single syllable word containing the following vowel - consonant combinations having one main sound.

SAMPLE ASSESSMENT ITEM (90% efficiency)

Read the following words out loud.

broy ploy word

MATERIALS

_____ Learn To Read, book 2

_____ Words Today (Workbook 3, pps. 60-65; 90-96)

_____ STEPS, chapter 1, 2, 4

_____ The Open Door

_____ Tape #4

_____ The Crazy Kangaroo

_____ Teacher Led Presentation

Figure I

B

WORD ATTACK SKILL SEQUENCE

SINGLE CONSONANTS AND VOWELS IN ONE SYLLABLE WORDS

SKILL	MATERIALS
The student can read aloud any: [illegible] els: a in father, o in dog, u in put, y in happy	
8. single syllable word containing the following vowel-consonant combinations having one main sound. New consonants: c, g, x-, -s	Learn to Read, book 3 Steps, chapter 7,8,10 Phonics Tape #4 Words Today, Workbook 4
9. single syllable words containing two linked consonants where one is silent. New linked consonants: -gh, -mb, -lk, -lf	The Crazy Kangaroo, Story 4 Steps, chapter 9 Phonics Tape #6
10. single syllable word with single consonants and regular vowels (nonsense words).	Learn to Read, book 6 (43-64) Janssens Basal Reader p. 12-26 Words Today, Workbook 6

C

WORD ATTACK SKILL SEQUENCE

DIFFICULT LETTER IN SINGLE SYLLABLE WORDS

SKILL	MATERIALS
11. single syllable words containing an initial blend or diagraph plus common long and short vowels and a single final consonant. New blends and diagraphs: bl, br, cl, cr, dr, fl, fr, gl, kl, pl, pr, tr, tw, sc, sch, scr, sk, sl, sm, sn, sp, spl, spr, -t, str, sw, sh, th (hard & soft), ph, wr, gh Example: blat, sprat, scope, etc.	Crazy Kangaroo - story 6, exer. 1- Steps, chapter 12 Phonics Tape #8
12.	

Figure 11

STUDENT PROGRESS RECORD

Name: _____

Class: _____

Teacher: _____

Skill Level

Skill Description			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
reading	readiness		○	○	○																						
	sight vocabulary					○																					
	word attack						·	·	·	·	·	○	·	·	·	·	·	·	○	·	·	·	·	·	○		
comprehension	reading	time relations	·	·	·	·	○				·		·														
		comparisons	·	·	·	·	○																				
		cause and effect	·	·	·	·	○																				
		delayed meaning	·	·	·	·	○														·						
	listening	time relations	○	○	·	·	○																				
		comparisons	○	○	·	·	○																				
		cause and effect	○	○	·	·	○																				
		delayed meaning	○	○	·	·	○																				
mathematics	addition		○	·	○	·	○	·	○		○																
	subtraction			○		○	·	·	○		○																
	multiplication								○	·	○	·	○		○												
	division									○		·	○	·	○	·	○										
	fractions						○	·	○	·			○	·	○	·	○	·	○								
	decimals											·			·	·	·	·	○	·	○	·	·	·			
	geometry			·	·	·	·	·	·	·		·	·	·	·	·	·	·	·	·	·	·	·	·	·		
	other																	·	·	·	·	·	·	·	·		

○ test item

Figure III

Sample of Ideas for Developing Materials for Particular Skills

(Taken from Teacher-Paraprofessional Workshops)

SKILL #3

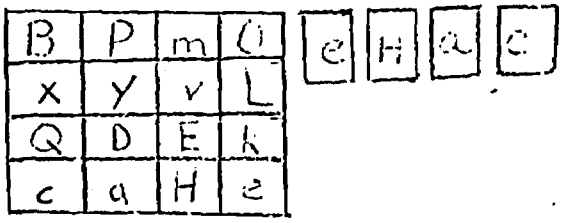
The student can give the name of any letter of the alphabet when the picture of the letter in either upper or lower case is presented.

SUGGESTED ACTIVITIES

1. Bingo Game
   (This game may be made on a piece of cardboard, oaktag ~~or the~~ inside of a stocking box)

   Two or more children may play, depending on the number of player's cards available.

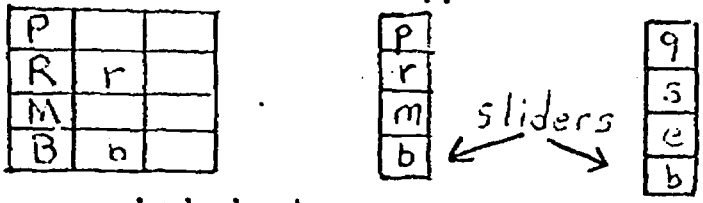
   The player's card has rows of letters, upper and lower case; The first player to fill a row of letters vertically or horizontally is the winner.



2. Alphabet Activity Card

   Object: To match upper and lower case letters.

   Activity Card is divided into various boxes. Little slits are made so that a slider can be moved up and down to correspond with the letter on the left. The child can then match or write the lower case or the upper case letter.



3. Rexographed sheet

   Objective: To match upper and lower case letters.

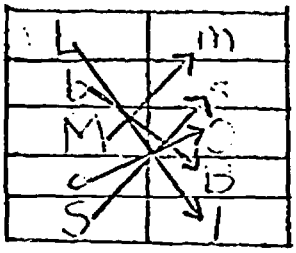
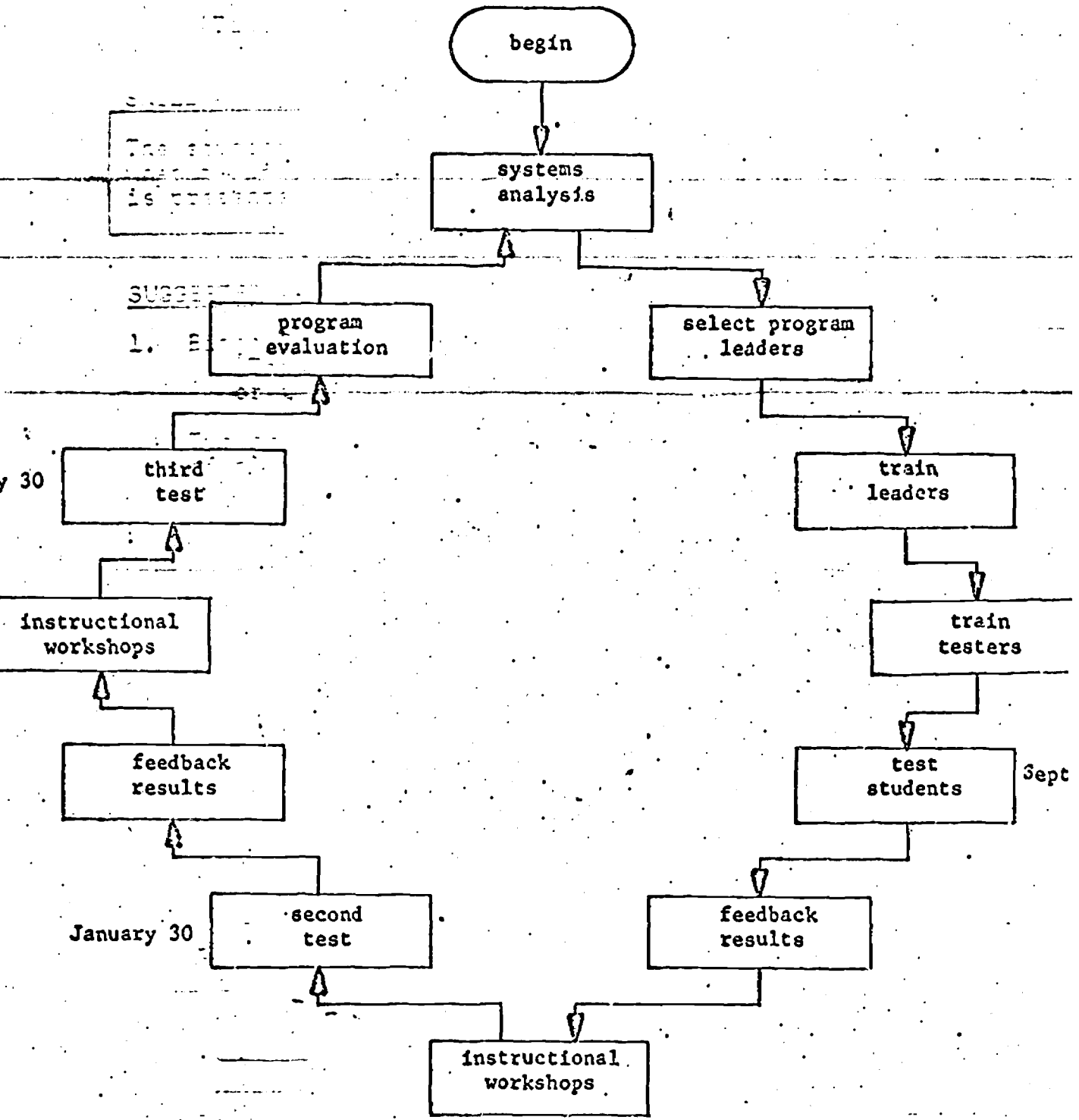


Figure IV

PROCEDURES



One Year Cycle

Figure V