

WE CAN KNOW WHEN A CHILD IS READY TO READ

HARRIET SEAY BINION and ROLAND L. BECK

Central State College, Edmond.

Some teachers with considerable experience in the field of primary reading believe that very few children should be taught to read before they are seven and not even the brightest ones before they are six. Many children injure their eyes by reading at too early an age. Some children who learn to read in a few weeks when they are eight years old would have to take at least two years if they started at five or six. There are many activities that are as valuable as reading, if not more so, for some first-grade children, and the subject of reading should be postponed until the child has a readiness for reading.

Numerous experimental studies have shown that from 20 percent to 30 percent of the pupils (ordinarily about six years of age) entering the first grade do not have sufficient maturity to succeed normally in formal reading activities.

Until comparatively recent times all children of six years of age were given reading instruction regardless of their physical, mental, emotional, and social maturity. Within the past few years the factors that influence readiness to read have been studied intensively. It is now generally agreed that "the factors which make for reading success can be measured to a reasonable degree" (Harrison 1936: 59).

With this problem in mind the writers of this paper constructed a test to measure reading readiness. For the past two years data have been collected and evaluated to determine to what extent the test was really a test of a child's readiness for reading.

This reading readiness test has two major purposes: (1) to aid the teacher in determining whether or not pupils entering first grade are ready to learn to read, and (2) to classify children in particular types of instruction, thus securing the development of right attitudes and habits and the prevention of wrong ones.

Ability or readiness to learn to read is increased by intellectual, physical, and personal development: This test is designed to determine whether or not these necessary factors of readiness to read are present in the child. The exercises which compose the reading readiness test require the child to bring into use the developed factors in his physical, mental, emotional, and social development.

The answers to the exercises are hidden within pictures; therefore the child must interpret the meanings or get the ideas from his experiences. The answers given correctly represent the usable factors possessed by the child; the answers given incorrectly indicate a lack of psychological and neutral development (cf. Binion 1941).

This test does not induce free thinking on the part of the child but requires ideas controlled by the factors which should be present before the child can happily and successfully participate in reading of first grade level.

The factors that presumably influence reading readiness are the bases upon which the exercises contained in this test were selected. The factor studies of Harrison (1926: 5-30), Hildredth (1936: 148-9), Townsend (1935), and Gates and Bond (1936) were used. Harrison's classification of the factors under the three major heads, (1) intellectual development, (2) physical development, and (3) personal development, was helpful in selecting factors from all three groups. The selection of the factors and the psychology and philosophy of the test were based on the following sources: Fredrick and McGlade (1938), Hobson (1939), Johnson (1939), Lee and Clark (1934), Yoakam, Veverka, and Abney (1940), and the Thirty-sixth Year Book of the National Society for the Study of Education (1939: 79)

About 45 minutes of working time are required to complete the test.

RELIABILITY

The reliability of the test is based on the results from seven schools in three different types of communities. The schools range from a small town school to a school in a restricted building site area of a city of two hundred thousand.

The reliability of the test ($.953 \pm .0041$) was calculated with 223 cases. The even-odd method was used to secure these data. A coefficient of correlation of .95 is about 69 per cent better than guess. A coefficient of reliability of .94, according to Kelley, is high enough for individual diagnosis.

DIFFICULTY

The items of Test I are arranged in increasing order of difficulty. The percentage of correct responses varies from 99 to 88. This indicates that Test I is not very difficult. Although the test does not discriminate well, the easy items are needed to allow for individual differences. The rows of Tests II and III are arranged in increasing order of average difficulty. However, the items of the various rows of these tests are not arranged in order of difficulty. The range of difficulty for items in Tests II and III is from 92 to 38 per cent of correct responses.

In Test IV the percentage of the maximum score for tracing the hand is 62, and the percent who assembled the parts of the car correctly is 70. First, each child was asked to draw a line around all his fingers and his thumb. Second, a picture of a car was cut into six pieces and the child was told to make a picture with the pieces.

VALIDITY

Coefficients of validity were calculated between scores on the reading readiness test, given in September, and reading tests given in May of the same school year. These coefficients of validity range from .47 to .69. Types I, II, and III of the Gates Reading Test were used in securing these data.

Correlations between Pintner-Cunningham mental ages (Tests were given in September) and results of the Gates Reading Test vary between .37 and .44.

The correlations in this study between the Gates Reading Tests and the

Binion-Beck Reading Readiness Tests are higher than those between the Gates Reading Tests and Pintner-Cunningham mental ages.

Other coefficients of validity between the reading readiness test scores and other reading test scores are $.497 \pm .1267$, $.342 \pm .1539$, $.524 \pm .1122$, $.474 \pm .1307$, and $.573 \pm .0813$. Coefficients of validity between the reading readiness test scores at the beginning of the year and teachers' estimates of ability to read at the end of the year are $.703 \pm .0762$, $.662 \pm .0847$, $.447 \pm .1394$, $.574 \pm .0811$, and $.331 \pm .0609$. Validity coefficients range from 5 to 29 per cent better than guess while teachers' grades usually range from 8 to 20 per cent better than guess.

Correlation between the reading readiness test scores and those on the Lee-Clark Reading Readiness Test is $.680 \pm .0492$, and the correlation with results of the Willis W. Clark Reading Readiness Test of Row, Peterson and Company is $.515 \pm .1166$.

The coefficient of correlation between the reading readiness test scores and chronological age (C. A.) is $.413 \pm .0570$. The correlation between the reading readiness test scores and I. Q. (Pintner-Cunningham Primary Test 1939) is $.585 \pm .0452$, and the correlation between the reading readiness test scores and mental age is $.741 \pm .0310$. The data show that mental age is a better criterion of reading readiness as measured by the test than I. Q. or C. A. In other words, these data indicate that the test is a better measure of maturity than brightness.

Although these data for the validity of the test are subject to further study, compared to the data given for other reading readiness tests, they do justify the use of the test. In the teacher's manual, norms are given for the total test and averages are given for each test and total tests.

INTERPRETATION OF DATA

The tests combined are diagnostic, but the individual tests are not, and one should give all of the tests before dividing the pupils into groups. The P. E. av. for the combined tests is .578.

Perhaps the best plan to follow after the test has been given is to divide the children of the room into three sections. Students who are ready for formal reading will be above the median or 50 percentile on the test—that is, they will make 59 or more points on the test. The second group should include students between the 25 and 50 percentiles or those making scores between 49 and 59 on the test. This group should be given additional time and experience before the pupils are given the same work that those in the upper group will prove themselves capable of doing. Pupils making 49 points or less should spend time in building up their readiness to read before they are given books which they are expected to learn to read. Three groups which do not follow these division lines may be more suited to some school rooms; the grouping depends on the community in which the school is located.

By testing all children who entered the first grade Binion discovered that the children who failed were those who were mentally immature. She also found that most of these children, if given reading activities, would acquire such a feeling of dislike for reading that they would have difficulty throughout the school year.

LITERATURE CITED

- Binion, Harriet Seay. 1941. Do we know when a child is ready to read? *Proc. Okla. Acad. Sci.* 21: 139.
- Fredrick, Paul and Charles A. McGlade. 1938. A validation of two prognostic tests of reading aptitude. *Elementary School Journal* 39: 187-194.
- Gates, Arthur I. and Guy L. Bond. 1936. Reading readiness: A study of factors determining success and failure in beginning reading. *Teachers College Record* 37: 679-685.
- Harrison, M. Lucile. 1936. Reading readiness. Boston: Houghton Mifflin Company
- Hildreth, Gertrude. 1936. Learning the three R's. Minneapolis: Educational Publishers, Inc.
- Hobson, James R. 1939. Reducing first grade failures. *Elementary School Journal* 37: 30-40.
- Johnson, Eleanor M. 1939. Busy brownies, diagnostic pre-primer reading workbook. Columbus (Ohio): American Education Press, Inc.
- Lee, J. Murray, Willis W. Clark and Dorris May Lee. 1934. Measuring reading readiness. *Elementary School Journal* 34: 656-666.
- Thirty-Sixth Yearbook, National Society for the Study of Education. 1939. Report of the national committee on reading. Bloomington, Illinois: Public School Publishing Company.
- Townsend, W. B. 1935. When to start reading activities. *The Instructor* 44, Oct.: 18, 72.
- Yoakam, Gerald, M. Madilene Veverka and Louise Abney. 1940. Reading activities: reading readiness. Chicago: Laidlaw Brothers, Inc.