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Associated Factors of Word Element Perception As They Relate to Success in Beginning Reading.

Pub Date 2 May 69


EDRS Price MF-$0.25 HC-$0.50

Descriptors: *Alphabets, *Beginning Reading, Phonemes, *Phonics, Reading Readiness, Sight Vocabulary

Three hundred children from two metropolitan areas were studied for 1 year to determine (1) the relationship between letter-name knowledge and reading success, (2) the relationship between letter-name learning and phonic learning, and (3) the ease and efficiency of vowel identification. The study concluded that the sooner a child learns the letter names the greater his achievement in reading. Letter-name knowledge carries over to the learning of letter sounds, and short vowels in isolation are 1.7 times harder to identify than short vowels in phonograms. Implications of the study are discussed. The learning of letter names is seen as the background for phonics and as an important element in the accurate perception of word structure and the building of a large sight vocabulary. Systematic learning of phoneme identification in spoken words is viewed as essential to successful learning in beginning reading. (RT)
Associated Factors of Word Element Perception As They Relate to Success in Beginning Reading

by

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Presented IRA Convention Kansas City
May 2, 1969

The research for this study was conducted in two metropolitan areas over a one year period. The population consisted of three hundred first grade children in fourteen classrooms.

Specifically the investigation was concerned with:
1. The relationship between letter name knowledge (including rate of learning, ease of learning) and reading success as measured by June reading achievement.
2. The relationship between letter name learning and phonic learning.
3. The ease and efficiency of vowel identification ability in various situations.

To obtain statistical information the following tests were administered:

September: 1. Murphy - Durrell Reading Readiness Test
          2. Pinter - Cunningham Primary Test

June:      3. Stamford Primary Reading Test
          4. Informal measures to test vowel identifications.
Question #1

How readily can children learn both upper and lower-case letter names?

To answer this question the total population was tested on their ability to identify upper and lower-case letters named at school entrance. Each child was then provided with ten days of intensified letter name activities. The program consisted of heavy emphasis upon tracing, and writing letters. The pupils worked in teams of two or three children or with the teacher. At the end of the ten day period they were re-tested. The median scores at the beginning of the ten day period were 17 upper-case and 12 lower-case letters known. From the 300 students, 100 were selected who scored fewer than 10 lower-case letters at school entrance and were compared to 100 students who knew 20 or more at school entrance. The late letter knowledge group, children who identified fewer than 10 lower-case letters at school entrance, went from a median of 4 upper-case to 19 and from a median of 3 to 16 lower-case letters. The early letter knowledge group, knew 20 or more at school entrance, and went from a median of 22 to 25 upper-case and 19 to 23 lower-case. Intelligence was held constant, and therefore was not a factor.

Conclusion: Letter names can be learned easily during a ten day period.
Question #2

How important is the early acquisition of letter names to reading achievement?

In December the early letter name group and the late letter name group were tested on their ability to hear sounds in isolation, hear sounds in words and to identify phonograms. The results indicated that there was no statistical difference between groups in hearing sounds in isolation but in hearing sounds in words and phonogram identification the difference was statistically significant at the .01 level favoring the early letter name group.

On the June achievement test the early letter knowledge group scored 3 months higher than the late letter knowledge group on the word reading test and 5 months better on paragraph meaning. Both differences were statistically significant at the .01 level.

Conclusion: The sooner a child learns the letter names the greater his achievement in reading.
Question #3

What is the relationship between letter name learning and phonic learning?

The tests of 100 children who knew fewer than 10 lower-case letter names in November were selected to answer this question. Each test item was scored for letter name knowledge and the ability to identify sounds in words. Of the 14 consonants whose names contain their phonemes, ("long e" letters b, d, p, t, v; "short e" letters f, l, m, n, s; "long a" letters j, k; "soft g and c" letters c(city), g(george)). Knowledge of letter names appears to assist in identifying sounds in spoken words. Of the consonants whose names were known 71% of the sounds were identified; if the names were not known only 32% of the sounds were identified. Of the 6 consonants whose names do not contain their phonemes (h, q, w, y, c(cut) and g(go) knowledge of letter names did not aid in identifying sounds in words. If the letter name was known 40% of the sounds were identified and 36% if the letter name was not known.

Conclusion: Letter name knowledge apparently carries over to letter sounds.
Question #4
Is it easier for the pupil to identify short vowels separately than to recognize short-vowel phonograms?

Short-vowel phonograms were presented in a multiple-choice situation with each cluster using different vowels but the same consonant ending. The children were asked to identify vowel sounds when presented in isolation and in phonograms. For example: (ack, ick, ock, uck, and eck)

Test #1 - Find the \( \tilde{a} \) and circle it.
Test #2 - Find the ack and circle it.

The results indicated that it was 1.7 times more difficult for the children to identify the short vowels in isolation than when they are in phonograms. High and low frequency phonograms were also tested but the difference was not statistically significant.
Implications of Study

Letter Name Knowledge:

The importance of letter name knowledge is significant enough that kindergarten teachers might well consider analyzing pupil backgrounds at school entrance, or at least by the second semester. Children who do not know letter names by the second semester should be provided with instruction to assure this knowledge. This instruction need not be meaningless drill; it is apparent that letter name learning may be done through whole words, with meaning maintained. Since the desire to write comes early, prior to the fourth year, the writing of words might be encouraged. The fact that the very bottom children in this study learned more than half of the letter names in a ten day period, and observations during the teaching were that the learning was exciting and satisfying to these children, leads to the conclusions that letter names can be taught readily to very young children.

If letter names are not learned prior to first grade entrance, it is apparent that such learning should take place immediately, before providing, in substantial amounts, other advanced stages of the reading program. Since letter names indicates a high familiarity with letter forms, the child can perceive word structures more accurately. The transfer of the phonetics in the letter name to phonics, demonstrates that letter names are the background for phonics, in fact, the letter names are the child's first phonics learning. Although one would not preclude all forms of word recognition prior to letter name mastery, certainly no large amount of sight vocabulary can be mastered until the child perceives the separate letters accurately, nor can one expect
easy learning of the sounds represented by the letter until letter names are known. Clearly, the casual scattering of letter name learning throughout the first grade is not an acceptable practice.

**Phoneme Identification:**

Careful systematic teaching of phoneme identification in spoken words is essential to successful learning in beginning reading. Since many kindergarten children arrive at first grade with good ability in phoneme identification, it appears that others might profit from phoneme identification training in kindergarten. Beginning first graders who are deficient in phoneme identification ability must be aided at once. High intelligence does not assure phoneme identification ability. The program designed to teach phoneme identification should provide teaching at all positions in spoken words (initial, middle and final).

**Vowels in Phonograms:**

The fact that children are able to identify short vowels in phonograms easier than short vowels in isolation may indicate that early teaching of vowels might well be done through phonograms. Variation in vowel sounds has always been a source of difficulty. The sounds of vowels are relatively secure in phonograms; it is the following consonants in phonograms that usually determine the vowel value. If the child is more secure in responding to sounds of letter clusters in phonograms, as indicated in these findings, perhaps phonograms are the best source of introducing short vowel sounds in reading.
Teaching Phonograms:

In regard to the order of teaching of short vowel sounds, the findings of this study indicate that the frequency of the phonogram is the major element in mastery. There were no differences found in mastery of short and long vowel phonograms. Apparently, the place to start is with the phonograms which generate the greatest number of primary grade words.