

RESOURCE REVIEW

Boehm PV - Test of Basic Concepts: Preschool Version Kit

Ann E. Boehm

Harcourt Brace Jovanovich Canada, Inc.

Cost: \$90.00

Reviewers:

Elizabeth Skarakis-Doyle

Dalhousie University

Norma Wood

Nova Scotia Hearing and Speech Clinic

The stated purpose of the *Boehm - Preschool Version* (Boehm PV) is to measure a child's knowledge of twenty-six basic relational concepts considered necessary for achievement in early school years. The author claims that it can be used to identify weaknesses in basic concept comprehension.

The test consists of five pictured practice items, and fifty-two test items which measure size, direction, position in space, quantity and time concepts. Each of the twenty-six concepts is tested twice. Items are presented in a picture stimuli book displaying either three or four pictures per page. One concept is tested per page. In contrast to the *Boehm Test of Basic Concepts*, the *Boehm PV* allows for individual assessment of a child and requires a pointing response rather than a graphic one. Prompts are allowed only on practice items and repetitions are allowed on test items, when the child is not attending. Both percentile and T scores are available. No special training is required to administer this test, thus, a variety of professionals could do so, including classroom teachers, special educators, and speech-language pathologists.

Relational terms, as described by the authors, figure centrally in successful early education. Thus, the *Boehm PV* potentially could provide clinicians with a measure of important linguistic/conceptual behaviors of preschool children. With this in mind, both practical and psychometric aspects of this test were reviewed. From a practical perspective, administration and scoring of the test is simple and straightforward. However, there is no formal mechanism to account for a child's self-corrections. The scoring protocol is clearly laid out, but its size is rather unwieldy, making it difficult to mark in a discrete manner, out of the child's view.

Applying the criterion established by McCauley and Swisher (1984) for reviewing the psychometric properties of language tests, the clear strengths of this test are the size and stratification of the standardization population (a total of 400 children) with 70-90 at each age level between 3 and 5 years. However, we must be aware that Canadian children were not included in this population. Test administration procedures are also clearly presented, in sufficient detail. Qualifications for test administrators are also clearly presented.

Other properties of the test are of mixed adequacy. Two measures of reliability were presented. The internal consistency of the test was good. Insufficient information about the test-retest reliability was provided to judge its adequacy. Thus, we are left wondering how much test results might fluctuate over time. Overall validity of the test does not fair as well, and must be questioned for several reasons. First, no measure of predicative validity was given, and thus, we cannot use results of this test to make decisions regarding the need for treatment. Second, concurrent validity was established with the *PPVT-R* which does not measure the same behavior as the *Boehm PV*. Although an adequate correlation was obtained, the *PPVT-R* does not assess relational terms, but rather comprehension of concrete nouns and verbs predominantly. Therefore, the *Boehm PV* appears to at least measure lexical comprehension, but we are left wondering if it indeed measures knowledge of basic concepts. This means we may not be able to use results from this test to determine the existence of impairment in the children we test, even though the test manual advocates its use for this purpose. Face validity of the test is strong, and credit must be given to the author for the preselection analysis of the test items.

Finally, it is of great concern that the author of this test openly advocates the teaching of the items found in error. In fact, the items are listed in order of teaching ease. This is of great concern because in following this advice we would be teaching children to take this test, a dubious practice at best. The test is not set up as a criterion-referenced measure which would allow such an intervention practice.

The *Boehm PV* was intended to measure preschool children's comprehension of relational terms necessary for success in school, however, certain important aspects of its construction are weak. In general, the *Boehm PV* fares psychometrically about as well as most currently used language tests, which is not very well. This is particularly disappointing, since the practical need for a test which measures the preschool child's understanding of relational terms is so great. Clinicians who consider using this test should only do so with full awareness of its questionable validity. Results should be interpreted with great caution, and diagnostic judgements made only in conjunction with other data.

McCauley, R. and Swisher, L. (1984). Psychometric review of language and articulation tests for preschool children. *Journal of Speech and Hearing Disorders*, 49, 34-42.

Boehm-R The Boehm Test of Basic Concepts Revised Exam Kit

Ann E. Boehm

Harcourt Brace Jovanovich Canada, Inc.

Cost: \$34.00

Reviewers:

Elizabeth Skarakis-Doyle

Dalhousie University

Cindy Dobbelsteyn
Nova Scotia Hearing and Speech Clinic

As described in the test manual, the *Boehm-R* is designed to assess children's mastery of the basic concepts that are fundamental to the comprehension of verbal instructions and necessary for early school achievement. Specifically, the purpose of this test is to identify individual children whose overall level of concept mastery is low, and thus, may need special instruction. Additionally, the *Boehm-R* reportedly identifies individual concepts with which large numbers of children in a classroom may be unfamiliar.

The *Boehm-R* is available in two alternate forms, Form C and D, as was its predecessor. Fifty items are assessed within each form. A new addition to the revised version of this test is a 25 item "Application Booklet". This section of the test assesses mastery of concepts used in combination, used in sequences, and used to make comparisons. It can be administered in conjunction with either form or by itself.

As with the original, the revised version of the test is appropriate for children in kindergarten, grade 1 and 2. It is read aloud to an entire group of children (i.e., a classroom). Children respond by marking an "X" on the item in the test booklet designated by the examiner.

The content of the *Boehm-R* remains essentially the same as that of the original test. However, changes include the addition of seven items, six of which were antonyms of existing items, division of one item into two which separately measure the concepts "first" and "last", and the deletion of eight items (four were moved to preschool version of the test, two were incorporated into the Application Booklet, and two were simply removed).

The author states that the *Boehm-R* can be used for instructional screening, but is not a criterion-referenced tool. It may also be used as "one of a battery of tests" for purposes of assessing readiness or identifying children "at risk" for learning difficulties. Finally, it is stated that the test can be used to measure the effectiveness of instruction.

Instructions for administration are clearly presented. No special qualifications are listed for potential examiners. Available norms include the percentage of children passing each item and percentiles for total scores.

The *Boehm-R* remains essentially the same as its predecessor in its ease of administration and scoring. Speech-language pathologists should be aware that it was designed and standardized as a group test. Thus, administration to an individual child should be considered a *nonstandard* procedure.

In regard to interpretation and use of test results, the author unfortunately advocates several questionable practices. First, it is

suggested that results provide a sound basis for planning intervention. The scoring system, however, lacks refinements which would account for qualitative aspects of a child's performance such as self-correction. Further, items are assessed in a very restricted context, and hence, sample the knowledge of these basic concepts in a very limited way. Such limitations reduce the clinician's confidence in using results to plan treatment. Second, the author also suggests that the *Boehm-R* be used to measure the effectiveness of instruction/treatment. Standardized tests, however, are not designed for this purpose. Criterion-referenced measures are much better suited to this task, but as the author has clearly stated the *Boehm-R* is not such a measure. Further, clinicians cannot confidently interpret an "improved" score as reflecting the child's progress (or teaching effectiveness) since insufficient information regarding the stability of test scores over time is provided. (See discussion of test-retest reliability below.)

The most notable revision in the *Boehm-R* is the addition of the Application Booklet. Certainly, it is a worthwhile endeavor to assess the understanding of concepts used in combination. Some of the stimulus items are, however, quite lengthy. This confounds the assessment of understanding the relationship between concepts and memory capacity, making interpretation of results difficult.

Evaluation of the psychometric properties of this test using the criterion suggested by McCauley and Swisher (1984) revealed the strengths of the *Boehm-R* to be: (1) the description and size of the standardization sample (although clinicians must be aware that Canadian children were not included in this population), and (2) a clear description of administration procedures. Reliability, reflecting both the internal consistency of the test and the stability of results over time were presented. Initially, both appear to be adequate. Closer examination revealed that although the test-retest reliability was high, insufficient information was provided to truly judge its adequacy. Clinicians should also be aware that retesting occurred one week after the original test administration. Given the short interval between testing, high reliability would be expected.

Validity is recognized as the most important element of a standardized test. The *Boehm-R* has good face and content validity. Regarding empirically determined validity of the test, only predictive validity was reported. An adequate correlation was established with school achievement tests given one year after administration of the *Boehm-R*. This would indicate that the *Boehm-R* could identify children who may have difficulty in school. So, it is apparently testing abilities which are relevant to school achievement. We are left wondering if the knowledge of basic concepts is among those abilities, since no report of concurrent validity was given.

The *Boehm-R* was intended for the use of classroom teachers, although speech-language pathologists have modified its procedures in order to assess individual children for some time.

Although the revised version includes a number of changes in content, the test is essentially the same as the original. Clinicians should be aware of the weaknesses in its construction and use it as one of a battery of tests in the diagnostic process. Further, as described previously, clinicians should be very cautious in following some of the suggested uses of the test, as many are not well founded.

McCauley, R., and Swisher, L. (1984). Psychometric review of language and articulation tests for preschool children. *Journal of Speech and Hearing Disorders*, 49, 34-42.

***Boehm-Resource Guide Basic to
Concept Teaching - Complete Set***

Ann E. Boehm

Harcourt Brace Jovanovich Canada, Inc.

Cost: \$300.00

Reviewer:

Elizabeth Skarakis-Doyle

Dalhousie University

The stated purpose of the *Resource Guide* is to explore ways in which children master basic concepts and suggest activities and materials for teacher's use in facilitating this mastery.

The *Boehm Resource Guide for Basic Concept Teaching* consists of the following materials: 1) a teacher's manual with 15 lesson plans, each developing a different basic concept area, 2) 65 concept cards which are brightly colored pictures illustrating the concepts to be taught in each unit, 3) workbooklike materials in the form of duplicating masters, 4) game cards, and 5) a bound picture book.

These materials represent a flexible, thorough curriculum for teaching basic concepts. Suggested activities are structured in three levels consisting of, the introduction of concepts through concrete materials, the spontaneous use of concept words, and the use of concepts at abstract levels. The suggested sequence of teaching is from concrete to abstract, and exposure to the concept in multiple contexts is also advocated. These practices are logical and appear to be consistent with sound educational practices.

This curriculum was intended for classroom teachers, but it could easily be adapted for smaller groups. The speech-language pathologist who used these lessons for language remediation sessions would likely wish to modify the suggested activities. For example, since the child language acquisition literature indicates that comprehension of a term does not necessarily precede its use, a speech-language pathologist might emphasize spontaneous use in a child's speech from the very beginning of training, rather than wait to target this as a second level goal. Also, suggested lessons might be adapted to increase the communicative significance of using the concept terms rather than stress the didactic format given.

Although there is a great deal of flexibility in each lesson, there are no criteria for mastery or even for moving to a different level of instruction provided. Further, there is no independent means for evaluating the effectiveness of instruction with these materials, although the author suggests using the *Boehm-PV* or *Boehm-R* for this purpose. These omissions could be considered either an advantage or disadvantage depending upon the clinician/teacher's philosophy. Finally, clinician's considering acquiring these materials should be aware that they are quite expensive.