Results of the 1990-91 product evaluation of the federally funded Chapter 1 prekindergarten program of the Saginaw, Michigan School District are reported. The purpose of the program is to provide inner-city 4-year-olds with an environment that will enable them to develop the skills needed for success in school. In 1990-91, the program served 466 children enrolled at 13 buildings. The major question addressed by the evaluation was: Did the program attain the objectives it set out to accomplish? To answer this question, evaluators used: (1) the Prekindergarten Saginaw Objective Reference Test to assess cognitive and psychomotor objectives; and (2) a Parents as Partners Sheet to assess the amount and type of parent participation. Findings indicated that the program met eight of nine objectives in the cognitive skills area and two of four objectives in the psychomotor skills area. All three objectives for parent participation were met. Six recommendations for program improvement are offered. Appendixes provide a list of the 16 program objectives, a list of program participants, and a copy of the Prekindergarten Saginaw Objective Reference Test. (BC)
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PROGRAM DESCRIPTION

Saginaw's Prekindergarten Program, which has been in operation for the past twenty-one years, is funded through Chapter I of the Education Consolidation and Improvement Act (ECIA). It is designed to provide four year olds with an environment that will enable them to develop skills needed for future success in school. The ultimate purpose of this program is to prepare inner city children, most of whom come from backgrounds that may not have equipped them with these skills, for entry into kindergarten. The program has goals and objectives (see Appendix A) that children, teachers, and parents work toward throughout the year. After a year of prekindergarten, these children should at least be on par with other children as they enter kindergarten.

This year there were approximately 466 children enrolled at 13 buildings, one of which operated a half-day session (see Appendix B for counts by site). For the eleventh consecutive year, the standardized 27 item Prekindergarten Readiness Screening Device (PRSD) was individually administered. Selection for this year's program was based on the pre-schooler receiving a raw score of 19 or below.

The prekindergarten staff included a staff supervisor, 13 certified teachers, 14 teacher aides, a secretary, and a graphic arts/clerical aide. With the exception of the half-day sites, each school operated at least two sessions, one from 8:45 a.m. to 11:15 a.m., and another from 12:30 p.m. to 3:10 p.m. Class sizes varied from 12 to 20 children per half-day session.
EVALUATION PROCEDURES

This report presents the results of the product evaluation of the 1990 91 Prekindergarten Program. A process evaluation was also conducted this year, and these findings are reported in a separate report.

Product Evaluation

A product evaluation measures the end results of a particular program. The major product (or outcome) question was. Did the program attain the objectives it set out to accomplish?

To answer this question, the Prekindergarten Saginaw Objective Reference Test (PK-SORT) was used to assess student achievement (see Appendix C for a copy of PK-SORT). The PK-SORT included 31 items dealing with both psychomotor and cognitive program areas. The first 17 items measured the program's nine cognitive objectives while the remaining 14 dealt with the four fine and gross motor objectives.

The other evaluation instrument is the Parents as Partners Sheet, on which each teacher records the amount and type of parent participation that occurred during the year (objectives 14-16).
Presenting and analysis of product data

**Prekindergarten Saginaw Objective Referenced Tests (PK-SORT)**

The results of the PK-SORT administered during May 13-24, 1991 to the prekindergarten pupils are presented. PK-SORT results will be reported separately for both cognitive and psychomotor subtest areas. The following results are based upon the testing of 422 pupils in May. Summary post-test data for the cognitive subtest are contained in Table 1 below. The cognitive subtest measures nine objectives.
<table>
<thead>
<tr>
<th>Obj. #</th>
<th>Objective Description</th>
<th>Standard</th>
<th>Pupils Attaining Standard</th>
<th>Attainment of Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Physical Knowledge</td>
<td>80% of the pupils will correctly respond to 2 of 3 related items</td>
<td>422  389 (92.2)</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>Social Knowledge</td>
<td>80% of the pupils will correctly respond to at least 3 of 4 related items</td>
<td>422  396 (93.8)</td>
<td>Yes</td>
</tr>
<tr>
<td>3</td>
<td>Knowledge: Classification</td>
<td>50% of the pupils will apply 2 criteria for sorting</td>
<td>422  278 (65.9)</td>
<td>Yes</td>
</tr>
<tr>
<td>4</td>
<td>Knowledge: Logical-Mathematical-Seriation</td>
<td>70% of the pupils will answer at least 1 of 2 related items</td>
<td>422  309 (73.2)</td>
<td>Yes</td>
</tr>
<tr>
<td>5</td>
<td>Spatio-Temporal Knowledge: Structure of Time</td>
<td>50% of the pupils will respond correctly to at least 50% of the items</td>
<td>422  308 (73.0)</td>
<td>Yes</td>
</tr>
<tr>
<td>6</td>
<td>Expressive Language: Labeling</td>
<td>85% of the pupils will label at least 4 objects in a picture</td>
<td>422  415 (98.3)</td>
<td>Yes</td>
</tr>
<tr>
<td>7</td>
<td>Expressive Language: Mean Length of Utterance</td>
<td>80% of the pupils will use a sentence of 5 or more words</td>
<td>422  388 (91.9)</td>
<td>Yes</td>
</tr>
<tr>
<td>8</td>
<td>Expressive Language: Semantics</td>
<td>65% of the pupils will use at least 3 of 5 elements of fluency</td>
<td>422  184 (43.6)</td>
<td>No</td>
</tr>
<tr>
<td>9</td>
<td>Expressive Language: Plot Extension/Expansion</td>
<td>50% of the pupils will use at least 1 element of plot extension in their description</td>
<td>422  390 (92.4)</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Analysis of the data contained in the above table reveals the following:

- Prekindergarten pupils attained eight of the nine cognitive objectives.
- The Expressive Language: Semantics was the only objective which didn't meet the mastery criteria.
- Objective 6 (Expressive Language: Labeling) continued to demonstrate the greatest percentage of attainment (98.3%).

Summary data for the psychomotor subtest are presented in Table 2 which follows. The psychomotor subtest measures four objectives.

**TABLE 2. SUMMARY OF NUMBER AND PERCENT OF PUPILS ATTAINING OBJECTIVES ON THE PREKINDERGARTEN SORT PSYCHOMOTOR SUBTEST MAY, 1991.**

<table>
<thead>
<tr>
<th>Obj. #</th>
<th>Objective Description</th>
<th>Standard</th>
<th>Pupils Tested</th>
<th>Attaining Standard %</th>
<th>Attainment of Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Fine Motor Coordination</td>
<td>80% of the pupils will perform at least 3 of 4 activities</td>
<td>422</td>
<td>368 (87.2)</td>
<td>Yes</td>
</tr>
<tr>
<td>11</td>
<td>Spatio-Temporal Knowledge: Structuring of Space (Order)</td>
<td>65% of the pupils will correctly pattern a topological relationship</td>
<td>422</td>
<td>232 (55.0)</td>
<td>No</td>
</tr>
<tr>
<td>12</td>
<td>Representation at the Symbol Level: Specific Shapes</td>
<td>65% of the pupils will copy 3 of 4 shapes</td>
<td>422</td>
<td>237 (56.2)</td>
<td>No</td>
</tr>
<tr>
<td>13</td>
<td>Gross Motor Coordination</td>
<td>80% of the pupils will complete at least 3 of 4 movements</td>
<td>422</td>
<td>385 (91.2)</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Analysis of the above data reveals the following results:

- Prekindergarten pupils attained two of the four objectives.
- Objective 11 (Spatio-Temporal Knowledge: Structure of Space [Order]) showed the lowest attainment (55.0%).
- Objective 13 (Gross Motor Coordination) continued to demonstrate the highest attainment (91.2%).

The presentation of cognitive and psychomotor post-test achievement data by building are shown in Appendix D.

Generally at this point in the report a comparison of this year's PK-SORT post results with the last two years has been offered. This practice does not seem fair this year due to the massive shift in funding of this program over the past two years. Longitudinal comparisons make sense with a stable set of sites. When a program contracts in size then longitudinal comparisons may become tenuous because some biasing factor maybe operating (non-random factor). This year's data may become a new baseline for future comparisons if the funding for the 13 sites continues in years to come. Last year, more money for the state funded prekindergarten effort entitled the Michigan Early Childhood Education Preschool Program (MECEP) became available. To take advantage of this opportunity, funding for a large number of Chapter 1 prekindergarten sites were shifted to MECEP funds. This year's funding for the Chapter 1 prekindergarten has returned to its original level. However, state budget problems this coming year and in the future may decrease the number sites funded by the state as opposed to Chapter 1.
Parents as Partners

Parent participation has always been an important part of the Prekindergarten Program. This component is designed to provide parents with the skills they need to become directly involved in their children's education. Parents and other members of the family frequently are quite eager to provide these learning experiences for their child. The parenting component can provide them with specific information on how their interactions can contribute to their child's development.

The parent program had three main objectives:

14. 60% of the prekindergarten families will participate in the classroom or on field trips four times per year.

15. 60% of the prekindergarten families will participate in parent meetings four times per year.

16. 80% of the prekindergarten families will complete with the child, nine home activities and return them to school.

The evaluation of this year's parenting component consisted of a year-end analysis of the data collected and recorded during the year.

Parent participation is an important component of this program. Table 4 below presents a detailed view of how the program fared on each of the three objectives.

<table>
<thead>
<tr>
<th>Objective Number</th>
<th>Total Families</th>
<th>Families Meeting Standards</th>
<th>Objective Attained</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 (60%)*</td>
<td>451</td>
<td>366</td>
<td>81.2</td>
</tr>
<tr>
<td>15 (60%)</td>
<td>451</td>
<td>384</td>
<td>85.1</td>
</tr>
<tr>
<td>16 (80%)</td>
<td>451</td>
<td>421</td>
<td>93.3</td>
</tr>
</tbody>
</table>

*Mastery criteria for each objective stated in percent.
As an analysis of the above data indicates, the parenting component was a success. All three objectives met the attainment standard. Parenting data by building can be found in Appendix E.
RECOMMENDATIONS

The recommendations that follow are based on this year's process and product evaluations and are intended to help bring about Chapter 1 program improvements in the following school year. These recommendations take nothing away from a program that continues to show very impressive results on an annual basis. This year being no exception.

The recommended ideas and techniques offered below stem from a perceived problem and are just one of many ways to improve the performance of the program. As solutions are sought for optimum program operations, a dialogue/discussion should be undertaken to determine the best and most workable way to solve the perceived problem. The staff and evaluator should be brought into these discussions so that all involved feel part of the proposed new operation of the program.

1. The teachers and program supervisor should jointly explore the probable circumstances for relatively poor achievement on objectives 8, 11, and 12 and develop an instructional management system which will lead to attaining these objectives with special emphasis on expressive language objective: semantics 8.

2. The program supervisor and teaching staff should analyze the building results presented by objective, in order to formulate a plan to reduce differences in program impact across buildings.

3. Based on the large differences between these new teachers in using language production/enhancement techniques with children, an expectation of the frequency needs to be communicated to staff.

4. The frequency of closed- to open-ended questions of new teachers (approximately 58/42) is good. A review and extension on how to better phrase open-ended questions to better foster expressive language seems warranted.
5. Determine a common set of labels for teachers to use to name objects in their rooms so there will be more consistency between sites.

6. Because of the frequent turnover of staff, possible expansion of the program in the future, and the increasing sophistication of the preschool program, a training manual and/or video needs to be developed that spells out common daily preschool practices and procedures.
APPENDICES

APPENDIX A

1990-91 CHAPTER 1 PREKINDERGARTEN OBJECTIVES

1. **Physical Knowledge**

   80% of the pupils will demonstrate properties of and display appropriate behavior for exploring properties of objects by correctly responding to 2 of 3 items.

2. **Social Knowledge**

   80% of the pupils will demonstrate knowledge of social roles by correctly responding to at least three of four items.

3. **Knowledge: Classification**

   50% of the pupils will successfully apply two criteria for sorting: color and/or form.

4. **Knowledge: Logical-Mathematical-Seriation**

   70% of the pupils will compare and arrange objects according to a given dimension of coordinating transitive relationships of at least one of two items of this objective.

5. **Spatio-Temporal Knowledge: Structuring of Time**

   50% of the pupils will respond correctly to at least 50% of the items related to temporal ordering of events.

6. **Expressive Language: Labeling**

   85% of the pupils will label at least four objects in the birthday party picture.

7. **Expressive Language: Mean Length of Utterance**

   80% of the pupils will use sentences of at least five words to describe the birthday party picture.

8. **Expressive Language: Semantics**

   65% of the pupils will use at least three of five elements of fluency in their description of the birthday party picture.
9. Expressive Language: Plot Extension/Expansion

50% of the pupils will use at least one element of plot extension in their description of the birthday party picture.

10. Fine Motor Coordination

80% of the pupils will successfully perform at least three of four activities involving hand/eye coordination.

11. Spatio-Temporal Knowledge: Structuring of Space (Order)

65% of the pupils will correctly respond to topological relationships of order or pattern.

12. Representation at the Symbol Level: Specific Shapes

65% of the pupils will copy successfully three of four shapes.

13. Gross Motor Coordination

80% of pupils will successfully complete at least three of four large movements of the body.

14. Parent Participation

60% of the adult members of the prekindergarten family will participate in school activities at least four times per year.

15. Parent Education Program: Friday Meetings

60% of the adult members of the prekindergarten family will participate in at least four Friday meetings.

16. Parent Education Program: Home Work Activities

80% of the adult members of the prekindergarten family will help the child complete at least nine prekindergarten home activities and return them to school.
APPENDIX B

PREKINDERGARTEN PARTICIPANTS BY BUILDING AS OF JANUARY 18, 1991.

<table>
<thead>
<tr>
<th>Elementary Building</th>
<th>Number of Participants</th>
</tr>
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<tbody>
<tr>
<td>E. Baillie</td>
<td>29</td>
</tr>
<tr>
<td>Coulter</td>
<td>15</td>
</tr>
<tr>
<td>Emerson</td>
<td>36</td>
</tr>
<tr>
<td>Nelle Haley</td>
<td>39</td>
</tr>
<tr>
<td>Heavenrich</td>
<td>31</td>
</tr>
<tr>
<td>Houghton</td>
<td>39</td>
</tr>
<tr>
<td>Jones</td>
<td>40</td>
</tr>
<tr>
<td>Longfellow</td>
<td>40</td>
</tr>
<tr>
<td>Jessie Loomis</td>
<td>39</td>
</tr>
<tr>
<td>Morley</td>
<td>32</td>
</tr>
<tr>
<td>Jessie Rouse</td>
<td>32</td>
</tr>
<tr>
<td>Salina</td>
<td>29</td>
</tr>
<tr>
<td>Webber Elementary</td>
<td>54</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>446</strong></td>
</tr>
</tbody>
</table>
Prekindergarten
SAGINAW
OBJECTIVE
REFERENCED
TEST
(PK-Sort)

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Superintendent, Foster B. Gibbs, Ph.D.
## APPENDIX C

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APPENDIX C

DIRECTIONS FOR ADMINISTERING

PREKINDERGARTEN SAGINAW OBJECTIVE REFERENCED TEST (PK-SORT)

This test is to be administered on a one-to-one basis. It is important that each testing situation be essentially the same for all pupils. Very careful attention should be given to the detailed instructions that are provided in these directions, as well as the instructions that are incorporated into the test itself.

All teacher directions that are included in the test will be in parentheses ( ) and are not to be read to the pupil. The teacher should be familiar with all questions as well as the materials that are to be used in administering the test. The test kit should be checked for inclusion of a complete set of the manipulative materials and flash cards. (See Appendix A for an inventory of these materials.)

In administering the test, the teacher is to score the pupil response to each item as it is given. Each item is scored on a right or wrong basis. The content of each pupil response is to be accepted by the teacher at face value. The teacher should be careful not to provide the pupil with any verbal or non-verbal signals that might influence the pupil’s thinking or eventual answer.

It is appropriate for the teacher to provide help that ensures that the pupil understands the task to be performed. In order to facilitate this understanding, each set of instructions should be given and then be repeated. Some pupils benefit from a pause or a “wait time” before they are required to give a response. It is permissible to have a pupil start over if it appears that he/she has forgotten the task, or is confused as to what to do. The pupil should be given up to 30 seconds to respond to any given item. Every
attempt should be made to administer all items of the test to all pupils. The teacher should take as much time as reasonably necessary to complete the test. If appropriate, the test can be given over a number of days and in a number of settings.

Since the teacher is to judge the correctness or incorrectness of each pupil response, the directions for each test item contains a section on correct or acceptable responses. A clear understanding of the acceptable responses provided in the test instructions will ensure that the teacher can quickly and consistently score each item. Responses are to be scored and coded on the answer sheet as the pupil answers each question. The following symbols are to be used for scoring:

A for correct responses and
B for incorrect or no responses

A machine scoreable answer sheet will be used to record the pupil's responses. The teacher should carefully follow the procedures that are outlined in the "Directions for Completing the Prekindergarten SORT Answer Sheets". These directions will be included in the packet containing the machine scoreable answer sheets.
APPENDIX C

PREKINDERGARTEN SORT TEST ITEMS

PART I: COGNITIVE DEVELOPMENT SUBTEST

(Remember, all statements in parentheses ( ) are intended for your use and are not to be read to the child. In recording answers on your answer sheet, you should code A = correct response and B = incorrect or no response.)

1. SAY, “Let’s play a game where you have to tell me about things you cannot see.”

(Hand the pupil feely sock Number 1. It contains a metal zipper.)

SAY, “Put your hand in the sock. Keep your hand in the sock. Take the thing that is in the sock and feel it. Tell me about it.”

(Pause. Listen for one of these acceptable responses and mark your scoring sheet accordingly.)

Acceptable Responses

-- Name of the object
-- Shape of the object
-- Use of the object
-- Name of the material of the object
-- Texture of the object

SAY, “Let’s take a look at it. Now, let’s do another one.”

(Put away sock Number 1 making sure that the zipper is put back, take out sock Number 2.)
APPENDIX C

2. (Hand the pupil feely sock Number 2. It contains a toothbrush.)

SAY, "Put your hand in the sock. Keep your hand in the sock. Take the thing that is in the sock and feel it. Tell me about it."

(Pause. Listen for one of these acceptable responses and mark your scoring sheet accordingly.)

Acceptable Responses

- Name of object
- Shape of the object
- Use of the object
- Name of the material of the object
- Texture of the object

SAY, "Let's take a look at it. Now, let's do another one."

(Put away Number 2 making sure that the toothbrush is put back, take out sock Number 3.)

(Hand the pupil feely sock Number 3. It contains a plastic egg.)

3. SAY, "Put your hand in the sock. Keep your hand in the sock. Take the thing that is in the sock and feel it. Tell me about it."

(Pause. Listen for one of these acceptable responses and mark your scoring sheet accordingly.)

Acceptable Responses

- Name of the object
- Shape of the object
- Use of the object
- Name of the material of the object
- Texture of the object

SAY, "Let's take a look at it."

(Put away sock Number 3 making sure the egg is put back.)
APPENDIX C

4. SAY, "Now let's take a look at some pictures and talk about them."

(Show the child the picture marked with the Number 4 on the back. As you are holding it follow these directions.)

SAY, "Tell me who this worker is. What does s/he do?"

(Pause for response, listening for one of the acceptable responses listed below.)

Acceptable Responses

-- Name of the role or title of the worker or
-- A description of what s/he does or how the worker helps us.

(Mark your scoring sheet accordingly.)

5-7. (Put away picture Number 4 and continue following the same directions for pictures 5, 6, and 7. Remember to mark on your scoring sheet after each question.)

8. SAY, "In just a minute we will play a game with some candies which should be lots of fun."

(Open the envelope marked item Number 8 and randomly place candies that it contains in front of the pupil. As you describe what the pupil is to do, gesture with your hands to represent two piles.)

SAY, "Some candies are yellow, some are green, some are round, and some are long. Put the candies that are alike into two piles. All the candies in each pile should be alike."

(Pause for the child to group the candies. Make sure that one of the groups is correct according to the acceptable responses listed below.)

Acceptable Responses

-- Grouping according to color
-- Grouping according to form

(Mark your scoring sheet accordingly.)
APPENDIX C

9. SAY, "In just a minute we will play a game with some circles and triangles which should be lots of fun."

(Open the envelope marked item Number 9 and randomly place the shapes in front of the pupil. As you describe what the pupil is to do, gesture with your hands to represent two piles.)

SAY, "Put the shapes that are the same into two piles. All the shapes in each pile should be alike."

(Pause for the child to group the shapes. Make sure that the groups are correct according to the acceptable response listed below.)

Acceptable Response

-- Grouping according to form

(Mark your scoring sheet accordingly.)

10. SAY, "Now let's play with some toy bears. They are a family."

(Remove toy bears from envelope marked item Number 10 and allow child to play with and talk about the bear family.)

SAY, "Now, can you put this family from the biggest to the smallest?"

(Pause for the child to arrange the bears from biggest to smallest or the reverse order. Make sure that the arrangement is correct according to the acceptable responses listed below.)

Acceptable Responses

-- All four bears from biggest to smallest or
-- All four bears from smallest to biggest

(Mark your scoring sheet accordingly.)
11. SAY, "Now let's take a look at some pictures and put them in order."

(Open the envelope marked Item 11 and randomly place the four pictures in front of the child.)

SAY, "Here are four girls. Some of the girls are tall, some are short. Put the girls in a row from tallest to shortest."

(Provide a ruler as base. Pause for the child to arrange the girls. Make sure that the arrangement is correct according to the acceptable responses listed below.)

Acceptable Responses

-- All four pictures from tallest to shortest or
-- All four pictures from shortest to tallest

(Mark your scoring sheet accordingly.)

SAMPLE EXERCISE

SAY, "We are going to look at some pictures. We're going to talk about what happens first, next, and last."

(Open envelope marked "Sample, 12 and 13". Take out pictures for sample item. Lay pictures on table in order of #1, #2, #3, left to right, facing child.)

SAY, "Let's do this together. Listen to the story."

Mother mixed up a cake.
She put it into the oven to bake.
Then the cake is ready to eat.

SAY, "Show me the picture that happened first."

(Pause for answer and correct if he/she has not understood directions.)

SAY, "Show me the picture that happened next."

(Pause for answer and correct child if he/she has not understood.)

SAY, "Show me the picture that happened last."

(If child gives incorrect sequence, teacher tells the story and presents pictures in correct sequence.)
APPENDIX C

12. SAY, "Let's do another story."

(Put Item 12 pictures out in order of #1, #2, #3, left to right, facing child.)

SAY, "Listen to the story."

Daddy wrote a letter.
He walked to the mailbox.
He mailed the letter to his friend.

SAY, "Show me the picture that happened first."
(Pause for correct picture.)

SAY, "What happened next?"
(Pause for correct picture.)

SAY, "What happened last?"
(Pause for correct picture.)

Child must point to or give you pictures in correct order.

(Mark your scoring sheet accordingly and put pictures away.)

13. SAY, "Let's do another story."

(Put Item 13 pictures out in order #1, #2, #3, left to right, facing child.)

SAY, "Listen to the story."

The boy fell in the mud.
He took a bath.
Now he is all clean!

SAY, "Show me the picture that happened first."
(Pause for correct picture.)

SAY, "What happened next?"
(Pause for correct picture.)

SAY, "What happened last?"
(Pause for correct picture.)

Child must point to or give you pictures in correct order.

(Mark your scoring sheet accordingly and put pictures away.)
APPENDIX C

14. SAY, "I have a picture here out of a story book. It's part of the story, but the words are missing. Would you look at my picture and help me with the story?"

(Teacher hands child the picture from folder marked Number 14.)

SAY, "Tell me what you see in this picture."

(Pause for the child to answer. Make sure that the answer is listed below as an acceptable response.)

Acceptable Responses

-- Name at least four objects in picture

(If the child fails to list four objects, mark your scoring sheet accordingly.)

For example:

<table>
<thead>
<tr>
<th>dog</th>
<th>ball</th>
</tr>
</thead>
<tbody>
<tr>
<td>squirrel</td>
<td>cars</td>
</tr>
<tr>
<td>boys</td>
<td>slide</td>
</tr>
<tr>
<td>girls</td>
<td>picnic table</td>
</tr>
<tr>
<td>baby</td>
<td>tree</td>
</tr>
<tr>
<td>cup</td>
<td>blanket</td>
</tr>
<tr>
<td>grandma</td>
<td>bottle</td>
</tr>
<tr>
<td>sandwich</td>
<td>clover</td>
</tr>
<tr>
<td>pie</td>
<td>flowers</td>
</tr>
<tr>
<td>glass</td>
<td>chair</td>
</tr>
</tbody>
</table>

Incorrect Responses

-- Did not talk
-- Named less than four objects
-- Gave irrelevant responses

(Mark your scoring sheet accordingly.)
APPENDIX C

(Child continues to use picture marked Number 14.)

15. SAY, "Tell me what you think is happening in the picture?"
    "Can you tell me more about the picture?"

(Pause for the child to tell the story. Make
sure that the answer is listed below as an
acceptable response.)

Acceptable Response
-- Uses a sentence of 5 or more words

Incorrect Responses
-- Child does not talk
-- Uses sentences of four words or less
-- Uses phrases

(Mark your scoring sheet accordingly.)

16. (Score story given for item 15 in terms of
acceptable responses given below.)

Acceptable Response
-- Uses at least 3 or 5 of the listed elements
of fluency. *

Incorrect Response
-- Uses less than 3 of the listed elements of
fluency. *

* Fluency consists of additional responses using:

    -- Modifiers (uses adjectives or adverbs.)
    -- Spatial elements (uses prepositions
        indicating position.)
    -- Number words
    -- Emotional or feeling words
    -- Sequence (uses phrases to describe
        a series of events.)

(Mark your scoring sheet accordingly.)
17. (Child continues to hold the picture from the folder marked Number 15.)

SAY, "What do you think will happen next? What will they do when the picnic is over?"

(Pause for the child to answer. Make sure that the answer is listed below as an acceptable response.)

**Acceptable Response**

-- Child uses 1 or more of the elements listed below as a plot extension. * Any of the extensions below should be acceptable.

* Plot extension consists of:

-- Inferences
-- Predictions
-- Cause and effect
-- Conclusions

**Incorrect Response**

-- Child does not use plot extension. *

* Plot extension consists of:

-- Inferences
-- Predictions
-- Cause and effect
-- Conclusions

(Mark your scoring sheet accordingly and put the picture away.)
APPENDIX C

PART II: PSYCHOMOTOR ABILITIES SUBTEST

51. (From envelope marked Number 51, ask pupil to fold a 5" x 5" sheet of paper in half. Teacher demonstrates with a sample.)

SAY, "Fold the paper in half."

Acceptable Response

— Using ruler, folds should show an accuracy + 3/8" in any direction.

(Mark scoring sheet accordingly.)

52. (Using the same folded sheet, ask pupil to open the sheet and cut the paper on the fold.)

SAY, "Now open the sheet and cut the paper on the fold line."

(Teacher demonstrates with his/her sample.)

Acceptable Response

— Using ruler, cuts should be + 1/2" from the fold.

(Mark scoring sheet accordingly.)
APPENDIX C

53. (Using a crayon from envelope Number 53, ask pupil to color inside the outline of the circle.)

SAY, "Color inside this circle. Color all of the circle."

Acceptable Response

-- Using ruler, coloring marks should not exceed 1/2" at any point and approximately 2/3 rds of circle should be colored.

(Mark scoring sheet accordingly.)

54. (Using a crayon from envelope Number 54, ask pupil to draw a line between the two lines.)

SAY, "Draw a line between the two lines from the mouse to the house."

Acceptable Response

-- Crayon line must be within parallel lines and connect the mouse to the house or come within at least 1/2" of touching both the mouse and the house.

(Mark scoring sheet accordingly.)
APPENDIX C

55. (Using cut-out forms from envelope Number 55, place them on the table facing the child in the order shown below. Then take a similar set from envelope Number 55 and ask the child to make the same pattern.)

SAY, "You make your row look just like mine."

Acceptable Response

-- Linear order must be the same as the example.

(Mark scoring sheet accordingly.)

56. (Child must be seated across the teacher. Teacher places his/her 5 toy cars from envelope Number 56 on the oaktag circle. The teacher puts down the parking strip, one in front of the child and another at least 10 inches away from that one and parallel to it.)

SAY, "We are going to build parking lots. First, you watch how I park my cars and trucks."

(From the circle the teacher takes 5 cars and places them on teacher parking strip #2 in the same predetermined order for all children as printed on parking strip. Teacher then places the child's 5 toy cars on the oaktag circle and asks the child to park his/her cars on child's parking strip #1 to look just like the teacher's.)

SAY, "Park your cars just like mine."

Acceptable Response

-- Linear order of cars must be the same as the teacher's order according to color.

(Mark scoring sheet accordingly.)
APPENDIX C

57-60. (Using cards from envelope Number 57-60, show one card at a time in the following order. Hand an extra sheet of paper to the child to draw the figures.)

SAY, "Draw a shape like this one."

Acceptable Response

-- See Appendix E for acceptable drawings as shown in Administration and Scoring Manual for the Developmental Test of Visual Motor Integration.

61. (Given the directive [opportunity] to hop on one foot, the child will be able to take five consecutive hops on either foot.)

Acceptable Response

-- Successful performance of the above activity.

(Mark scoring sheet accordingly.)

62. (Given a mark on the floor, the child will be able to jump over it by simultaneously lifting both feet from the floor and propelling his/her body forward and landing with feet together.)

Acceptable Response

-- Successful performance of the above activity.

(Mark scoring sheet accordingly.)
APPENDIX C

63. (Given a directive [opportunity] to skip, as a participant in any group activity which involves skipping, the learner will be able to skip using alternate feet, for a distance of ten or more feet.)

Acceptable Response

-- Successful performance of the above activity.

(Mark scoring sheet accordingly.)

64. (Given a ten-foot length of a 2" by 4" piece of lumber, the child will be able to walk a distance of at least five feet on the 4" side of the lumber.)

Acceptable Response

-- Successful performance of the above activity.

(Mark your scoring sheet accordingly and put the materials away. Thank the child for working with you.)
APPENDIX C

ATTACHMENT A

PE-SORT INVENTORY OF MATERIALS

PART I: COGNITIVE DEVELOPMENT SUBTEST

Item 1. - 1 feely sock with a zipper in it.
Item 2. - 1 feely sock with a toothbrush in it.
Item 3. - 1 feely sock with a plastic egg in it.
Items 4-7. - picture of a postman, policeman, truck driver, and snack bar attendant.
Item 8. - 4 green and 4 yellow candies (4 round and 4 rectangular)
Item 9. - 5 circles (3-3/4" diameter) and 4 triangles (3-7/8" sides)
Item 10. - 4 bears of varying heights/sizes
Item 11. - 4 girl paper dolls of varying heights/sizes and 1-12" ruler for base (9-1/2", 7-7/8", 6-1/4", and 5-1/4" tall)
Sample - 3 pictures of Mother mixing cake, baking cake, and serving cake.
Item 12. - 3 pictures of Dad writing letter, walking to mailbox, and mailing letter.
Item 13. - 3 pictures of Boy falling in mud, taking bath, and then all clean.
Item 14. - 1 picture of a picnic.

PART II - PSYCHOMOTOR DEVELOPMENT SUBTEST

Items 51-52. - 4-inch square pieces of paper and 1 pair of scissors.
Items 53-54. - paper with a 3-inch circle and a mouse/house illustration on it. (template for 3-inch circle scoring.)
Item 55. - 4 house illustrations and 6 face illustrations.
Item 56. - 2 strips of oaktag (3" x 8-1/2") for parking lots 1 oaktag circle (5-1/8" in diameter) for setting out cars and trucks 5 sets of different colored cars and/or trucks (2 per set).
Items 57-60. - oaktag flash cards (5-1/2" x 5-1/2") of a square figure, a triangle figure, a plus sign, and an "X" multiple sheets of paper set up for students to replicate figures with four quadrants.
Item 62. - 1 strip of tape or mark on the floor is needed.
Item 64. - a 2" x 4" x 10" piece of lumber or a balance board is needed.
**APPENDIX C**

**ATTACHMENT B**

---

**FORM 3 Circle**

**Scoring Criteria**

Predominantly circular lines

<table>
<thead>
<tr>
<th>Passing</th>
<th>Failing</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="passing1.png" alt="Circle 1" /></td>
<td><img src="failing1.png" alt="Circle 2" /></td>
</tr>
<tr>
<td><img src="passing2.png" alt="Circle 3" /></td>
<td><img src="failing2.png" alt="Circle 4" /></td>
</tr>
<tr>
<td><img src="passing3.png" alt="Circle 5" /></td>
<td><img src="failing3.png" alt="Circle 6" /></td>
</tr>
<tr>
<td><img src="passing4.png" alt="Circle 7" /></td>
<td><img src="failing4.png" alt="Circle 8" /></td>
</tr>
</tbody>
</table>

**Age Norms**

- Illustrated: 2.9
- Copied: 3.0
**APPENDIX C**

**ATTACHMENT B**

**FORM 4  Vertical-Horizontal Cross**  
*Age Norm 4:1*

**Scoring Criteria**

1. Two fully intersecting lines  
2. Two continuous lines  
3. At least 1/2 of each line within 20° of its correct orientation

<table>
<thead>
<tr>
<th>Passing</th>
<th>Failing</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="#" alt="Passing Example 1" /></td>
<td><img src="#" alt="Failing Example 1" /></td>
</tr>
<tr>
<td><img src="#" alt="Passing Example 2" /></td>
<td><img src="#" alt="Failing Example 2" /></td>
</tr>
<tr>
<td><img src="#" alt="Passing Example 3" /></td>
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<td><img src="#" alt="Passing Example 4" /></td>
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</tr>
<tr>
<td><img src="#" alt="Passing Example 5" /></td>
<td><img src="#" alt="Failing Example 5" /></td>
</tr>
<tr>
<td><img src="#" alt="Passing Example 6" /></td>
<td><img src="#" alt="Failing Example 6" /></td>
</tr>
<tr>
<td><img src="#" alt="Passing Example 7" /></td>
<td><img src="#" alt="Failing Example 7" /></td>
</tr>
<tr>
<td><img src="#" alt="Passing Example 8" /></td>
<td><img src="#" alt="Failing Example 8" /></td>
</tr>
<tr>
<td><img src="#" alt="Passing Example 9" /></td>
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</tr>
<tr>
<td><img src="#" alt="Passing Example 10" /></td>
<td><img src="#" alt="Failing Example 10" /></td>
</tr>
</tbody>
</table>

37 39
### Appenlix C

#### Attachment B

**Form 6 Square Scoring Criteria**

<table>
<thead>
<tr>
<th>Four clearly defined sides (corners need not be angular)</th>
<th>Passing</th>
<th>Failing</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="#" alt="Passing Examples" /></td>
<td><img src="#" alt="Passing Examples" /></td>
<td><img src="#" alt="Failing Examples" /></td>
</tr>
</tbody>
</table>

**Age Norm 4.5**

4(!)
## APPENDIX C

### ATTACHMENT B

### FORM 9 Triangle Scoring Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Passing</th>
<th>Failing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Three clearly defined sides</td>
<td><img src="image1" alt="Triangle" /></td>
<td><img src="image2" alt="Triangle" /></td>
</tr>
<tr>
<td>2. One corner higher than others</td>
<td><img src="image3" alt="Triangle" /></td>
<td><img src="image4" alt="Triangle" /></td>
</tr>
</tbody>
</table>

*Age Norm 3.3*
### Table D.1. Comparison of the Percent of Students at Post-Testing Attaining Mastery on PreK-Sort Objectives by Building for 1990-91.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (80)*</td>
<td>92.0%</td>
<td>100.0%</td>
<td>94.1%</td>
<td>86.1%</td>
<td>100.0%</td>
<td>82.9%</td>
<td>94.4%</td>
<td>82.1%</td>
<td>100.0%</td>
<td>93.5%</td>
<td>87.5%</td>
<td>90.7%</td>
<td></td>
</tr>
<tr>
<td>2 (80)</td>
<td>92.0%</td>
<td>100.0%</td>
<td>94.1%</td>
<td>86.1%</td>
<td>100.0%</td>
<td>82.9%</td>
<td>100.0%</td>
<td>92.3%</td>
<td>97.0%</td>
<td>87.1%</td>
<td>93.8%</td>
<td>96.3%</td>
<td></td>
</tr>
<tr>
<td>3 (50)</td>
<td>60.0%</td>
<td>92.9%</td>
<td>76.5%</td>
<td>19.4%</td>
<td>100.0%</td>
<td>76.9%</td>
<td>28.6%</td>
<td>83.3%</td>
<td>48.7%</td>
<td>75.8%</td>
<td>90.3%</td>
<td>50.0%</td>
<td>68.5%</td>
</tr>
<tr>
<td>4 (70)</td>
<td>44.0%</td>
<td>92.9%</td>
<td>73.5%</td>
<td>80.6%</td>
<td>100.0%</td>
<td>76.9%</td>
<td>68.6%</td>
<td>91.7%</td>
<td>61.5%</td>
<td>69.7%</td>
<td>61.3%</td>
<td>56.3%</td>
<td>72.2%</td>
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<tr>
<td>5 (50)</td>
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<td>50.0%</td>
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<td>58.3%</td>
<td>96.7%</td>
<td>58.9%</td>
<td>71.4%</td>
<td>88.9%</td>
<td>82.1%</td>
<td>69.7%</td>
<td>64.5%</td>
<td>75.0%</td>
<td>79.6%</td>
</tr>
<tr>
<td>6 (85)</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>94.4%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>90.3%</td>
<td>100.0%</td>
<td>96.3%</td>
<td></td>
</tr>
<tr>
<td>7 (80)</td>
<td>96.0%</td>
<td>100.0%</td>
<td>94.1%</td>
<td>66.7%</td>
<td>100.0%</td>
<td>97.4%</td>
<td>88.6%</td>
<td>100.0%</td>
<td>82.1%</td>
<td>100.0%</td>
<td>90.3%</td>
<td>93.8%</td>
<td>94.4%</td>
</tr>
<tr>
<td>8 (65)</td>
<td>28.0%</td>
<td>42.9%</td>
<td>23.6%</td>
<td>19.4%</td>
<td>36.7%</td>
<td>71.8%</td>
<td>62.9%</td>
<td>69.4%</td>
<td>15.4%</td>
<td>45.5%</td>
<td>45.3%</td>
<td>18.8%</td>
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</tr>
<tr>
<td>9 (50)</td>
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<td>84.8%</td>
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<td>93.8%</td>
<td>90.7%</td>
<td></td>
</tr>
<tr>
<td>10 (80)</td>
<td>88.0%</td>
<td>100.0%</td>
<td>85.3%</td>
<td>72.2%</td>
<td>96.7%</td>
<td>97.4%</td>
<td>57.1%</td>
<td>97.2%</td>
<td>89.7%</td>
<td>100.0%</td>
<td>93.3%</td>
<td>81.3%</td>
<td>83.3%</td>
</tr>
<tr>
<td>11 (65)</td>
<td>40.0%</td>
<td>42.9%</td>
<td>52.9%</td>
<td>63.8%</td>
<td>96.7%</td>
<td>61.5%</td>
<td>42.9%</td>
<td>58.3%</td>
<td>46.2%</td>
<td>60.6%</td>
<td>38.7%</td>
<td>25.0%</td>
<td>59.3%</td>
</tr>
<tr>
<td>12 (65)</td>
<td>16.0%</td>
<td>35.7%</td>
<td>52.9%</td>
<td>47.2%</td>
<td>93.3%</td>
<td>66.7%</td>
<td>25.7%</td>
<td>72.2%</td>
<td>74.4%</td>
<td>69.7%</td>
<td>54.8%</td>
<td>68.8%</td>
<td>44.4%</td>
</tr>
<tr>
<td>13 (80)</td>
<td>92.0%</td>
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<td>100.0%</td>
<td>63.8%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>60.0%</td>
<td>94.4%</td>
<td>97.4%</td>
<td>97.0%</td>
<td>93.5%</td>
<td>100.0%</td>
<td>96.3%</td>
</tr>
</tbody>
</table>

*Represents criteria for each objective.
# APPENDIX E

## TABLE E.1. SUMMARY OF NUMBER AND PERCENT OF PREKINDERGARTEN FAMILIES ATTAINING OBJECTIVES REGARDING THE PARENTS AS PARTNERS

**COMPONENT BY BUILDING, 1990-91.**

<table>
<thead>
<tr>
<th>School</th>
<th>Number of Students Enrolled**</th>
<th>Parent Participation Objective 14</th>
<th>Parent Meetings Objective 15</th>
<th>Homework Activities Objective 16</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>θ</td>
<td>%</td>
<td>θ</td>
</tr>
<tr>
<td>Beallie</td>
<td>29</td>
<td>24</td>
<td>(82.8)</td>
<td>26</td>
</tr>
<tr>
<td>Coulter</td>
<td>16</td>
<td>12</td>
<td>(75.0)</td>
<td>14</td>
</tr>
<tr>
<td>Emerson</td>
<td>40</td>
<td>31</td>
<td>(77.5)</td>
<td>34</td>
</tr>
<tr>
<td>Haley</td>
<td>37</td>
<td>28</td>
<td>(75.7)</td>
<td>22</td>
</tr>
<tr>
<td>Heavenrich</td>
<td>30</td>
<td>30</td>
<td>(100.0)</td>
<td>30</td>
</tr>
<tr>
<td>Houghton</td>
<td>42</td>
<td>39</td>
<td>(92.9)</td>
<td>42</td>
</tr>
<tr>
<td>Jones</td>
<td>37</td>
<td>14</td>
<td>(37.8)</td>
<td>35</td>
</tr>
<tr>
<td>Longfellow</td>
<td>40</td>
<td>33</td>
<td>(82.5)</td>
<td>37</td>
</tr>
<tr>
<td>Loomis</td>
<td>42</td>
<td>40</td>
<td>(95.2)</td>
<td>33</td>
</tr>
<tr>
<td>Morley</td>
<td>33</td>
<td>26</td>
<td>(78.8)</td>
<td>33</td>
</tr>
<tr>
<td>Rouse</td>
<td>32</td>
<td>29</td>
<td>(90.6)</td>
<td>19</td>
</tr>
<tr>
<td>Salina</td>
<td>17</td>
<td>13</td>
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</tr>
<tr>
<td>Webber</td>
<td>56</td>
<td>47</td>
<td>(83.9)</td>
<td>53</td>
</tr>
<tr>
<td>TOTAL</td>
<td>451**</td>
<td>366</td>
<td>(81.2)+</td>
<td>384</td>
</tr>
</tbody>
</table>

*Number of students enrolled and attending program for at least four months.

**While some students were enrolled at more than one site during that year, each individual student was counted only once in these statistics.

+Objective attainment:

- Parent participation by at least 60% for at least four school activities.
- Parent meetings by at least 60% for at least four Friday meetings.
- Homework activities by at least 80% for at least nine home activities.