







What's changed from the BBCS-3:R?

		
Age Range	3:0 through 6:11	3:0 through 7:11
Publication Date	2006	2023
Administration Time	Receptive School Readiness Composite (SRC) subtests 1–5: 10–15 minutes Receptive Total Composite (Receptive TC): 30–40 minutes	School Readiness Subtests (SRS) and SRC subtests 1–6: 10–20 minutes Receptive Total Composite (Receptive TC): 25–40 minutes
Test Administration Options	Paper and Pencil only	Paper and Pencil New! Digital Options: Q-global® <ul style="list-style-type: none"> • Digital Manual • Digital Stimulus Book • Print Record Form • Digital Scoring (purchased separately) Q-interactive® <ul style="list-style-type: none"> • Integrated administration, scoring, and reporting using two iPad® devices connected by Bluetooth®.
Number of Concepts Tested	282 concepts tested Grouped by category and ordered by level of difficulty.	320 concepts tested 159 of these are identified as STEAM* concepts in the Record Form and in the Concept Development Guide. <i>*Science, Technology, Engineering, Art, and Math concepts</i> Grouped by category and ordered by level of difficulty.
Start Points and Discontinue Points	Ability-based start point for subtests 6–10. Use the SRC raw score to identify the letter indicating the Start Point for Subtests 6–10. Discontinue Rule: 3 consecutive scores of 0.	Age-based start points for Subtests 1–10. The Start Point for each subtest is shown on the Record Form. Discontinue Points: Subtests 1–6 (SRS): 3 consecutive scores of 0 Subtests 7–10: 4 consecutive scores of 0.

Text in purple indicates changes from previous version.

		
Subtests Comprising the SRS (School Readiness Subtests) and SRC (School Readiness Composite)	Colors Letters Numbers/Counting Sizes Comparisons Shapes	Colors Letters Numbers/Counting Sizes Comparisons Shapes Self-/Social Awareness
Subtests Not Included in the SRC	Direction/Position Self-/Social Awareness Texture/Material Quantity Time/Sequence	Direction/Position Texture/Material Quantity Time/Sequence
Results by Subtest Scores: <ul style="list-style-type: none"> Scaled scores (mean of 10, standard deviation of 3) for the SRS, Self-/Social Awareness subtest, and subtests 7–10 (reported in 3-month intervals) Percentile ranks Age equivalents Other test information <ul style="list-style-type: none"> Percent mastery (Spanish Record Form only) Descriptive classifications 	BBCS–3:R Subtest Scaled Scores available for: <ul style="list-style-type: none"> Ages 3:0 through 6:11 Receptive SRC, Subtests 1–5 Subtests 6–10 including: <ul style="list-style-type: none"> Direction/Position Self-/Social Awareness Texture/Material Quantity Time/Sequence 	BBCS–4:R Subtest Scaled Scores available for: <ul style="list-style-type: none"> Ages 3:0 through 7:11 Receptive SRC, Subtests 1–6 Self-/Social Awareness (available as a separate subtest score and as part of the SRS) Subtests 7–10, including: <ul style="list-style-type: none"> Direction/Position Texture/Material Quantity Time/Sequence Growth Scale Values (GSVs)
BBCS–4:R Results: Composite Scores <p>Scores</p> <ul style="list-style-type: none"> Standard scores (mean of 100; standard deviation of 15) for the SRC and Total Composite (TC), reported in 3-month intervals Percentile ranks Age equivalents Other test information <ul style="list-style-type: none"> Percent mastery (Spanish Record Form only) Descriptive classifications 	BBCS–3:R Composite Scores available for: <ul style="list-style-type: none"> Ages 3:0 through 6:11 <ul style="list-style-type: none"> Receptive SRC Receptive TC 	BBCS–4:R Composite Scores available for: <ul style="list-style-type: none"> Ages 3:0 through 7:11: <ul style="list-style-type: none"> Receptive SRC Receptive TC
Digital Scoring	Previously available on CD (now out of print)	New! <ul style="list-style-type: none"> Q-global scoring: <ul style="list-style-type: none"> Individual report usages Unlimited use 1- and 3-year subscriptions Q-interactive: <ul style="list-style-type: none"> Included in test administration fee

		
Test Stimuli	Developed in 2003 based on customer feedback and expert content and bias reviews.	Developed in 2017 and 2018 based on customer and examiner feedback, in addition to expert content and bias reviews.
Standardization	<p>Standardization data was collected using print materials from September 2005 to April 2006.</p> <p>N = 640</p> <p>Sample matched to US Census figures in 2003.</p> <p>Included 4.8% of children with a diagnosed receptive and/or expressive language disorder/delay.</p>	<p>Standardization data was collected using Q-interactive. Data were collected from January 2020 to May 2022. An equivalency study examining personal protective equipment (PPE) vs. no PPE was collected October through November 2020.</p> <p>N = 720</p> <p>Sample matched within +/-5% to US Census figures reported in 2019.</p> <p>Included 2% of children identified as Gifted/Talented (GT). Seven percent of children were placed in a special education program (including 0.5% identified with autism spectrum disorder, 1% with a Developmental Delay (DD), 1% with Specific Learning Disability (SLD), 1% Other Health Impairment (OHI), 2.5% with a Language Impairment (LI), and 1% with ADHD).</p>
Reliability Studies	<p>Descriptions in the Manual for evidence of reliability based on:</p> <ul style="list-style-type: none"> • Test-retest stability for all ages from 3:0 through 6:11: For the subtests (1–5 (SRC) and subtests 6–10), the standard difference between the first and second testing ranged from .11 to .39. For composite scores, the standard difference ranged from .19 to .27. • Average internal consistency reliability coefficients (split half) for subtest and composite scores across all ages ranged from .91 to .98 (normative sample). 	<p>Descriptions in the Manual for evidence of reliability based on:</p> <ul style="list-style-type: none"> • Test-retest stability for all ages from 3:0 through 7:11: For the subtests (SRS subtests 1–6 and Subtests 6–10) the standard difference between the first testing and second testing ranged from .07 to .31. For composite scores, the standard difference ranged from .13 to .27. • Average internal consistency reliability coefficients (split half) for subtest scores ranged from .92 to .98. Reliability coefficients for composite scores across all ages ranged from .98 to .99 (normative sample)

Reliability Studies (continued)

- Average standard errors of measurement are based on internal reliability coefficients (split half) for subtest and composite scores across all ages: 0.55 to 0.93 for subtest scores; 1.98 to 3.75 for composite scores.
- Internal consistency reliability coefficients (split half) for subtest and composite scores across all ages ranges by clinical groups range from .96 to .99 (language impairment group) and .97 to .99 (intellectual disability group).
- Average standard errors of measurement are based on internal reliability coefficients (split half) for subtest and composite scores across all ages: 0.48 to 0.84 for subtest scores; 1.80 to 2.40 for composite scores.
- Internal consistency is reported for three groups: Language Impairment (LI), Developmental Delay (DD), and Gifted and Talented (GT). Subtest reliability coefficients for the LI group ranged from .97 to 1.0; composite reliability coefficients for the Receptive SRC and Receptive TC were rounded to 1.0. For the DD group, subtest reliability coefficients ranged from .80 to .99; composites ranged from .97 to .99. For the GT group, subtest reliability coefficients ranged from .62 to .97; composites ranged from .86 to .95. The average subtest reliability coefficients of the three special groups ranged from .91 to .97; the average Receptive SRC and Receptive TC composites were both .96.

Validity Studies

- Descriptions in the Manual for evidence of validity based on:
- Test content
 - National and international expert review and comparison to state early childhood standards.
 - Response processes, including examination of frequently occurring error responses, with items modified or deleted if needed.
 - Internal structure (Intercorrelation analysis): Score intercorrelations of subtests with other subtests across all ages ranged from .54 to .68. Intercorrelations of subtests to the Total Composite ranged from .79 to .86.
- Descriptions in the Manual for evidence of validity based on:
- Test content
 - Literature review, user feedback, national and international expert review, and comparison to state early childhood standards.
 - Response processes, including examination of frequently occurring error responses, with items modified or deleted if needed.
 - Studies of responses collected in a digital format and responses obtained with and without the use of PPE are discussed in the Manual.
 - Internal structure (Intercorrelation analysis): Score intercorrelations across all ages range from .67 to .78 on subtests. For intercorrelations between subtests and composites, the range is .73 to .99. For composite scores: the correlation is .85 for the Receptive TC and Receptive SRC the intercorrelations is .88.

Validity Studies (continued)



- Relationships with other variables:
 - Correlation coefficients between BBCS-3:R and BBCS-R: Corrected r : .69 to .84 (subtests) Corrected r : .85 for both the Receptive TC and Receptive SRC
 - Correlation coefficients between the BBCS-3:R and PLS™-4: Corrected r : .73 with the Receptive TC and .65 with the Receptive SRC
- Special group studies included children diagnosed with Language Impairment:
 - The mean standard difference of subtest scores range from 0.88 to 1.24. Mean standard difference of composite scores is 0.80 for Receptive SRC and 1.31 for Receptive Total Composite).

- Relationships with other variables:
 - Correlation coefficients between BBCS-4:R and BBCS-3:R: Corrected r for subtests range from .42 to .74. corrected r for composites ranged from .74 to .81.
 - Correlation coefficients between BBCS-4:R and WIAT®-4: Correlations between composite scores range from .36 to .74. BBCS-4:R Receptive TC and Receptive SRC correlate most strongly (.64 and .74, respectively) with the WIAT-4 Total Achievement composite.
- Special group studies included children identified with a Language Impairment (LI), Developmental Delay (DD) or Gifted (GT).
 - LI standard difference ranged from 1.88 to 2.22 (subtests) and 2.06 to 2.26 (composites).
 - DD standard difference ranged from 1.86 to 2.41 (subtests) and 2.34 to 2.40 (composites).
 - GT standard difference for subtests ranged from -.06 to -.96. Composites ranged from -.58 to -.98. (The GT group performed better than the matched control group.)

Spanish Version

- The BBCS-3:R test items were adapted or modified from the English items rather than translated (e.g., a comparable Spanish word or phrase is chosen that best expresses the concept in English).
 - Vocabulary options reflecting regional dialectal variations are not provided on the BBCS-3:R Spanish Record Form.
- Research was conducted with 61 Spanish speaking children ages 3:0 through 6:11.

- Some items on the BBCS-4:R Spanish Record Form were modified from items on the English Record Form rather than translated. Modified test items consist of a comparable Spanish word or phrase that best expresses the concept in English.
- Vocabulary options reflecting regional dialectal variations are provided on the BBCS-4:R Spanish Record Form.
- Research data were not collected from a sample of children who speak Spanish as their dominant language. It is not appropriate to use the responses recorded on the BBCS-4:R Spanish Record Form to derive a standard score based on the English normative data. Results may be used as a criterion referenced measure to:

		
<p>Spanish Version (continued)</p>	<p>Evidence of reliability and validity: Evidence of internal consistency: The internal consistency reliability coefficients (split-half) for the Receptive Total for both the Spanish and English editions was .99.</p> <p>Evidence of validity based on internal structure: The correlation of the Receptive Total with BBCS-3 subtests (matched sample of English and Spanish speakers) ranged from .82 to .95.</p>	<ul style="list-style-type: none"> • Determine a child’s baseline level of performance (pretesting), then determine the child’s level of mastery after instruction/remediation has occurred (post-testing) • Validate previous test results and observations about a child’s receptive concept knowledge • Deep-test concept categories not fully assessed on another measure • Identify specific concepts that the child has not mastered that require instruction/remediation so they can be included in the classroom teacher’s lesson plans and/or the child’s Individualized Education Program (IEP) <p>Evidence of reliability and validity Information reported in the BBCS-3:R Manual presents initial evidence of reliability and validity of the BBCS-3:R Spanish. The information obtained using the Spanish Record Form for the BBCS-4:R helps you assess constructs similar to the constructs tested using the English Record Form.</p> <p>Information from the BBCS-3:R Spanish demonstrates that the Spanish version of the test items provide a reliable and valid instrument for criterion-referenced or curriculum-based assessment when used as a part of a comprehensive evaluation. No updated reliability and validity data was collected for the Spanish translation of the BBCS-4:R.</p>