

DOCUMENT RESUME

ED 069 655

TM 002 102

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TITLE A Report on the Evaluation of the Parent/Child
Toy-Lending Library Program.
INSTITUTION Far West Lab. for Educational Research and
Development, Berkeley, Calif.
PUB DATE Aug 71
NOTE 87p.
EDRS PRICE MF-\$0.65 HC-\$3.29
DESCRIPTORS Culturally Disadvantaged; Educational Objectives;
*Evaluation Techniques; Instructional Materials;
Librarians; *Library Programs; Models; Parent
Education; *Parent Participation; Preschool Children;
Program Effectiveness; *Program Evaluation;
Questionnaires; Teacher Education; Tests; *Toys
IDENTIFIERS Responsive Test

ABSTRACT

The Parent/Child Toy-Library Program is described and a report is given of its evaluation. The program is a 10-week course for parents of three- and four year-old children, an educational Toy Library for the parents, and a training program for the teacher-librarians who will teach the course and operate the library. Two toys were rejected on the basis of the evaluation--color cubes and sifo shapes. Evaluation of the course by use of an open-ended questionnaire indicated that the parents felt more competent in helping their children and had a better understanding of what to expect of the child. Evaluation of the children's achievement was made through comparison of pretest and posttest scores on the Responsive Test. Results of the evaluation indicate that the children learned a considerable amount because of their involvement with the program. (DJ)

ED 069885

PARENT/CHILD TOY-LENDING LIBRARY

a report on evaluation

august 1971

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A REPORT ON THE EVALUATION
OF THE
PARENT/CHILD TOY-LENDING LIBRARY PROGRAM

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Far West Laboratory for
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Level II
Date: August, 1971

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A REPORT ON THE EVALUATION
OF THE
PARENT/CHILD TOY LIBRARY PROGRAM

THE PRODUCT AND OBJECTIVES

This report describes the evaluation of the Parent/Child Toy-Lending Library program. As a result of this evaluation the Laboratory is releasing the program as a product of the Laboratory. In its current form it is designed to serve parents of three- and four-year-old children. It is being expanded to serve parents of older children and the Laboratory is in the process of making one thirty-minute film and six or seven five-minute films that will become parts of the product.

THE PRODUCT

The product is:

1. a course for parents of three- and four-year-old children;
2. an educational Toy Library for these parents; and
3. a training program for the teacher-librarians who will teach the course and operate the library.

During the course, the parents are asked to:

1. practice a specific behavior that is related to some concept of physical or intellectual growth of young children, (e.g., practice giving positive instead of negative corrections --or say "yes" as often as "no"; practice using precise language. These behaviors are listed in Appendix A).

2. observe a demonstration of a toy or a game that helps the child to learn a skill or concept;
3. role play with other adults to learn to use the toy or game;
4. take the game home and use it with their children;
5. discuss with the parents some topic of interest related to the education of their children.

After the parents have completed the course, they are able to check out toys from the library for as long as desired. Each toy is accompanied by one or more "learning episodes" that describe how to play the game. A description of the eight toys used in the course and eight more that are now in the library is provided in Appendix B.

The product consists of:

1. a set of eight basic toys used in the course and a second set of eight toys for the library and forty-two learning episodes that go with the toys. The two sets of toys are described in Appendix B;
2. a handbook for parents for each set of toys. The handbooks which include the learning episodes for the toys are entitled "Parent Guide: How to Play Learning Games with a Pre-school Child" and "Parent Guide: Learning Games to Play with a Preschool Child (Second Series)";
3. a "Librarian Manual for the Parent/Child Toy-Lending Library" which contains detailed instructions for conducting the course and operating the library;
4. a set of eight filmstrips and audio-tapes demonstrating the use of 20 learning episodes;

5. a one-week training program for teacher-librarians conducted by Laboratory staff members or someone trained by the staff. (See outline in Appendix C).

THE OBJECTIVES

The primary objective of the course and the Toy Library is to promote the intellectual development of children in such a way that they will develop with a healthy self-concept. The program attempts to do this by working with the parents. We could not measure the effects of the course on a child's self-concept because:

1. we did not find available or really develop a satisfactory method of measuring the impact of the program on a child's self-concept;
2. we did not expect a measurable large change to take place in eight weeks or even a year;
3. we were not necessarily expecting a change in each child's self-concept because the problem with many children is to "maintain" rather than "develop" a healthy self-concept.

However, we reason as follows:

1. If parents feel that they are competent in helping their child learn what they believe is important, this feeling of competence will have a positive effect on the child's self-concept.
2. If the parents feel that they can influence the decisions that affect the education of their child, this feeling of importance will have a positive effect on the child's self-concept.

3. If the parents feel that their child is capable and can be successful, this feeling will have a positive influence on the child's self-concept.
4. If a child increases his competency as a result of a pleasant interaction with his parents, this increase will have a positive influence on his self concept.

Since these four statements are well-grounded in a large body of previous research, the inference that the course will aid in the development of children with healthy self-concepts is sound if as a result of parents taking the course:

1. They feel more competent in helping their children learn what they believe to be important skills and concepts.
2. They feel that they can influence the decisions that affect the education of their children.
3. They have a better understanding of what their child is capable of learning and, therefore, a feeling that he can be successful.
4. The child increases his competency as a result of the interaction with the parents.

Thus, these four statements became the several objectives of the course. The fourth statement is the only one related to the intellectual development of the child. If the child learns skills and concepts, and how to solve some problems, we regard this as part of his intellectual development. This outcome, however, is dependent upon the continuing interaction of the parents and the child after the course is completed; hence, the course is directed toward initiating this desired interaction

pattern rather than toward immediate achievement by the children.

In order to obtain these objectives, it was necessary to identify certain facilitating objectives, namely:

1. The toys and games used in the course must focus upon a content that is obvious to the parents as worth learning. Furthermore, the toys and games must be interesting to the children.
2. The course itself must have "pulling power," that is, parents must be interested enough in the activity to start the course and complete it.
3. The course must be packaged so that with a limited amount of training someone other than the Laboratory's staff could conduct it and operate the library.

The section of this report on evaluation deals with these objectives in the order that they occurred in the development processes that preceded the course. Our first concern was the creation of a set of toys and games for inclusion in the library; then we turned attention to the design of an effective course to train parents to use the library material; next we focused upon the problem of utilization or the "pulling power" of the course and the Toy Library. After we had satisfied ourselves that the course and the Toy Library could achieve our objectives when taught by a Laboratory staff member, we developed the materials and training procedures necessary to enable others with no previous involvement with the program to teach the course and operate the library.

WHAT WE CAN SAY ABOUT THIS PRODUCT

Strictly interpreted, any statement that goes beyond a careful summary of what has been reported is generalizing beyond available data because it has not been possible to approach a random sample of any clearly-defined population of potential users that could be used to make generalizations about the effectiveness of the program. The Laboratory accepts the responsibility, however, of making reasonable statements of what the developers believe can be said about the product.

We can make the following statements with considerable confidence.

1. With one week of training and the materials that have been developed at least 80% of the potential teacher-librarians will be able to teach the course and operate the library.
The degree of success will depend upon the persons' experience and their ability to work with the parents who will be taking the course.
2. When the course is conducted as outlined by a teacher-librarian who has been successfully trained most (75% or more) of the parents who start the course will complete it.
3. The parents who complete the course will feel that:
 - a. they have learned an effective way to help their children learn some skills and concepts that the parents think are important;
 - b. they have a better understanding of what their child is capable of learning and doing. In most instances, this

will result in the parents feeling that their child is capable and can be successful.

4. The child will learn some useful skills and concepts and how to solve some problems involving these skills and concepts. The degree of mastery will vary among the children. The skills and concepts that are covered in the course are listed in Appendix D.
5. Providing that parents continue to help their children in the manner they have learned from the course, the course will have a positive effect on the child's intellectual development and self-concept.

BACKGROUND FOR DEVELOPMENT AND EVALUATION

The Parent/Child Toy-Lending Library was developed by one of the Far West Laboratory programs, Education Beginning at Age Three, to enable that program to meet its objective of eventually providing for some or all of the educational needs of at least 90 per cent of the children in any community. At the time the Toy Library project was undertaken in 1969, we anticipated that Head Start would continue to educate some low-income children, that private nursery schools would be available for some children, and that day care services would be expanded; but that these programs and facilities would not serve most three- and four-year-old children. The public schools do not have the financial resources, the teachers, or the space to offer a three-hour classroom program for these children, so we sought an alternative program with modest resource requirements. We evolved the Parent/Child Toy-Lending Library program in which we train parents to use a limited number of educational toys to teach specific skills, fundamental concepts, and problem solving behaviors to their own children.

The Toy Library program conforms to the major objective of Education Beginning at Age Three, that is, the development of an educational program for children from ages three through nine that is

more responsive to their needs than most current educational programs. Classroom organization and teaching procedures are responsive to the child when the learning environment satisfies the following conditions:

1. It permits the learner to explore freely;
2. It informs the learner immediately about the consequences of his actions;
3. It is self-pacing, with events occurring at a rate determined by the learner;
4. It permits the learner to make full use of his capacity for discovering relations of various kinds;
5. Its structure is such that the learner is likely to make a series of interconnected discoveries about the physical, cultural, or social world.

The activities within the environment are autotelic; the activities are self-rewarding and do not depend upon rewards or punishments that are unrelated to the activity. But not all self-rewarding activities are autotelic. To be autotelic, an activity must also help the learner develop a skill, learn a concept or develop an attitude that is useful in some other activity. Autotelic activities are intentionally designed to reduce the reward for success or the punishment for failure to tolerable limits for the learner and society, so that the learner can master some skill that is useful in life, but one which often cannot be learned through direct experience since the cost of failure is

too great to tolerate.¹

The program is also responsive to children by taking into account their cultural backgrounds and life styles. This means using culturally relevant materials whenever possible; encouraging the use of the child's language in school; recognizing that the competencies children have developed may be different depending on their environment and background; these differences should in no way label the children as being "deprived." Because we recognize the children's ethnic and social backgrounds, we believe that the parents are the ones who are responsible for the education of their children, and that they should be involved in the decisions that affect their children's education.

The long-range objective of this Responsive Program is to contribute to the education of young adults who can solve a variety of problems and who have the self-confidence to attempt new activities when there is a reasonable chance of success. This means that we must be concerned with the intellectual development of a child, and we must help him to either maintain a healthy self-concept or to develop one as it relates to school and learning. Applying these objectives to a program for young children means that we are concerned with helping the child learn specific skills, concepts, and problem-solving techniques; but the major concern is to help a child learn how to learn rather than teaching some specific content. Since a major objective is

¹ A more detailed description of the program is available in "The Overview of the Responsive Head Start and Follow Through Program," a Laboratory publication.

For a more detailed description of autotelic activities see Anderson, Alan Ross and Moore, Omar Khayam. "Autotelic Folk-Models." The Sociological Quarterly, #1, pp. 203-216, 1959.

to help a child maintain or develop a healthy self-concept, the way he learns and what he learns must be judged with a view to the possible effect that the process or content might have on the child's self-concept.²

Although we were working primarily with Head Start programs when we started the Parent/Child Toy-Lending Library project, we did not then and do not now consider our program to be a compensatory one for "deprived" children. We do not think of low-income children in terms such as "deprived." Furthermore, we intend our program to be effective for all children.

We decided to initiate the Toy Library program to fill the educational needs of the many three- and four-year-old children who are not participants in some other organized educational program. We planned to give the parents an eight-week course, held once a week for about two hours, on how to facilitate the educational development of their children.

The decision was based on two lines of thought. One is that the project should reduce the problems of financing education, training teachers, and providing school space. The other reason is that the findings of related research were promising.

2

For a more complete discussion of the objectives see the Laboratory paper entitled, "The Objectives of a Responsive Head Start or Follow Through Program."

We decided that one person--a teacher or an assistant teacher-- could be trained to teach the course and to operate the library. This teacher-librarian could reach at least 120 parents a year by conducting two eight-week classes for twenty parents per class three times during the academic year. The initial capital outlay should not exceed \$2,500 (it will actually be less than that), and the course could be taught in a classroom after school hours or in a general meeting room. The library could be housed in that room or in a closet of some sort. Therefore, during the first year, the cost of reaching 120 parents, including capital outlay, would be no more than the cost of operating a three-hour classroom program for fifteen to twenty children. After the first year, the cost would be a single salary plus a modest expense for maintenance and replacement. It appears now that the cost will not exceed \$100 per parent under ordinary circumstances.

Several kinds of related research are relevant to the rationale for the Parent/Child Toy-Lending Library. First, there is no evidence that all three- and four-year-old children need three or more daily hours of classroom experience. Secondly, previous research shows a close relationship between the quantity and the quality of child-adult interaction and the child's intellectual development. This conclusion was based on the following findings:

1. Twins usually have lower I.Q. test scores than singletons in the same family;
2. The only child or the oldest child achieves better in school than a younger child;

3. Children in large families who are close together in age do not develop as rapidly as children in families where the difference in ages is greater;
4. Children who grow up in some institutions do not seem to develop as rapidly as children who grow up in families;
5. Children who have been isolated appear to be retarded;
6. Achievement of children is related to the educational achievement of their parents.³

In addition to a wide variety of studies that support the above conclusions, there are some studies that are more specifically related to the effect of parents on the intellectual development of their children. For example, Hess and Shipman (1966) concluded that cognitive growth is dependent on cognitive meaning in parent-child communication, and that the mother's way of interacting with her child tends to determine whether the child will accept school and the other institutions of society. McCandless (1961) reported from a study by Irwin that children whose mothers read to them ten minutes a day when they were between the ages of twelve and twenty months improved in "all phases of speech." This finding is consistent with Gray and with Cazden who concluded that the sheer number of well-formed sentences a child learns is a significant predictor of language skill. In his survey of gifted children, Fowler (1962) stated that these children were usually instructed by their parents, many learning to read at three and going on to notable academic success. This same review found that early

³
See bibliography for references.

stimulation by oral, written, and pictorial materials, as well as general experience in observation and discrimination, contribute favorably to verbal memory and language improvement.

Another type of relevant research is studies that link parents' attitudes and values to the success of their children in school. Rolick (1965) found a significant relationship between school achievement and parental interest in the child and his education. Shaw and White (1965) found a relationship between child-parent identification and school performance. Norman (1966) found that parent value systems influenced academic achievement. Bowman (1958) pointed out that pupil self-concept has a strong influence on how the child reacts to school and how the school reacts to him. He also concluded that parental influence on self-concept is more important than school influence, and that the most effective method then known to change a child's self-concept is to train parents to do it. Level of aspiration, for example, is often a better predictor of school success than traditional measures. Level of aspiration is determined to a large extent by parents, and parent behavior in this context can be positively modified through training.

EVALUATION

The evaluation of the Parent/Child Toy-Lending Library project includes an evaluation of the toys and learning episodes used on the course, of the course itself, of the training program for teacher-librarians, and of the support material for the teacher-librarians.

EVALUATION OF THE TOYS

The toys and related episodes were developed as devices to help parents achieve some understanding of the principles of child development and to provide a starting point to promote a desirable interaction between the parent and child. The toys and episodes were designed to help a child learn a cluster of important cognitive skills and concepts. Other toys, however, could have been used to teach other skills or concepts; we are more concerned with the learning process itself than with the specific content.

For the toys and accompanying learning episodes to be useful, the following conditions had to be met:

1. The content needed to be clearly defined. The purpose of each learning episode or series of episodes needed to be so clearly stated that the parent could see what the child could do when he started to play the game and what he learned as a result of playing the game. The toys and episodes needed to be related to each other for the same reason, so that the effect over time could be observed. Any person should be able to read a learning episode or a series of episodes to see if they involve certain skills or concepts or problem-

solving processes and if they are related to each other, and any person should be able to inspect the toy and the learning episodes and see that the child must demonstrate certain skills or understand certain concepts in order to play the game. This line of reasoning is analogous to the concept of content validity in test development.

2. The content should be relatively free of any cultural bias. Since such things as color, shape, size, relational concepts (i.e., over, under and between) and mathematical concepts do not seem to have a cultural bias, they were selected for the content of the learning episodes.
3. The learning episodes should clearly illustrate the processes of interacting with the child:
 - a. the child should be allowed to explore the materials before a set is imposed on them;
 - b. the child should be free to stop playing when he wants to;
 - c. the child should be able to change the rules of the game;
 - d. the child should be encouraged to discover the answer to a question rather than having it told to him;
 - e. the parent should use positive instead of negative corrections;
 - f. the parent should help the child by describing what he is doing;
 - g. the parent should use precise language;

- n. the parent should respond to the child by letting him set the pace of the learning and by responding to the child's free explorations.

4. The toys and games should be interesting to the child.

No single toy and its accompanying learning episodes was expected to cover all the desirable learning processes, but by inspection it is an easy matter to see if the episode contains the process we are recommending or encourages the parents to behave in certain ways. We did not expect each episode to use every process. Since it is not our intent to release individual toys, we were concerned with the total effect of the toys and episodes; this type of concern is a part of the evaluation of the course as a whole.

We did evaluate each toy for its interest to children. Obviously, if it is not interesting enough to engage a child's attention for a period of time or until he masters the skill or concept involved, it does not matter how good its other features are. Furthermore, the objectives focus on the parents' attitudes and feelings, and if they experience a number of failures because the game was not interesting to the child, we are not likely to obtain our objectives.

For the purposes of evaluation, we decided that the child remains interested in the toy if, after five sessions of ten to twenty minutes each, he is willing to continue playing the game or he remains interested until it is clear that he can play the game without error. Since the parents have the game at home for one week, either positive measure of interest would provide a successful experience for them.

Our method of evaluation was to interview the parents at the beginning of each class session. We asked them how many times they had asked the child to play the game, how many times the child had played, if the child lost interest in the toy and, if so, why. The toy and the accompanying episodes were considered satisfactory if 80 percent of the children were still interested in the activity at the end of the week or lost interest only because they had mastered the activity, and if the child played with the toy more than five times or had played with the toy at least once without being asked.

This procedure appears to have been satisfactory. We got a range of behavior reported by the parents for the various toys. For example, 40 percent of the children in the field test lost interest in the shape puzzle before the week was over, and no child played the game more times than he was asked. But only 3% of the children lost interest in the Sound Cans; and on the average, children were asked to play five times during the week and actually played eight times. This range indicated that the parents were not telling us just what we wanted to hear.

We had one logical problem that we have corrected. The child could have played the game as often or more often than he was asked and still have refused to play on some occasion when the parent asked him to play. Our question would not have revealed this. The problem, however, does not appear to be a serious one.

Two questions remain unanswered. We do not know whether the toys were interesting in themselves or interesting only as a means of getting the attention of the parent. As we just pointed out, there is some indication of a range of interest; so, regardless of the relative interest as "things" or "means," certain toys were more successful than others and did meet our criteria. The other interesting question that remains open was how much the parents reflected their own interest rather than the child's. For example, in some instances the parents reported that the child was not interested in a specific toy, but at the same time reported that the child had played twice as often as the parent had initiated the activity. This is an interesting research question that needs to be pursued, but the practical importance is to realize that the parents' interest in a game may determine how interested the child will be.

We tested the original toys at two preliminary sites, Berkeley and East Palo Alto, California and at two field test sites, Murray and Jordan school districts in Utah. The combination of the four sites provided a reasonably good cross-section of the parents and children we expected to serve. East Palo Alto parents were mostly black working-class; Berkeley parents were white middle-class, and the parents at Jordan and Murray were white and Mexican-American working-class.

The results are summarized in Table I. The information that is lost in this summary is that the Berkeley parents asked their children to play more often than the East Palo Alto parents did. Between the preliminary and the field tests, some revisions were made in the learning

TABLE 1

EVALUATION OF INTEREST IN NINE TOYS AND LEARNING EPISODES

	N	PRELIMINARY TEST lost interest	parent asked 2	times played 3	N	lost interest	FIELD TEST parent asked 2	times played 3	Discussion
SOUND CANS	26	15%	3	7	30	3%	5	8	accent
COLOR LOTTO	26	12%	3	5	29	10%	4	8	accent
FEELY BAG	25	32%	4	6	24	21%	4	4	revise
TABLE BLOCKS	27	19%	4	7	25	8%	4	8	accept
STACKING SQUARES	28	18%	4	6	27	22%	4	7	revise
NUMBER-ITE	11	9%	4	2	24	21%	4	8	revise
SIFO SHAPES	-	-	-		25	40%	5	5	reject
COLOR CUBES	7	29%	5	5	28	31%	4	5	reject
FLANNEL BOARD	7	14%	4	6	28	0%	5	8	accent

1. lost interest means the child lost interest in playing the game before he could play without error or before the week ended.
2. Parents asked means the average number of times the parents approached the child to play the game.
3. Times played means the average number of times each child played the game.

episodes that accompany the toys. The final decision either to accept a toy and the accompanying learning episode, or to revise it or reject it for use in the course, was made after the field test. Three toys were retained and revised. The most questionable decision was to keep and revise the Feely Bag. We retained this game, because it was the only one that demonstrated the importance of touch in the learning process.

Following the above procedure, the staff of the program will continue to check the level of interest of the toys and learning episodes; but we do not intend to release toys on an individual basis, so we will not continue to report on the testing of individual toys and games.

EVALUATION OF THE COURSE

THE objectives of the program have undergone some revisions but not substantial changes as we have developed the program. The final statement is on page 4. The objectives are:

1. Parents will feel that they are more competent in helping their children learn some important skills and concepts.
2. Parents will feel that they can influence the decisions that effect the education of their children.
3. Parents will feel that the child is capable of learning and can be successful.
4. The child increases his competency as a result of the interaction with the parents.

The first three objectives deal with the feelings and understandings of parents. We could not devise any unobtrusive way to observe the inter-

TABLE IV
SUMMARY PRE- AND POST RESPONSIVE TEST DATA WITH INDICATIONS
OF CHANGES FOR 12 MURRAY CHILDREN

SUBTEST	Total Points Possible	PRETEST SCORES			POSTTEST SCORES			r	t	Sig. Level
		Range	Mean	Var.	Range	Mean	Var.			
Color Matching	9	6 - 9	8	2	--	9	0	--	--	--
Color Naming	9	0 - 9	4	13	0 - 9	6	8	.67	2.58	.05
Color Ident.	9	0 - 9	5	13	4 - 9	7	4	.92	3.55	.01
Shape Matching	4	1 - 4	4	1	--	4	0	--	--	--
Shape Naming	4	0 - 4	1	2	1 - 4	3	1	.20	3.36	.01
Shape Ident.	4	0 - 4	2	3	0 - 4	4	1	.00	2.76	.01
Letter Recog.	32	0 - 20	5	44	0 - 20	5	47	.60	0.31	--
Num. Concept	25	0 - 24	9	72	2 - 25	16	51	.79	4.77	.01
Relat. Concept	24	4 - 22	15	39	10 - 22	19	13	.86	3.81	.01
Sensory Concept	24	8 - 24	18	25	8 - 24	18	33	.26	0.12	--
Prob. Solving	40	0 - 23	9	42	4 - 31	16	63	.50	3.05	.01
Verb. Comm.	--	7 - 47	18	145	13 - 57	30	227	.46	2.83	.01
Verb. Compre.	24	3 - 23	15	51	7 - 24	19	43	.64	2.32	.05

actions of the parents and the children before and after the course. Any intervention in the home was rejected, because such intervention would substantially alter normal interaction. The notion of having the parent interact with the child in some observable situation outside the home was discarded as being too much of an artificial situation. This left us with the alternative of using parent's self-reporting at the end of the course.

We were aware of the limitations of self-reporting and did anticipate the fact that people tend to tell the evaluator what he wants to hear. The weekly reports on the use of the toys, however, had produced a variety of responses (some of which were not what the evaluator wanted to hear). Even if the parents knew what we wanted to hear and told us, this indicated at least, that they understood the objectives.

We used an open-ended questionnaire at the last meeting of the course. It invited both positive and negative responses by asking the following questions:

1. What did you learn from this experience that was useful?
2. What was the most interesting part of the experience?
3. What didn't you like about the experience?
4. How would you improve this program?

In answering questions 1 and 2 the parents could: (1) fail to respond which was considered a negative response; (2) give a response they considered positive, but which was contrary to our objectives (for example, "I learned to ask my child a lot of questions," or "I learned it's good to make the child learn something every day," which was considered another negative response); (3) give a response that was not

TABLE V
SUMMARY PRE- AND POST RESPONSIVE TEST DATA WITH INDICATIONS
OF CHANGES FOR 7 JORDAN CHILDREN

SUBTEST	Total Points Possible	PRETEST SCORES			POSTTEST SCORES			r	t	Sig. Level
		Range	Mean	Var.	Range	Mean	Var.			
Color Matching	9	--	9	0	8 - 9	9	0	.18	--	--
Color Naming	9	0 - 9	3	14	3 - 9	7	6	.48	2.73	.01
Color Ident.	9	2 - 9	6	10	6 - 9	8	1	.66	2.54	.01
Shape Matching	4	--	4	0	--	4	0	--	--	--
Shape Naming	4	0 - 3	1	1	1 - 4	3	2	.42	4.49	.01
Shape Ident.	4	2 - 4	3	1	2 - 4	4	0	.40	2.27	.05
Letter Recog.	32	0 - 12	5	13	0 - 16	8	37	.30	1.27	--
Numb. Concept	25	0 - 22	9	57	3 - 25	17	82	.87	4.29	.01
Relat. Concept	24	2 - 16	12	22	16 - 24	20	8	.87	4.29	.01
Sensory Concept	24	10 - 24	19	21	16 - 24	20	17	.22	0.39	--
Problem Solving	40	2 - 16	10	25	0 - 28	17	110	.80	2.59	.01
Verb. Comm.	--	7 - 40	18	110	14 - 40	35	212	.20	2.51	.01
Verb. Compre.	24	2 - 22	16	60	15 - 24	21	8	.86	2.12	.05

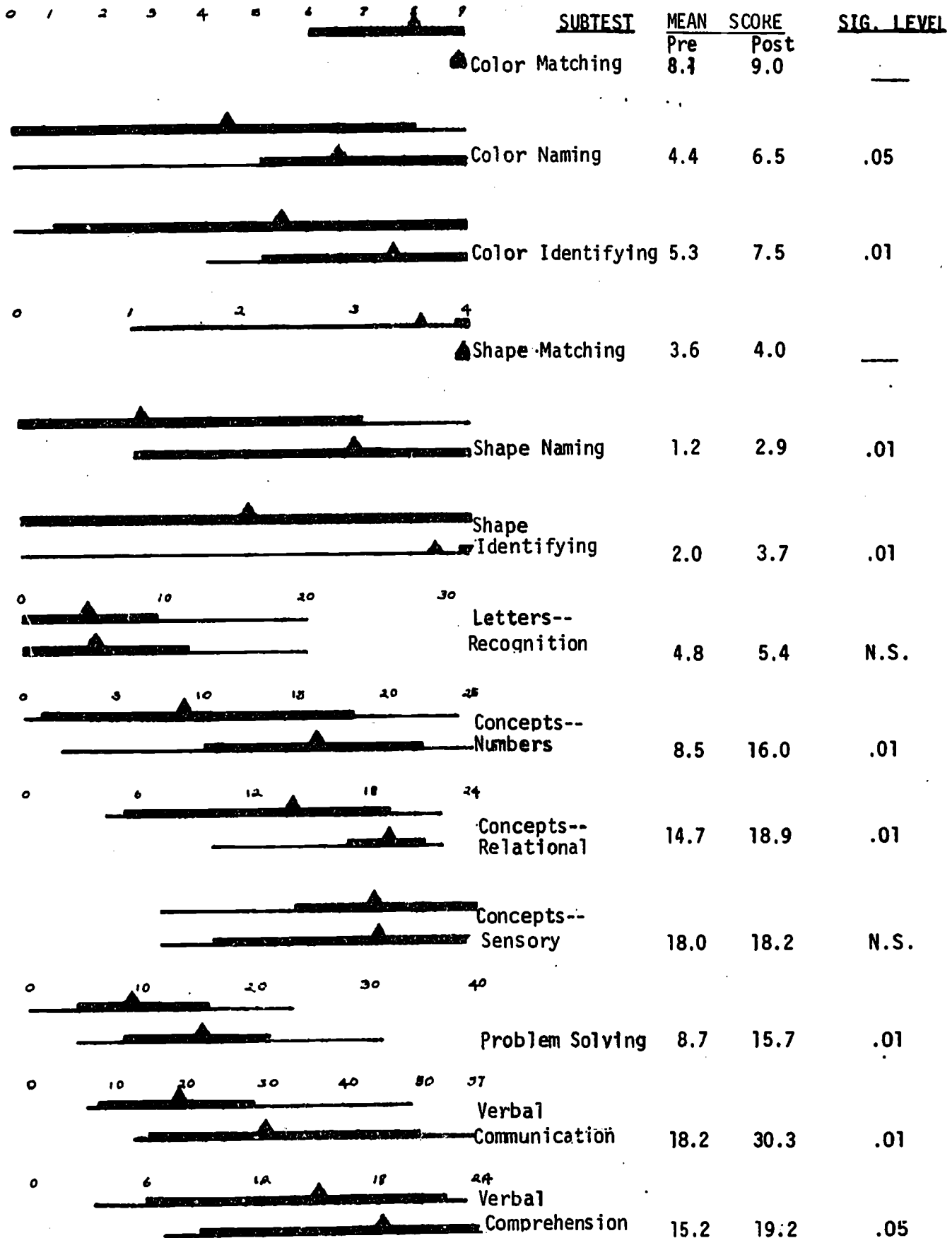
contrary to but was not directly related to the objective, which was considered a neutral response; (4) give a response that was related to the toys but was not directly related to the objective, which was considered a neutral response; (4) give a response that related to the toys rather than to themselves or the child. This was also considered a neutral response, because it would have indicated that the parents attribute the good things to the toys rather than to themselves; (5) give a positive response that was related to the objectives of the course. Furthermore, if the responses were positive and related to the objectives, they could be either so general that we could not relate them to a specific objective or they could be judged to be related to one of the objectives. Therefore, under the fifth possible response, we judged the item to be:

1. too general to classify;
2. indicative of a feeling that the parents could help their children learn something useful;
3. indicative of a feeling that the parents could influence the decisions that affect the education of their children;
4. indicative of a feeling that the child was capable or could be successful.

We conducted the preliminary test of the course at East Palo Alto where a Laboratory staff member taught two eight-week courses. The field testing was conducted in the Murray and Jordan School Districts in Utah by a person trained by the Laboratory.

We analyzed all the responses of parents from East Palo Alto,

Figure I. Range and Means for Pre- and Posttest Responsive Test Scores for 12 Murray children. Blocked-in area represents middle 67% of children's scores. ▲ indicates average (mean) score.



Murray, and Jordan. The results are summarized in Table II. Every parent who attended the last session of each course answered the questionnaire. Everyone gave some responses to both question 1 and 2. There were no responses that were contrary to the objectives of the course, so there were no negative responses. Most of the responses that were unrelated to the objectives of the course were comments on the way the course was conducted. For example, in response to the question on the most interesting part of the experience some parents wrote:

"Listening to everyone talk about her child";

"Being able to talk about different experiences";

"Discussions."

Although these were positive responses they were not directly related to the objectives and we had not anticipated this desirable effect. Between one-third and one-half of the parents made such comments. Six of the unrelated responses of East Palo Alto parents indicated a vagueness or lack of understanding of the purpose of the learning episodes. For example, parents said:

"Help child to be courteous";

"Help child to be unselfish";

"Helps child to be patient."

The comments we classified as being related to the toys were statements that indicated the parents attribute the success of the program to the toys or focus on the toys rather than people. Such comments are:

"Toys do not have to be colorful";

"I should consider age when buying toys";

Figure 2. Range and Means for Pre- and Posttest Responsive Test Scores for 7 Jordan children. Blocked-in area represents middle 71% of children's scores. ▲ indicates average (mean) score.

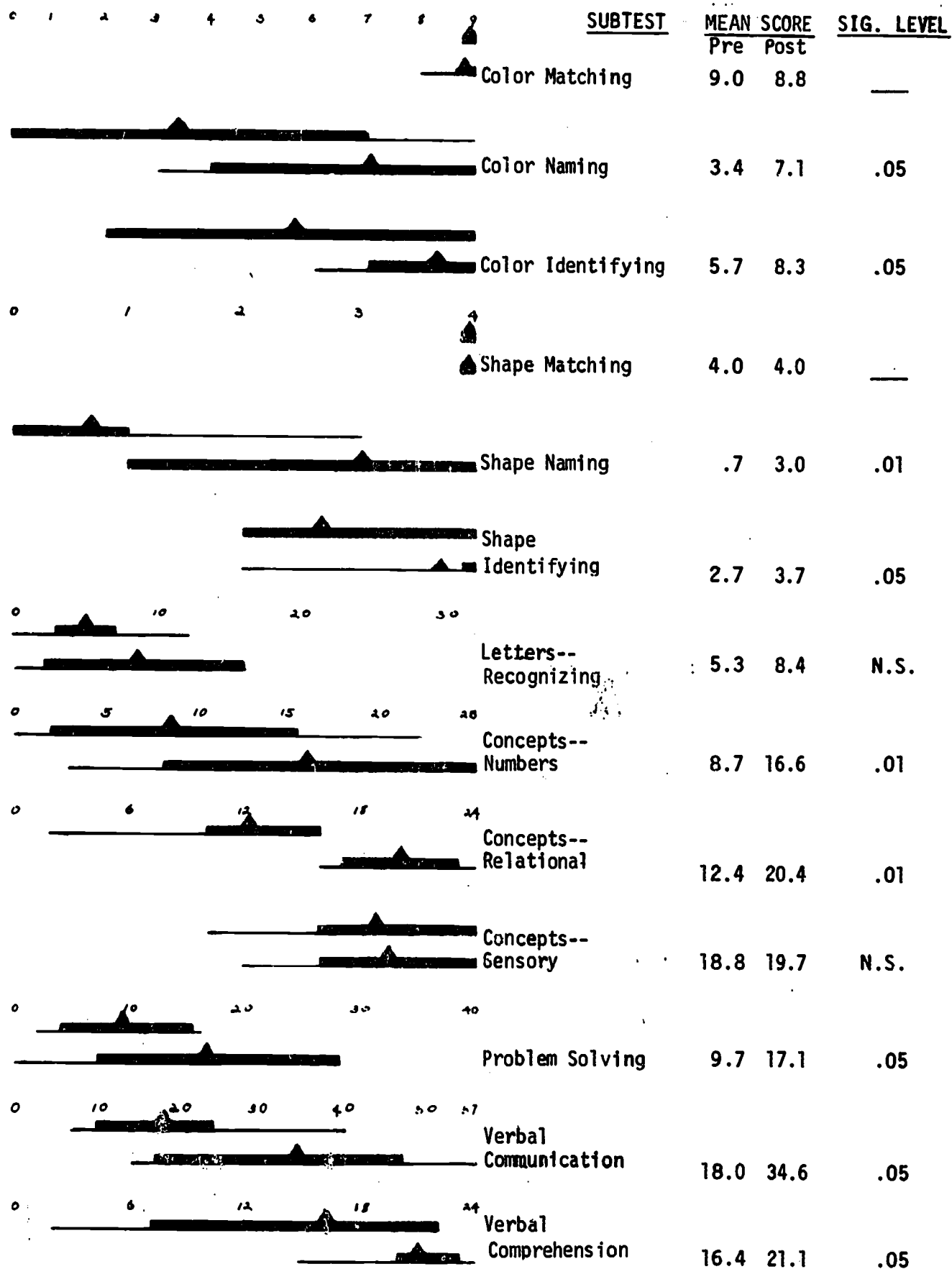


TABLE II

THE PARENTS' RESPONSES TO QUESTIONS ONE AND TWO
CLASSIFIED ACCORDING TO THE OBJECTIVES OF THE COURSE

	No. of parents	No. of responses	Unrelated	Focus on toys	Related to Objectives*								Total Related to objectives	
					1		2		3		4			
					No	%	No	%	No	%	No	%	No	%
EAST PALO ALTO														
	Q1	23	43	9	7		17	40		10	22		27	63
	Q2	23	40	7	2	12	28	13	32		16		31	78
JORDAN														
	Q1	10	19				10	53		9	47		19	100
	Q2	10	17	4	4		1	06		8	48		9	53
MURRAY														
	Q1	13	20				18	90		2	10		20	100
	Q2	13	26	4	2		7	27		11	42		18	69

-25-

*Related to Objectives:

1. Too general to classify.
2. Parents feel they could help the children learn.
3. Parents feel they could influence decisions.
4. Parents feel their child is capable or can be successful.

Both the Letter Recognition and the Sensory Concepts subtests deal with concepts not taught by any of the learning episodes presented in the Parent/Child Course. Thus, the failure of the children at both sites to show any significant change on either of these tests after the course strongly suggests that the significant changes shown in the rest of the tests were indeed due to the child's involvement in the ten-week Parent/Child Course.

The similarity of all results between the Murray children and a replicant group of children in the Jordan School District and the failure of both groups to show significant change on two subtests unrelated to the course substantiate the conclusions that: (1) the children learned a considerable amount over the ten weeks of involvement in the Parent/Child Program, and (2) that a large portion of what they did learn over this ten week period can be attributed to the Parent/Child Course itself.

THE PULLING POWER OF THE COURSE

The results on the reactions of the parents and the achievement of the children have been based upon the parents who completed the course. An obvious question is, "How many did complete the course?" Our initial thinking was that the course would be successful if we achieved our objectives and if 50% of the parents who enrolled completed the course.

"The games were useful";

"Seeing my child respond to the toys and experiences."

When the comment mentioned toys as devices that were useful to the parents or children to help them to learn something, they were classified as relating to some specific objective:

"Toys are useful in teaching children how to play";

"Toys are good for teaching the right way";

"Toys are useful in teaching children to concentrate."

We had some difficulty in determining how to classify some of the positive responses that were related to the objectives, but this was not a major problem. Examples of comments classified under different objectives are:

1. Statements about what was most interesting in the course that were too general to relate to a specific objective:

"The fact that such a program exists,"

"All of it,"

"The films,"

"Toys."
2. Statements that indicated a feeling that the parents could help their children learn something useful:

"Learned to communicate with child better,"

"Only takes a little extra time to influence a child's learning process,"

"I learned an effective way of teaching,"

"There are some specific things that I could do to help my children develop and prepare for school,"

The pattern of attendance of the parents has been consistently high. At the first preliminary test in East Palo Alto, five parents started the course and five completed it. At the second preliminary test in East Palo Alto, 35 parents came to the meeting to explain the course, 19 started the course and 21 attended the last session. The increase was due to the fact that some mothers later brought fathers and one father later brought his wife.

At Murray School during the first field test, 20 parents enrolled and three dropped out. During the second course, 45 (two classes) parents came and none dropped out. During the third course, 37 (two classes) parents came and none dropped out. At Jordan School during the first course 20 enrolled and 3 dropped out; at the second course, 43 (two classes) parents came and none dropped out; at the third course, 35 came and none dropped out; and at the fourth course, 60 came and none dropped out. The conditions at Jordan and Murray schools were extremely good: the instructor was excellent; and the Mormon Church, which is the dominant religion in the area, places a high value on the family and parents helping their children. But, even when allowances for these conditions are made, the attendance of the parents is very high.

The limited information we have on the two courses at East Palo Alto far exceeds our expectations and the conditions were not so favorable. The instructor was excellent, but there were some doubts about "this laboratory coming in from the outside to experiment with our children." But the parents who actually started the course stayed with it. This does not mean every parent came every night. Some parents missed two or three sessions, but they often asked someone else to return the toy they

"It gives you a sense of accomplishment,"

"How simple teaching is if you know how to go about it."

3. Statements that indicate a feeling that the parents could influence the decisions that affect the education of their children:

(No comments were classified under this heading.)

4. Statements that indicate a feeling that the child was capable or could be successful. These statements took two forms, a statement of what the child could do or a statement of what the child had learned:

"Kids are wiser than when I was a child,"

"My child knows more than I give him credit for,"

"A better appreciation of my children,"

"That she did not understand a lot of things that I naturally assumed that she did,"

"Learned that my child was an average child,"

"He learned to tell one color from another,"

"My child learned to listen to instruction,"

"The fun reaction the children had in discovering things by themselves,"

"Their gain in personal achievement."

Question 3 asked the parents what they didn't like about the course. The parent could:

1. not respond. (This was considered positive since they did respond to the first two questions);
2. make a positive response;
3. say nothing was wrong -- a positive response;

had and pick up the next one. When they returned they reported on the use of both toys.

CONTINUED USE OF THE LIBRARY

Another crucial question is, will the parents continue to use the Toy Library after the course? We do not have the records for the preliminary test in East Palo Alto. Due to a series of mishaps, the library was not ready for use immediately after the course and the Laboratory trained a local person to conduct the course but there was a delay in getting it established and when it was, records were not kept on the use of the library. It was however, the insistence of the parents that caused the school district and the Laboratory to persist until the the course was reestablished.

In the Murray and Jordan school districts, the same person has conducted all of the courses and operated the library. She has maintained records on the use of the library. Of the parents in the two districts who took the course in the spring of 1970 (a first field test), one-half of them continued to use the library until it was moved three miles in September. After that, the Murray parents stopped using it but six of the twenty Jordan parents continued. About two-fifths of the parents who took the course during the 1970-71 school year are currently using the library.

EVALUATION OF THE TRAINING PROGRAM AND MATERIALS FOR THE TEACHER- LIBRARIANS

Given the conclusion that we had achieved at least acceptable levels on on the objectives of the course, the next phase of the evaluation was

4. make a specific criticism;
5. be generally negative.

The information from this question is summarized in Table III.

TABLE III					
SUMMARY OF PARENTS' RESPONSES TO QUESTION 3					
WHAT DIDN'T YOU LIKE ABOUT THIS EXPERIENCE?					
	East Palo Alto	Murray	Jordan	Total	%
1. No response.	6	1	2	9	20%
2. A positive response.	9	4	5	18	39%
3. Said nothing was wrong.	6	4	2	12	26%
4. Specific criticism.	2	2	1	5	11%
5. General criticism.	<u>1</u>	<u>1</u>	<u>-</u>	<u>2</u>	<u>5%</u>
TOTAL	24	12	10	46	101%

Even when we asked for a negative response, 39% of the parents came back with a positive response, 25% said nothing was wrong, and only 16% made some kind of a negative statement; and it is doubtful that some of these are negative. For example:

"Some of the classes were enough alike that time could have been saved by combining them. But in general, we had things given us each time that were beneficial and could be worked on with the children each week. Some of these ideas would be hard to grasp if given any faster."

"Bringing back the toys."

"Expressing what my child has learned and how he acted."

"Filling out the questionnaire. Although I also realize it is an essential part of the program; because I have truly enjoyed

to determine how effective the teacher-librarians could be in conducting the course and operating the library after one week of training and with the written guide. We conducted a one-week workshop at the Laboratory in June, 1970, for eight people, a second workshop in October for four people, and we have trained four people in their own communities. We interviewed these people during April, 1971, six to ten months after they received the training. The people we trained as teacher-librarians varied from parents with no more than a high school education to teachers with a number of years of experience.

The first three questions we asked were related to the materials that were used in the training and in the course:

1. Were the instructions for the toys and accompanying games clear and understandable?
2. Was the written material interesting?
3. Were the written materials clear and understandable in explaining how you go about setting up a Parent/Child Course in your community?

We reasoned that if 80% of the responses were yes, we had achieved an acceptable level. If the materials were not understandable, we would either revise the materials or establish some requirements for a teacher-librarian. We asked for comments after each "no" response to use in making revisions.

it and have appreciated the opportunity of participating."

Three comments said some of the toys were too simple and one parent said, "Wasn't tough enough for my child."

Question 4 asked the parents for suggestions to improve the course. Again they often did not respond or said, "No comment." Some made positive statements such as, "Make it available to more parents." The suggestions were mainly directed towards improving the toys. Most of these statements indicated that the toys were too simple. We have responded to these statements by adding learning episodes that extend the upper range of the toys.

In response to questions 1 and 2, the parents made no statements that were contrary to our objectives. The four or five statements that were classified as unrelated to our objectives indicated that a few of the parents were missing the point of the course. The balance of those statements were all positive statements saying that the parents enjoyed the course because of the exchange of information between parents or the way the course was conducted. This was not an anticipated outcome, but it certainly is a worthwhile side effect.

At East Palo Alto, 63% of the responses to question 1, "What did you learn from the experience that was useful?" were related to the objectives and in the other two districts, 100% of the responses were related. The parents at East Palo Alto had a more difficult time expressing themselves in writing which may account for some of the differences. The percentage of responses to the second question is

Table VI summarizes the responses to these three questions. Eighty-seven percent of the responses were "yes." With minor revisions in the materials and some recommended guidelines for choosing teacher-librarians, we should be able to reach over 90% of the teacher-librarians with the materials.

TABLE VI RESPONSES TO THREE QUESTIONS ON THE MATERIALS USED IN THE TRAINING							
	<u>Number</u>	<u>Yes</u>		<u>No</u>		<u>No Response</u>	
		No.	%	No.	%	No.	%
June Training	8	18	75	5	21	1	4
October Training	4	12	100	-	-	-	-
Onsite Training	4	12	100	-	-	-	-
TOTAL	<u>16</u>	<u>42</u>	<u>87</u>	<u>5</u>	<u>10</u>	<u>1</u>	<u>2</u>

The next six questions were related to the five days of training:

1. Was the training well-organized?
2. Was the material presented in an interesting fashion?
3. Did you feel that there was enough time to cover the materials?
4. Did the training expand and clarify the written materials?

not so high, but in every group, more than 50% of the responses mentioned something that was related to the objectives. The second question, "What was the most interesting part of this experience?" was not so sharply focused as the first question, so we could expect a different kind of response.

Table II illustrates the relationship of the responses to specific objectives. No one made a comment related to a feeling of having power to influence the decisions that affect the education of their children. We believe from the reports from the people who taught the courses that the total lack of comments may be misleading and some changes did take place that were not reported in the parents' comments. But we do not have any evidence that significant changes took place. Therefore, we do not know that we accomplished the second objective which was: the parents feel that they can influence the decisions that affect the education of their children.

We can conclude from the responses to questions 1 and 2 that at least the course was successful in obtaining objectives 1 and 3:

1. the parents feel more competent in helping their children learn some important skills and concepts;
3. the parents have a better understanding of what their child is capable of learning and they feel the child can be successful.

This conclusion is certainly supported by the lack of any significant negative comments on question 3, "What didn't you like about this experience?" Only seven parents out of 43 had any negative comments and all of them were minor.

5. Did the training address itself to most important questions in conducting the course?
6. Did you come away with a good understanding of the philosophy of the Parent/Child Course?

We set the same standard of 80%. Table VII summarizes the responses.

TABLE VII RESPONSES TO SIX QUESTIONS ON THE ONE-WEEK TRAINING PROGRAM					
	<u>Number</u>	<u>Yes</u> No. %		<u>No</u> No. %	
June Training	6	43	90	5	10
October Training	<u>4</u> 10	<u>23</u> 66	<u>96</u> 91	<u>1</u> 6	<u>4</u> 8

Since 91% of the responses were "yes", we concluded that the teacher-librarians perceived the course to be successful. Again, their comments will be studied in making minor revisions.

Four people received onsite training which was not so well organized and the results indicate a difference. Eighty-four percent of the responses to the above questions were yes. This is still satisfactory.

The third section of the interview was a test. We wanted to know if the teacher-librarians understood some of the basic concepts of our program. We asked the following five questions:

1. About how often should a parent ask a child to play a specific game on any given day?

After completing the field test the Laboratory opened a demonstration center in Oakland to continue the testing and evaluation of toys in the course and provide a place where the Parent/Child Toy-Lending Library Program could be observed in operation. The center opened in October, 1970. In May, 1971, the staff conducted indepth interviews with the first nine parents to take the course; consequently, the interviews were conducted two or three months after the parents had completed the course. The interview followed an interview schedule but did probe or ask leading questions when it seemed appropriate.

All of the parents who were interviewed confirmed the conclusions we had drawn from the field test. Furthermore, the interview indicated that the parents had an excellent grasp of the basic approach we had taken in the course and the principles we had stressed. They also pointed out that the course had affected other children in the family. The older children had also played with the toys and games. The parents could cite specific examples of how they knew the children had learned something from the course and how the parents had been able to expand upon the written episodes or apply the ideas to other situations in the home. Two transcripts are in Appendix E. The others are available at the Laboratory.

THE ACHIEVEMENT OF THE CHILD

The fourth objective of the Parent/Child Course was that the child would, in fact, increase his competency as a result of the interaction with the parents. To evaluate the achievement of the children, we employed a fairly straightforward single group design with replica-

2. What should the child be allowed to do when he first receives a new toy?
3. At what point in the game can the child change the rules of the game? ,
4. When should a child be allowed to discontinue playing with a particular game?
5. The course outline recommends some 16 mm films to show to parents in the course. Some films have guides that go along with them.
Do you know where to get these films and guides or how to find out where to get them?

Since these questions are simple checks of content we expected a near perfect response (at least 98%). The following table summarizes the responses.

TABLE VIII			
RESPONSES TO FIVE QUESTIONS ON THE CONTENT OF THE COURSE AND MATERIALS			
	<u>Number</u>	<u>Right</u>	<u>Wrong</u>
June Training	6	39	1
October Training	4	20	--
Onsite Training	<u>4</u>	<u>20</u>	<u>--</u>
TOTAL	14	79-99%	1-1%

tion. First we pretested two groups of children at Murray and Jordan. After the parents of each group of children had participated in a separate Parent/Child Course, we posttested each group. We then compared the two sets of test results to see if the children involved in the course had improved their scores on the items relevant to concepts taught by the toys they had played with.*

To measure change in the children's achievement, we used the Responsive Test. That test had been developed to measure the intellectual achievement of children in the model Head Start program being developed by the Laboratory. The test consists of the following subtests:

- | | |
|-------------------------|--------------------------|
| 1. Color Matching | 8. Numerical Concepts |
| 2. Color Naming | 9. Relational Concepts |
| 3. Color Identification | 10. Sensory Concepts |
| 4. Shape Matching | 11. Problem Solving |
| 5. Shape Naming | 12. Verbal Communication |
| 6. Shape Identification | 13. Verbal Comprehension |
| 7. Letter Recognition | |

*
A design of this type is often criticized, because it fails to control adequately changes brought about by factors other than those specifically related to the experience being evaluated. The child may have learned the skills in the same time without any particular help, or the change could be a result of learning from taking the test. We believe that our design adequately accounted for both possibilities. The test that was used included two subtests that were unrelated to any of the skills or concepts covered in the course. We reasoned that if the changes in scores were the results of learning unrelated to the course or because of learning from the test itself, then the subtests that were related to the course and the two that were not related would change in approximately the same way. If the changes in test scores could be attributed to the course, there should be significant differences on those subtests related to the skills covered in the course but not on those two that were not related.

We were also testing two groups of children in two different school districts; so, in effect we had a study and a replication of that study. Thus, if any differences were consistently found, our confidence in having found real differences would be greatly increased.

We will be receiving information from all the teacher-librarians on parent interviews and pre- and posttests for the children which will give us additional information to judge how effective we have been in training the teacher-librarians.

In the meantime, the evaluation so far indicates that the teacher-librarians think they understand the materials, have learned what was important to know from the course, and can demonstrate an understanding of some of the content.

Separate scores are reported for each of the subtests. The test is individually administered and takes from thirty to forty minutes to complete. A more complete description of each subtest is in Appendix F.

During the week before the courses began, sixteen children were pretested in the Murray District and fifteen in the Jordan District. Posttests were administered at the end of the course to as many of these children as possible (12 from Murray and 7 from Jordan). All children were posttested ten weeks after pretesting.*

The summary data are reported by subtests in Table IV for the Murray group and in Table V for the Jordan group. In both tables, the range, average score, and variance are reported for pre- and post-test data. In addition, the total number of possible points for the subtest, a correlation between the child's pretest and posttest score and at statistic reflecting the change with an indication of its significance, are also shown.⁴

*

Pretest results were used to obtain an index of test reliability. A split-half (odd-even) reliability coefficient of .98 (corrected using the Spearman Brown formula) was obtained on the pretest results of 31 children.

⁴

The "t" statistic is the one calculated for repeated measures, and significance has been indicated at the .10, .05, and .01 levels for a one-tailed test with 11 and 6 degrees of freedom respectively for the Murray and Jordan groups.

APPENDIX A

DESCRIPTION OF BEHAVIORS WE ASK PARENTS TO PRACTICE

1. Using Exact and Precise Language

The use of specific language helps the child understand what is being said, and helps him develop his own ability to use language.

a. Using Specific Words to Tell About Positions

example: "The blocks go in the box below the window."
instead of "They go over there."

b. Using Specific Words to Tell About Action

example: "Robert skipped down the walk."
instead of "Robert went down the walk."

c. Use Specific Words in Descriptions

example: "Yes the blocks are all the same color, red."
instead of "Yes, the blocks are all the same." (or
"They match.")

2. Using Positive Comments

Positive statements about the child and his actions help to enhance his concept of himself. One way parents help build the child's healthy self-concept is by showing approval.

example: "I like the picture you brought home from school."
"Thank you for helping with the dishes."
"You look very nice in your blue shirt."

Figures 1 and 2 were constructed to depict the data graphically. Figure 1 shows the range of scores for each subtest on pre- and post-course administrations to the Murray group. For each subtest, the broad lines indicate the middle 67% of the test scores, the upper and lower two scores having been removed.

Similarly, Figure 2 shows the test score distribution of the Jordan children. Here, the broad lines indicate for each subtest the limited range of five children, the highest and lowest scores having been removed.

As indicated in Table IV and shown in Figure 1, the Murray children scored high on the pretest on both the Color Naming and Shape Naming subtests. Because of the high initial scores and limited variability of these scores, change was negligible and tests of significance were not determined for these two subtests. Table V and Figure 2 indicate that the Jordan children also found the two subtests easy on the pre-⁵test; consequently, there was again little change on them.

For the rest of the subtests, significant changes were shown by the Murray children on all except the Letter Recognition and Sensory Concepts tests. On these tests, only small non-significant positive changes were shown. The Jordan results on these two subtests were similar. Of 32 possible points on the Letter Recognition subtest, the pretest average was five and increased only three points to the post-test average of eight; the average Sensory Concepts score increased only one point between administrations. The changes on both tests proved to be not significant.

⁵ The Responsive Test has been revised and now is more challenging in these two areas; it includes 12 colors and 14 different shapes.

3. Using the Child's Name

Hearing his name also helps the child to develop a healthy self-concept.

example: "Robin, do you want juice?"

instead of "Do you want juice?"

4. Approaching Discipline as a Learning Process, and
Using Discipline in a Positive Way.

a. Stating Rules for the Child

Children need to know what is expected in order to follow rules.

b. Being Consistent with Rules:

The rules that are set need to be enforced consistently.

c. Dealing with the Action of the Child, Rather Than the Child
in Discipline

example: "You were running in the house and broke the lamp. You are supposed to walk inside."

instead of "You're the worst child I have, always tearing up things."

APPENDIX B

DESCRIPTION OF TOYS IN THE PARENT/CHILD TOY-LENDING LIBRARY

I. TOYS IN THE PARENT/CHILD COURSE (BASIC TOYS)

SOUND CANS

This toy comprises two sets of small, covered metal film cans; a set consists of six cans, each one of which contains a different object or substance - e.g., water, a bead. Thus each can in a set sounds different when it is shaken. One set is for the parent, the other for the child.

COLOR LOTTO

This toy consists of a square wooden board, divided into nine differently colored squares, and two sets of nine small squares each. The small squares are the same size and colors as the small squares on the board. One set of small squares is for the parent, the other for the child.

FEELY BAG

The Feely Bag toy is a drawstring bag and two sets of masonite cutouts; each set consists of a circle, a square, a triangle, and a rectangle.

STACKING SQUARES

This toy consists of sixteen wooden squares of four graduated sizes which fit on a wooden spindle. Of each size there is a blue, a yellow, a red, and a green square. The center holes of the squares are graduated with the size, and the spindle diameter is graduated likewise, so that the toy is self-correcting--i.e., if the squares are not stacked in order of size, all the squares will not fit.

WOODEN TABLE BLOCKS

This toy consists of wooden blocks in ten sizes; the largest is ten times as large as the smallest, and the others represent the units between one and ten.

NUMBER PUZZLE*

This toy is a ten-piece masonite puzzle, each piece of which represents a number from one to ten. On each piece are peg holes corresponding to the number it represents, and the appropriate numeral; each piece is a rectangle with one fewer notches on the left and the same number of notches on the right as the number it depicts. The pieces fit together via the notches and are thus self-correcting--i.e., they can be put together only in the right order. Pegs are provided for the holes so that the child has a clue to the number represented.

COLOR BLOCKS**

This toy consists of 16 small cubic blocks, four of each of four different colors, taken from a Bead-O-Graph-Set. The blocks are used in one game involving locational words and two games involving pattern extensions.

* The Number Puzzle toy was formerly called Numberite.

** The Color Blocks were formerly called Color Cubes.

FLANNEL BOARD

This toy consists of a flannel board and 36 small felt shapes. The shapes are circles, squares, and triangles; of each shape there are two sizes and of each size there are three colors--red, yellow, and blue. Thus, there are eighteen different combinations of size, color, and shape, and two shapes in each combination.

II. SECOND SERIES OF TOYS

ALPHABET BOARD

This toy consists of a flannel board on which the letters of the alphabet are printed, and a set of capital letters, which can be matched to the outlines on the board.

BEGINNING MATRIX GAME

This game is played with the Matrix Games Board (on the back of the Hundred Peg Board) and nine of the Property Blocks: a red, a yellow, and a blue triangle, circle, and square. The matrix is divided into nine squares, on which the blocks are placed in rows according to color and shape.

COORDINATION BOARD

This toy consists of a board and eight cutout shapes: two squares, two circles, two rectangles, and two triangles. The shapes fit into matching spaces on the board.

HUNDRED PEG BOARD

This toy consists of a square board containing 100 holes drilled in 10 straight rows, and 100 pegs which fit in the holes. The pegs, which come in four different colors, are used for sorting, making patterns, and illustrating number relationships.

IN SET SHAPES BOARD

This toy consists of a board and 12 matching pieces of different shapes, colors, and sizes.

PATTERN BOX

This toy consists of a long rectangular box and three sets of pattern cards. Each side of a pattern card is printed with a series of pictures or designs arranged in a pattern, which can be seen as the card is gradually pulled out of the box, one frame at a time. The child attempts to predict what will come next in the pattern.

PROPERTY BLOCKS

This toy consists of 60 blocks of different colors, shapes, sizes and thicknesses. The blocks are used for matching, patterning, and classifying according to the various properties of the blocks.

SPINNER BOARD

This toy consists of a board with a removable pointer which can be spun, and three different overlay cards, which depict numbers; letters; and categories of objects. The toy is used in recognition games, in which the child is asked to identify the number (or letter or category) at which the pointer has stopped.

APPENDIX C

DESCRIPTION OF THE TEACHER-LIBRARIAN TRAINING

Parent/Child Toy-Lending Library Workshop
for Teacher-Librarians
July 19 to July 23, 1971

July 19, 1971 - Monday

- A.M. Demonstration Toy Library Center
Slides: Education Beginning at Age Three Overview
Parent/Child Toy-Lending Library Overview
Discussion: Course Outline and Manuals
Toy Display - Coffee and Browsing
- P.M. Continue Genral Overview Presentation
Review Films: "Jenny"
"Parents Are Teachers Too"
Handout: List of Films for Entire Course
Assignment: Read manuals and other written materials

July 20, 1971 - Tuesday

- A.M. Objectives of Parent/Child Program
Questions and Answers: previous assignment
Discussion: Self-Image - 1. Discipline
2. Specific Language
3. Image Building
Parent Involvement -
1. Film: Mississippi and Head Start
- P.M. Demonstrations and Role-Playing
1. Sound Cans
2. Color Lotto
3. Feely Bag
Videotape of Parent/Child Interaction
Evaluation Check List

July 21, 1971

- A.M. Demonstrations and Role-Playing
1. Stacking Squares
2. Wooden Table Blocks
3. Number Puzzle
Handout and Discussion: Criteria for Selecting Toys

July 21, 1971

P.M. Lake Shore Visit

Assignment: Purchase a toy and write
2 learning episodes

July 22, 1971

A.M. Videotaped Presentations of Learning Episodes Prepared in Previous
Assignment (10 minutes each); Critiques of Presentations

P.M. Evaluation - Stanford Team and Staff

July 23, 1971 - Friday

A.M. Discussion and Role-Playing

1. Flannel Board
2. Color Blocks

P.M. The Toy Library

- a. Recruitment
- b. Cataloging System
- c. Ordering Materials
- d. Special Community Needs
- e. General Functions of Toy Library

APPENDIX D

Examples of the Skills and/or Concepts Covered In The Course

SOUND CANS

1. The concept of listening carefully.
2. The concept of identifying sounds that are the "same" or "not the same."

COLOR LOTTO

1. The concept of identifying differences in colors and when given a visual clue, matching colors that are the same.
2. The concept of identifying names of colors without a visual clue.

FEELY BAG

1. The concept of identifying four basic shapes (square, circle, triangle, and rectangle).
2. The concept of recognizing the shapes using only the sense of touch

WOODEN TABLE BLOCKS

1. The concept of various size relationships, e.g. "tallest" and "shortest," "taller" and "shorter," and "equal to."
2. The concept of number units (1-10) and number relationships.

NUMBER PUZZLE

1. The concept of associating numerals with the number quantities they represent.
2. The concept of sequential counting.

COLOR BLOCKS

1. The concept of relative positions.
2. The concept of repeating and extending patterns.

FLANNEL BOARD

1. The skills of classifying and problem solving according to attributes: using the concepts of color, shape, and size.

STACKING SQUARES

1. The concept of size discrimination.
2. The concept of identifying four colors.
3. The concept of repeating and extending patterns.

APPENDIX E

TRANSCRIPTS OF TWO INTERVIEWS WITH PARENTS

I. Parent A: 5/12/71--Interviewed by M. Robinson

I'd like you to tell me how you first heard about the course and why you decided to take part in it?

My children go to pre-school across the way over there and they sent out pamphlets from the parent thing saying there'd be a Toy-Lending Library here. It sounded different. I've never heard of a Toy-Lending Library, so I often visit the Parent Room down stairs and Mrs. Long told me, she said, "Be sure you go up there." I said, "I am because I never heard of such, where you can take toys out for the children to play with." And so I came. Bertha had the meeting at night and I think I only missed one night.

Did you think that it was worth taking...?

I did. My children enjoyed the books. All the time they didn't want to play with the games the way I would show them that the games were supposed to be played, but they enjoyed all the games that I brought and they looked forward to when you'd bring one back to the library, bringing one back home.

What games did you take out for the children?

I took the number game, the Color Lotto, I've taken just about all these games around here, I've taken them home. And several of those books. I take more games than I do books. (They enjoy playing...) with them, uh huh.

Do you think that as a result of taking the course that you spend more time playing with

I played with them, but this way I play with them in a different way. So maybe I did spend more time playing them because the toys you've got to explain

your children then you would have normally if you hadn't taken the course or had an opportunity to check out the toys from the library?

Do you feel that the course made you more aware of the way your children learn?

When you were playing with your children, if they didn't what to play the way the rules were set up, were you able to let them play the way they wanted to play?

What are some of the things you learned about teaching your child in general, not just with the toys but just teaching?

and maybe I played with them more.

With on particular game, maybe. This block game. The tall block and the shortest and so on, well then, that game, it made me more aware of the way the children would describe something. Now the pamphlet advised us to use the word "tall" "tallest" or something like that but the kids would say that "This is the biggest one" and the pamphlet, it would tell you which would be the correct way to say it to them.

I let them alone. Cause when you show them they would do it like that but you find children they find other ways to do it too; and I play with them with it like that but see, I would get on their nerves and then they would get on mine (laugh), so I would let them alone. I'd let them play with it like they wanted to. (You'd let them explore it like they wanted to because they do have quite a bit of imagination) I'm telling you, you'd be surprised.

Language. (language?) The correct usage of words, that I really wasn't aware of, like I was saying such as, you know, it wouldn't be correct to say the "tallest" or the "largest" or the "biggest", which of the three words would be the best for them. (laugh).

Have you learned to be more positive with them, for instance, telling them "don't do that" or have you given them alternatives if you tell them not to do something to tell them something else they could do instead, this kind of thing?

What are some of the...Have you had discussion outside of class with some of the other parents who've taken the course?

Do you think that by talking to the other parents, I know you're not going to get all of them, because some parents (some work) yes, some can't and some won't, but do you feel that as a result of talking to the parents that some of them would like to come, are interested in this

I still say don't do something. But my children are the type...they want to know why they don't do it. (laugh) They'll ask me. And I still, I can't get away from that, I don't know; and I'll say not to do something but they'll ask me, even if they have to wait to they got cooled off, if I was mad, they'll wait and they'll still want to know why, and sometimes I think it's good because as a child I could not ask my mother why should I do this or why I can't do that; you just didn't ask why. And I find myself letting my children ask me why, you know, even if they wait till I cool off and then I'll answer it.

We talk about it. We have a parent meeting in the pre-school and I'm always trying to get different ones to come over here. I always make mention that there is a Toy-Lending Library for those that don't ever come over here. We talk about it.

Yes, because a lot of them couldn't imagine what I was talking about when I said "a Toy-Lending Library" and...(that's interesting because I remember that as a child we had such a...) You did? (It was a, but it was run differently because it was just like a library and we would go and check out toys and we could keep them for maybe two weeks.) Where're you from? (From Southern California.) (laugh) Well I never heard of this and some people are from up here and I'm from Texas, so I, you know, never heard of it;

kind of thing?

How were you able to tell that your children had learned some of the concepts that the toys are suppose to teach?

me. I think curiosity got me up there more so than anything and once I cam I liked what I saw and I just got involved in it.

Well, see, I have this thing about numbers and colors and I really want my children, and they're in pre-school and they can do it, and I have one little girl that really can do it, she can remember the colors and numbers good, and I want this to really stick with them. And so, the um, what is that, the Color Lotto?, no no, the felt, this board here with the different colors on it, and you put a color up there and that way they can relate to it better than you just teaching them...something that attracts their eyes, you know, it sticks with them. And this number game, where you put the pegs in, that was interesting for them to do it and to count up to five. And when they got to five and looked down and saw the number five, then that made them more aware of what they were doing. And the number game and the color game, those I really liked because they help the children to remember their numbers.

I think the idea of the pegs, in counting, where they can... say you say "five" and they actually have the number and they can count and when they

get to give there are no more,
so it's sort of self-correcting
and I think it does make it
stick with them. (M.R. refers
to a child who is playing)
It's all right, just let him
play.

It does.

Is there any way you think
the course or the materials
could be improved?

O.K., but don't get me if I ~~mess~~ up that...(laughingly
"speaking her child's thoughts") Bertha tells us we
have to clean up what they mess up.

Is there any way that you
think the course or the
materials could be improved?

I've been trying to figure out a way that we could
really get this library over to the parents that
don't come up here. And if you could figure out a
good advertising way, or a good way, you know, to
let them know about it. Because there's not enough
people, in my opinion, that make use of the library.
And if you could figure out a good scheme, or a good
way to advertise the library more, and to keep it
here, you know, because if the parents knew what a
great advantage the children would have by coming
up here and getting things out for them, they would
get up off their fannies and come up here and
participate and make usage of it.

How many of the children have
you used the toys with?

Two; they're four and five, but I have a little girl
that's 11 years old and she likes everything I bring
home. (laugh)

What does she like?

She likes for me to bring the books home so that she can read them to the children.

What about some of the manipulative toys, the blocks, does she like them also?

She don't like to...That's kind of childish. (Too babyish for her.) She really likes to play, not to play rather, to read the books to the children.

Do you think that some of the toys could teach more things than what they're set up to teach now?

Yea, un huh. (Can you give us some idea of what those things are?) Well, um...all of them have an advantage, to me, and I'm not just saying this, and I just really, the numbers, I just love the numbers and the color games, those are the main games that I like and feel that they can teach...

What about the Feely Bag?
Did your children like the Feely Bag?

The cans with different things in them? (No, that's the bag where they reach in and get a shape, the little muslin bag over there in the corner.) I didn't take that one. Certainly didn't.

Did you use the stacking toy?
That's the one there that's next to the boxes in the middle, did you use that one?

The color ones right there? Yea, un huh. (Did the children find that one interesting.) Yea, Kim would relate to the colors more than playing the game. Any thing loud she likes the colors in. (When they put the blocks back on the peg did you put them on correctly, or did they just stack them all on?) The first time they just stacked them on and they say...Kim say that they weren't fitting right and said "that's not the way they go on." See when we

get them, we just suppose to let them play with them first and see what they going to do with them. And when I had that they just went to stack them on top and then she saw that it wasn't right; then I showed her how the game went.

As a result of being involved in the Toy-Lending Library and as a result of your children having played with the toys, do you feel that they will be more successful in their school work when they start to school?

I'm hoping so. That's why I try to, so that the kindergarten teacher won't have to go through so many changes. A lot of these toys are just excellent and that's why I stick with the numbers and colors a lot, so she won't have such a big hassel and it is an advantage because Kim can count; when she gets to 39 she goes back, she goes back to ah, no 29, she won't say 30, she'll say 29 and one. But at least she can count to 29. And at least she knows her colors. And the kindergarten teacher, maybe she'll just start from 29 and teach her how to count a little further.

Is there anything else you have to say about the course in general?

No, I enjoyed it. I enjoyed coming up here and, it was funny, the way we had to play the game with an adult (laugh) we always have fun doing that, not that we went home and did the same thing. But... (It's kind of fun sometimes to take the child's place...) We had a lot of fun. (Where you act the way of a child?)

Do you feel that as a result of taking the course that

I didn't realize how much say so I did have, in the child's education and I didn't realize that if

you will participate more in the school activities of your child and that you will, that you can have some say so in your child's education?

something went on that I didn't particularly like or didn't think that it should have gone on, I didn't know that you, for the longest that you could voice your opinion on something until this year and, quite a few of us been really voicing our opinion over here at ...; not only about the, not just concerning this room. (Right; and other things that involve your children. Is it working do you feel?) Well, we had one teacher you see, she don't think that it's important that they can count up to a certain number and, um, she's not Black and so we had to tell her that ah, you know, you think that playing is all that they, you know, it gives the kid a great sense of something when they know that they can do a little bit more than the other child, and my kids, they think its funny cause they can count further than the next kid or that they can remember their colors, and this makes them feel that they can do something. But we couldn't get this over to that particular teacher and she's still over there teaching, but, ah (clears her throat) (laugh).

Do you feel as a result of taking this course that you have been made more aware of developing a positive way about the way your child feels about himself?

Yes, I do. Because ah, well, I won't say that, but I do. (O.K.) (laugh) (and, let's see, there was one other thing I was going to ask.)

Who do you feel is the most important teacher in your child's life?

Who do I...Certainly not the teacher, not the teacher, not these teachers, because they, no! Who is the most important teacher? Well I didn't go to school to be a teacher, but, ah, not the teacher. (You feel that you're the most important?) I don't want to say "just me" but not the teacher because, see there's three pre-school teachers over there and the parents have been raising much static because we just don't like the way that they teach pre-school. And see, their oh I shouldn't say that, ah, (laugh) (This is confidential, your name is not going to be mentioned, it's not on the tape, so...) (laugh) White teachers, in general, just have a whole different outlook and it's just screwed up. They..., if the kids play all day long that's O.K. with me, I could keep them at home and let them play. I thought that when they came to pre-school it would help them so that they would be a more alert child when they got to kindergarten. But ah, one teacher, we have just about got her together. We had a meeting yesterday and it was about 25 parents over there, and I mean, I got into it with a teacher, and another lady that's coming up here for your interview, she got into it with a teacher, and oh, it was just too much. They had a lady from down town out there, I guess they thought that would cool us off, but it's just not, and if one of, if our, if a Black teacher would turn

hippy and go up in the hills to teach, they'd have a, they'd take her down in a hurry, but they can come over here dressed and looking like anything and let the kids run wild in the room and if you come over there and say, "Well, why...you know, you're not teaching them to do a little something, you know." "Oh, let them be free, let them..." (laugh) It's just pitiful. And see, when they asked us to get involved, they shouldn't have done that. I didn't ask to be involved. I could have stayed at home. I have a baby down here on the floor, but they said, "no", they want you to get involved and when you get involved then you say too much, then you, no no, you're not suppose to do that. But they've asked too many of us to get involved and they shouldn't have. (But it's good because I think Black parents haven't been involved too long and we haven't really had a say so as to what we want for our children and I think the way things are changing that, that's as much our responsibility as any parent and if we can't really say what we want and get some action...) My little girl is in the sixth grade and for the longest, I didn't never come to school to see about her unless they sent me a note and said maybe she was talking in class or something like that, maybe I'd get on her about it, but I didn't know, really and truly, I didn't know up until about two years ago...and this year I've really been

on my P's & Q's. But I didn't know that you could come to the school, see what was going on and really be involved. I didn't. If she was doing O.K. in school, doing good in school, I didn't come out here. And oh, if I'd had only known. (This is one of the things that I have found, that parents are not aware. I mean, they are concerned, just because they sit home doesn't mean that they don't care.) It's that you don't know that you can do that. (Or that they're not concerned, it's just that they don't know what they can do, or how to go about doing what needs to be done.) We had a meeting about a month ago and we scared this teacher so bad, she is so nice to us. See, I made mention of the fact we need a Black pre-school teacher. We got three White teachers over there and since I've been here. three years, they've hired two teachers and each time it was they was White and not Black. I'm not prejudice or anything, I mean, I'm not, and I'm not advocating anything but it makes me so mad when they send them down here to us and won't send us up there to them. And we were talking about it and yesterday, in this meeting, this teacher, she comes up to me and she say, "And you." she said, "You're the one that said you need a White, I mean, Black teacher down here." She said, "I'll be glad." I said, "If you don't shut up talking to me, and if you don't get out of my face and, do not holler at me." I said,

"If I could, if I figured I could get you out of here today, you'd be gone today." I say, "But you better cool it." We had a, it wasn't lady like but the teachers ask for it. And I told her, if she didn't get out of my face, I would slap here down and I meant it, and don't she holler at me. See, I don't have a child in her room, but I have one in the other two rooms and I told her that if I had a kid in her room she'd be out today. She said, I said, "See you've been mad at me ever since you came into our meeting in which you had no reason to come in because it was a parent meeting. You been mad ever since you came in there and heard me say that we need a Black pre-school teacher here. And I said, "I wasn't the only one who say it." I said, "Yes, I said it and I'll say it again." She said, "Well, I'll be glad." I said, "Well, you better get out of my face sister." You know, because she was hollering at me and I was hollering at her which didn't make no sense, but ah, if you knew what it was about, it would make sense. She's so scared that we might do something about her being over there and she's the oldest one over there.

O.K. Well, I don't have any more questions to ask you.

I. Parent F: 5/13/71 Interviewed by M. Robinson

How did you hear about the
Parent/Child Course?

The first mention that I heard of it was from the community room (Parent Room) downstairs, Mrs. Long the community teacher, she told me about it and then I received a letter later, concerning when the course would start.

Did you think the course was
worthwhile?

Oh yes, um huh, I tried not to miss any of it. I had to once when my child was sick, but I enjoyed it immensely, and it was very helpful too.

How did it help your child?

Well, in areas of understanding specific language, it helped him the most. 'I'm he was pretty well up on his numbers, but the alphabet, now that helped him a great deal, because he wasn't doing too well with that, but he became much more interested in them.

Is he able to recognize all
the letters in the alphabet
now?

Yes, he does. He recognizes them all, he can't say them all, you know just saying A,B,C,D,E,F,G, one after the other, where he can say them if he just points them out. He can tell what they are.

What did you learn about how
your child learns as a result
of taking the course?

Well before I was sorta under the impression that the only way you could really teach a child was to sit down and show him some specific things, but I learned from this Toy-Lending Library, that just

with him playing with the toy, by himself at times, without me bothering him at all, he learned a great deal. Of course when I first brought the toy home, I followed the instructions in the booklet, and we played the games together, and then I let him do what he wanted to with it after we finished. And so he learned a great deal, even things that I didn't tell him that were concerned with the toys.

What were some of the things that he learned besides his alphabet?

He uh, he learned a little bit more about his numbers, although he knew his numbers, he can say them up to thirty, and he knows them when he sees them. But he began to like you know, add numbers together. Take for instance the blocks that I brought home, he would take two or three of them and add another one, and he'd know that's four, he'd take one away, or take two away and he'd know that would make two.

What blocks were they?

The table blocks. Their specific thing they were to teach was the difference between shorter and taller, but we went into sorta math with them too.

How old is your little boy?
As a result of being involved in the Toy-Lending Library, did you take more time to play with your child?

He's three.

Yes considerably more. Although I had been devoting as much time as I thought I could. But having the

toy at home, it helped me to do specific things with him, instead of just playing with him or reading to him, playing games with him as I had been doing before, just simple little "we make up" games, because it gave me a better idea how to use the play time.

Is this what you enjoyed most about being able to play with him?

Not actually being able to play with him, but playing with him and being able to teach him while playing, uh was what I gained most from it.

Who do you feel is the most important teacher in your child's life?

Well, truthfully, I feel that since I'm his mother, and I'm around him most, I would be the most important teacher in his life. For without help or inspiration from me, then the teacher at school can't do too much with him.

Is he in the pre-school now? Do you feel as a result of taking the course that you participate more in his school activities?

Yes, he's in the pre-school.

Uh, well no, because I've been going up there almost every day doing what I could, so it actually didn't make me go up there any more often, because if I went any more often, I'd probably be spending all of my time there.

Did you become more aware of the things that he was learning in the classroom?

Yes, I most certainly did, I did. Just from these toys, and going in the classroom after, and observing the types of things that they were doing in there.

Have you discussed the Toy-Lending Library with other parents outside of the class?

Yes, I have. Quite a number of them I have talked to personally, and I have called concerning the Toy Library, because we were trying to get more mothers interested because we have quite a number in the pre-school. In fact we have 48 children over there, and we were trying to get as many interested so that they could gain as much or maybe more from it than we did. So I did talk to quite a number of them.

Can you think of any way that we could get those other parents involved?

Uh, none other than just person to person contact, and I think other mothers talking to other mothers would be much more effective than say just sending out a letter and saying we'll have a Toy Library, will you come? That too can be done, but I think the personal contact, one parent to another parent who has been involved to another parent would be more effective.

Do you think that if you were trained to teach the course that you could go out and teach some of the other mothers how to play the toys with their children if those mothers were not able say to come to the Library?

Is there any way that you think the course could be improved? Or could help children more than what it's doing now?

Why certainly.

So far everything I've seen is very very good, and they have quite a number of things. The only thing that concerns me now, uh I feel it should reach a little further, say the children the age of seven, or maybe eight even. Because a number of the toys that I checked out, for instance the table blocks, and some of the other toys that we have here, the children can use them to help them with this modern math.

Have you used this toy here (counting toy) with your children?

Yes, un huh, and also another adding little toy that you add little round balls on it, then you push them about. (That one under there? underneath? is that the one, that's underneath the stacking toy?) No, I don't see it in here now, but anyway it sorta like

a little chinese adding machine, and I thought that would be especially useful for children just learning the new math, because they use the number line and that sort of thing, it would help them.

I haven't talked to any parents who used this toy (counting toy), did your children use addition or subtraction?

Yes, they used it in the area of math. My second grader used it.

What about your three-year-old, was he able to play with that one?

Yes, with simple addition and subtraction he used it, we didn't try to go into anything different, although he thinks he knows as much as I do. But we didn't get any further than that, I didn't try to go any further.

Do you think as a result of taking this course and playing with your child more, he feels better about his abilities?

Yes, and then to us, he comes out a bit more, with what he knows in class since he's taken this course. Before he, well he's awfully quiet anyway, and rather shy, except at home (laugh), but in school he wouldn't talk and he would know an answer you know, but he wouldn't say anything unless the teacher asked him directly about something and he would tell her, but

since we've had all these toys home, he talks more in class. He speaks up when he knows something and he wants to tell it.

Do you feel that by being involved in the course that it has helped your child's language development?

Yes, greatly. Because before in order for me to get him to understand, I had to really break it down in the simplest language, I could find, but now he's more used to specific school language that he would hear he would hear the teacher say in the classroom, so he's use to that now, and the toy helped me, because before I was really making it too simple for him, and I wasn't giving him a chance to think. But being in this course and reading the instructions in the booklet about the type of language to use when telling the child something about the toy, it helped me. Because then I found out that I was oversimplifying things for him.

Have you been able to be more positive with him since you've taken the course?

In what way?

Well, let me give you an example: If you are pushing him for something, do you do it in a way that you don't put

Yes, yes I have.

Pause....Well that's sort of....(pause)

him down or make him feel
badly? Do you tell him why
he's getting the treatment that
he's getting so that you don't
really put him down?

Yes, I try not to make him feel too bad, and this
has helped me in that area too, because before when
he would do something, I would just punish him for
doing it. He would know why that I punished him
because he knew what he did, but then I didn't go
on and explain "you did such and such a thing", and
the reason why he should not have done it. I didn't
go into all that before, but now I try to explain it
a little more, so he will understand that he
shouldn't do it again. (laugh)... (Kinda hard sometimes
for a three-year-old.)

What did you learn about
teaching your child as a
result of taking this
course?

Pause....Uh, well I have learned that I can teach him
just by doing things, and letting him see, or by
saying things, and letting him hear, and then (pause)..
that I can teach him things that he would learn in
school just by using things that he plays with at
home, things that I didn't think of before.

Do you feel that his chances
of success in school will be
improved because he has gained
certain skills as a result of

taking this course?

Yes I do. Because so far since we've played with the toys he has gained so much in so many areas that he's quite a bit ahead of all the children in the pre-school now. Because it doesn't take him long to comprehend, and he never forgets anything after. All you have to do is show him one time, and if you show him exactly the way it's suppose to be done the first time, then you don't have to tell him again. He remembers.

Do you have any other suggestions or comments to make or add about the course?

No, I just loved it. I just wish it went on, and on. Really, I don't have anything else to add. It was just something that I had never been in before, any type of program such as that, and it was just a beautiful experience for me.

Are you able to take the toys out now, I assume that you no longer take the course?

Yes, Bertha said that we could come in any day that she was here, and check something out, and keep it and bring it back the next week.

Did your child have a chance to use any of the books?

Yes, I took some of the books home. I read them to him. He read to me first, (laugh, oh!)...using the pictures, and then I read them to him, using the words. So we read to each other quite often.

Do you feel as a result of taking this course, that you

will have some say so in
your child's education?

Yes. I have, and others also since being in this course, have went on to the pre-school and talked with the teacher concerning especially some items that we felt that the children could gain from that were not in the pre-school, and since then some of these things have been brought into the pre-school.

So you feel that you can
be effective in this area?

Yes.

APPENDIX F

DESCRIPTION OF SUBTESTS ON THE RESPONSIVE TEST

The Responsive Test was especially developed for the assessment of intellectual development in children who have participated in a Responsive Program. Some of the items were selected from existing batteries. For example, test items dealing with letter recognition were adapted from the Metropolitan Reading Readiness Test, and other items dealing with color and shape were adapted from the School Mathematics Study Group. Other items were especially designed for use in the instrument.

The final instrument used in the testing in the Murray and Jordan school district consisted of the following thirteen subtests:

1. Color Matching. The child is asked to match each of nine different color cards with one of a series of sample cards.
2. Color Naming. The child is asked to give the color name of each of the nine specific color cards.
3. Color Identification. The child is asked to select one of the nine colors as the color named by the tester.
4. Shape Matching. (Same as color matching--using four shapes.)
5. Shape Naming. (Same as color naming--using four shapes.)
6. Shape Identification. (Same as color naming--using four shapes.)
7. Letter Recognition. The first part requires the child to point to a specific letter in an array of five letters. The second part requires the child to select from a number of letters the one which begins a word spoken by the tester. For example, the child is asked to "point to the first letter in the word NO."

8. Numerical Concepts. This subtest first requires the child to identify and write numerals and to count. The harder items require manipulation of simple numerical concepts. For example, the child is asked to "Add the right number of blocks to your row to give it the same number of blocks as this row."
9. Relational Concepts. Here the child must recognize the relational words such as "longer," "beneath," "middle," etc., and to choose from among several pictures the one which best illustrates the concept.
10. Sensory Concepts. These items assess the child's knowledge of words describing tactile, auditory, and taste sensations as illustrated by appropriate pictures.
11. Problem Solving. This subtest requires that the child recognize similarities and differences in color, shape, and size and that he use these discrimination skills to extend patterns.
12. Verbal Communication. The child is presented each of four objects and asked to "tell me about this." One point is scored for every bit of information he can relate regarding each object within sixty seconds. Points are also given for the use of complete sentences.
13. Verbal Comprehension. This subtest assesses the child's ability to derive meaning from verbally presented material. The child may either nod or shake his head, or make verbal responses to such questions as: "Do shoes eat?," "Do brooms sweep?" etc.

BIBLIOGRAPHY

- Bornstein, B. "Social Class and Linguistic Development: A Theory of Social Learning," Chapter 24, Education, Economy and Society. New York: Free Press of Glencoe, Inc. (Edited by Halsey, Flood, Anderson), pp. 288-314, 1963.
(Bornstein reports on a number of studies on language development of children living in institutions.)
- Davis, K. Human Development. New York: Macmillan, 1946.
- Nisbet, J. "Family Environment and Intelligence," Chapter 23, Education, Economy, and Society. New York: Free Press of Glencoe, Inc. (Edited by Halsey, Flood, Andersen) pp. 273-287, 1963.
(Nisbet cites a number of studies in his review and reports on his own research on the relationship of the size of the family and intelligence.)
- Skeels, H. and Skodak, M. "A Follow-up Study of Children in Adaptive Homes," J. Gen Psychol. 66: 21 - 58.
- Bowman, O. H., and Matthews, C. V. The Motivations of Youth for Leaving School. Washington, D. C.: U. S. Department of Health, Education, and Welfare, Office of Education, Report on Cooperative Research Project No. 200.
- Fowler, William. "Cognitive Learning in Infancy and Early Childhood." Psychological Bulletin 59: Chapter 2, p. 116-152, 1962.
- Gray, Susan W., and Miller, James O. "Early Experience in Relation to Cognitive Development." Review of Educational Research. Vol. 37, No. 5, December, 1967.
- Hess, Robert D., and Shipman, Virginia C. "Early Experience and Socialization of Cognitive Modes in Children." Child Development 36: No. 4, 869-886; December, 1965.
- Lane, Mary B. "Consultation for the Campus Planning Committee of the Parent-Child Educational Centers of Litchfield Park Area, Arizona." Arizona State University, Tempe, Arizona: February, 1968. (Unpublished)
- McCandless, B. Children and Adolescent Behavior and Development. New York: Holt, Rinehart and Winston, 1961.
- Norman, Ralph D. "The Interpersonal Values of Parents of Achieving and Non-achieving Gifted Children." Journal of Psychology 64: 49-57, September, 1966.
- Rolcick, John W. "Scholastic Achievement of Teenager and Parental Attitudes Toward and Interest in Schoolwork." Family Life Coordinator 14: 158-160; October, 1965.

Schultz, Florence. "Helping Parents of Two-Year-Olds." Young Children 23 No. 3; January, 1968.

Shaw, Merville C. and White, Donald L. "The Relationship Between Child-Parent Identification and Academic Underachievement." Journal of Clinical Psychology 21: 10-13; January, 1965.

Wattenberg, William W., and Clifford, Claire "Relation of Self-Concept to Beginning Achievement in Reading." Child Development 35: No 2; June, 1964.

Weikart, David P., and Lambie, Delores "Preschool Intervention Through a Home Teaching Program." Pre-publication draft to be published in The Disadvantaged Child (edited by J. Hellmuth) Special Child Publications, Vol. 2, Seattle, Washington.