

A STUDY TO DETERMINE THE PREDICTIVE ACCURACY
OF THE VAN WAGENEN READING READINESS
TEST

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CHAPTER I

THE PROBLEM AND DEFINITION OF TERMS USED

Opinions have differed as to the predictive accuracy of reading readiness tests. Some educators have been highly enthusiastic in their claims of untold benefits to be derived from standardized reading readiness tests. On the other hand, many persons have been prone to label them a waste of time and money. This group contends that the scope of such tests is too narrow to produce accurate results.

I. THE PROBLEM

Statement of the problem. It was the purpose of this study to determine the accuracy of the Van Wagenen Reading Readiness Test in predicting the reading achievement of kindergarten and beginning first-grade children.

Importance of the study. Regardless of the dispute concerning the predictive accuracy of reading readiness tests, standardized tests for this purpose have warranted the efforts of such persons as Deputy, Teegarden, Smith, Hildreth, Clark and Lee, Van Wagenen, Gates, Monroe, and Betts. These reading readiness measures were constructed

both as individual tests and as group tests.

It is the belief of Betts¹ that individual tests are better measures in early primary grades than group tests. He declares individual tests are more accurate because children in the pre-primary grades have had little or no experience in following directions for pencil and paper work. In addition, he stresses that the examiner can secure valuable data for the analysis of the difficulty by observing the responses at first hand.

The Van Wageningen Reading Readiness Test is one of the most widely used of the individual tests. Kopel² described the test at length in his article on the determination of reading readiness. Furthermore, Harris³ stated that the Van Wageningen test was very reliable for measuring the language background of a first-grade child as it relates to reading.

Although much praise has been given the Van Wageningen test, the predictive accuracy of it has been questioned by some authorities on the subject. Wilson, Carr and

¹ E.A. Betts, Prevention and Correction of Reading Difficulties, (Evanston, Illinois: Row, Peterson, and Co., 1941), pp. 85-91.

² David Kopel, "Reading Readiness: Its Determination and Use", The Teachers College Journal, Vol. XIII, January 1942, pp. 64-70.

³ A.J. Harris, How to Increase Reading Ability, (New York: Longmans, Green, and Co., 1940), p. 62

Michaels, and Gates have expressed doubt as to the predictive accuracy of the test. Which group is correct in their assertions remains to be determined by further studies.

II. DEFINITION OF TERMS USED

Reading Readiness. Reading readiness is interpreted as meaning progress in the initial stages of learning to read. The factors which are involved include intelligence, visual and auditory perception, language development, background of experience, and social behavior.⁴ Reading readiness is not merely mental and chronological maturity but an attitude or mind-set which experience and guidance have nurtured and fostered because of its important contribution to the initial steps of learning to read.

Reading readiness test. Throughout the report of this investigation, the term "reading readiness test" was interpreted as meaning a standardized measure for testing the readiness of a child to engage in the act of reading.

Reading achievement. Reading achievement was interpreted to mean the reading progress of the child as shown by Gray's Oral Reading Test and by a test devised by the writer.

⁴ A.J. Harris, How to Increase Reading Ability, (New York: Longmans, Green, and Co., 1940), p. 60.

Mental Age. Mental age, in this study, was interpreted as meaning the degree of mental development of a child in terms of the chronological age of the average individual. For example, a person with the mental age of six years will have the same mental development as the average six-year-old child. This is true regardless of the person's chronological age.

III. ORGANIZATION AND METHODS USED

For the purpose of determining the predictive accuracy of the Van Wagenen Reading Readiness Test, the writer selected fifty-five kindergarten children from the public schools of two Indiana cities. The pupils were divided into two groups. Each group was the beginning class of the school.

Group I was given the Van Wagenen Reading Readiness Test in December, 1941, to determine whether or not the children were ready to read. In the latter part of January, 1942, the Stanford-Binet Test was administered for the purpose of obtaining data for comparison with the scores of the Van Wagenen Test and the mental age of the children. During the middle of May, the group was given the Gray Oral Reading Test and one devised by the writer. These tests were given to determine the reading achievement.

In January, 1942, the Van Wagenen Reading Readiness

test was administered to Group II. This test was immediately followed by the Metropolitan Reading Readiness Test so that a comparison could be made between the two scores. In April, 1942, the group was tested to determine the reading achievement. Gray's Oral Reading Test and one devised by the writer were used for this purpose.

IV. LIMITATIONS OF THE STUDY

Because different localities do not expose children to the same reading vocabulary, a standardized reading achievement test is relatively unsatisfactory for primary testing. Although Gray's Oral Reading Test is an excellent test, it is not on the reading level of the majority of kindergarten pupils who are beginning reading.

The most serious limitation of this study was the small number of children who were tested.

CHAPTER II

REVIEW OF THE LITERATURE

As far as the writer has been able to discover, no previous study has been made concerning the predictive accuracy of the particular test which was chosen for this study. However, a brief summary of the work of experimenters on problems very closely related to the one at hand will be given.

Literature on the value of reading readiness measures.

The worth of reading readiness measures has been investigated most thoroughly by Wilson and his associates.⁵ This study of reading readiness and reading progress in kindergarten and primary grades of Horace Mann School at Columbia University was started in the fall of 1933. A first-grade group of twenty-five children was studied intensively. The Stone and Grover, the Metropolitan, and the Van Wagenen Reading Readiness tests were administered to the group. Both the Gates Primary Reading Test and the Hildreth First Grade Reading Analysis Test were given to determine the reading success. In view of the results of this study, Wilson concluded that the three reading

⁵ F.T. Wilson and A. Burke, "Reading Readiness in a Progressive School", Teachers College Record, 1937, pp. 565-580.

readiness tests gave very little evidence of predictive value as to reading progress in grade one.

A recent experiment reported by Gates⁶ consisted of a series of seven reading readiness tests. The entering pupils in eight New York City public school classes were chosen as subjects and one hundred seventy-three pupils were tested for reading readiness three or four weeks after the beginning of the school term. The reading ability was measured during the last ten days of the half-year term by the Gates Primary Reading Test. Results showed that the battery of reading readiness tests yielded coefficients of correlations as high as .77 with a criterion of reading ability used at mid-term. Such a correlation indicated that this battery of reading readiness tests might be of value in selecting children who are likely to have difficulty and who might require special attention; but, Gates stated that the correlation was still too low to furnish adequate and accurate guidance for the placement of individual pupils or the selection of those pupils who need a special program of preparation for learning to read.

⁶ A.I. Gates, "Further Evaluation of Reading Readiness Tests", Elementary School Journal, April, 1940 pp. 577-91.

In 1940, John W. Carr and Matilda Michaels⁷ made an experimental study for the purpose of testing the validity of reading readiness measures in comparison with the validity of teachers' judgment. The data were collected in the rural schools of Durham County, North Carolina, and in certain urban and rural schools in Lexington, North Carolina. The reading readiness tests were administered to the first-grade children soon after their entrance at school. After eight weeks of contact with the children, the teachers ranked pupils in order from the best to the poorest in capacity for learning to read. The relative success of the pupils was determined by the Gates Primary Reading Test which was given near the end of the first year's work. Carr and Michaels discovered that the coefficients of correlations of the teachers' judgments ranged from .64 to .94 as determined by the reading success at the end of the year. Of the reading readiness tests, the coefficients of correlations varied between .41 and .66; these coefficients expressed correlations much lower than would be desirable for guidance and placement of individual students. Consequently Carr and Michaels concluded: "Readiness-to-read tests will have to be made

⁷ Carr and Michaels, "Reading Readiness Tests and Grouping of First Grade Entrants", Elementary English Review, Volume XVIII, 1941, pp. 133-138.

much more accurate than they are now before they become definitely superior to intelligent observation and judgment by the classroom teacher."

Limitations of previous studies. The writer has been unable to discover any experimental work in which the Van Wagenen Reading Readiness Test was used exclusively to determine its predictive accuracy. Although it has been used in various experimental batteries, the ranking of it as an individual test was not obtained.

CHAPTER III

THE MATERIALS USED AND GROUPS TESTED

For the purpose of acquainting the reader with the various tests which were used, it seemed advisable to include a brief description of each test.

I. TEST MATERIALS

The Van Wageningen Reading Readiness Test. The Van Wageningen Reading Readiness Test is a standardized individual test which requires approximately forty-five minutes to administer. The test contains six sections: range of information, perception of relations, vocabulary opposites, memory span for ideas, word discrimination, and word learning. In the first the child is asked such questions as: "What does a rubber ball do when you drop it?". In the perception-of-relations test, the child is required to supply the word to complete a parallel series; for example, butter--yellow.....milk--(white). The vocabulary-opposites section is self-explanatory; the child simply supplies the opposite of words given orally. In the fourth test, "memory span for ideas", the child is presented with sentences of varying complexity and is required to repeat each sentence. The fifth section consists of twenty-three rows of five words each. Of these one word

in each row is unlike the others and the child is asked to determine the dissimilar word. In the final test, the child is presented with five nonsense words which he is required to learn.

Harris⁸ has stated that the Van Wagenen Test resembles a good intelligence test. He maintains that this test can be used to good advantage when there is time for individual testing and where no trained psychologist is available.

The Metropolitan Reading Readiness Test. The Metropolitan Test is a group test consisting of six parts. These are intended to measure ability to perceive similarities and differences, to copy visual forms, to understand words and sentences, to count, and to determine the range of information. This test requires over an hour to administer and should be given in several sittings.

The Stanford-Binet Test. This intelligence test is the 1937 revision of the Binet-Simon test. It is used for measuring the general level of intellectual development attained by an individual. The Stanford-Binet is the only one of the general psychological tests which has stood high in the list for predictive purposes.

⁸ A.J. Harris, How to Increase Reading Ability. (New York: Longmans, Green, and Co., 1940). pp. 62-63.

Gates⁹ stated that the Binet mental age gave a moderate correlation with reading progress.

The Gray Oral Reading Test. The Gray Oral Reading Test may be used advantageously in testing the reading ability of primary children. This test provides a relatively simple and quickly administered reading situation wherein the examiner may observe and record the type and frequency of faulty reading habits. This test consists of a series of paragraphs and is given individually.

The Writer's Test for Group I. The reading achievement test for Group I was devised to cover the exact reading material to which the children had been exposed. The material was taken from Off We Go, Beginning Days, and All Aboard. The test consisted of two parts. One section was composed of a list of forty-two words derived from the pre-primers. The second part was a series of eight paragraphs to be read orally. These paragraphs were composed of the forty-two words listed in the pre-primers which had been read by the children. Each word was used at least three times.

The Writer's Test for Group II. The writer devised

⁹ A.I. Gates, "Further Evaluation of Reading Readiness Tests", Elementary School Journal, April, 1940, pp. 577-91

an individual test for Group II which consisted of two parts. A list of fifty-nine words which were taken from the pre-primers composed the first part. The second section consisted of twelve paragraphs to be read orally. These paragraphs were composed of the words obtained from the pre-primers which the children had read. Each word was used at least three times. These pre-primers were We Look and See, We Work and Play, and We Come and Go.

II. GROUPS STUDIED

Group I. Group I consisted of the twenty-nine kindergarten children of a modern, well-equipped elementary school. These pupils represented a typical cross section of a city with a population of approximately 78,000. The chronological age of the children varied from four years, six months to five years, eleven months. As a group they were younger and scored lower on the tests than Group II.

Group II. Group II was composed of twenty-six kindergarten pupils. These children were the beginning class of a well-equipped elementary school. This school is located in the better residential section of a city of 130,000 population. The children ranged in age from five years, no months to six years, eleven months.

CHAPTER IV

RESULTS OF INDIVIDUAL EXPERIMENTS

The differences in the economic status, the chronological age, and in the amount of reading material covered by the children in the two Indiana schools are notable. Therefore, in compiling the data for careful analysis, it seems advisable to separate the results of the two groups.

I. RESULTS OF GROUP I

The data of Group I are presented in three parts: (1) results of Van Wagenen and Stanford-Binet mental age scores, (2) results of Van Wagenen and Gray Oral reading scores, and (3) results of Van Wagenen and Writer's oral reading scores.

Results of Van Wagenen and Mental Age Scores.

Both the Van Wagenen Reading Readiness and the Stanford-Binet Intelligence Tests were given individually to the pupils.

The results of the reading readiness and mental age scores are pictured graphically on a two-way frequency chart, Table I, page 15. The chart indicates a fairly high correlation. By means of the Pearson Product Moment method the coefficient of correlations

TABLE I

VAN WAGENEN READING READINESS SCORES FOR
GROUP I, AS COMPARED WITH STANFORD BINET MENTAL
AGE SCORES

		Stanford-Binet Mental Age scores													
		46	50	54	58	62	66	70	74	78	82	86	90	94	98
Van Wagenen Scores	54												1		
	51														
	48												1	1	
	45								1	1					
	42			1			1	2	1	1	1		1		
	39				1	2	1								
	36		1		1	1	1		1						
	33				1		1								
	30	2				1	1								
	27														
	24														
	21				1										
		$r = .73$													
		$PEr = .06$													

is determined as .73. The probable error of .06 gives the correlation reliable significance.

Results of the Van Wageningen and Gray Oral Scores.

The Van Wageningen Reading Readiness and the Gray Oral tests were administered individually to the children. The vocabulary for Gray's test was far superior to the reading vocabulary of the children and restlessness was evident. The scores of Gray's test could not be determined by the standardized chart because the children's scores were too low. Therefore, the scores were determined by two methods. A composite of paragraph errors plus the time required for reading was the basis for the first scoring. The more errors made and the longer the time for reading resulted in a high score. A high total score indicated poor reading achievement. For example, child "A" had a total raw score of three hundred twenty-five. This score was a composite of twenty-five reading errors and three hundred seconds for reading time. The score was poor as compared with child "B", who had a total raw score of one hundred twenty-five. Child "B" had fifteen reading errors and a reading time of one hundred and ten seconds. The second method of scoring was determined by the total reading errors. The time element was eliminated to discover if it had any bearing in determining reading achievement.

The Pearson Product Moment method reveals a coefficient

TABLE II

VAN WAGENEN READING READINESS SCORES FOR
GROUP I, AS COMPARED WITH GRAY ORAL READING SCORES
IN RESPECT TO TIME AND READING SCORES

		Gray Oral Reading scores												
		UP	51	49	46	43	40	37	34	31	29	23	20	17
Van Wageningen Scores	54													1
	51								1		1			
	48													
	45								1		1			
	42	1		1	1				1	1	1	1	1	
	39	1		1				1						
	36				2		1	1		1				
	33	1						1						
	30		1	2						1				
	27													
	24													
	21	1												
			$r = .58$ $PER = .08$											

of correlation of .58 for the Van Wageningen and Gray Oral Tests as scored by the first method. The probable error is .08. The two-way frequency chart, Table II, page 17, indicates a positive correlation. The second method of scoring, Table III, page 19, results in a coefficient of correlation of .54, with a probable error of .09. The correlation by the latter scoring is slight lower than the first correlation and tends to indicate that the time element has some bearing in determining reading achievement.

Results of the Van Wageningen and Writer's Test Scores.

The writer's test was given individually and was scored by two methods. The first scoring, Table IV, page 20, was a composite of the reading time, word errors, and paragraph errors. The second method of scoring was based on the composite of the word and the paragraph errors. The time element was eliminated in the scoring to discover if it had any bearing in determining reading achievement of kindergarten children.

The coefficient of correlation determined by the Pearson Product Moment method is .60. The probable error of .08 establishes the reliability. The coefficient of the second scoring, Table V, page 21, is .65 with a probable error of .08 and is also reliable. The latter scoring reveals a slightly higher correlation than is obtained by the composite of reading time, word

TABLE III

VAN WAGENEN READING READINESS SCORES FOR
GROUP I, AS COMPARED WITH GRAY ORAL SCORES IN
RESPECT TO READING ERRORS

Gray Oral Reading scores

	58	54	50	46	42	38	34	30	26	22	18	14
54												1
51												
48									1			
45									2			
42		1		1	1			1	2	1	1	
39				2				1		1		
36					1	2	1			1		
33			1					2				
30			3					1				
27												
24												
21	1											
<p>$r = .54$</p> <p>PER = .09</p>												

Van Wageningen scores

TABLE IV

VAN WAGENEN READING READINESS SCORES FOR
GROUP I, AS COMPARED WITH WRITER'S TEST IN RESPECT
TO TIME, WORD, AND PARAGRAPH ERRORS

Van Wageningen Scores

	54	51	48	45	42	39	36	33	30	27	24	21
UP												1
114												
110								1				
106						1						
102												
98							1					
94					1		1					
90					2				1			
86					1							
82					1		1		2			
78							1	1				
74							1					
70				1	2	2			1			
66			1									
62					1							
58												
54												
50				1		1						
46	1		1									
	r = .60						PEr = .08					

errors, and paragraph errors. The possible reason for this indication might be the low time scores obtained by children who could not read but guessed at the reading vocabulary. The children who read more slowly made fewer errors on the words and paragraphs, but had a higher time score.

II. RESULTS OF GROUP II

The data of Group II are presented in four parts: (1) results of Van Wageningen and Metropolitan Reading Readiness scores, (2) results of Van Wageningen and Gray Oral scores, (3) results of Metropolitan and Gray Oral scores, and (4) results of Van Wageningen and Writer's test scores.

Results of Van Wageningen and Metropolitan Scores.

The Van Wageningen Test was given individually by the writer. The Metropolitan Test was administered to the children as a group by the classroom teacher in two sittings.

The two-way frequency chart, Table VI, page 23, discloses a positive correlation. By the Pearson Product Moment method the coefficient of correlation is .57. The probable error is .08, indicating the reliability of the correlation.

Results of Van Wageningen and Gray Oral Scores. As in the results of the Gray Oral for Group I, the scores of the children were too low to be given in the

standardized scoring chart. Consequently a composite of paragraph errors and of time required for reading determined the first scoring. The children who had the fewest errors and the lowest time rate were given the lowest scores. The lowest score indicated the best reading achievement. A second method of scoring, using the reading errors as the basis, was also used. The time element was eliminated to discover if it had any bearing in determining reading achievement.

By the first method of scoring the coefficient of correlation, as shown by Table VII, page 25, is .74, with a probable error of .06. The second scoring, Table VIII, page 27, reveals the coefficient of correlation as .68. The probable error is .07.

Results of Metropolitan Reading Readiness and Gray Oral Scores. The testing conditions for and the scoring of both the Metropolitan Reading Readiness and the Gray Oral Tests have previously been given. Therefore, only the results as shown by Table IX, page 28, will be given here.

The Pearson Product Moment method results in a coefficient of correlation of .74. The probable error is .06, which gives the correlation reliable significance.

Results of Van Wagenen and Writer's Test Scores.

Both the Van Wagenen and the writer's test were given

individually. The scoring of the writer's test was accomplished by two methods. The reading time, word errors, and paragraph errors were scored in the first method. The second scoring was a composite of the word and the paragraph errors. The time element was eliminated to discover if it had any bearing in determining reading achievement.

The two-way frequency chart, Table X, page 29, which is composed of scores which were determined by the first method, indicates a fairly high correlation even at a glance. By means of the Pearson Product Moment method the coefficient of correlations is .81, with a probable error of .03. This coefficient is the highest correlation of the study. The correlation of Table XI, page 30, is .65. The probable error is .08. This correlation for the word and the paragraph scoring is somewhat lower than the former scoring of the writer's test. Although the time element made a significant difference in the data of Group II, it made only a slight difference in the data of Group I. Therefore, from the results of this study, no positive conclusions may be given concerning the bearing of reading time in determining reading readiness.

TABLE VIII

VAN WAGENEN READING READINESS SCORES FOR
GROUP II, AS COMPARED WITH GRAY ORAL SCORES IN
RESPECT TO READING ERRORS

Van Wageningen scores

	60	57	54	51	48	45	42	39	36	33	30
UP					1				1		1
86											
82										1	
78										1	
74			1				1			1	
70						2			2		
66							2				
62						1					
58					1						
54					1	1					
50							1				
46	1	1	1					1			
42	1										
38			2								
<p>R = .68</p> <p>PER = .07</p>											

Gray Oral Scores

TABLE IX

METROPOLITAN READING READINESS SCORES
FOR GROUP II, AS COMPARED WITH GRAY ORAL SCORES
IN RESPECT TO TIME AND ERRORS

Metropolitan Scores

	111	107	103	99	95	91	87	83	79	75	71	67	63	59	55
UP							1					1			1
107													1		
103												1			
99				1											
95										1	1				
91							1								
87									1	1					
83			1									1			
79															
75							1	1	1						
71															
67							1	1							
63															
59															
55					1	1									
51	1			1			1								
47		2													
$r = .74$															
$PER = .06$															

TABLE X

VAN WAGENEN READING READINESS SCORES
 FOR GROUP II, AS COMPARED WITH WRITER'S SCORES
 IN RESPECT TO TIME, WORD, AND PARAGRAPH ERRORS

Van Wageningen scores

	57	54	51	48	45	42	39	36	33	30
UP								1		1
60									1	
57									1	
53										
50										
47										
44						1				
41								1	1	
39										
36		1		1	1					
33				1		2				
30						1		1		
27					1					
24					1					
21			1							
18		1					1			
15				1	1					
12		2								
9	1									
$r = .81$ $PER = .03$										

Writer's Test Scores

TABLE XI

VAN WAGENEN READING READINESS SCORES
FOR GROUP II, AS COMPARED WITH WRITER'S TEST
SCORES IN RESPECT TO WORD AND PARAGRAPH ERRORS

Van Wageneh scores

	57	54	51	48	45	42	39	36	33	30	
UP				1						1	
54											
51											
48									2		
45								1			
42											
39											
36											
33						3					
30		1						1	1		
27				1	1						
24											
21				1				1			
18					1						
15			1		1	1					
12		1				1					
9		1			1						
6	1	2									
	$r = .65$										$PER = .08$

Writer's Test Scores

CHAPTER V

SUMMARY AND CONCLUSIONS

It has been the aim of this study to determine the accuracy of the Van Wagenen Reading Readiness Test in predicting the reading achievement of kindergarten and beginning first-grade pupils. The writer has attempted to discover if the predictive accuracy is sufficient to warrant the administering of the Van Wagenen Test to furnish adequate and accurate guidance for the placement of individual pupils.

The reading achievement for both groups was measured during the last two months of the final school term. The correlations of the reading readiness test and the three reading achievement tests yielded coefficients which ranged from .54 to .81. Such correlations indicate that the Van Wagenen test probably will be valuable in selecting children who might have difficulty and who might require special attention in reading. Furthermore, the Van Wagenen test might warrant the separation of children into groups for a special program of reading preparation.

The Binet mental age and reading readiness scores presented a fairly high correlation. The scores of this study indicated that a Binet mental age of at least

sixty-two months was needed to score forty or "average" on the standard scoring chart for the Van Wagenen test. For the most part, the children with low mental ages were in the lower scoring bracket of the Van Wagenen test.

The Van Wagenen scores of Group II correlated with the Gray Oral Reading Test revealed a coefficient of .74 with a probable error of .06. It seemed advisable to discover the correlation of the Metropolitan Group Test with the same reading achievement test. It was interesting to note that the coefficient of correlations for both the Van Wagenen and the Metropolitan tests were exactly the same in this study. This correlation tends to indicate that the accuracy of the Van Wagenen and the Metropolitan make them equally reliable for selecting children who might have difficulty in reading. Thus, one would not be able to indicate from the results of this study whether the group test or the individual test should be used to determine reading readiness.

In the Van Wagenen test the word errors for Group I were lower than the paragraph errors. This would seem to indicate that it was easier for children to recognize words individually than in series of sentences. On the other hand, Group II made more errors in the words than in the paragraphs, which indicated that as a group these children read word combinations better than isolated

words. Probably this was caused by a difference in the reading technique used by the two teachers.

The results of the Gray Oral and the Writer's tests indicated that many children who can read, score very low on the standardized reading achievement test if graded according to Gray's standard scoring chart. This seems to present the argument against the use of the standardized test for first grade and kindergarten children.

In summary, the following data of Group I were noteworthy:

1. The correlation between the Van Wagenen reading readiness and Binet mental age scores is .73.
2. The correlation between the Van Wagenen and Gray Oral time and error scores is .58.
3. The correlation between the Van Wagenen and Gray Oral reading error scores is .54.
4. The correlation between the Van Wagenen and Writer's time, word, and paragraph scores is .60.
5. The correlation between the Van Wagenen and Writer's word and paragraph scores is .65.

The following data of Group II were noteworthy:

1. The correlation between the Van Wagenen and the Metropolitan reading readiness scores is .57.
2. The correlation between the Van Wagenen and Gray Oral time and error scores is .74.

3. The correlation between the Van Wagenen and Gray Oral reading error scores is .68.

4. The correlation between the Van Wagenen and Writer's time, word, and paragraph scores is .81.

5. The correlation between the Van Wagenen and Writer's word and paragraph scores is .65.

In view of the limitations of this study, the conclusions to be drawn were:

1. The Van Wagenen and Metropolitan Reading Readiness Tests were equally reliable for selecting children who might have difficulty in reading.

2. No child with a mental age of less than five years, two months scored forty or "average" on the reading readiness test.

3. Kindergarten children who can read scored below the scoring bracket on the standardized reading achievement test. This presented the argument against the use of standardized tests for reading beginners.

4. The Van Wagenen Reading Readiness Test had high enough correlations to indicate that it contributes valuable information for the selection of children for special reading preparation.

The following questions which require research beyond the limits of the investigation reported have been raised in the mind of the writer:

1. How would the predictive accuracy of the Van Wagenen correlate the Lee, Clark, and Lee Test and other group reading readiness measures?

2. How would the predictive accuracy of the Van Wagenen test correlate with other tests of visual and auditory perception, language development, background of experience, and social behavior?

3. Would the predictive accuracy of the Van Wagenen test be higher if it had been possible to determine reading achievement at the conclusion of a year or more of reading instruction?

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APPENDIX

READING READINESS TEST

40

Developed by
M. J. VAN WAGENEN
University of Minnesota

Name..... Last..... First..... Middle..... Sex..... Form Used.....

Parent's Name..... Address.....

Date 19..... Year..... Month..... Day.....

Date of Birth 19..... Year..... Month..... Day..... School.....

Age..... Years..... Months..... Examiner.....

C-SCORE INDIVIDUAL PROFILE CHART

For use with Form A or B, or Average of Forms A and B

Rating	RANGE OF INFORMATION	PERCEPTION OF RELATIONS	VOCABULARY (OPPOSITES)	MEMORY SPAN FOR IDEAS	WORD DIS-CRIMINATION	WORD LEARNING	MID-C-SCORE
	60	60	60	60	60	60	60
	59	59	59	59	59	59	59
	58	58	58	58	58	58	58
<i>Superior</i>	57	57	57	57	57	57	57
	56	56	56	56	56	56	56
	55	55	55	55	55	55	55
	54	54	54	54	54	54	54
	53	53	53	53	53	53	53
	52	52	52	52	52	52	52
	51	51	51	51	51	51	51
	50	50	50	50	50	50	50
<i>Good</i>	49	49	49	49	49	49	49
	48	48	48	48	48	48	48
	47	47	47	47	47	47	47
	46	46	46	46	46	46	46
	45	45	45	45	45	45	45
	44	44	44	44	44	44	44
	43	43	43	43	43	43	43
	42	42	42	42	42	42	42
<i>Average</i>	41	41	41	41	41	41	41
	40	40	40	40	40	40	40
	39	39	39	39	39	39	39
	38	38	38	38	38	38	38
	37	37	37	37	37	37	37
	36	36	36	36	36	36	36
	35	35	35	35	35	35	35
	34	34	34	34	34	34	34
<i>Mediocre</i>	33	33	33	33	33	33	33
	32	32	32	32	32	32	32
	31	31	31	31	31	31	31
	30	30	30	30	30	30	30
	29	29	29	29	29	29	29
	28	28	28	28	28	28	28
	27	27	27	27	27	27	27
	26	26	26	26	26	26	26
<i>Poor</i>	25	25	25	25	25	25	25
	24	24	24	24	24	24	24
	23	23	23	23	23	23	23
	22	22	22	22	22	22	22
	21	21	21	21	21	21	21
	20	20	20	20	20	20	20

RANGE OF INFORMATION

DIRECTIONS FOR GIVING SCALES A and B

When the child is ready to take the test and is comfortably seated across the table from you, begin with Question 1, repeating it if necessary. If the child gives the correct answer, (the one in parentheses following the question), put a "C" on the line to the right following the question. If no answer, or an incorrect answer, is given, do not enter any mark after the question. Proceed with the rest of the questions in the same way. Accept as correct only the answers given in the parentheses. If Form B also is to be administered, proceed directly from the Range of Information Scale A to the Range of Information Scale B, as outlined in the Manual. This procedure applies to all of the Scales except the last one — the Word Learning Test. (See Manual.)

In scoring a child's responses to the test, count the number of questions correctly answered, and find this number in the column at the right of the test under "Number right." Opposite this number is the child's "C-Score." Enter both at the bottom of the page. When both Scales are given, the two C-Scores should be added, the sum divided by 2, and the result written after "Average C-Score" at the bottom of Scale A. This Average C-Score should be entered under "Range of Information" on the C-Score Individual Profile Chart on the first page (front cover) by encircling the dot after the number corresponding to the child's Average C-Score. A C-Score higher than 60 should be written in the blank space at the top of the column. A C-Score lower than 20 should be entered at the bottom of the column. When the Cumulative Individual Profile Chart is used, the C-Scores on each Form should be entered at the bottom of the Chart as indicated. For the interpretation of the C-Scores and the Profile Charts, see the Manual.

Follow this same procedure in finding and recording the C-Scores on the succeeding Scales.

RANGE OF INFORMATION—Scale A

Scale Value		Number Right	C-Score
32—	1. What does a rubber ball do when you drop it? (bounces) - - - - -	1	16
33—	2. What is the color of an apple before it is ripe? (green) - - - - -	2	21
34—	3. What do we call a man who raises corn and wheat? (farmer) - - - - -	3	24
35—	4. What is the shape of an orange? (round) - - - - -	4	27
36—	5. What is the outside of a nut called? (shell) - - - - -	5	30
37—	6. What are baby dogs called? (puppies) - - - - -	6	32
38—	7. What do we chew with? (teeth) - - - - -	7	33.5
39—	8. Whom was Red Riding Hood going to see? (grandma, grandmother) - - - - -	8	35
40—	9. What is used to cut a board in two pieces? (saw) - - - - -	9	35
41—	10. What do we get our heat from out-of-doors? (sun) - - - - -	10	38.5
42—	11. What bird has a red breast? (robin) - - - - -	11	40
43—	12. How many cents are in a dime? (ten) - - - - -	12	42
44—	13. Who is president of the United States? (Roosevelt*) - - - - -	13	43.5
45—	14. What day comes after Wednesday? (Thursday) - - - - -	14	45
46—	15. What is a thermometer for? (measures temperature, how hot, how cold) - - - - -	15	46
47—	16. What is a baby cow called? (calf) - - - - -	16	47.5
48—	17. In what game is a bat used? (baseball) - - - - -	17	49
49—	18. What did the Indians hunt with? (bow, arrow) - - - - -	18	50.5
50—	19. What is candy made of? (sugar) - - - - -	19	52
51—	20. In what game are touchdowns made? (football) - - - - -	20	53.5
52—	21. What did Cinderella lose at the ball? (shoe, slipper) - - - - -	21	55
53—	22. What do butterflies come from? (caterpillars, cocoons) - - - - -	22	57
54—	23. What animal does pork come from? (pig, hog) - - - - -	23	58.5
55—	24. How many eggs are in a dozen? (12) - - - - -	24	60
56—	25. What time of the year do trees get their new leaves? (spring) - - - - -	25	62
57—	26. What is a collie? (dog) - - - - -	26	65
58—	27. How do you play a cornet? (blow) - - - - -	27	68
59—	28. In what game is a home run made? (baseball) - - - - -	28	71
60—	29. In what kind of boats did the white people first come to America? (sailboats) - - - - -	29	75
61—	30. How many cents are in a quarter? (25) - - - - -	30	80+

* Name President at the time test is given.

Number right - - - - -

C-Score - - - - -

Average C-Score on Forms A and B - - - - -

RANGE OF INFORMATION — Scale B

Scale Value		Number Right	C-Score
32 — 1.	What color are the keys of a piano? (white and black) - - - - -	1	16
33 — 2.	What is the shape of a ball? (round) - - - - -	2	21
34 — 3.	What do bees make that we eat? (honey) - - - - -	3	24
35 — 4.	What is the outside of an egg called? (shell) - - - - -	4	27
36 — 5.	What is used to chop a tree down? (ax) - - - - -	5	30
37 — 6.	In what did Lindbergh cross the Atlantic Ocean? (airplane, flying machine) - - - - -	6	32
38 — 7.	What do acorns grow on? (trees, oaks) - - - - -	7	33.5
39 — 8.	What kind of animals has a trunk? (elephant) - - - - -	8	35
40 — 9.	What do we get our light from in the daytime? (sun) - - - - -	9	37
41 — 10.	What is a sparrow? (bird) - - - - -	10	38.5
42 — 11.	What do we use to push in screws? (screw-driver) - - - - -	11	40
43 — 12.	What does a chauffeur drive? (automobile, auto, car) - - - - -	12	42
44 — 13.	What does wood come from? (trees) - - - - -	13	43.5
45 — 14.	What kind of birds is black all over? (black-bird, crow) - - - - -	14	45
46 — 15.	When does the sun rise? (morning, dawn) - - - - -	15	46
47 — 16.	From what animal do we get butter? (cow) - - - - -	16	47.5
48 — 17.	From what animal do we get wool? (sheep) - - - - -	17	49
49 — 18.	What is the Atlantic? (ocean) - - - - -	18	50.5
50 — 19.	What is a baby sheep called? (lamb) - - - - -	19	52
51 — 20.	What was the name of the boy who climbed the Beanstalk? (Jack) - - - - -	20	53.5
52 — 21.	What time or what o'clock is it at midnight? (twelve) - - - - -	21	55
53 — 22.	What is a pair of scales for? (to weigh, to find out how heavy) - - - - -	22	57
54 — 23.	What is a hornet? (bee) - - - - -	23	58.5
55 — 24.	What is an airdale? (dog) - - - - -	24	60
56 — 25.	What animal does beef come from? (cow, steer) - - - - -	25	62
57 — 26.	What did the Indians cross a lake with? (canoe) - - - - -	26	65
58 — 27.	Where does the sun set in the evening? (in the west) - - - - -	27	68
59 — 28.	Who was the first president of the United States? (Washington) - - - - -	28	71
60 — 29.	What is used to make street cars go? (electricity) - - - - -	29	75
61 — 30.	What was Cinderella's coach or carriage made from? (pumpkin) - - - - -	30	80+

Number right - - - - -

C-Score - - - - -

PERCEPTION OF RELATIONS

DIRECTIONS FOR GIVING SCALES A and B

When the child is comfortably seated, say to him. "I am going to tell you a pair of words that go together. Then I want you to tell me a pair that go together in the same way. I will give a pair like **sky — blue**. Blue is the color of the sky. Now you tell me a word that goes with **grass** in the same way." (If the child does not give "green" in a few seconds or if he gives a wrong word, tell him "green." "The grass is green just as the sky is blue.")

"Now let us try another pair. **Dog — barks**. What word goes with **bird** in the same way that **barks** tells what a dog does?" If the child fails or cannot do it, ask him, "What kind of a noise does a bird make? Yes, a bird sings (or chirps). All right, a **dog barks** but a **bird?** (sings or chirps).

"**Cats scratch** but **dogs?**" If the child fails, tell him, "When cats scratch they hurt. Now what does a dog do to hurt you? Yes, a dog bites just as a cat scratches."

Now proceed with the following tasks as a preliminary test. Use the statements and questions below each task to assist the child in case he fails on it.

eat — bread drink — ? (water, milk, coffee)
We eat bread. What do we drink?

boys — walk birds — ? (fly, hop)
To go from one place to another boys walk. How do birds go from one place to another?

hat — head shoe — ? (foot)
You wear a hat on your head and a shoe on your — ?

dog — legs car — ? (wheels, tires)
Dogs run on their legs but a car runs on its — ?

day — light night — ? (dark)
During the day it is light but at night it is — ?

foot — toes hand — ? (fingers)
You have toes on your foot. When do you have on your hand?

Now proceed with Scale A in the same way, giving the child time enough to think of the right responses.

In giving the test give only the three stimulus words, giving them slowly enough for the child to see the relation between the first two words. Do nothing to aid him in seeing the relation during the test, however. In case he does not seem to understand what to do, go over the directions with him again but do not tell him the correct answers to any of the tasks in the Scale itself.

Put a "C" on the line to the right of the question if correctly answered. Any answer other than those in the parentheses should be counted wrong and no mark recorded for it. If Scale B is to be administered, proceed to it directly after finishing Scale A. (See Manual.)

In scoring, follow the same procedure as given in the Directions for Giving the Range of Information Scales A and B.

PERCEPTION OF RELATIONS—Scale A

Scale Value	Stimulus Words		Answer	Number Right	C-Score
32 — 1.	butter	yellow	milk (white) - - - - -	1	16
33 — 2.	eat	noon	sleep (night) - - - - -	2	21
34 — 3.	pencil	write	knife (cut) - - - - -	3	24
35 — 4.	see	eyes	hear (ear) - - - - -	4	27
36 — 5.	wash	face	sweep (floor) - - - - -	5	30
37 — 6.	skate	winter	swim (summer) - - - - -	6	32
38 — 7.	cat	small	horse (large, big) - - - - -	7	33.5
39 — 8.	snow	white	coal (black) - - - - -	8	35
40 — 9.	stone	hard	fur (soft, smooth) - - - - -	9	37
41 — 10.	summer	rain	winter (snow) - - - - -	10	38.5
42 — 11.	honey	bees	milk (cows) - - - - -	11	40
43 — 12.	box	wood	bottle (glass) - - - - -	12	42
44 — 13.	dog	animal	rose (flower) - - - - -	13	43.5
45 — 14.	draw	pictures	sing (songs) - - - - -	14	45
46 — 15.	sleep	bed	eat (table) - - - - -	15	46
47 — 16.	hurry	early	slow (late) - - - - -	16	47.5
48 — 17.	hold	fast	let (go, loose) - - - - -	17	49
49 — 18.	eat	hungry	drink (thirsty) - - - - -	18	50.5
50 — 19.	air	birds	water (fish) - - - - -	19	52
51 — 20.	knee	leg	elbow (arm) - - - - -	20	53.5
52 — 21.	fish	fins	bird (wings) - - - - -	21	55
53 — 22.	foot	leg	hand (arm) - - - - -	22	57
54 — 23.	wind	air	rain (water) - - - - -	23	58.5
55 — 24.	dog	puppy	cat (kitten) - - - - -	24	60
56 — 25.	wagon	horse	cars (engine, motor) - - - - -	25	62
57 — 26.	wind	blows	rain (falls) - - - - -	26	65
58 — 27.	up	above	down (below) - - - - -	27	68
59 — 28.	sunshine	sun	rain (clouds) - - - - -	28	71
60 — 29.	drink	water	breathe (air) - - - - -	29	75
61 — 30.	noises	hear	colors (see) - - - - -	30	80+

Number right - - - - -

C-Score - - - - -

Average C-Score on Forms A and B - - - - -

PERCEPTION OF RELATIONS — Scale B

Scale Value	Stimulus Words		Answer	Number Right	C-Score
32 — 1. birds	fly	fish	(swim) - - -	1 —	16
33 — 2. work	day	sleep	(night) - - -	2 —	21
34 — 3. apple	eat	milk	(drink) - - -	3 —	24
35 — 4. lemon	sour	sugar	(sweet) - - -	4 —	27
36 — 5. father	mother	brother	(sister) - - -	5 —	30
37 — 6. block	square	ball	(round) - - -	6 —	32
38 — 7. horn	blow	bell	(ring) - - -	7 —	33.5
39 — 8. pickles	sour	candy	(sweet) - - -	8 —	35
40 — 9. pen	write	needle	(sew) - - - -	9 —	37
41 — 10. drink	mouth	breathe	(nose) - - - -	10 —	38.5
42 — 11. berry	bush	apple	(tree) - - - -	11 —	40
43 — 12. tailor	clothes	baker	(bread, cake, pie)	12 —	42
44 — 13. skate	ice	swim	(water) - - - -	13 —	43.5
45 — 14. fall	down	jump	(up) - - - - -	14 —	45
46 — 15. apple	skin	nut	(shell, crack) -	15 —	46
47 — 16. nose	face	finger	(hand) - - - -	16 —	47.5
48 — 17. foot	shoe	hand	(glove, mitten) -	17 —	49
49 — 18. rose	red	buttercup	(yellow) - - - -	18 —	50.5
50 — 19. rose	bush	oak	(tree) - - - - -	19 —	52
51 — 20. wood	burns	snow	(melts) - - - - -	20 —	53.5
52 — 21. cough	throat	sneeze	(nose) - - - - -	21 —	55
53 — 22. cat	fur	bird	(feathers) - - -	22 —	57
54 — 23. feathers	light	stones	(heavy) - - - - -	23 —	58.5
55 — 24. air	airplane	water	(boat, ship) - - -	24 —	60
56 — 25. bread	flour	candy	(sugar) - - - - -	25 —	62
57 — 26. dog	animal	carrot	(vegetable, plant)	26 —	65
58 — 27. lamp	light	stove	(heat) - - - - -	27 —	68
59 — 28. cold	freeze	hot	(burn) - - - - -	28 —	71
60 — 29. silver	white	gold	(yellow) - - - - -	29 —	75
61 — 30. up	down	above	(below) - - - - -	30 —	80+

Number right - - - - -

C-Score - - - - -

VOCABULARY (OPPOSITES)

DIRECTIONS FOR GIVING SCALES A and B

When the child is comfortably seated, say to him, "I am going to give you some words like **warm — cold**. Sometimes you feel warm and sometimes you feel — ?" Supply the word **cold** if he does not give it. "**Cold** is the opposite of **warm**, isn't it? Now, when I tell you a word, you tell me its opposite.

When I say **warm**, you say **cold**.

When I say **no**, you say — (yes)."

If he hesitates, tell him **yes**, and then add, "Sometimes mother says **no** and sometimes she says — ?" In the rest of this practice list tell him the answer when he hesitates too long or gives a wrong word.

When I say **little**, you say — ? (big)

When I say **up**, you say — ? (down)

When I say **go**, you say — ? (stop, come)

When I say **cold**, you say — ? (warm, hot)

Yes, — ? (no)

New, — ? (old)

Begin with stimulus word 1 in Scale A and proceed down the list, putting a "C" after each answer correctly given by the child. Any answer other than those given in the parentheses should be counted wrong and no mark recorded for it.

Do not repeat "When I say — you say" during the test itself. If the child does not seem to understand what to do, go over the directions again, using the stimulus words in the directions only as long as necessary. Even if the child seems to understand but fails on the first words, go over the directions with him again.

In case he begins to use "not" in combination with the stimulus word, ask him, "What is a word that means not — ?" If he uses not — in response to the next stimulus word, ask him again, "What is a word that means not — ?" After he has given the correct answer or failed to do so, tell him, "Now see if you can think of just the **one** word to use for the opposite of each word."

Do not give him the correct answer to the test items. Do not expect him to do many of the harder tasks correctly but if he seems to have lost the idea of what he is to do, give him some of the stimulus words in the directions to put him on the right track. If Scale B is to be administered, proceed to it directly after finishing Scale A. (See Manual.)

In scoring, proceed as in the preceding Scales.

VOCABULARY (OPPOSITES) — Scales A and B

Scale A

Scale B

Scale Value	Stimulus Words	Answer	Stimulus Words	Answer	Number Right	C-Score
23 — 1.	clean	(soiled, unclean, dirty)	1. front	(back, rear) - - -	1	7
24 — 2.	in	(out) - - - - -	2. stop	(go, start) - - -	2	9
25 — 3.	shut	(open) - - - - -	3. left	(right) - - - - -	3	15
26 — 4.	boy	(girl) - - - - -	4. slow	(fast, quick, rapid)	4	18
27 — 5.	crooked	(straight, vertical)	5. open	(shut, close, closed)	5	21
28 — 6.	soft	(hard, loud) - - -	6. wrong	(right, correct) -	6	23
29 — 7.	asleep	(awake) - - - - -	7. early	(late) - - - - -	7	24.5
30 — 8.	wet	(dry) - - - - -	8. easy	(hard, difficult) -	8	26
31 — 9.	empty	(full, filled) - - -	9. dark	(light) - - - - -	9	28
32 — 10.	brother	(sister) - - - - -	10. brother	(sister) - - - - -	10	29.5
33 — 11.	high	(low) - - - - -	11. high	(low) - - - - -	11	31
34 — 12.	bad	(good) - - - - -	12. bad	(good) - - - - -	12	33
35 — 13.	large	(small, little) - - -	13. long	(short) - - - - -	13	34.5
36 — 14.	late	(early) - - - - -	14. quick	(slow) - - - - -	14	36
37 — 15.	bottom	(top) - - - - -	15. loud	(soft, low) - - -	15	37
38 — 16.	short	(tall, long) - - -	16. come	(go) - - - - -	16	38.5
39 — 17.	rich	(poor) - - - - -	17. lost	(found) - - - - -	17	40
40 — 18.	night	(day, morning) -	18. white	(black) - - - - -	18	41.5
41 — 19.	east	(west) - - - - -	19. you	(me, I) - - - - -	19	43
42 — 20.	sick	(well) - - - - -	20. tight	(loose, relaxed) -	20	44.5
43 — 21.	sweet	(sour) - - - - -	21. sweet	(sour) - - - - -	21	46
44 — 22.	black	(white) - - - - -	22. this	(that) - - - - -	22	48
45 — 23.	thick	(thin) - - - - -	23. thick	(thin) - - - - -	23	49.5
46 — 24.	throw	(catch) - - - - -	24. throw	(catch) - - - - -	24	51
47 — 25.	lose	(find) - - - - -	25. rough	(smooth) - - -	25	53
48 — 26.	first	(last) - - - - -	26. first	(last) - - - - -	26	56
49 — 27.	tame	(wild) - - - - -	27. tame	(wild) - - - - -	27	59
50 — 28.	above	(below) - - - - -	28. above	(below) - - - - -	28	62
51 — 29.	over	(under) - - - - -	29. her	(him) - - - - -	29	66
52 — 30.	near	(far, distant) - - -	30. north	(south) - - - - -	30	71+

Number right - - - - -

C-Score - - - - -

Average C-Score on Forms A and B -

MEMORY SPAN FOR IDEAS

DIRECTIONS FOR GIVING SCALES A and B

When the child has been comfortably seated, say to him, "I am going to tell you something. As soon as I have said it, you tell it back to me just as I said it." Then say to him:

My hat is new.

If he hesitates, tell him, "Now you say it." If he still hesitates, repeat the sentence "My hat is new." After he has correctly repeated this sentence, give him the following samples in the same way except that they should not be repeated unless absolutely necessary:

The wind blew my hat off.

In winter we wear thick, heavy coats.

When the samples have been finished, begin with sentence Number 1 on Scale A, speaking it clearly and at a normal rate just as you would speak any sentence. If he repeats it after you correctly, put a "C" on the line after the sentence. Do not repeat any sentence unless there has been an outside interruption. Do not let him start repeating a sentence until you have finished speaking. Go through the sentences in order. When the child has failed on eight consecutive sentences the test may be stopped, and Memory Span for Ideas, Form B, begun, if Form B is to be administered.

In this case the directions will not need to be repeated but the child should be told, "Now we shall try some short sentences again, like the first ones we did." Thereupon proceed with Memory Span for Ideas, Form B, until the child has failed on eight consecutive sentences.

In scoring, proceed as in the preceding Scales.

MEMORY SPAN FOR IDEAS—Scale A

Scale Value		Number Right	C-Score
18—	1. Children like to play with dogs and cats. - - - - -	1	4
20—	2. He may get new shoes for Christmas. - - - - -	2	10
22—	3. I will give you five cents for that big apple. - - - - -	3	15
24—	4. If it rains tomorrow, I cannot go with you. - - - - -	4	18
26—	5. Girls like to play with dolls better than boys do. - - - - -	5	21
28—	6. He has an old pair of warm mittens. - - - - -	6	24
30—	7. You must ask your mother if you may go. - - - - -	7	26.5
32—	8. Wait for me and I may go with you. - - - - -	8	29
34—	9. In summer the little birds sing in the tall trees. - - - - -	9	31
36—	10. I have to get up earlier in summer than in winter. - - - - -	10	33
38—	11. We have no dogs or cats at our house this year. - - - - -	11	35.5
40—	12. In winter the ponds freeze over and we can skate. - - - - -	12	38
42—	13. I have two new sleds and one pair of old skates. - - - - -	13	40
44—	14. I like to play ball better than I like to work hard. - - - - -	14	42
46—	15. When it storms hard, I have to stay in the house to keep dry. - - - - -	15	44.5
48—	16. The sun rises later in the West than in the East. - - - - -	16	47
50—	17. That big black long-haired dog chased me all the way home. - - - - -	17	49
52—	18. In summer when the days are very long I like to play out doors late. - - - - -	18	51.5
54—	19. In winter when the ground is white with snow it looks very pretty. - - - - -	19	54.5
56—	20. Sometimes in the winter the wind blows the snow into great big banks. - - - - -	20	57
58—	21. When the sky is clear and the weather is warm we like to play out doors. - - - - -	21	60
60—	22. The clouds are big and black, the storm is coming fast, we must hurry on. - - - - -	22	63
62—	23. When the trees begin to bud and the flowers begin to bloom spring is here. - - - - -	23	68
64—	24. The milk we like to drink comes from cows, the apples we like to eat grow on trees. - - - - -	24	75
66—	25. Children who live where the weather is cold have to wear heavy clothes when they go out doors. - - - - -	25	84+
	Number right - - - - -		
	C-Score - - - - -		
	Average C-Score on Forms A and B - - - - -		

MEMORY SPAN FOR IDEAS — Scale B

Scale Value		Number Right	C-Score
18 —	1. I wear rubbers to keep my feet dry. - - - - -	1 —	4
20 —	2. He may get new shoes for Christmas. - - - - -	2 —	10
22 —	3. When the snow is deep I wear high boots. - - - - -	3 —	15
24 —	4. He wears his big coat to keep warm. - - - - -	4 —	18
26 —	5. Sometimes in winter the snow gets very deep. - - - - -	5 —	21
28 —	6. He has an old pair of warm mittens. - - - - -	6 —	24
30 —	7. You must ask your mother if you may go. - - - - -	7 —	26.5
32 —	8. I have two dogs and three cats to play with. - - - - -	8 —	29
34 —	9. These are my new skates and old sled. - - - - -	9 —	31
36 —	10. Snow falls in winter, but in summer it rains. - - - - -	10 —	33
38 —	11. In summer when the weather is warm we play ball. - - - - -	11 —	35.5
40 —	12. I go to bed earlier in winter than in summer. - - - - -	12 —	38
42 —	13. When it rains very hard, I sometimes ride to school. - - - - -	13 —	40
44 —	14. I have no brother and no sisters to play with at home. - - - - -	14 —	42
46 —	15. I like to come to school because here I can play with other children. - - - - -	15 —	44.5
48 —	16. In summer I would rather live in the country than in the city. - - - - -	16 —	47
50 —	17. If I get up late, I have to hurry to get to school on time. - - - - -	17 —	49
52 —	18. In summer when the days are long, I do not like to get up early. - - - - -	18 —	51.5
54 —	19. It is great fun to watch little kittens or little dogs playing together. - - - - -	19 —	54
56 —	20. The leaves come on the trees in the spring and fall off in the autumn. - - - - -	20 —	57
58 —	21. When the frost comes in the fall the leaves begin to drop off the trees. - - - - -	21 —	60
60 —	22. In summer we learn to swim in the water, in winter we skate on the ice. - - - - -	22 —	63
62 —	23. Boys like to play out doors in the cold when the snow is deep on the ground. - - - - -	23 —	68
64 —	24. To play out late in summer is such fun we do not want to go to bed. - - - - -	24 —	75
66 —	25. To play out doors in winter you put on your boots, your coat, your cap and your mittens. - - - - -	25 —	84+
	Number right - - - - -		
	C-Score - - - - -		

WORD DISCRIMINATION

DIRECTIONS FOR GIVING SCALES A and B

For this test, a special card and cut-out are needed in addition to the test booklet. The child should be seated by your side. Then say to him, "I am going to show you some lines of words. In each line on the card, the words will all be alike except one. One will not be like the others. You pick this one out and point to it." Use the cut-out so that only the one line of words that is being examined can be seen by the child. Let him try the samples above Scale A on the card. If he does not find the right word in the sample, show it to him. After he has had time to see that it is different from the others, move the cut-out down over the next line. Make no marks on the cards. If he is very slow with his samples, urge him to work more quickly. When all the samples have been completed, begin with Line 1 in Scale A. When the right word is pointed out, put a "C" after the corresponding line in the test booklet. Do this as unobtrusively as possible so as not to distract the child's attention from the test. Move the cut-out down over the next line and proceed. When Scale A has been finished, turn over the child's card and let him do Scale B in the same way, if Form B is to be administered.

In scoring, proceed as in the previous Scale.

SAMPLES

man	man	freight	man	man
tall	summer	tall	tall	tall
find	find	alto	find	find
tail	tail	tail	tail	tool
same	same	same	some	same

WORD DISCRIMINATION — Scale A

Scale Value						Number Right	C-Score
25 — 1.	get	get	forget	get	get - - - - -	1 —	0
26 — 2.	eat	beat	eat	eat	eat - - - - -	2 —	0
27 — 3.	put	pretty	put	put	put - - - - -	3 —	0
28 — 4.	mud	mud	muddy	mud	mud - - - - -	4 —	0
29 — 5.	rain	grain	rain	rain	rain - - - - -	5 —	4
30 — 6.	eat	heat	eat	eat	eat - - - - -	6 —	13
31 — 7.	arm	arm	arm	warm	arm - - - - -	7 —	17
32 — 8.	and	and	sand	and	and - - - - -	8 —	21
33 — 9.	pan	pan	pan	pane	pan - - - - -	9 —	24
34 — 10.	rat	rat	rat	bat	rat - - - - -	10 —	27
35 — 11.	fat	feat	fat	fat	fat - - - - -	11 —	29
36 — 12.	sail	sail	jail	sail	sail - - - - -	12 —	31
37 — 13.	let	let	lap	let	let - - - - -	13 —	33
38 — 14.	farm	farm	farm	harm	farm - - - - -	14 —	35.5
39 — 15.	same	game	same	same	same - - - - -	15 —	38
40 — 16.	nine	nine	nine	none	nine - - - - -	16 —	40.5
41 — 17.	plat	plat	plate	plat	plat - - - - -	17 —	43
42 — 18.	cat	cat	sat	cat	cat - - - - -	18 —	45.5
43 — 19.	pane	pane	pant	pane	pane - - - - -	19 —	48
44 — 20.	fails	fails	fails	false	fails - - - - -	20 —	51
45 — 21.	fine	fine	find	fine	fine - - - - -	21 —	55
46 — 22.	stair	stair	stair	stare	stair - - - - -	22 —	60
47 — 23.	mine	mind	mine	mine	mine - - - - -	23 —	66+

Number right - - - - -

C-Score - - - - -

Average C-Score on Forms A and B - - - - -

WORD DISCRIMINATION — Scale B

Scale Value						Number Right	C-Score
25 — 1.	ton	button	ton	ton	ton - - - - -	1 —	0
26 — 2.	sin	sin	sinner	sin	sin - - - - -	2 —	0
27 — 3.	man	man	mantle	man	man - - - - -	3 —	0
28 — 4.	let	letter	let	let	let - - - - -	4 —	0
29 — 5.	rain	chain	rain	rain	rain - - - - -	5 —	4
30 — 6.	arm	charm	arm	arm	arm - - - - -	6 —	13
31 — 7.	rain	rain	vain	rain	rain - - - - -	7 —	17
32 — 8.	sin	sin	sink	sin	sin - - - - -	8 —	21
33 — 9.	arm	arm	arm	alarm	arm - - - - -	9 —	24
34 — 10.	end	end	send	end	end - - - - -	10 —	27
35 — 11.	lace	lace	lake	lace	lace - - - - -	11 —	29
36 — 12.	sail	sail	jail	sail	sail - - - - -	12 —	31
37 — 13.	loop	loop	loop	leap	loop - - - - -	13 —	33
38 — 14.	bet	bet	bar	bet	bet - - - - -	14 —	35.5
39 — 15.	rain	rain	rate	rain	rain - - - - -	15 —	38
40 — 16.	gain	gain	grain	gain	gain - - - - -	16 —	40.5
41 — 17.	plat	plant	plat	plat	plat - - - - -	17 —	43
42 — 18.	last	last	fast	last	last - - - - -	18 —	45.5
43 — 19.	rattle	rattle	riddle	rattle	rattle - - - - -	19 —	48
44 — 20.	mine	mine	mane	mine	mine - - - - -	20 —	51
45 — 21.	plain	plain	plane	plain	plain - - - - -	21 —	55
46 — 22.	list	fist	list	list	list - - - - -	22 —	60
47 — 23.	rain	raid	rain	rain	rain - - - - -	23 —	66+

Number right - - - - -
 C-Score - - - - -

METROPOLITAN READINESS TESTS

By GERTRUDE H. HILDRETH, Ph.D.

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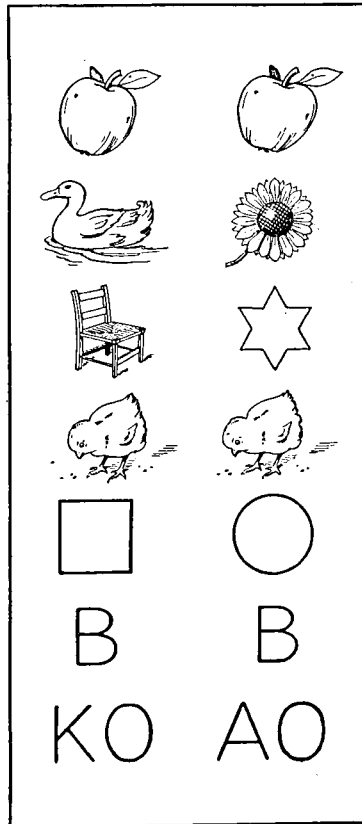
For Kindergarten and Grade 1

Name Date 19...

Grade Age ... yrs ... mos. Teacher

School City State

TEST	SCORE
1. Similarities	
2. Copying	
3. Vocabulary	
4. Sentences	
5. Numbers	
6. Information	
Total	
P.R.	



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Gray Oral
Reading Paragraphs
Test

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STANDARDIZED ORAL READING PARAGRAPHS

By William S. Gray

Name..... Age Today.....
Years Months
 Race..... Sex..... Grade.....
 City..... State..... Date.....
 School..... Teacher.....

Directions to the Teacher

Each child should be tested apart from the others in a room by himself. Give him an unused folder. Take another folder and fill in the above blanks before beginning the reading. As the child reads, record his efforts, using the marks presented on the class record sheet, and following the directions printed there as accurately as possible.

WRITER'S TEST FOR GROUP I

A. Word List

ride	Jim	I
said	Judy	too
and	faster	away
went	Tags	to
go	Mother	is
this	Father	fun
farm	the	want
car	it	off
in	we	laughed
farmer	like	calf
get	hay	wagon
horses	up	on
rides	sees	house
boys	girls	

B. Paragraphs

Jim said, "I ride."
 I ride faster and faster.
 "Ride, Judy, ride," said Jim.
 Away went Judy.

Judy went faster and faster, too.
 Tags went away.
 Away we go, too.
 Go to Mother, Tags.

Off went Tags.
 Judy laughed and laughed.
 Is this mother?
 Go to Father and Mother.

"Is this fun?" laughed Mother
We go to the farm.
I want to go to the farm.
See the car.

Away we go in the car.
It is fun to ride in the car.
This is the farmer.
"I like the calf," said Father.

Get it, Tags.
"Get in the wagon," said the farmer.
The calf wants the hay.
I want to get the hay.

Judy sees the horses.
The horses see the wagon.
The farmer went up on the hay.
Judy sees the house.

See the boys and girls.
The boys went up to the house.
See the girls go to Mother.
Away went the hay wagon.
Judy rides the horse.
Father wants to ride.

WRITER'S TEST FOR GROUP II

A. Word List

go	Mother	Sally
Jane	and	Dick
wants	Spot	something
jump	play	come
where	yellow	run
make	my	red
it	up	not
ball	big	the
me	in	to
here	cookies	you
see	Baby	house
oh	Tim	work
Puff	said	little
Father	is	we
a	blue	three
two	for	find
down	car	

B. Paragraphs

See Mother go.
 Oh, oh, oh!
 See Baby Sally go.
 See Jane go.

Mother sees something.
Baby wants something.
Tim sees something.
Look, Dick and Jane.

Baby Sally said, "Look, look."
Funny, funny Spot.
Look and see.
Dick said, "Oh, oh."
Funny, funny Puff.

Come and jump.
Jane said, "Jump, Father."
Come and see Father.
See Father jump and play.
Mother can jump and play.
Sally said, "Run, Puff."
Run, run, run.
Puff can run and jump.

It is down, down, down.
Father said, "Look, Baby."
It comes up.
See it work.
See it go down, down.

I want Tim.
Dick can not jump down.
I can not find the ball.
I see the big ball.
Spot can find the little ball.
Find the little ball.

Run and help Mother work.
Mother said, "Come, come."
Run to the car and help me.
Puff wants to go in the car.
You can not go in the car.

Mother is here.
Sally is here.
Tim is here in the car.
Look down and see something.
Away we go in the car.

I see three big cookies.
One for me and one for Spot.
Where is the cookies for Spot?
Here is a cookie for you.

See the yellow car go.
See the blue car go away.
I want to go away.
I want to go in the red boat.
It is red and yellow.
Here is something red and blue.
Jump in, jump in.

I can make three big cookies.
One, two little cookies.
Dick said, "I can make a house."
A blue boat is in it.
Down comes my little house.

I can not find the two boats.
Jump in the big blue boat.

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