

Early Childhood Measurement and Evaluation Tool Review

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Bracken Basic Concept Scale Third Edition: Receptive (BBCS-3: R)

Measurement Areas:

The BBCS-3: R (or “Bracken Receptive” scale) is designed to assess a child’s ability to **receptively comprehend** basic concepts in several areas:

- 1) Colors
- 2) Letters
- 3) Numbers/Counting
- 4) Sizes/Comparisons
- 5) Shapes
- 6) Direction/Position
- 7) Self-/Social Awareness
- 8) Texture/Material
- 9) Quantity
- 10) Time/Sequence

The BBCS-3: R is promoted as a tool for identifying performance in concept comprehension in children from **3 years and 0 months to 6 years and 11 months** of age.

Purpose:

The BBCS-3: R is a norm-referenced language assessment tool that can be used:

- to determine if a child possesses the basic concepts necessary for formal education environments;
- for individual student-based curriculum planning;
- to identify children with speech-language impairments;
- to determine if a child meets eligibility requirements for speech-language services;
- to identify differences in receptive and expressive language performance in children, when used with the BBCS: E.

Length and Structure:

The BBCS-3: R is designed to assess individual children. Administration should take approximately 30-40 minutes depending upon the age and abilities of the child being tested. If only the “School Readiness Composite (SRC)” measure is used (the first 5 concept subtests, see above), the test takes approximately 10-15 minutes.

The complete tool consists of 282 items distributed unevenly across the 10 concept subscales. Items on the BBCS-3: R that are answered correctly are scored ‘1’, and incorrect or non-responses are scored ‘0’. Raw scores, scaled scores, percentiles, descriptive classifications, and age equivalents can be determined for each of the subscales, the Receptive School Readiness Composite (SRC), and the total scale composite.

Materials:

The publisher classifies the BBCS-3: R as a “B level” qualification, targeted to institutions consisting of psychologists, speech-language pathologists, early childhood teachers, and special education teachers with experience and training in standardized testing. The publisher requires the purchaser to be one of the following categories: (a) trained and certified by a recognized institution in a relevant area of assessment (with or without a Master’s degree), (b) a member of the American Speech-Language-Hearing Association or the American Occupational Therapy Association, or (c) possess a Master’s (or Doctorate) degree in psychology, education, or relevant field with training in assessment. The examiner’s manual indicates that paraprofessionals can **administer** the test with qualified supervision.

Since the BBCS-3: R is designed as a complementary tool to the Bracken Expressive scale (BBCS: E), institutions typically purchase both scales together. However, the Bracken Receptive scale kit is also available for standalone purchase through the publisher for USD \$312. The complete kit includes the examiner’s manual, stimulus manual, and 25 English-language record forms. Scoring software is also available through the publisher for USD \$149, and can be purchased packaged-in with the BBCS: E kit at a discount.

Accessibility:

The BBCS-3: R is available in the English and Spanish languages. The examiner’s manual also contains general information pertaining to administering/scoring the test for children of varying cultural groups, as well as prorated scores for children with color blindness.

Administration, Scoring, and Interpretation:

The BBCS-3: R suggests a person with “previous training or experience” in the administration, scoring, and interpretation of standardized tests. Typically, these would include persons with a Master’s degree in education and relevant training in childhood assessment. The examiner’s manual indicates that paraprofessionals can **administer** the test with qualified supervision. The test is moderately easy to administer, moderately difficult to score, and moderately difficult to interpret based on the interpretation guide in the examiner’s manual.

Subscales:

Raw scores for each of the 6 subscales (School Readiness Composite, Direction/Position, Self-/Social Awareness, Texture/Material, Quantity, Time/Sequence) are calculated and can be

converted into scaled scores, percentile scores, descriptive classifications, and approximate age equivalents. Total scores on the BBCS-3: R, based on the child's performance in each of the subscales, can also be compared with scores on the Bracken Expressive scale (BBCS: E) to generate a 'Receptive-Expressive' difference score.

Documentation:

The examiner's manual, which is included in the BBCS-3: R kit contains specific procedures for administration, scoring, and a comprehensive section on interpretation. The manual also includes sections on test standardization, validity and reliability, for both the English and Spanish language test forms. The test was normed on English-language children; therefore normative data for the Spanish-language form is not available.

Norming Sample:

The Bracken Receptive and Bracken Expressive scales were both developed using the same normative sample. This normative sample included 640 children (50% Female, 50% Male) between 3 years 0 months and 6 years 11 months of age. Each 6-month age group contained 160 English-speaking children of varying race/ethnicity across most of the continental USA. The examiner's manual discusses other demographic information in more detail.

As the BBCS-3: R is brand new, academic reviews or studies of the test are not yet available. As such, score interpretation should be completed carefully, especially if used outside of American populations.

A note for Spanish-language populations: it should be noted that the BBCS-3: R was **not** developed with a Spanish-language normative sample. Therefore, the Spanish-language form of the scale should only be used as a "criterion-referenced" or "curriculum-based" measure, and *cannot* be used as a norm-referenced measure. Local norms must be developed for Spanish-language children if norm-referencing is desired.

Reliability:

The BBCS-3: R manual discusses several kinds of reliability measures:

Test-retest Reliability: 87 children belonging to the normative sample were tested and re-tested, yielding "adequate to good" reliability across the age groups that were measured.

Internal Consistency: According to the scale's manual, a split-half test for consistency was conducted using the data from the normative sample, yielding correlation coefficients of .91 to .97 (excellent) for subtest scores, and .95 to .98 for composite scores. Tests for internal consistency were also conducted using the normative sample, based on gender, ethnicity, clinical diagnosis (mental retardation and language impairment) and yielded similar results to the previous analysis; suggesting that the test is also internally reliable for boys, girls, different races/ethnicities, and children diagnosed with mental retardation or language impairments.

It should be noted that since the BBCS-3: R is new, no outside academic reviews or analyses of this scale are available. The preceding summary was based on information in the examiner's manual.

Validity:

A fair amount of validity information is contained in the BBCS-3: R examiner's manual. According to the manual, the BBCS-3: R was developed based on educational standards used by each state in the USA. Each subtest (i.e. Colors, Letters, Shapes) has been developed with American educational standards in mind; therefore suggesting that the BBCS-3: R demonstrates reasonable content validity in each subscale for American populations.

Concurrent Validity: In terms of concurrency with other measures of language performance, the manual discusses two validation studies that were designed to assess whether the BBCS-3: R measured similar language concepts. The first study compared the results of the BBCS-3: R with the results of the Bracken Basic Concept Scale Revised (BBCS-R); the correlations between each scales were moderate to high ($r = .69$ to $.84$) depending on the subscales that were compared. The second study compared the results of the BBCS-3: R with the Preschool Language Scale Fourth Edition (PLS-4); the scores between these scales were moderately correlated (.46 to .77).

Discriminate Validity: The authors of the BBCS-3: R also validated its discriminative validity, or the number of children it correctly identified as having speech-language delays compared with a group of children known to be of 'typical developmental ability'. The authors concluded that based on a sample of 35 children the BBCS-3: R was able to effectively discriminate between children with speech-language impairments and a typical developmental group of children. A similar study was conducted for children who were identified as having cognitive delays compared to a group of children who were of typical cognitive development; the scale was able to discriminate between both groups effectively.

Specificity and Sensitivity: According to analyses completed by the authors, the BBCS-3: R demonstrated a moderately-high false positive rate (49%), and a relatively low false negative rate (8%). Accordingly, the analysis showed a true positive rate of 71%, and true negative rate of 83%.

As with the previous section, it should be noted that since the BBCS-3: R is new, no outside academic reviews or analyses of this scale are available and this review is based on information in the examiner's manual.

Publication Information:

The Bracken Basic Concept Scale Third Edition: Receptive was developed by Bruce A. Bracken. This review is based on the 3rd edition published in 2006 by PsychCorp.

References:

Bracken, B.A. The Bracken Basic Concept Scale Third Edition: Receptive (BBCS: 3R). San Antonio, Texas: Harcourt Assessment, 2006.

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