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**Readiness for kindergarten reading readiness work books**

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*Boston University*
BOSTON UNIVERSITY
SCHOOL OF EDUCATION

Thesis

READINESS FOR KINDERGARTEN READING READINESS WORK BOOKS

Submitted by

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(B.S. in Education, Lesley College, 1954)

In Partial Fulfillment of Requirements for
the Degree of Master of Education

1957
First Reader: Helen B. Sullivan
Professor of Education

Second Reader: W. Linwood Chase
Dean of the School of Education
ACKNOWLEDGMENTS

The writer desires to express her appreciation to Dr. Helen B. Sullivan for her kind understanding and guidance in the preparation of this thesis. To Dr. W. Linwood Chase she expresses sincere thanks for his assistance and guidance in compiling the statistics of the enclosed test.
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CHAPTER I

STATEMENT OF THE PROBLEM

The problem.-- This study will be undertaken to answer some questions related to the readiness of kindergarten children for Reading Readiness Work Books. Due to individual differences in the kindergarten, care must be taken not to force the children to do something for which they are not ready. As an experienced teacher in the field of kindergarten, the writer will discuss the various factors of readiness in the field of early childhood education as it affects the kindergarten child—mentally, emotionally, physically, and socially.

In order to prove the above problem, the writer has constructed an original Readiness Test which is based on the kindergarten curriculum from September to January. It is hoped that this test will measure a child's readiness to use work books and screen those who are not ready. The writer hopes also to be able to discover the immature children, thus postponing the use of work books for them. Weaknesses in certain areas will show up. These early discoveries may help to avoid unnecessary frustrations and confusions and aid in scientifically grouping the children for kindergarten Reading Readiness Work Books.
CHAPTER II

JUSTIFICATION FOR THE STUDY

What is readiness?—David H. Russell states:

"In recent years the concept of readiness has influenced many school practices. The idea is largely an outgrowth of the child-study movement. It suggests that there is an optimum time for any learning and that attempts at instruction before this stage is reached are usually laborious and unsuccessful."

"Nothing is more discouraging than constant failure," quotes Hockett.

Success in any form is desired by everyone. Doing something well today gives one the incentive to go on achieving, until the potential goal is reached. No one wants to fail. Even the youngest child, struggling to make his favorite toy work, shouts with delight when that extra twist of the key or firmer push sends the little bit of mechanism down the road. What a burst of enthusiasm comes from the child who suddenly masters the tying of his shoestring as he shouts, "Look, I did it all by myself." Nothing equals the expression on the face of the kindergarten child when, after months of failure, he finds to his amazement that he can skip with two feet. He is no longer a "one-foot skipper" but a "two-foot skipper." This spells success. He is now a member of the majority group. Yes, he has grown up. Of course he feels

1/David H. Russell, Children Learn to Read, Ginn & Co., Boston, 1949, p. 120.

very proud. To the teacher this means that our little two-foot skipper has suddenly developed a readiness for two-foot skipping which involved mental, physical, social, and emotional readiness factors. Nature prepares us as life and various experiences unfold, and we are made ready for each event of life. According to Artley, "As soon as a human being is born, as soon as he begins to cry, to see, to grasp the things in his little circle of experience, he is truly getting ready for reading."

As Gates suggested,

"Readiness means somewhat different things to different people. Others describe it only as an expression of interest or purpose. Others describe it with emphasis upon general maturation. Some teachers stress maturation in specific matters such as visual equipment or being secure enough emotionally to talk in a group. Still others believe that readiness depends upon information or abilities developed during educational experiences. It seems probable that readiness is usually a composite of all these, with the influence of any one factor depending upon the type of activity involved. Certainly all these factors seem involved in reading readiness."

No two children are exactly alike, any more than two blades of grass or two flowers in a bouquet. Each has its individuality, built and grown according to a Divine Plan, and geared to a definite growth rate. Each makes certain specific demands upon life, some requiring more care, others less, in order to attain fullness or maturity or readiness.

McKim defines individual differences in the readiness factors by


saying "...that children differ in height, weight, color of hair and eyes, intellectual ability and even in the rate which they mature, reach adolescence and stop growing as adults--is all well established as any other single psychological principle."

Teacher understanding, guidance, and encouragement prevent frustration, unhappiness, and eventual failure in the case of the immature or the insecure child. By understanding the readiness factors, the alert teacher knows when a child has reached this level. Prinn says, in describing readiness,

"If children are to approach reading with a reasonable chance of enjoying the experience and succeeding in it, they must have a feeling of confidence in themselves and in their ability to learn. The teacher can do much to develop this attitude, if she is alert to variations in children's abilities, and provides opportunities for all children to have a number of successful experiences with reading activities."

Donnelly summarizes the above facts by saying, 'The child must be socially, physically, and emotionally ready, have a good mental attitude and intellectually ready to accept reading.'

Today some public schools admit children right from the home to first grade on the basis of their chronological age, without the benefit of nursery or kindergarten training. The latter in itself is enriching and stimulating and includes a broad, enriched reading readiness program. Some children, without benefit of kindergarten, weather the storm of adjustment bravely and attack reading like 'eager beavers.' Others who

1/Gertrude Prinn, Suggested Course of Study for Kindergarten and Sub-primary in Reading Readiness, Unpublished Master's Thesis, Boston University, 1946.

may meet the age requirement are not meeting the standard in the physical or social areas. Children in this latter group often become frustrated, developing a complex which affects their school attitude and the acceptance of the reading program. To quote Russell,

"Primary teachers are working with children who are often immature and not ready for the rather complex task of reading from books. Some teachers still believe that all children should begin rather formal reading as soon as they enter school. All teachers know, too, that many children come to school expecting to learn to read in the first weeks of their school life. These expectations receive little support from scientific knowledge of childhood and of learning. It is important, therefore, that all the personnel of a school system have an understanding of the problems of readiness and a clear-cut policy in regard to it."

We must consider the effect of too early an introduction to reading, should it be offered. Wills and Stegman say,

"The harm done those who have not matured sufficiently would far outweigh any value which might come to the few superior children. The majority would tend to develop a dislike for rather than an enjoyment of reading; would probably fail rather than succeed."

It will clearly follow that within the above type of classroom there would be individuals who seemingly look as if they were the same age—since they all entered school at the same time, but who are as different and as complex as a piece of modern electronics equipment. These are more simply defined as individual differences and are the reason why some adjust to reading and some do not.

Russell, in speaking of readiness, says,

1/Russell, op. cit., p. 121.


"The modern concept of readiness is that it is based on a combination of physical, mental, social and psychological factors. General and specific maturations are important, but so are information, attitudes, and abilities gained through experience. The teacher can't just wait for readiness to be achieved. General maturation is important, but the teacher must also do something. She must provide experiences which contribute to the growth of reading experiences."

Through the home environment parents should provide rich, deep experiences which will open up avenues of growth for the child. When this is lacking, the teacher must expose the child to the so necessary stimulating experiences which will awaken his dormant or latent powers, thus opening up avenues of curiosity, stimulating his thinking powers, and quickening his alertness and curiosity, so that he will be ready for the biggest challenge of his life—an opportunity to attack this new job of reading.

What about this readiness program mentioned as so necessary and essential a part of today's kindergarten? Artley speaks of it as:

"...essential, for through it each and every child has the opportunity to come to the point where he himself is thoroughly prepared to step ahead in reading instead of having reading thrust willy-nilly upon him at an age that has been arbitrarily set. No matter what age or capacity, if your child can be brought to this level, he should read easily and naturally. During the reading-readiness period, the teacher has guided your child by her skill and judgment."

The kindergarten teacher is especially concerned and maintains a vital interest in many factors affecting this developmental process of readiness. Lane says of these,

1/Artley, op. cit., p. 13.

"The factors whose presence make it likely that learning to read will be a joyous and successful adventure are
1. Wealth of experience
2. Good health
3. Good sight and hearing
4. Good oral vocabulary
5. The ability to organize ideas and express them in sentence form
6. Social adjustment
7. Emotional stability
8. Intellectual maturity."

He further states,

"It is a fatal error to determine reading readiness solely on the basis of mental maturity as the child may be deficient in any or all of the other seven characteristics which we have placed at the head of our list."

Again he says,

"Many a child has been conditioned to future failure in school by having reading wished on him by a teacher who deliberately closed her eyes to the symptoms of reading unreadiness."

It is this "reading unreadiness" which should be the teacher's major concern. The prevention of this premature exposure to readiness depends upon growth and maturation.

Hilliard and Troxell express the same thought by saying,

"Children with rich backgrounds are more strongly equipped to attack the printed page than are pupils of meager backgrounds because of enriched meanings and thought that the former bring to task."

Foster and Headley reiterate by suggesting that "no plan for a Kindergarten year is complete unless it recognizes the necessity for

1/G. H. Hilliard and Troxell, "Informational Background as a Factor in Reading Readiness," Elementary School Journal (December, 1937), 38:255.

giving the children a good preparation for school work which they will meet in the next year and the years to come."

In agreement with the above, Wills and Stegman believe that "the creative Kindergarten teacher guides children through learning experiences to the greatest growth commensurate with their potentialities. She seeks to help each personality develop to its fullest."

The following factors have a strong bearing on this essential pattern of readiness:

A. Physical factors
   1. How is the child's health?
   2. Does he have any physical handicaps?
   3. Does he have good muscular coordination?
   4. Does he have any speech disorders?
   5. Does he hear and see well?
   6. Has he established left- or right-handedness?

B. Social factors
   1. Does he get along with others?
   2. Does he withdraw from the group?
   3. Is he willing to take turns?
   4. Is he a leader or a follower?
   5. Is he courteous?
   6. Is he willing to share?
   7. Does he have a language handicap?

1/Wills and Stegman, op. cit., p. 367.
C. Emotional factors

1. Is he timid?
2. Is he relaxed or tense?
3. Is he negative?
4. Does he have tantrums?
5. Does he have confidence in himself?
6. Does he cry easily?
7. How does he meet strangers—with confidence, shyly?
8. Does he accept changes in routine calmly?

D. Mental factors

1. Is he interested in books?
2. Is he anxious to read?
3. Can he talk about his work intelligently?
4. Does he express himself in good sentences? Good vocabulary?
5. Does he have an average interest span?
6. Can he talk about a picture?

Gates and Bond have found that "readiness for reading is something to develop rather than something to wait for." Vallario explains, "Basic- 
ically readiness is a stage reached in the course of normal growth." Mason and Hudson say, "Readiness for learning depends upon the rate of


2/Mary C. Vallario, "Reading Readiness," The Massachusetts Teacher (January, 1952), 9.

growth in all aspects of development—physical, social, emotional and mental."

To assist the child in these above-mentioned areas of growth, the kindergarten teacher guides the child, never hurrying him, through a developmental program preparatory for the following readiness areas or skills. The all-over program consists of activities designed through the medium of play and adapted to the individual needs of the group. These kindergarten developmental aids to growth and readiness include the following:

1. Nurture the child's ever-widening interest in his new environment—the school.
2. Give him some new experience each day.
3. Develop oral language by having him retell a story.
4. Increase his vocabulary by introducing new words and meanings.
5. Encourage interest in books, stories, poems, and riddles.
6. Stimulate his interest in nursery rhymes and dramatizations of the same.
7. Ask him to tell about an excursion, trip to the farm, a favorite radio or television program, the new suit, dress, or shoes.
8. Give him directions to follow. Send him on an errand within the school building.
9. Praise and encourage the slow dresser.
10. Stimulate his interest in colors and numbers.
11. Encourage him to notice likenesses and differences.
12. Increase his powers of observation—indoors and out of doors.
13. Guide him to establish correct eye habits, such as left and right.

14. Play sensory games to develop ear training.

15. Introduce him to further enriching experiences such as:
   a. Caring for pets, plants, aquariums, terrariums
   b. Arrange for excursions within the school such as visits to the office, the auditorium, the nurse's room, the custodian's quarters to observe the school's heating system, the sewing room, and the lunch room or cooking room.
   c. Make butter after a visit to a farm or dairy.

16. Arrange for an out-of-door excursion to observe birds, nests, birdhouses, butterflies, cocoons, weather vanes, clouds.

17. Observe seasonal changes in grass, flowers, and trees.


19. Encourage interest in scientific experiments with a thermometer, magnifying glass, microscope, or prism.

20. Arrange special excursions to observe
   a. The Fire Station
   b. The Police Station
   c. The Post Office
   d. Churches
   e. Museums

21. Nurture a love for music, including singing, folk dancing, folk songs of other countries, rhythm dances, rhythmic play, use of
rhythm instruments, and listening to good music.

22. Develop an interest in the family unit.

23. Ask him to tell about that new baby.

24. Further enrichment--helping others by
   a. Making something pretty for the children in the hospital.
   b. Bringing pennies for the Red Cross and the March of Dimes.

25. Stimulate an ever-widening interest in the state and country.

26. Talk about our flag and the armed forces.

27. Encourage any interest in the alphabet or desire to print his name.

28. Encourage recognition of signs and interest in their meaning.

29. Make use of arts and crafts--cutting, coloring, finger painting, easel painting, clay, chalk, work bench, and block play.

The above explains in detail what is meant by getting ready for reading readiness work books.

After guiding her children of different readiness patterns, the day arrives when the teacher must introduce to her class their Reading Readiness Work Books. What an exciting day! The children feel so grownup and important. It's like a taste of first grade. However, this newness and excitement soon wear off. The teacher will discover that some children welcome this part of the kindergarten, showing that they are ready for work books. They have matured, mentally, physically, emotionally, and socially. The remaining children will sigh or frown when the teacher reaches for the Reading Readiness Work Books; or, possibly, they will work for a while, then yawn, get fidgety, or show signs of disinterest and lose their places--a definite sign of immaturity or unreadiness.
Now all of the above may be avoided, simply by submitting the entire class to a group test designed to measure fairly a child's readiness for work books. The results or findings of this test will provide specific diagnostic data which will reveal the child's readiness or unreadiness for Kindergarten Work Books.

When the above test results have been tabulated, the class may be regrouped or divided into two sections--those who need more readiness, guidance, or nurture, and those who may go on using the Reading Readiness Work Books. This grouping permits the children who are ready or who work faster to go along "to the next page," instead of waiting for the slow child. The latter "immature" child will be given more readiness work. By using the test results, the teacher will discover the child's weaknesses. With extra guidance, some will be able to "catch up" and use the work books, while others will not mature sufficiently. In this latter case, another year in kindergarten is advisable.
CHAPTER III
CONSTRUCTION OF THE TEST

After deliberating on the problem of readiness for Reading Readiness Work Books, the writer decided that this was a major issue and that something should be done about it. Therefore, she constructed a group readiness test, built specifically to measure the readiness of a kindergarten child for these work books.

Of what does the test consist?—The Group Test consists of ten tests, each of which includes five items based on the kindergarten from September to January and arranged according to order of difficulty, and includes the following skills:

1. The child's ability to take and follow directions
2. Skill in the use of a test book
3. Power of listening and concentration
4. Ability to turn one page at a time
5. Knowledge of left and right
6. Numbers (counting)
7. Nursery rhymes
8. Some seasons of the year (activities of each)
9. Some holidays (activities of each)
10. Some geometric figures
11. Likenesses and differences
12. Letter and number matching
13. Word and sound matching


When the tests are corrected, the results will be recorded on a master chart. Here we shall see at a glance the child's score and, by comparison, will be able to determine his readiness for work books. The test will measure the child's skills and abilities relative to readiness and maturity.

The results will be a deciding factor in grouping the children for the work books. The more mature child will show a high score, indicating definite readiness for work books. The immature child, who is our major concern, will show a low score. Weaknesses in certain areas will show up in his test, indicating general immaturity, a language handicap, or his need for more kindergarten.
CHAPTER IV
ANALYSIS OF DATA

The above test was given to three different kindergarten classes in a large city school system after the Christmas vacation. This particular time of year was selected because by this time the children are well adjusted to a school program and have acquired some of the readiness skills necessary for such a test.

The economic, social, cultural, and academic backgrounds of the children tested cover a very wide and varied scope--several having bilingual backgrounds. All of these data have helped the writer produce a more valid test.

The three groups tested totaled 90 children (48 boys and 42 girls). The ages of the children ranged from four years and eight months to six years and two months. The individual results or scores are recorded on a master chart previously mentioned.

A. Parental backgrounds of children tested

1. America
2. Armenia
3. Belgium
4. China
5. Damascus
6. England
7. France
8. Greece
9. North Africa
10. Poland
11. Portugal
12. Russia

B. Professions and occupations of parents

1. Airline pilot
2. Dentist
3. Chemist
4. Draftsman
5. Electronics engineer
6. Electrical engineer
7. Lawyer
8. Law student
9. Graduate student (2)
10. Social worker
11. Theological student (2)
12. Researcher (fine arts)
13. Teacher (college)
14. Auto mechanic
15. Auto radiator repair man
16. B. and M. clerk
17. Carpenter
18. Checker (Lever Bros.)
19. Laundry worker (3)
20. Painter
21. Electric plater
22. Foreman
23. Gas and Light Company worker
24. Insurance worker (2)
25. Printer
26. Piano tuner
27. Plater
28. Machinist (4)
29. Mechanic
30. Restaurant worker (2)
31. Real estate salesman
32. Policeman
33. Postal employee (2)
34. Post office accountant
35. Postal clerk
36. Shipper
37. Service station attendant
38. Salesman (2)
39. Still operator
40. Taxi driver
41. Mechanical engineer
42. U. S. Navy seaman
43. U. S. Navy petty officer
44. Window cleaner
45. Musician
46. Steel worker
47. Millwright helper
48. Policeman
49. Fireman

Key to master chart.-- On the left side of the chart are listed the children's names. Across the top are listed the names of ten tests of five items each. Under each item is a small block into which are placed the responses which the child wrote (right or wrong) for that particular item. To the right are the total scores which the child received on the items--number right, wrong, or omitted. At the bottom of the chart are the total number of items answered--right, wrong, or omitted.

Here, at a glance, we may find a child's complete score and, by comparison, determine his degree of readiness.

Analysis of Test Items

The answers or responses taken from the master chart were tabulated as right or wrong and were transferred into percentages. The Edgerton tables were then used for the purpose of obtaining the standard error and the error squared for each item. The final step involved the computing of the standard error of the difference and the critical ratio for each item. Mills states the following:

"If a given difference between hypothetical and observed values would occur as a result of chance only one time out of one hundred, or less frequently, we may say that the difference


is significant. This means that the results are not consistent with the hypothesis we have set up. If the discrepancy between theory and observation might occur more frequently than one time out of one hundred solely because of the play of chance, we may say the difference is not clearly significant. The results are not inconsistent with the hypothesis. The value of T (the difference between the hypothetical value and the observed mean, in units of the standard error of the mean) corresponding to a probability of 1/100 is 2.576. One hundredth part of the area under a normal curve lies at a distance from the mean, on the axis, of 2.576 standard deviations or more. Accordingly, tests of significance may be applied with direct reference to T, interpreted as a normal deviate (i.e., as a deviation from the mean of a normal distribution expressed in units of standard deviation). A value of T of 2.576 or more indicates a significant difference, while a value of less than 2.576 indicates that the results are not inconsistent with the hypothesis in question."

From the above statement we may conclude that any item with a critical ratio of 2.57 or more was interpreted as a valid test item. Tests 1 to 10, which follow, show the results of the item analysis.

The 90 children who were tested were divided into three groups--upper, middle, and lower. The writer will use the upper 25 and the lower 25 (upper and lower groups), finding the percentages of the correct answers of each group, then finding the difference between the two. Then, according to the Edgerton tables, the critical ratios will be determined.
## TABLE 1

CRITICAL RATIOS FOR DIFFERENCES IN PER CENT OF ACHIEVEMENT BETWEEN UPPER 25 AND LOWER 25 OF THE KINDERGARTEN GROUP TESTED

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Upper 25</th>
<th>Lower 25</th>
<th>Difference in %</th>
<th>C.R.</th>
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<td>76</td>
<td>60</td>
<td>16</td>
<td>1.23</td>
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<tr>
<td>5</td>
<td>96</td>
<td>92</td>
<td>4</td>
<td>.67</td>
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Further analysis of the critical ratios reveals that the following items fall below the criterion of 2.57 and should be discarded:

Test 1. Items 1, 2, 5
Test 2. Items 2, 3, 5
Test 3. Item 1
Test 4. Items 1, 2, 3
Test 5. Item 5
Test 9. Items 1, 3, 5
The above items fell below the criterion because the items offered very little challenge to the children tested. In other words, they were too easy. The replacement must be more difficult.
CHAPTER V

SUMMARY AND CONCLUSIONS

The preceding chapters have defined readiness in the four areas—mental, physical, emotional, and social. By use of the test results, a well-defined and clearer picture of kindergarten children may be seen. The test results will also aid in determining which children are ready for Reading Readiness Books and which children are unready.

The writer believes that the test has revealed the following:

1. Confirmed any doubts about immaturity or maturity.
2. Unknown weaknesses and strengths showed up.
3. Bilingual difficulties showed up.
4. An excellent guide for grouping.
5. A help in setting up a promotion list.
6. An aid in a quick evaluation of a child's ability.
7. Child's potentialities revealed.
8. Child's position in class found quickly.
9. Discovering of and a better understanding of the quiet child, the introvert, the negative child.
10. Attention span discovered.

SUGGESTIONS FOR FURTHER RESEARCH:

1. Repeat the test at some future date.
2. Analyze the data according to mental and chronological ages.
3. Give the test to other kindergartens within the city or to outside cities or towns, and compare results.

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APPENDIX A

A KINDERGARTEN TEST

DESIGNED TO MEASURE READINESS FOR WORK BOOKS
Child's Booklet

A Kindergarten Test
Designed to measure readiness for Workbooks

by
Helena J. Wilde

Practice Pictures

Apples:

Houses:
Test 2

1.

2.

3.

4.

5.
<table>
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Test 5

1. 
   - Circle
   - Ellipse
   - Cube
   - Rectangle
   - Trapezoid

2. 
   - Square
   - Circle
   - Line
   - Triangle
   - Circle

3. 
   - Rectangle
   - Triangle
   - Circle
   - Square

4. 
   - Triangle
   - Circle
   - Line
   - Cube

5. 
   - Star
   - Moon
   - Sun
   - Candle
Test 7

ACTAO

2 3 2 4 5

4 7 2

ABC
Test 8

1. O O O O O O

2. A A A B A B

3. House with numbers 2 2 4

4. R B B B B B B

5. Flags: 3 2 3 3
APPENDIX B

TEACHERS' DIRECTIONS FOR ADMINISTERING THE TEST
Materials Needed: A bright colored crayon, and the test. The children are seated at tables before the teacher. Each child has a crayon and a test before him. The teacher checks to see that the children do not sit too close to each other.

Time to Be Allotted for the Test: About 30 minutes.

Directions for Administering the Test: The teacher says, "We are going to play some games today. You must listen very carefully. I will repeat the questions slowly so that everyone will hear what I say. Let's do some of the games together. In this game we must find the right answers. We do not look at any other child's paper. When we find the answer, we put a big line through it like this (the teacher draws a big line on the board). We must use our eyes and ears today.

"Let's do the first part together. Will you put your finger on the row of apples at the top of your page. Here it is." (The teacher holds up her book and shows the row of apples.) "Now listen -- Look this row of apples all over, find the largest apple, and put a mark on it. Let's do it. Good, I'm glad you made the mark nice and dark." (The teacher glances around to see if all the children have understood the directions.) "Now, let's find the next row. Here you see some houses. Will you find the biggest house. Put a mark on it." (The teacher again glances around, checking the group.)

"Since everyone knows how to play the game, we will go on, but this time I am going to tell you what to do, and you will do it all by yourself. I won't be able to help you."
Test 1

1. Turn the first page of your booklet over and you will see some different pictures. We all know what these are. Now, don't show anyone, but find the biggest tree and put a mark on it.
2. Now, move down to the next row. Find the smallest flower. Mark it.
3. Mary and Billie watched a boat race. Find the boat with the biggest sail. Put a mark on it.
4. Betty had some balls. They are in the next row. Find the smallest one and put a mark on it.
5. Move down to the next row. Here you see five pails full of sand. Mark the pail which will hold the most sand.

Test 2

1. Turn your book over. Look at the top row and you will see some blocks with dots on them. Find the block which has three dots. Mark it.
2. Move down to the next row. Here are some circles with dots inside. Find the circle which has five dots in it and mark it.
3. Now move down to the next row where we see some boxes. Put a mark on the box which has six stars in it. Mark it.
4. Move down to the next row. Betty lost four crayons from her crayon box. Show me how many she lost. Put a mark on them.
5. Look at the last row. Billie went fishing and caught one fish. His daddy caught one. Mark the fishes which they caught.
Test 3

1. Turn your book over. Find the top row of pictures. Look very carefully and listen to me. The cow jumped over something in this row. Find it and mark it.

2. Move down to the next row. Listen. The dish ran away with something. Find it and mark it.

3. Move down to the next row. Listen again. Jack Be Nimble jumped over something. Find it in this row and mark it.

4. Let's move down to the next row. Listen. Mary, Mary, Quite Contrary had something you'll find in this row. Find it and mark it.

5. Now look at the last row. Find something that fell off a wall—he had a great fall. Mark it.

Test 4

1. Turn your book over. Find the first row of pictures. Listen. Find something in this row which all children look for in the Fall of the year. Mark it.

2. Move down to the next row. Put a mark on something in this row that you like to make when the ground is covered with snow.

3. Let's move down to the next row. Find something here that we like at Thanksgiving time. Put a mark on it.

4. Move down to the next row. Look at it. We like to decorate one of these pictures at Christmas time. Find it and mark it.

5. Something in this last row hops. We hear about him at Easter time. Find him and put a mark on him.
Test 5

1. Turn your book over. Find the top row. Here are some pictures which you know about. Find the ball. Put a mark on it.
2. Move down to the next row. Look at the pictures. Find the triangle. Mark it.
3. Now move down to the next row. Look at it. Find the oblong. Mark it.
4. Let's move down to the next row. Find a cube. Mark it.
5. Here is the last row. Find something here which is round like a ball.

Test 6

1. Turn your books over to the next page. Put your finger on the first row of pictures. Look carefully. Listen. Find two things which go together. Mark them.
2. Now move down to the next row. Look carefully. Find two things that go together. Mark them.
3. Move down to the next row. Look. Find some more things that go together. Mark them.
4. Move down to the next row and find some things that go together. Mark them.
5. We now have come to the last row on this page. There are three pictures here which you see in the sky. Find them and mark them.
Test 7

1. Turn your book over. Look at the top row. This game is a little different from the other games, so listen carefully to what I say. We call these "letters." Will you find two letters that are just alike and mark them.

2. Let's move down to the next row. Here you see a house with letters on it. Find two that are alike and mark them.

3. Now look at the next row. This is not like the first row, is it? These are called numbers. Look carefully. Find two numbers which are just alike. Mark them.

4. Move down to the next row. You see another house, don't you? It has numbers on it. Find two numbers which are just alike, and mark them.

5. Now we have come to the last row. Here you see a tower of blocks. The blocks have letters on them. Can you find two letters which are exactly alike in this tower? Mark them.
Test 8

1. Turn your book over to the next page. Find the top row. This time we are going to find things which are different; that means they do not look the same. Look at this top row. You see a row of letters. One letter is different. Find it and mark it.

2. Move down to the next row. Here are some circles with letters inside them. Find the one that is different and mark it.

3. Move down again to the next row. Here is another house with numbers on it. Find the number that is different and mark it.

4. Let's move down to the next row. Here are some lollipops with letters on them. One letter is different. Find it and mark it.

5. Now look at the last row. Here is a row of flags with numbers on them. Find the flag with the different number on it and mark it.
Test 9

1. Turn your page. Find the top row of pictures. Here are some bunches of cherries. Can you find the bunch which has two cherries on it? Mark it.

2. Move down to the next row and you will see some ice cream cones. The teacher bought Mary, Betty, and Bobby each an ice cream cone. Mark the cones which she bought.

3. Let's move to the next row. Here are some trees. Look at them and mark the tree which we decorate in our homes at Christmas time.

4. Move down to the next row. Look carefully at this row of pictures. Mark the one which you would find in the ocean.

5. Look at the last row. The wind makes some of these things go. Find them and mark them.
Test 10

1. Turn your book to the last page. Find the top row of pictures. You must use your ears. This means to listen very carefully. I am going to say the word "red" (the teacher repeats the word "red"). Mark the picture which sounds like "red."

2. Let's look at the next row of pictures. Listen. Find something which sounds like the word "cat" (the teacher repeats the word "cat"). Find it and mark it.

3. Now look at the next row. Find something here which sounds like the word "doll." Mark it.

4. Move down to the next row. Find something in this row which sounds like "block." Mark it.

5. This is the last row. Listen. Look at these pictures and find something which sounds like "mouse." Mark it.
## Table 2

### Answer Sheet

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APPENDIX D

CHECKLIST OF CORRECT ANSWERS TO TESTS

FROM THE UPPER 25 AND LOWER 25 KINDERGARTEN CHILDREN
Checklist of Correct Answers to Tests from the Upper and Lower 25 of the Kindergarten Group Tested

### UPPER 25

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Key:
- Right
- Wrong
- omitted
Checklist of Correct Answers to Tests from
the Upper 25 and Lower 25 of the Kindergarten
Group Tested

**LOWER 25**

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**Scores**

**Key**
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