This report gives an overall evaluation of the Parent/Child Program of preschool education for 2- to 4-year-olds. The program objectives are: (1) to aid parents to help their children develop a healthy self-concept, (2) to help parents to promote their children's intellectual development through educational toys, (3) to help parents stimulate their children's intellectual abilities by improving interaction between parent and child, and (4) to aid parents in participating in the education decision-making process. The results of parents' responses to questionnaires and children's pre- and posttest scores on the Responsive Environment Test are evaluated. With certain limitations in mind (such as the use of open-ended questions and lack of a control group), it was concluded that: (a) parents' attitudes had changed; they appeared to be making more positive responses to their children, having a positive effect on self-concept, (b) results of the Responsive Environment Test indicate that the children probably learned some specific skills and concepts as a result of the course, (c) parents believed their children were learning, and (d) there is no evidence to show that parents were helped to participate in the decision-making process affecting their children's education. (Author/WH)
A PROGRESS REPORT
ON
THE PARENT CHILD COURSE AND TOY LIBRARY

TO: Carnegie Corporation
FOR LIMITED DISTRIBUTION

Far West Laboratory for Educational Research and Development
Date: August 24, 1970
Author: Glen Nimnicht
The Laboratory was established through a Joint Powers Agreement in February 1966. Signatories as of June 1969 includes:

The Regents of the University of California
The California State Board of Education
The Trustees of the California State Colleges
The County Superintendent of Schools of the County of Monterey
The Board of Education of the San Francisco Unified School District
The Regents of the University of Nevada
The Nevada State Board of Education
The Board of Regents of the University of Utah
The Utah State Board of Education

LEVEL II DOCUMENT
DESCRIPTION OF THE PARENT/CHILD COURSE

Since May, 1969, the Far West Laboratory for Educational Research and Development has been testing a program for parents of the three and four-year-old children. The program is designed to aid parents:

1. to facilitate the development of a healthy self-concept in their children;
2. to promote their children's intellectual development, using toys and learning episodes that are designed to teach specific skills, concepts, or problem solving abilities;
3. to stimulate the children's intellectual abilities by improving interaction between parent and child; and,
4. to participate in the decision-making process that affects the education of their children.

The parent/child course offers parents an opportunity to meet once a week for eight to ten weeks. Each meeting is scheduled for about two hours and begins with an informal fifteen minute period for coffee, book browsing, and conversation on topics of interest to the parents. The toy and games taken home the preceding week are returned and evaluated. The evaluation is done by filling out individual questionnaires and group discussion. An example of course outline is attached as Appendix A.

Introduction of a new toy or game and accompanying learning episodes is part of the session and includes demonstration and role-playing. Learning episodes are basically instructions that accompany each toy or game. Some toys and games have several learning episodes; two examples are...
given in Appendix A. Each learning episode states the purpose of the activity and gives simple instructions. The course provides for many discussions of the need for specific words, directions, etc. as shown by the Responsive Environment Concepts listed in the appendix as discussion topics. Much of the discussion is designed to promote the sort of interaction between parent and child which aids in the development of a healthy self concept in the child.

There are three general instructions for the use of all games and toys in the course. First, ask the child only once each day if he or she wishes to play the game. If the child does not want to play when the parent suggests it, the parent does not ask again that day. If, however, the child asks to play later during the day, the parent may play with him.

Second, the parent should introduce the game using the learning episode role played during the weekly session. If the child changes the rules of the game at any time, then the child's rules must be followed.

The third instruction is that the game should be stopped when the child seems to lose interest. The child may stop playing any time he likes and should not be asked why. The parent then puts the game away.

These general rules are intended to prevent the parents from unintentionally putting pressure on the child to do something that the child is not able to do and to help maintain a comfortable interaction between the parent and the child when they are playing the game.

A partial list of toys available in the library has been included in Appendix B; these toys with learning episodes build upon the skills
and concepts learned through the toys used in the course. Additional learning episodes are being developed for the toys used in the course to extend their usefulness in helping the child learn more difficult concepts or solve more complex problems.

The parent/child toy library program was designed to serve parents whose income is above the O.E.D. guidelines for Head Start but who cannot afford private nursery schools. The program can also be included as a part of Head Start or day care programs as a means of encouraging parent participation and of helping parents understand the purpose of such programs. We also hope to contribute to other parent participation programs by providing a carefully designed set of toys and games with learning episodes that can be used by home visitors or others concerned with involving parents in the education of their children.
DEVELOPING AND TESTING THE COURSE

The course has been taught four times in East Palo Alto, California during May and June, 1969, October to December, 1969, December to February, 1970 and April and May, 1970.

The first two times the course was offered in East Palo Alto were trial runs and no formal data was collected. The third and fourth times the course was offered parents filled out questionnaires about the individual toys and the course.

Data used to evaluate the course is summarized in the next section of the paper, and is drawn from parent responses from the December, 1969 to February, 1970 course which was considered a preliminary test.

The majority of the people in East Palo Alto who have taken the course are black, whose income is just above the poverty line for Head Start programs or slightly higher. Preference was given to parents whose children were not in a nursery school program.

The first two times the course was presented, parents were contacted by sending notes home from school and through notices placed in the local newspaper. Eleven parents attended the first course and six came the second time. Enrollment seems to have been limited by negative feelings in the community about an "outside" educational laboratory recruiting parents to allow experimentation with their children. We therefore did not attempt to test children in East Palo Alto.

Recruiting for the third course was carried out by a community person who contacted the parents. Thirty-five parents came to the first meeting and twenty-five continued to attend, although not all of the
parents were able to attend every session. By the end of the third course, in February, 1970, a number of parents in the community asked that another course be offered as soon as possible. The Laboratory staff conducted a fourth course in April and May for twenty parents and, in the process, trained a community person to continue the course and operate the library. The Ravenswood School District has agreed to provide space, and pay for the teacher–librarian time.

The second preliminary test was at the toy library in the Laboratory in Berkeley. The Laboratory's location makes it difficult for low income parents to attend classes, but by having the course at the Laboratory we were able to evaluate the course on a more intensive basis than has been possible in East Palo Alto.

The course was open to any parents who did not have their children enrolled in a preschool program. While it was publicized through churches, newspapers, and schools that serve the working class or lower to middle income families in the community, the twelve mothers who volunteered were primarily from the middle class. The Responsive Environment Test which Laboratory staff is developing was used to test children during this course and was then revised for field testing. The parents responses to questions about their reactions and the effectiveness of the toys is another source of data from this preliminary test course.

The performance testing of the course was conducted at two sites near Salt Lake City. These courses were taught concurrently by Mrs. April Peterson who had been trained by Laboratory staff. One course was offered at the Midvale School in the Jordan School District where the population is largely Mexican-American and another at the McMillan School in the Murray School District where the population is largely working class white.
The first course offered at these two schools was in the Winter of 1970. Another cycle was taught this spring but the test scores of the children and responses of the parents used for evaluation of the course in the performance test are taken from the January - February, 1970 course and designated by name of school district.

Mrs. Peterson experienced some difficulty in recruiting parents for the first course offered at each school, but at the end of the second cycle, she had a waiting list of parents who wanted to be involved. Another cycle is planned for the fall of 1970.

At the present time, the Laboratory plans a more extensive performance test of the program in three or four centers in San Francisco where the course can be carefully monitored and evaluated by the Laboratory Staff.

At the same time we will be conducting operational tests in other parts of the country to see how effectively the course and toy library can be used with limited training and support from the Laboratory. Materials to do this will be available in September. This includes a manual to guide the teacher-librarian in leading the course and operating the toy library, film strips with audio tapes available in English, Spanish, and Chinese, and a card catalog system for toys and accompanying learning episodes. All toys can be purchased through the Laboratory. Some toys can be constructed in local communities when funds to purchase toys are limited; the Laboratory has instructions for such toy construction. Other toys are available from local toy distributors.

We also plan to develop similar courses for parents of older children and extend the library to include toys, games, and other educational materials for children up to at least nine years of age.
EVALUATION

OVERVIEW

The first objective of the course is to aid parents to facilitate the development of a healthy self-concept in their children. We do not have a method of measuring the impact of the program on a child's self-concept. If we had such an instrument, it would still be unrealistic to expect a measurable change to take place over the eight to ten week period of the parent/child course.

Indications of success in satisfying this objective must, at this time, be based on the assumption that improving the parents' attitudes or ways of working with their children will affect the child's self-concept.

Consequently, our criterion for success in this area was that there are indications that the parents' attitudes towards their children's competence has improved or that the parents indicate they are responding to their children in a more positive manner as a result of the course.

The test for this criterion is based upon the responses of the parents to the questions asked at the end of the course. We concluded that we were probably successful in meeting this criterion. The data leading to this conclusion is summarized in the next section of this report.

The second objective was to aid parents to promote their children's intellectual development by using toys and learning episodes that are designed to teach specific skills. A direct criterion would be that the children did learn the specific skills, concepts, and problem solving techniques that the learning episodes are designed to teach. The test for this criterion is the pre- and posttest scores of the children at the performance sites.
Underlying this objective, however, is the assumption that parents need to think that their child has learned something of value from the experience. People are unlikely to persist in an activity if they cannot see its value. Therefore, the second criterion for this objective is that the parents believe that their children benefit from the experience. We believe that we have been successful on these criteria for the second objective, as shown by the data summarized below.

The third objective of the program is aiding parents to stimulate their children's intellectual abilities by improving interaction between parent and child.

We do not know the extent to which parents practice using language more precisely. We do believe that the toys and learning episodes included in the course have content validity; that is, in order to use the learning episodes, the child must exhibit behaviors that are being learned as he plays. The learning episodes have been designed to promote a verbal interaction involving the precise use of language between parent and child.

Our criterion for this objective is that children understand and use language better and solve problems more easily as a result of the course. Data for this criterion comes from children's scores on specific subtests given at the performance test of the program. We tentatively conclude that we have satisfied this criterion.

The fourth objective is aiding parents to participate in the decision making process that affects the education of their children. Our criterion was that parents feel that they can influence the decisions that affect the education of their children. We expected the open ended questions to generate
data for this criterion but there was not even one response from any of the test sites that indicates this objective has been obtained.

**LIMITATIONS**

Detailed analysis of the data on the parent/child course has been reported in two technical papers which are available from the laboratory upon request. They are:

"An Assessment of Cognitive Growth in Children Who Have Participated in the Toy-Lending Component of the Parent-Child Program"; and,


The evaluation design and some of its limitations are discussed in these reports, but the reader should be aware of the limitations to the evaluation while reading the following summary of results.

One major source of data for evaluating the course is the responses the parents gave to several open-ended questions asked at the beginning and end of the course and responses to other questions asked at the end of the course.

The questions asked at the beginning and the end were:

1. What is important for your child to learn in school?
2. How can you help your child get ready for school?
3. What does a child need to know before he starts school?
These questions produced some interesting information that needs to be analyzed in greater detail but they did not provide information useful to an evaluation of the parent child course or the toy library. The responses varied at different test sites, indicating some differences in the attitudes of the parents, but the course apparently had no effect upon their responses.

The questions asked only at the end of the course were:

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

Parents also filled out an evaluation instrument each time they attended the course. Here parents were asked:

1. How often during the week did you initiate play with the toy?
2. How often did you child actually play with the toy?
3. Did your child lose interest in the toy by the end of the week?

The use of open ended questions presents a number of problems. There is always some doubt about the correspondence between the responses given and the respondent's real opinion or attitude. They may be telling us what we want to hear. The responses to questions asked at the end of the course were so favorable, that it seems safe to

---

1 At the performance test sites, 23 parents made a total of 82 responses to questions 1 and 2; none of these could be called
to analyze them, recognizing that some positive bias which decreases reliability was probably involved.

There is, however, difficulty coding and classifying parent responses to these questions. When parent responses are broken down into different ideas expressed by the parents, usually single sentences, although some of the parents wrote only phrases, an interpretation has to be made of the underlying ideas. When no response was given to a particular question, it is coded "no response" and used in our totals and percentage calculations to allow reporting on 100% of the parents. Since the number of responses to each question varies from parent to parent, one parent's comments may have represented a feeling disproportionate to the population of parents.

The pre- and posttesting of children on a criterion reference test that is still in the early stages of development certainly limits the conclusions that can be drawn. The absence of a control group is also a limiting factor and the repeated testing, using an instrument twice, is still another limitation. The eleven subtests of the instrument used were designed to provide built-in controls as described on page 15 in the next section of this report.

negative comments upon the course. When we specifically asked for criticisms in question 3, only 4 of the 22 responses could be called negative. Question 4 yielded 19 suggestions from 23 responses.
SUMMARY OF THE DATA

OBJECTIVE: Aid parents to facilitate the development of a healthy self-concept in their children.

CRITERION: That there are indications that the parents' attitudes towards their children's competence has improved or that the parents indicate they are responding to their children in a more positive manner as a result of the course.

SOURCE OF DATA: Parent responses to the following questions:
1. What did you learn from this experience that was useful?
2. What was the most interesting part of this experience?
3. What didn't you like about this experience?

ANALYSIS: On question one, 23 East Palo Alto parents made 39 responses and 13 were related to this criterion. A random sample of two responses to the first question are:
"Taught me how to bring my child up."
"How to be more patient."
The 10 Jordan parents made 19 responses and 18 were related.
A random sample of three are:
"I learned that my child is an average child."
"How to listen to what she had to say."
"How to teach my child different things without pushing him."
The 13 Murray parents made 21 responses and 17 were related.
A random sample of three are:

"How to teach my child the thing he needs to have a good self-image."

"I should spend more time with my children."

"Not to assume knowledge on the part of my daughter."

On the second question, the East Palo Alto parents made 54 responses; 21 of those were related to this criterion. A random sample of four responses are:

"Only takes a little extra time to influence the learning process."

"Taught me things I should and shouldn't do and say."

"Toys are good for teaching the right way."

"Seeing that children were interested."

The Murray parents made 17 responses and 8 were related.

A random sample of two are:

"I was amazed at what he did and didn't know."

"My child is more aware of things around him now."

The Jordan parents made 27 responses and 15 were related.

A random sample of three are:

"Taking the time to play with him."

"I was glad to see how interested my child was in these concepts."

"I took it for granted that children automatically learned these different things but some of these concepts appeared to be new to my child or something he wasn't familiar with."

There were no responses to questions 1 or 2 that we judged to be negative as far as this criterion is concerned. Examples of statements
we would have considered negative are:

"I learned that it is important to make my child play with me every day."

"I learned to ask my child a lot more questions."

We looked at the responses to the third question for negative responses. Most responses said nothing was wrong or that they liked everything. One parent did not like returning the toys; one parent said the course "Wasn't tough enough for my child"; and one parent did not like reporting on what her child had learned and how he acted.

Two Jordan parents did not respond. Four said they liked everything and two said nothing. The only negative response was that some of the toys were too easy.

Two Murray parents did not respond, four said "Nothing" and two liked everything. One did not like to fill out the questionnaires; one said other toys were sometimes more interesting, one said some of the classes were redundant.

So none of the comments could be considered negative statements about the parents' relationship with their child.

Our conclusion is that the parents' attitudes toward the competence of their children had changed and according to their statements, they are responding to the children in a more positive manner. We can only assume that if their behavior persists, it will have a positive effect upon the child's self-concept.
OBJECTIVE: Aid parents to promote their children's intellectual development, using toys and learning episodes that are designed to teach specific skills, concepts, or problem solving abilities.

FIRST CRITERION: Children learn the specific skills, concepts, and problem solving techniques that were involved in the course.

SOURCE OF DATA: Pre- and posttest scores for 12 children at the Murray School and 7 children at the Jordan School in Utah.

The Responsive Environment Test contains thirteen subtests on:
1. Color Matching
2. Color Naming
3. Color Identification
4. Shape Matching
5. Shape Naming
6. Shape Identification
7. Letter Recognition
8. Numerical Concepts
9. Relational Concepts
10. Sensory Concepts
11. Problem Solving
12. Verbal Communications
13. Verbal Comprehension

The course includes specific toys and learning episodes relating to all of the subtests except Letter Recognition (7) and Sensory Concepts (10) which are not covered by the course. Verbal Communications (12) and Verbal Comprehension (13) are covered by no specific toy but are a large part of the overall course; verbal interaction between parent and child is stressed in all of the learning episodes and parents received specific suggestions about using precise
language. The mean scores for the children who were pre- and posttested at Jordan and Murray were significantly higher at the end of the course than at the beginning on all subtests except 1, 4, 7, and 10. On subtests 1 and 4 the initial scores were near the top of the range so no significant differences could occur. Subtests 7 and 10, as already mentioned, were test areas not covered in the course. Since subtests 7 and 10 were not covered in the course, they constitute one way of controlling for the effect of test retest and for learning that was unrelated to the course. Since these were not significant differences in the scores on these two subtests, the likelihood that the differences between pre- and posttest scores on the other subtests occurring because of the course is increased. The results on the test are summarized in the tables on the following pages. We conclude that the children probably had learned some specific skills and concepts as a result of the parents' participation in the course and using the toys and games to play with their children.
<table>
<thead>
<tr>
<th>SUBTEST</th>
<th>Total Possible</th>
<th>PRETEST Range</th>
<th>Mean</th>
<th>Var.</th>
<th>POSTTEST Range</th>
<th>Mean</th>
<th>Var.</th>
<th>r</th>
<th>t</th>
<th>Sig. Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color Matching</td>
<td>9</td>
<td>6 - 9</td>
<td>8</td>
<td>2</td>
<td>--</td>
<td>9</td>
<td>0</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Color Naming</td>
<td>9</td>
<td>0 - 9</td>
<td>4</td>
<td>13</td>
<td>0 - 9</td>
<td>6</td>
<td>8</td>
<td>.67</td>
<td>2.58</td>
<td>.05</td>
</tr>
<tr>
<td>Color Ident.</td>
<td>9</td>
<td>0 - 9</td>
<td>5</td>
<td>13</td>
<td>4 - 9</td>
<td>7</td>
<td>4</td>
<td>.92</td>
<td>3.55</td>
<td>.01</td>
</tr>
<tr>
<td>Shape Match.</td>
<td>4</td>
<td>1 - 4</td>
<td>4</td>
<td>1</td>
<td>--</td>
<td>4</td>
<td>0</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Shape Naming</td>
<td>4</td>
<td>0 - 4</td>
<td>1</td>
<td>2</td>
<td>1 - 4</td>
<td>3</td>
<td>1</td>
<td>.20</td>
<td>3.36</td>
<td>.01</td>
</tr>
<tr>
<td>Shape Ident.</td>
<td>4</td>
<td>0 - 4</td>
<td>2</td>
<td>3</td>
<td>0 - 4</td>
<td>4</td>
<td>1</td>
<td>.00</td>
<td>2.76</td>
<td>.01</td>
</tr>
<tr>
<td>Letter Recog.</td>
<td>32</td>
<td>0 - 20</td>
<td>5</td>
<td>44</td>
<td>0 - 20</td>
<td>5</td>
<td>47</td>
<td>.60</td>
<td>0.31</td>
<td></td>
</tr>
<tr>
<td>Num. Concept</td>
<td>25</td>
<td>0 - 24</td>
<td>9</td>
<td>72</td>
<td>2 - 25</td>
<td>16</td>
<td>51</td>
<td>.79</td>
<td>4.77</td>
<td>.01</td>
</tr>
<tr>
<td>Relat. Concept</td>
<td>24</td>
<td>4 - 22</td>
<td>15</td>
<td>39</td>
<td>10 - 22</td>
<td>19</td>
<td>13</td>
<td>.86</td>
<td>3.81</td>
<td>.01</td>
</tr>
<tr>
<td>Sensory Concept</td>
<td>24</td>
<td>8 - 24</td>
<td>18</td>
<td>25</td>
<td>8 - 24</td>
<td>18</td>
<td>33</td>
<td>.26</td>
<td>0.12</td>
<td></td>
</tr>
<tr>
<td>Prob. Solve.</td>
<td>40</td>
<td>0 - 23</td>
<td>9</td>
<td>42</td>
<td>4 - 31</td>
<td>16</td>
<td>68</td>
<td>.50</td>
<td>3.05</td>
<td>.01</td>
</tr>
<tr>
<td>Verb. Comm.</td>
<td>--</td>
<td>7 - 47</td>
<td>18</td>
<td>145</td>
<td>13 - 57</td>
<td>30</td>
<td>227</td>
<td>.46</td>
<td>2.83</td>
<td>.01</td>
</tr>
<tr>
<td>Verb. Compre.</td>
<td>24</td>
<td>3 - 23</td>
<td>15</td>
<td>51</td>
<td>7 - 24</td>
<td>19</td>
<td>43</td>
<td>.64</td>
<td>2.32</td>
<td>.05</td>
</tr>
<tr>
<td>SUBTEST</td>
<td>Total Possible</td>
<td>PRETEST Range</td>
<td>Mean</td>
<td>Var.</td>
<td>POSTTEST Range</td>
<td>Mean</td>
<td>Var.</td>
<td>r</td>
<td>t</td>
<td>Sig. Level</td>
</tr>
<tr>
<td>-----------------</td>
<td>----------------</td>
<td>---------------</td>
<td>------</td>
<td>------</td>
<td>----------------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------------</td>
</tr>
<tr>
<td>Color Matching</td>
<td>9</td>
<td>0 - 9</td>
<td>6</td>
<td>9</td>
<td>0</td>
<td>8 - 9</td>
<td>0</td>
<td>.18</td>
<td>2.37</td>
<td>.01</td>
</tr>
<tr>
<td>Color Naming</td>
<td>9</td>
<td>0 - 9</td>
<td>3</td>
<td>14</td>
<td>0</td>
<td>3 - 9</td>
<td>7</td>
<td>.48</td>
<td>2.73</td>
<td>.01</td>
</tr>
<tr>
<td>Color Ident.</td>
<td>9</td>
<td>2 - 9</td>
<td>6</td>
<td>10</td>
<td>0</td>
<td>6 - 9</td>
<td>8</td>
<td>.66</td>
<td>2.54</td>
<td>.01</td>
</tr>
<tr>
<td>Shape Matching</td>
<td>4</td>
<td>--</td>
<td>4</td>
<td>0</td>
<td>--</td>
<td>4</td>
<td>0</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Shape Naming</td>
<td>4</td>
<td>0 - 3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1 - 4</td>
<td>3</td>
<td>.42</td>
<td>4.49</td>
<td>.01</td>
</tr>
<tr>
<td>Shape Ident.</td>
<td>4</td>
<td>2 - 4</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>2 - 4</td>
<td>4</td>
<td>.40</td>
<td>2.27</td>
<td>.05</td>
</tr>
<tr>
<td>Letter Recog.</td>
<td>32</td>
<td>0 - 12</td>
<td>5</td>
<td>13</td>
<td>0</td>
<td>0 - 16</td>
<td>8</td>
<td>.30</td>
<td>1.27</td>
<td></td>
</tr>
<tr>
<td>Num. Concept</td>
<td>25</td>
<td>0 - 22</td>
<td>9</td>
<td>57</td>
<td>1</td>
<td>7 - 25</td>
<td>17</td>
<td>.87</td>
<td>4.29</td>
<td>.01</td>
</tr>
<tr>
<td>Relat. Concept</td>
<td>24</td>
<td>2 - 16</td>
<td>12</td>
<td>22</td>
<td>1</td>
<td>16 - 24</td>
<td>20</td>
<td>.37</td>
<td>4.29</td>
<td>.01</td>
</tr>
<tr>
<td>Sensory Concept</td>
<td>24</td>
<td>10 - 24</td>
<td>19</td>
<td>21</td>
<td>1</td>
<td>16 - 24</td>
<td>20</td>
<td>.71</td>
<td>2.12</td>
<td></td>
</tr>
<tr>
<td>Problem Solve.</td>
<td>40</td>
<td>2 - 16</td>
<td>10</td>
<td>25</td>
<td>0</td>
<td>0 - 28</td>
<td>17</td>
<td>.80</td>
<td>2.59</td>
<td>.01</td>
</tr>
<tr>
<td>Verb. Comm.</td>
<td>--</td>
<td>7 - 40</td>
<td>18</td>
<td>110</td>
<td>14</td>
<td>40</td>
<td>35</td>
<td>.20</td>
<td>2.51</td>
<td>.01</td>
</tr>
<tr>
<td>Verb. Compre.</td>
<td>24</td>
<td>2 - 22</td>
<td>16</td>
<td>60</td>
<td>15</td>
<td>24</td>
<td>21</td>
<td>.86</td>
<td>2.12</td>
<td>.05</td>
</tr>
</tbody>
</table>
OBJECTIVE: Aid parents to promote their children's intellectual development, using toys and learning episodes that are designed to teach specific skills, concepts, or problem solving abilities.

SECOND CRITERION: There is some indication that the parents believe that their child benefited from the experience.

SOURCE OF DATA: The responses to the following questions:
1. What did you learn from this experience that was useful?
2. What was the most interesting part of this experience?

ANALYSIS: On the first question, six East Palo Alto parents made direct statements on what their child had learned. For example:

"He learned to count."
"My child learned to listen to instructions."

They made many general statements like some of those quoted under objective one that implied that they were aware that the child was learning something. For example:

"How to better teach my child concepts which I took for granted that he knew."
"How to teach my child different things without pushing him."
"This is useful in helping him prepare for school and have a happy experience."
OBJECTIVE: Aid parents to stimulate their children's intellectual abilities by improving interaction between parent and child.

CRITERION: The children understand and use language better and improve their ability to solve problems.

SOURCE OF DATA: Pre- and posttest scores for 12 children at the Murray School and 7 children at the Jordan School near Salt Lake City, Utah.

ANALYSIS: The particular subtest that are related to this criterion are 11, Problem Solving, 2 Verbal Communications, and 13 Verbal Comprehension. The last two are probably better indicators than problem solving because there was a direct relationship between some of the learning episodes and some items on the problem solving test. The 12 and 13 were not directly related to any of the episodes. There were significant changes in test scores on both of these subtests at both schools, as shown by Tables 1 and 2.

We concluded that the test results and the parents' responses justified a tentative conclusion that the children had learned some of the specific skills involved in the course and that parents believed that learning was taking place.

OBJECTIVE: Aid parents to participate in the decision making process that affects the education of their children.

CRITERION: Parents feel that they can influence the decisions that affect the educational of their children.

SOURCE OF DATA: Questions asked at the end of the course.

ANALYSIS: There is not one response from any of the test sites that indicates that we achieved this objective.
DISCUSSION

One of the outcomes of the course that we had not anticipated was that some of the parents thought that the most interesting part of the course was the interaction among parents. Four of the East Palo Alto parents, four of the Jordan parents and three Murray parents mentioned this. Typical comments were:

"Sharing the experience of other mothers."

"Getting to meet people."

"Reporting back and hearing comments of other mothers."

"Being able to talk about different experiences."

There is not a single piece of evidence that we have presented on the first three objectives that cannot be faulted and certainly none of it could stand alone but we believe that as a whole, it does support our conclusion that these objectives have been met.

Throughout the entire course, with a questionnaire filled out every week on a specific toy or learning episode and the questionnaire at the end of the course, there was very little real criticism. Three parents said that some of the toys were too easy or uninteresting. This was true and the toys are being replaced but we can expect this to be true in some instances because of the normal range of ability in any group of children. Two people did not like to fill out the questionnaires or report on the week's experience. One of them went on to say that she knew it was a necessary part of the course accepted it as much. And one parent thought some of the classes were redundant.

We had difficulty at each location in recruiting the first group of parents but most of the parents who started stayed in the course.
In East Palo Alto eleven of the parents who started in the first course finished and, five of the parents who started the second course finished. Then, as the community became aware of and interested in the course, 35 parents started the third course and twenty seven finished. In Jordan fourteen started and ten finished. In Murray seventeen started and thirteen finished. This does not mean that every parents attended every session, but they did remain in the course. Furthermore, at each location at the end of the course, there were parents waiting who were anxious to be included.

The lack of criticism, the number of parents who completed the course and the waiting list all reinforce the notion that the parents think the course is beneficial to them and to their children.

The test results are questionable, but the fact that we obtained substantially the same results at two different centers certainly increases the probability that changes due to the course did occur. And the changes were over a short span of time—only ten weeks. We did not and still do not believe that one or two experiences is enough for a young child to learn some of the skills and concepts that were involved so we would not have been surprised if there had not been significant differences at all. We can only infer that playing the learning episodes help the parents see other opportunities to help the child learn the skill that was involved in the learning episodes and at least for the duration of the course, the interaction between parent and child had improved in ways compatible with the objectives of the course. Some of the parent responses certainly reinforce this inference.

We are revising some of the toys and learning episodes and will conduct a more extensive performance test and operations test during the 1970-1971 school year.
APPENDIX A

COLOR LOTTO
Game I

STACKING SQUARES
Game I

EQUIPMENT: Color lotto board and two (2) sets of colored squares (one set for the parent and one for the child).

PURPOSE: To help the child learn to match colors that are the same when given an example.

GENERAL INSTRUCTIONS:

A. Ask your child only once each day if he wishes to play the game.
B. The child may change the rules of the game at any time. You must follow the child's rules if he changes them.
C. You should stop the game when the child seems to lose interest.

SPECIFIC INSTRUCTIONS:

1. Place the lotto board and one set (9) of the colored squares on a table or on the floor.
2. Allow the child to play with them for a few minutes.
3. Collect all of the child's squares and place them in front of you.
4. Hold up a colored square (for example a red square) and say, "Find a square on your board that is red, the same color as this square."
   If the child points to a square of a different color, move the square you are holding close to his board so the child can see the difference. Wait a few seconds. If the child does not correct himself say, "These two squares are not the same color. Try again."
   If the child points to a square that is the same color, give him the square you are holding and say, "Yes, these two squares are the same color. They are both red. You may put this red square on your board."
   Then hold up a blue square and say, "Find a square on your board that is blue, the same color as this square."
   If the child points to a square of a different color, move the square
you are holding close to his board so the child can see the difference. Wait a few seconds. If the child does not correct himself, say, "These two squares are not the same color. Try again."

If the child points to the square that is the same color, give him the square you are holding and say, "Yes, these two squares are the same color. They are both blue. You may put this red one on your board."

6. To have your child remove his squares, pick up a colored square from your set (the parent's set) and say, "Take off a square that is yellow, the same color as the square I am holding."

If your child picks up a square of a different color, place it next to your square so the child can see the difference. Wait a few seconds. If the child does not correct himself, say, "These two squares are not the same color. Try again."

If the child picks up a square that is the same color, take the child's square and say, "Yes, these two squares are both yellow."

After the child removes the yellow square say, "Take off a square that is green, the same color as the square I am holding."

If your child picks up a square of a different color, place it next to your square so the child can see the difference. Wait a few seconds. If the child does not correct himself, say, "These two squares are not the same color. Try again."

If the child picks up a square that is the same color, take the child's square and say, "Yes, these two squares are both green."

Continue the game until all squares are taken off the child's board or until the child loses interest.

BA: rce
8/10/70
STACKING SQUARES
Game I

EQUIPMENT: One (1) Stacking Square Toy.

PURPOSE: To teach same size and not the same size.

GENERAL INSTRUCTIONS:
A. Ask your child only once each day if he wishes to play the game.
B. The child may change the rules of the game at any time. You
   must follow the child's rules if he changes them.
C. You should stop the game when the child seems to lose interest.

SPECIFIC INSTRUCTIONS:
1. Place the Stacking Toy on the floor or on a table.
2. Allow the child to play with the Stacking Toy. Watch to see if he
discovers that the large squares must go on first.
3. Remove the wooden squares from the stacking post and give the child
   all of the 4 blue squares. Keep all of the other squares in front of
you.
4. Select one of the squares in front of your and hold it up and say to
your child, "Point to a square that is the same size as this square."
5. If your child chooses a square that is not the same size, hold your
   square close to the square the child selected and wait a few seconds,
   allowing the child to see the difference in size. If the child does
   not see the difference say, "These squares are not the same size.
   Point to a square that is the same size."
6. If the child chooses a square that is the same size as the square you
   are holding, hand your square to your child and say, "Yes, both of
   these squares are the same size. You may put this square on top of
   your square."
Continue in this way until all the squares are matched in front of
your child.
APPENDIX B
RESPONSIVE ENVIRONMENT CONCEPT DISCUSSION TOPICS

AUDIO-VISUAL

LEARNING EPISODES

PARENT/CHILD COURSE OUTLINE

DATES: April 8, 1970 to May 27, 1970
LOCATION: Ravenswood School; East Palo Alto
TEACHER: Stan Johnson
CLASS SIZE: 20

CLASS SCHEDULE:

7:30 - 7:45 AM.................Coffee and book browsing
7:45 - 8:00 AM.................Toy Evaluation Sheet
                  (After first class meeting)
8:00 - 8:45 AM...............Demonstration of new game and
                              instructions (film)
8:45 - 9:00 AM...............Discussion
9:00.........................Dismiss

TOYS AND INSTRUCTIONS:

1. Sound Cans
2. Color Lotto
3. Feely Bag
4. Stacking Toy
5. Cylinders (Table Blocks)
6. Numberite
7. Coordination Board & Color Cubes
8. Flannel Board

FILMS:

3rd meeting  1. Talking Together          20 minutes
1st meeting  2. Parents are Teachers Too.  22 minutes
7th meeting  3. With no One To Help Us     19 minutes
6th meeting  4. Discipline &Self Control   25 minutes
8th meeting  5. Jenny Is a Good Thing     18 minutes
RESPONSIVE ENVIRONMENT CONCEPT DISCUSSIONS

1st Class
1. Sound Discrimination/educational process

2nd Class
2. Positive Self-Image
   (Use Parent/Child proposal as reference source)

3rd Class
3. Specific language
   a. describe objects
   b. describe position
   c. describe action

3rd Class
4. Explicit directions

4th Class
5. Extending children's language

5th & 6th Class
6. Discipline and self-control
   a. positive correction
AGENDA

1st Class -- April 8, 1970

A. Introduction of Stan Johnson. Brief overview of Laboratory's work.
B. Introduction of mothers.
C. Film; "Parents are Teachers Too". (22 minutes)
   Discussions: Importance of parents
   Toys as Learning Tools
D. Reasons for the Parent/Child course
   1. Why this course?
   2. What is this course?
   3. The parent's role in the course.
E. 3 x 5 cards -- record keeping
F. Pre-test -- record keeping
G. Introduction of Sound discrimination. The need as related to
   education process
H. Introduce Sound Cans
   1. Demonstration and role-play
   2. Situations for role-play
      a. "I don't want to play".
      b. "I get bored".
I. Review rules; answer questions
J. Dismiss

2nd Class -- April 15, 1970

A. Feedback on Sound Cans
B. Toy Evaluation Sheet
C. Introduce and talk about Color Lotto
D. Role-play Color Lotto
E. Positive Self-image; discussion
F. Dismiss
3rd Class -- April 22, 1970

A. Introduction of all present
B. Feedback of Color Lotto
C. Toy Evaluation Sheet
D. Film: "Talking Together" (20 minutes)
   Discussion
E. Introduce and discuss Feely Bag
F. Introduce language behaviors of specific language and stating
directions in explicit and positive terms.
   Examples of specific language:
   1. "This ball has a circular shape".
      Instead of: "This is a circle".
   2. "That animal is a dog".
      Instead of: "That is a dog".
      (Free discussion)
   Examples of explicit directions:
   1. "Keep the color lotto square on the table"/
      Instead of: "Don't put those squares on the floor".
   2. "Put this square on your board".
      Instead of: "Here!" while you are handing child the square.
      (Free discussion on directions)
G. Dismiss class
4th Class -- April 29, 1970

A. Feedback on Feely Bag
B. Toy Evaluation Sheet
C. Introduce Cylinders; instructions to observe if and when child uses silhouette. Size relationship discussion.
D. Introduce Stacking Toy. Review instructions. Role-play both games.
E. Extending children's language discussion.
F. Dismiss

5th Class -- May 6, 1970

A. Feedback on Cylinder and Stacking Toy exploration
B. Toy Evaluation Sheet
C. Introduce Games 1 and 2 of the Cylinders.
D. Role-play; discussion on objectives of game
E. Positive correction discussion relating to home environment
F. Dismiss
6th Class -- May 13, 1970

A. Film: "Discipline and Self-Control". (25 minutes)
B. Continued discussion on positive correction and feedback
C. Feedback on Cylinder games
D. Introduce Numberite Puzzle
E. Dismiss

7th Class -- May 20, 1970

A. Feedback on Numberite
B. Toy Evaluation Sheet
C. Introduce Coordination Board and Color Cubes and instructions
D. Role-play: discussion
E. Film: "With No One To Help Us". (19 minutes)
F. Discussion of film
G. Dismiss
8th Class (Last session) -- May 27, 1970

A. Film: "Jenny I; A Good Thing". (18 minutes)
B. Feedback
C. Feedback on Co-ordination Board and Color Cubes
D. Toy Evaluation Sheet
E. Introduce Flannel Board and Instructions
F. Role-play
G. Dismiss

SJ:rc
6/26/70