

THE PEABODY PICTURE VOCABULARY TEST: WHAT DOES IT MEASURE?

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Summary.—There has been some question as to what the Peabody Picture Vocabulary Test measures. Although research indicates it has inadequate validity as a test of intelligence, other studies indicate it is an adequate measure of language ability. The present study correlated and factor analyzed the results from the Peabody test with results from a measure of linguistic and intellectual functioning. The analysis indicates that the test is not an adequate measure of either linguistic or intellectual abilities.

The Peabody Picture Vocabulary Test is widely used as a measure of intelligence. The author of the test (Dunn, 1965) claims that the test provides an estimate of the child's verbal intelligence through measuring his hearing vocabulary. Although the test is reliable (Taylor, *et al.*, 1972), several validity studies (Shaw, *et al.*, 1966; Brown & Rice, 1967) have indicated that the Peabody has inadequate validity as a measure of intelligence. Teasdale (1969) recognized these arguments and conducted a study in which he evaluated the test as a measure of language ability. To measure language ability Teasdale (1969) used the Illinois Test of Psycholinguistic Abilities and concludes that the Peabody test may be used as a measure of language ability rather than a measure of intelligence. The aim of the present study is to clarify what the Peabody measures by correlating scores on it with a measure of language ability and intelligence.

Subjects were 133 children (65 boys, 68 girls) of lower socioeconomic status attending kindergarten and Grade 1 in four communities in the Province of Newfoundland and Labrador. The Peabody (Form A), the Wechsler Preschool and Primary Scale of Intelligence, and the Illinois Test of Psycholinguistic Abilities were administered individually to all subjects by experienced examiners.

The Pearsonian correlations between Peabody and the WPPSI subtests were: Information 0.41; Vocabulary 0.20; Arithmetic 0.49; Similarities 0.58; Comprehension 0.48; Animal House 0.41; Picture Completion 0.38; Mazes 0.30; Geometric Design 0.30; Block Design 0.54; Total Verbal 0.55; Total Performance 0.48; and Total IQ 0.57. It appears that over-all, the verbal sections of the WPPSI correlate more highly with the Peabody than the performance sections, as expected. However, none of the correlations with an individual subtest are particularly high nor are the correlations between the Peabody and the WPPSI totals particularly high. Thus, it is fair to question whether the Peabody really is a good measure of intelligence.

Does the Peabody, as Teasdale claims, measure language ability? The correlations between the Peabody and subtests of the Illinois Test of Psycholinguistic Abilities are: Auditory Reception 0.51; Visual Reception 0.46; Visual Memory 0.34; Auditory Association 0.57; Auditory Memory 0.41; Visual Association 0.51; Visual Closure 0.37; Verbal Expression 0.22; Grammatic Closure 0.51; Manual Expression 0.26; Auditory Closure 0.17; Sound Blending 0.36; and Total score 0.33. Thus, contrary to Teasdale's (1969) findings, the Peabody does not provide a good measure of language ability. In fact, it correlates more highly with specific abilities than it does with over-all language ability as indicated by the Total score on the psycholinguistics scale. The contention that the Peabody is a measure of language ability must seriously be questioned.

To clarify what the Peabody does measure the scores were factor analyzed with both the results from the WPPSI and Illinois Test of Psycholinguistic Abilities by an oblique analysis according to a program described by the Statistical Package for the Social Sciences (Nie, *et al.*, 1970).¹ Only those factors with eigenvalues greater than 1.00 were used in the rotation (Rummel, 1968). For the WPPSI the Peabody loaded on the same factors as the Information, Vocabulary, Arithmetic, Similarities, Comprehension, Block Design, and Animal House subtests. Other than Animal House and Block Design these subtests make up the verbal portion of the Wechsler test. The factor analysis of scores on the Peabody and the psycholinguistics test indicated that the Peabody loaded on the same factor as Auditory Reception, Auditory Association, Auditory Memory and Grammatical Closure. Since in the structure of the psycholinguistics test, these subtests measure clearly different aspects of linguistic function, no identifiable factor is evident.

On the basis of the present study it can be concluded that the Peabody is a somewhat better measure of intellectual functioning at only the verbal level than a measure of linguistic functioning as defined by the subtests of the Illinois Test of Psycholinguistic Abilities. However, as the correlations between the Peabody and the preschool Wechsler are all under 0.60, even the use of the Peabody as a measure of intelligence must be regarded with some skepticism. At best the Peabody should be used as a supplementary tool and should not be utilized on its own as a measure of either intellectual or linguistic abilities.

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¹Tables of correlations and factor loadings have been filed as Document NAPS-02722 with Microfiche Publications, 440 Park Avenue South, New York, N. Y. 10016. Remit \$3.00 for microfiche or \$6.75 for photocopy.