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COMMON AND DIFFERENTIAL FACTORS IN READING VOCABULARY AND HEARING VOCABULARY

IRVING H. ANDERSON AND GRANT FAIRBANKS

Numerous studies have shown that recognition of word meaning is closely related to reading ability. All of these studies, however, measured reading vocabulary only. This research attempts to determine how recognition of read and heard words compares, and how the two types of vocabulary are related to reading ability. Since material is held constant, but the mode of presentation is varied, this approach should make possible the study of certain common and specific elements in the abilities to recognize words read and heard, and to determine the manner in which this relationship is affected by reading ability.

Two hundred and twenty university freshmen were tested. Form C of the *Inglis Tests of English Vocabulary* was used to measure reading vocabulary, while an unselected sample of 50 items from Form B of the Inglis Tests was recorded phonographically and used to test hearing vocabulary. Both forms of the Inglis Tests are primarily designed to test the student's reading rather than his active, everyday vocabulary.

The correlation between scores on the reading vocabulary test and scores on the test of hearing vocabulary was .80 (corrected for attenuation, .95). The group mean score on the reading vocabulary test was 92 as compared to the weighted mean score of 90 on the test of hearing vocabulary. These results indicate that vocabulary ability is a centrally determined function, operating, on the average, independent of the mode of presentation of material.

Figure 1 shows that the lowest fifteen per cent in reaching ability of the subjects in this study scored higher in hearing vocabulary than in reading vocabulary. In the median and superior groups, however, this relationship is reversed, the group means in each case being higher for the reading vocabulary. The differences between mean vocabulary scores for the poor, median, and good groups are statistically significant, being 3.28, 2.81, and 3.86 times the $SD_{diff.}$ respectively. In this paper we shall consider only the significance of the fact that poor readers are able to understand more words when they hear rather than read them.

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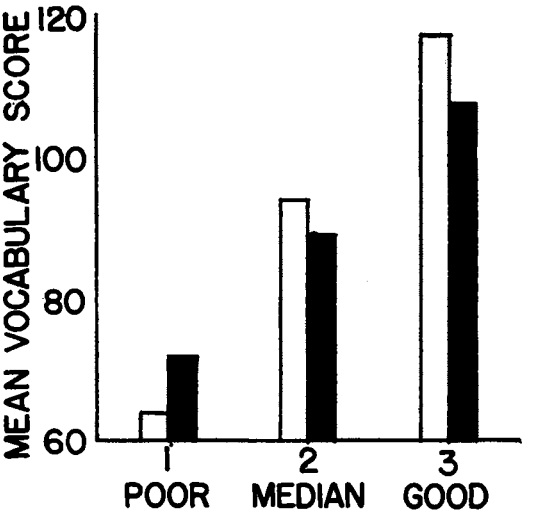

Figure 1. Mean Reading Vocabulary Scores and Mean Hearing Vocabulary Scores for Poor, Median, and Good Readers. *Legend*: Open bars, reading vocabulary; solid bars, hearing vocabulary.

Bond has found a significant difference between good and poor readers in auditory acuity, auditory discrimination, and auditory perception. These handicaps in poor readers would hinder the development of hearing vocabulary more than reading vocabulary. Yet in spite of these auditory limitations, poor readers recognize more words when they hear rather than read them. Thus, the question with poor readers is not why their hearing vocabulary is superior, but why their reading vocabulary is inferior.

Poor readers encounter in their silent reading many words which they cannot recognize visually. If they hear these words, however, they will recognize many which they could not identify visually. Thus, if they have mastered phonics sufficiently to attack and pronounce strange words, the auditory and kinesthetic cues thus supplied will aid them in recognizing these words.

Fairbanks and Swanson have shown that poor readers among freshmen make many errors of pronunciation in their oral reading. In such cases the faulty pronunciation is not an aid in recognizing words which are meaningless visually. However, if these words are pronounced for them, and in the way that they have learned to recognize them in conversation, poor readers will recognize many words the meaning of which they could not identify visually or by their faulty pronunciation and word attack. The fact that the hearing vocabulary test was administered under the above con-

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ditions probably accounts for the superiority shown by poor readers in their mean hearing vocabulary scores.

From a clinical point of view, this analysis is important. Word-blindness is a condition in which an individual has not yet associated the visual symbol with the proper sound of the word. The sight of the word alone arouses no feeling of familiarity. If the individual is able to attack the word phonetically, and if he recognizes the word as having occurred in his auditory experience, in time the sight of the word alone will carry the meaning. The difficulty occurs in those individuals who, because of an inadequate foundation in phonics, cannot attack strange words correctly, *i.e.*, words that are strange visually. In such cases remedial work in reading requires instruction and drill in phonics. The results of this study seem to indicate that not only children, but also a considerable number of adults are in need of this type of training.

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