ACADEMIC ACHIEVEMENT ASSESSMENT

OVERVIEW OF INSTRUMENTS

Achievement assessment is typically included in a full individual evaluation for any student considered for special education services. Careful evaluation of academic strengths and weaknesses can provide helpful information about academic and school success, as well as significant insight into factors (general and subject-specific) that are having an adverse impact on academic achievement, including identification of learning gaps that have not previously been noted.

Following is a list of assessments that may be used for students who have or are suspected of having autism spectrum disorder. Included are standardized norm-referenced achievement measures and measures used to determine the level of English language proficiency of students whose native language is one other than English.

BILINGUAL VERBAL ABILITY TESTS (BVAT-NU)

The Bilingual Verbal Ability Tests–Normative Update (BVAT-NU; Muñoz-Sandoval, Cummins, Alvarado, & Ruef, 2005) are based on three tests from the Woodcock-Johnson-Revised Tests of Cognitive Ability [WJ-R] (Woodcock & Johnson, 1989). These include Picture Vocabulary in which learners are asked to name familiar and unfamiliar objects, Oral Vocabulary in which learners are asked to name synonyms and antonyms of selected items and Verbal Analogies, which assesses the ability to comprehend and verbally complete a logical word relationship. All three are given first in English. Items answered incorrectly are then repeated in the learner's home language.

The BVAT-NU yields a Bilingual Verbal Ability score, English Proficiency score, and scores for each subtest. The test has been translated into 16 home languages. If scores are also available for the WJ-R, the scoring program may be used to compare the student's aptitude (bilingual verbal ability [BVA]) with achievement as indicated on the WJ-R. The correlation between the WJ-R and the BVAT-NU is used to determine if the student's level of achievement is higher or lower than expected for students at the same level of bilingual verbal ability. If a student's BVA score is higher than the English language proficiency score and a significant

aptitude/achievement discrepancy exists, this discrepancy will be attributed to limited English proficiency. The BVAT-NU may be used to assess individuals five years old to adults.

Diagnostic Achievement Battery—Fourth Edition (DAB-4)

The Diagnostic Achievement Battery—Fourth Edition (DAB-4; Newcomer, 2014) is a standardized, norm-referenced achievement test used to measure achievement in children from ages 6 to 14. Administration is individual. The eight subtests are: Listening Comprehension, Synonyms, Alphabet/Phonics/Word Identification, Reading Comprehension, Punctuation/Capitalization, Spelling, Mathematics Reasoning, and Mathematics Calculation. Five composites are: Spoken Language, Reading, Writing, Mathematics, and Total Basic Academic Skills. The primary purposes of the DAB-4 are determining strengths and weaknesses, documenting progress, conducting research, and identifying students whose academic skills are below their peers.

Gray Oral Reading Test—Fifth Edition (GORT-5)

The Gray Oral Reading Test—Fifth Edition (GORT-5; Wiederholt & Bryant, 2012) is an individually administered, norm-referenced assessment used to measure oral reading fluency, and comprehension. It yields an Oral Reading Index–composite score. Additionally, it has a system for performing an analysis of reading errors or miscues. As an aid in the diagnosis of oral reading difficulties, it is intended for children aged 0–6 and 11–23.

The GORT-5 was designed to (a) help identify students significantly below level in oral reading ability and those who may benefit from interventions; (b) aid in identifying a student's strengths and weaknesses; (c) document reading progress as a result of specific reading interventions; (d) serve as a research tool in measuring the reading abilities of school-aged children; and (e) use in diagnosing reading disabilities.

Kaufman Test of Educational Achievement—Second Edition (KTEA-II)

The Kaufman Test of Educational Achievement—Second Edition (KTEA-II; Kaufman & Kaufman, 2004) is an individually administered measure of academic achievement for individuals ages 4 to 5 through 25. The comprehensive form assesses achievement in the areas of reading (word reading and comprehension), math (computation, concepts, and application),

written language (writing and spelling), and oral language (oral expression and listening comprehension), yielding both subtest scores and composites scores in each of the four areas. It also contains optional measures of basic reading skills in the areas of phonological awareness, rapid naming, decoding, oral fluency, and reading fluency. Scores are reported as age- or grade-based standard scores, percentiles, and stanines. The KTEA-II is co-normed with the Kaufman Assessment Battery for Children (KABC-II).

KeyMath Diagnostic Assessment—Third Edition (KeyMath 3)

The KeyMath Diagnostic Assessment—Third Edition (KeyMath 3; Connolly, 2007) is an individually administered, norm-referenced inventory designed to assess mathematical skills. Items are divided into three areas: basic concepts, operations, and applications. Each area is further divided into subtests covering kindergarten to ninth-grade math curricula, based on content strands of the national standards set by the National Council of Teachers of Mathematics. Math communication, connections, and reasoning are also assessed. Two written computation subtests (Addition and Subtraction; Multiplication and Division) assess mathematical operations to ensure adequate diagnostic information in this area. Applications subtests measure the individual's ability to apply conceptual knowledge and operations to solve math problems, to identify missing elements, to determine the correct operation needed, and to use problem-solving strategies. Finally, Applied Problem Solving measures the use of standard and nonstandard problem-solving strategies in real-world contexts.

Oral and Written Language Scales, Second Edition (OWLS-II), Reading Comprehension (RC) and Written Expression (WE) Scales

The Oral and Written Language Scales, Second Edition: Reading Comprehension and Written Expression (Carrow-Woolfolk, 2011) is designed to identify oral and written language problems. Receptive aspects of written language are measured through the Reading Comprehension Test and expressive aspects through the Written Expression Test. Each test assesses Lexical/Semantic, Syntactic, Pragmatic, and Supralinguistic structures. Most items on the Reading Comprehension Test require the student to read a prompt and choose from four response options. These two scales are designed to be used along with the Listening

Comprehension and Oral Expression Scales of the OWLS-II in order to yield a comprehensive score profile of language delays and strengths and weaknesses.

Peabody Individual Achievement Test—Revised/Normative Updates (PIAT-R/NU)

The Peabody Individual Achievement Test—Revised/Normative Update (PIAT-R/NU; Markwardt, 1997) is an individually administered achievement assessment designed to be used with students in kindergarten–grade 12 or ages 0–5 and 11–18. This version updates the standardization data as of 2005, but no changes were made to the content of the assessment. Six areas are assessed, including General Information, Reading Recognition, Reading Comprehension, Mathematics, Spelling, and Written Expression. This assessment is unique in that it provides a multiple-choice format, allowing greater accessibility for students with fine-motor impairments or difficulties with retrieval. The norm sample did not include students who were not proficient in English; therefore, this assessment would not be appropriate for use with students who are not English proficient.

Test of Early Math Ability—Third Edition (TEMA-3)

The Test of Early Math Ability—Third Edition (TEMA-3; Ginsburg & Baroody, 2003) is designed to measure the informal and formal mathematics abilities of children ages 3 and 8–11. The test allows users to identify children with learning difficulties as well as those who are likely to develop problems in mathematics. It also yields useful information of the child's strengths and weaknesses, suggests instructional practices for children based on a weakness profile, and documents a child's progress. The TEMA-3 provides the user with a measure of children's mathematics attainment, measuring the following domains in two forms of 72 items each: numbering skills, number-comparison facility, numeral literacy, mastery of number facts, calculation skills, and understanding of concepts. The Assessment Probes and Instructional Activities provide an assessment of each individual task, comprehension of the task, underlying thought processes, and suggested instructional activities to address weaknesses found through the assessment.

Test of Early Reading Ability—Third Edition (TERA-3)

The Test of Early Reading Ability—Third Edition (TERA-3; Reid, Hresko, & Hammill, 2001) is a norm-referenced, individually administered test that assesses emergent literacy skills in young

children ages 3–6 to 6–8. Subtests include Alphabet, Conventions, and Meaning, reported as standard scores and percentiles. A Reading Quotient is also generated using the results of the three subtests. The authors identify five purposes of the TERA-3: (a) to identify children who are below peers in reading development, (b) to identify strengths and weaknesses of individual children, (c) to document progress as a result of early reading intervention, (d) to serve as a measure in reading research, and (e) to serve as one component of a comprehensive assessment.

Test of Early Written Language—Second Edition (TEWL-3)

The Test of Early Written Language—Third Edition (TEWL-3; Hresko, Herron, Peak, & Hicks, 2012) evaluates writing skills in children aged 0–4 to 10–11. The TEWL-3 is comprised of two subtests: the Basic Writing Subtest (used to assess the understanding of language and use of writing tools) and the Contextual Writing Subtest (used to measure the ability to construct a story when provided with a picture prompt). An Overall Writing Index can be derived when using both subtests, which allows for a complex understanding of the child's writing abilities. Scores are reported in standard scores, percentiles, and age and grade equivalencies. The TEWL-3 includes two equivalent forms for the purpose of monitoring improvement.

Test of Mathematical Abilities—Third Edition (TOMA-3)

The Test of Mathematical Abilities—Third Edition (TOMA-3; Brown, Cronin, & Bryant, 2012) is a test of mathematical functioning that measures math performance in students aged 8 to 11–18 used to identify and quantify mathematical deficits. The four core subtests are: Mathematical Symbols and Concepts, Computation, Mathematics in Everyday Life, and Word Problems. The TOMA-3 has one supplemental subtest—Attitude Toward Math. The TOMA-3 yields standard scores, percentiles, age/grade equivalents and a composite score, the Mathematical Ability Index.

Test of Reading Comprehension—Fourth Edition (TORC-4)

The Test of Reading Comprehension—Fourth Edition (TORC-4; Brown, Wiederholt & Hammill, 2009) measures silent reading comprehension of contextual reading materials in students between the ages of 0–7 and 11–17. The test comprises five subtests: Relational Vocabulary, Sentence Completion, Paragraph Construction, Text Comprehension, and Contextual Fluency.

The Reading Comprehension Index is a composite score based on the five subtests. Uses include identifying students who need help in improving reading proficiency and measuring student progress in remedial programs.

Test of Word Reading Efficiency–Second Edition (TOWRE-2)

The Test of Word Reading Efficiency–Second Edition (TOWRE-2; Torgesen, Wagner, & Rashotte, 2012) is an individually administered, norm-referenced measure of reading fluency and accuracy for individuals ages 0–6 and 11–24. The TOWRE-2 is used for early identification of children who require instruction in word reading and can be used to identify reading disabilities in older children and adults.

The reading subtests in the TOWRE-2 are timed tests. Three measures are obtained through use of the TOWRE-2: Phonemic Decoding Efficiency (PDE), Sight Word Efficiency (SWE), and Total Word Reading Efficiency. Phonemic Decoding requires the ability to read (decode) nonsense words, reflecting how efficiently the individual is able to read unfamiliar words or combinations of letters in a reading task that is not influenced by other factors such as context clues. Sight Word Efficiency requires reading a list of words to be read as whole units. Once the examiner is familiar with the pronunciation of the nonsense words and administration procedures, the TOWRE-2 is quick and easy to administer. It is a useful instrument for assessing basic reading skills, especially when students are not progressing as expected in learning to read. Decoding and fluency are both basic components of learning to read and are foundational to the development of effective reading comprehension skills.

Test of Written Language—Third Edition (TOWL-4)

The Test of Written Language—Fourth Edition (TOWL-4; Hammill & Larsen, 2009) is a test of written composition for ages 0–9 and 11–17. It can be individually or group administered. The measure can help to identify students in need of specialized support and to document progress in a writing program.

The TOWL-4 yields composite quotients for overall writing, contrived writing, and spontaneous writing. There are seven subtests on the TOWL-4 that measure a student's writing competence through both contrived tasks (e.g., spelling, punctuation, word usage) and spontaneous writing.

The TOWL-4 includes the following subtests: Vocabulary, Spelling, Punctuation, Logical Sentences, Sentence Combining, Contextual Conventions, and Story Composition.

Test of Written Spelling—Fifth Edition (TWS-5)

The Test of Written Spelling—Fourth Edition (TWS-5; Larsen, Hammill, & Moats, 2013) is a norm-referenced test of spelling for students in grades 1–12. The test is administered using a dictated-word format. The words tested are taken from 10 basal spelling programs and popular graded word lists. The results of the TWS-5 can be used to: identify students whose spelling proficiency is significantly below their peers and who might need support; document progress in spelling resulting from intervention; and serve as a measure for researchers studying spelling.

Wechsler Individual Achievement Test—Third Edition (WIAT-III)

The Wechsler Individual Achievement Test—Third Edition (WIAT-III; Wechsler, 2009) is a nationally standardized, comprehensive, individually administered test for assessing the achievement of children, adolescents, college students, and adults aged 4 through 50 years.

The WIAT-III retained the basic content domains of the WIAT-II (i.e., listening, speaking, reading, writing, and mathematics) but made improvements to make administration easier and shorten the administration time. Another goal of the revision was to increase consistency with the Individuals with Disabilities Education Improvement Act of 2004 (IDEA). The WIAT-III can be used to comprehensively assess a broad range of academic skills or to test only in the area of need. Scores are provided as age- or grade-based standard scores, percentiles, grade and age equivalencies, and stanines.

Woodcock-Johnson Tests of Achievement—Third Edition/Normative Update (WJ-III ACH/NU)

The Woodcock-Johnson III Tests of Achievement (WJ-III/NU; Woodcock, McGrew, & Mather, 2001) is a comprehensive set of individually administered, co-normed tests for the measurement of achievement. The tests may be used with individuals from age two through adult. The battery assesses the curricular areas of Reading (Letter-Word Identification, Word Attack, Reading Fluency, Passage Comprehension, Reading Vocabulary, Reading Comprehension, Sound Awareness, Phoneme/Grapheme Knowledge, Sound Blending), Oral

Language (Story Recall, Understanding Directions, Oral Comprehension, Oral Expression), Mathematics (Calculations, Applied Problems, Math Fluency, Quantitative Concepts) and Written Language (Spelling, Written Expression, Writing Samples, Handwriting Legibility, Editing, Punctuation & Capitalization, Writing Fluency). Fourteen Cluster scores and four Cross-Academic Cluster scores provide broad estimates of achievement. Scores are reported in age equivalents, grade equivalents, percentile ranks, and standard scores. The standard scores are based on a distribution with a mean of 100 and a standard deviation of 15.

Woodcock-Muñoz Language Survey—Revised Normative Update (WMLS-R NU)

The Woodcock-Muñoz Language Survey—Revised Normative Update (WMLS-R NU; Woodcock, Muñoz-Sandoval, Ruef, & Alvarado, 2005; Schrank, Wendling, & Alvarado, 2010) is an individually administered assessment designed to measure proficiency in oral language, language comprehension, reading, and writing. Two forms (A & B) are available for English and one form for Spanish; they can be used to assess individuals from 2 years old through 90 years old. The seven subtests of the WMLS-R English and Spanish forms include Picture Vocabulary/Vocabulario Sobre Dibujos, Verbal Analogies/Analogias Verbales, Letter Word Identification/Identificacion de Letras y Palabras, Dictation/Dictado, Understanding Directions/Comprension de Indicaciones, Story Recall/Rememoracion de Cuentos, and Passage Comprehension/Comprension de Textos. These seven subtests are combined in different ways to yield the following 11 cluster scores: Oral Language, Reading-Writing, Broad English Ability, Listening, Oral Expression, Reading, Writing, Language Comprehension, Applied Language Proficiency, Oral Language-Total, and Broad English Ability-Total.

The test manual outlines the following nine purposes for which the test can be used: (a) determining English and/or Spanish language proficiency; (b) determining oral language dominance of bilingual (English and Spanish) subjects; (c) monitoring growth or change in English and/or Spanish language ability; (d) determining eligibility for bilingual education/ESL services; (e) assessing readiness of English language learners for English-only instruction; (f) determining eligibility for accelerated or gifted and talented programs; (g) assisting in educational planning; (h) evaluating program effectiveness; and (i) describing subjects' language characteristics in research studies (Comprehensive Manual, pp. 5-7). In addition to age and grade equivalent scores, standard scores, and percentile ranks, the WMLS-R also provides a relative proficiency index (RPI) score and a cognitive academic language proficiency

(CALP) score. The CALP score can be used to determine if the student is fluent enough for testing administered in English to be valid.

Woodcock Reading Mastery Test—Third Edition (WRMT-III)

The Woodcock Reading Mastery Tests—Third Edition (WRMT-III; Woodcock, 2011) is an individually administered assessment designed to measure reading readiness and achievement. The WRMT-III identifies strengths and weaknesses in reading skills in order to determine areas for remediation and help to develop targeted individualized instruction. Two parallel forms are available: A and B. The WRMT-III is appropriate for use in assessing individuals from ages 4–6 through 11–79. The third edition of the WRMT includes new norms and four new tests: Listening Comprehension, Oral Reading Fluency, Phonological Awareness, and Rapid Automatic Naming.

Summary of Academic Achievement Instruments

Name of Tool/ Author (Year)	Age Range (in years except where noted)	Method of Administration/Format	Approximate Time to Administer	Subscales	Availability
Bilingual Verbal Ability Tests (BVAT-NU) Muñoz-Sandoval, Cummins, Alvarado, & Ruef (2005)	5–adult	Individually administered, norm-referenced measure of overall verbal ability for bilingual learners (18 languages); to be used in conjunction with WJ-III to consider impact of another language on academic learning in English Yields standard scores, percentiles, T-scores, CALP score	30 min.	Picture Vocabulary, Oral Vocabulary, Verbal Analogies, Cognitive Academic Language Proficiency (CALP) scores	Riverside Publishing http://bit.ly/1AXMek3

Name of Tool/ Author (Year)	Age Range (in years except where noted)	Method of Administration/Format	Approximate Time to Administer	Subscales	Availability
Diagnostic Achievement Battery—Fourth Edition (DAB-4) Newcomer (2014)	6–14	Individually administered, norm-referenced measure of school achievement with eight subtests. Yields standard scores, percentile ranks, and age/grade equivalents	90–120 min.	Listening Comprehension, Synonyms, Alphabet/Phonics/Word Identification, Reading Comprehension, Punctuation/Capitalization, Spelling, Mathematics Reasoning, Mathematics Calculation	Pro-Ed http://bit.ly/1sBoUEE
Gray Oral Reading Test, Fifth Edition (GORT-5) Wiederholt & Bryant (2012)	6–23	Individually administered, norm-referenced measure of reading rate, accuracy, fluency, comprehension, and Oral Reading Index. Yields standard scores, percentiles, age, and grade equivalents. Has two equivalent forms	20–30 min.	Rate, Accuracy, Fluency Comprehension, Oral Reading Index	Pro -Ed http://bit.ly/1urmhEZ
Kaufman Test of Educational Achievement—Second Edition (KTEA-II) Kaufman & Kaufman (2004)	4.5–25	Individually administered, norm-referenced measure of academic achievement Yields age- or grade-based standard scores, percentiles, age or grade equivalencies, NCEs, stanines; scoring includes extensive error analysis	30 min. (PK, K) to 80 min. (3rd grade and up)	Composites: Reading (Letter & Word Recognition (Comprehension); Math (Math Concepts and Applications, Math Comprehension); Written Language (Written Expression, Spelling); Other (Phonological Awareness, Nonsense Word Decoding, Word Recognition, Fluency, Decoding Fluency, Associational Fluency, Rapid Naming)	Pearson http://bit.ly/1pEmflq

Name of Tool/ Author (Year)	Age Range (in years except where noted)	Method of Administration/ Format	Approximate Time to Administer	Subscales	Availability
KeyMath Diagnostic Assessment—Third Edition (KeyMath 3) Connolly (2007)	4.5–23	Individually administered, norm-referenced comprehensive assessment of math skills, based on the NCTM standards; two forms Yields scaled scores, standard scores, percentiles, grade/age equivalents	30–90 min.	Basic concepts (Numeration, Algebra, Geometry, Measurement, Data Analysis and Probability); Operations (Mental Computation and Estimation, Written Computation, Addition + Subtraction; Multiplication + Division); Applications (Applied Problem Solving, Foundations of Problem Solving)	AGS/Pearson **http://bit.ly/1pebU6S**
Oral and Written Language Scales, Second Edition (OWLS-II) Reading Comprehension (RC) and Written Expression (WE) Tests Carrow-Woolfolk (2011)	5–21	Individually administered norm-referenced achievement measures of written language. Receptive aspects of written language are measured through the Reading Comprehension Test and expressive aspects through the Written Expression Test. Each test assesses Lexical/Semantic, Syntactic, Pragmatic, and Supralinguistic structures.	RC: 10–30 min. WE: 15–30 min.	Age-based and Grade based standard scores Test–Age and Grade Equivalents; Percentile Ranks for expressive written language and writing.	AGS/Pearson http://bit.ly/1qYFbVX

Name of Tool/ Author (Year)	Age Range (in years except where noted)	Method of Administration/Format	Approximate Time to Administer	Subscales	Availability
Peabody Individual Achievement Test—Revised/ Normative Update (PIAT-R/NU) Markwardt (1997)	5–23	Individually administered, norm-referenced measure of academic achievement Yields age- and grade-based standard scores, percentiles, stanines, NCEs, age/grade equivalencies	60 min.	General Information, Reading Recognition, Reading Comprehension, Written Expression, Math, Spelling, Written Language Composite, Total Reading	Pearson http://bit.ly/1pZlW8i
Test of Early Mathematics Ability—Third Edition (TEMA-3) Ginsburg & Baroody (2003)	3–9	Individually administered, norm-referenced measure of mathematics for young children; may also be used as a diagnostic instrument for older children to determine strengths and weaknesses; measures informal and formal concepts and skills; two forms with 72 items each Yields standard scores, age/grade equivalents, percentiles	40 min.	Numbering Skills, Number Comparison Facility, Numeral Literacy, Mastery of Number Facts, Calculation Skills, Understanding of Concepts	Pro-Ed http://bit.ly/1mpQGhz
Test of Early Reading Ability—Third Edition (TERA-3) Reid, Hresko, & Hammill (2001)	3.5–8.5	Individually administered, norm-referenced measure of early reading development for young children; three subtests Yields standard scores, percentiles, age/grade equivalents	30–45 min.	Reading Quotient, Alphabet, Conventions, Meaning	Pro-Ed http://bit.ly/1peccKV
Test of Early Written Language—Third Edition (TEWL-3) Hresko, Herron, & Peak (2012)	0–4 and 10–11	Individually administered, norm-referenced measure of writing skills in young children; two forms; each has Basic Writing and Contextual Writing subtests. Yields standard scores, percentiles, age equivalents	30–50 min.	Overall Writing Basic Writing Contextual Writing	Pro-Ed http://bit.ly/1smouAf

Test of Mathematical Abilities—Third Edition (TOMA-3) Brown, Cronin, & Bryant (2012)	8–19	Group or individual administration, norm-referenced measure of math performance. The four core subtests are: Mathematical Symbols and Concepts, Computation, Mathematics in Everyday Life, and Word Problems. The TOMA-3 has one supplemental subtest - Attitude Toward Math. Yields standard scores, percentiles, age/grade equivalents and a composite score, the Mathematical Ability Index.	60–90 min.	Mathematical Ability Index, Age and Grade Equivalents, Subtest Scaled Scores, Percentile Ranks, and SEM's.	Pro-Ed http://bit.ly/1pEmvXI
Test of Reading Comprehension—Fourth Edition (TORC-4) Brown, Wiederholt & Hammill, (2009)	7–18	Individually administered, norm-referenced measure of silent reading comprehension. Yields standard scores, percentiles and composite reading comprehension index.	45 min.	Relational Vocabulary, Sentence Completion, Paragraph Construction, Text Comprehension, Contextual Fluency and Composite Reading Comprehension Index	Pro-Ed http://bit.ly/1zXFfGn
Test of Word Reading Efficiency—Second Edition (TOWRE-2) Torgesen, Wagner, & Rashotte (2012)	6–24	Individually administered, norm-referenced measure of sight word recognition and phonemic decoding. Yields standard scores, percentiles, and age/grade equivalents	5–10 min.	Sight Word Efficiency (SWE) and Phonetic Decoding Efficiency (PDE), Total Word Reading Efficiency	Pro-Ed http://bit.ly/1nwjbK1

Name of Tool/ Author (Year)	Age Range (in years except where noted)	Method of Administration/Format	Approximate Time to Administer	Subscales	Availability
Test of Written Language—Fourth Edition (TOWL-4) Hammill & Larsen (2009)	0–9 and 11–17	Individually or group administered, norm-referenced measure of written expressive skills. Yields composite scores for Overall Writing, Contrived Writing, and Spontaneous Writing	60–90 min.	Composite Scores: Contrived Writing and Spontaneous Writing Subtests: Vocabulary, Spelling, Punctuation, Logical Sentences, Sentence Combining, Contextual Conventions, and Story Composition	Pro-Ed http://bit.ly/1okujyG
Test of Written Language—Fourth Edition (TOWL-4) Hammill & Larsen (2009)	0–9 and 11–17	Individually or group administered, norm-referenced measure of written expressive skills. Yields composite scores for Overall Writing, Contrived Writing, and Spontaneous Writing	60–90 min.	Composite Scores: Contrived Writing and Spontaneous Writing Subtests: Vocabulary, Spelling, Punctuation, Logical Sentences, Sentence Combining, Contextual Conventions, and Story Composition	Pro-Ed http://bit.ly/1okujyG
Test of Written Spelling—Fifth Edition (TWS-5) Larsen, Hammill, & Moats (2013)	5–18	Individually administered norm-referenced measure of strengths and weaknesses in written spelling; may be group-administered Yields standard scores, percentiles, and age/grade equivalents	20 min.	Spelling score (SS) and spelling age	Pro-Ed http://bit.ly/1pEmzH8

Name of Tool/ Author (Year)	Age Range (in years except where noted)	Method of Administration/Format	Approximate Time to Administer	Subscales	Availability
Wechsler Individual Achievement Test—Third Edition (WIAT-III) Wechsler (2009)	4–50	Individually administered, norm-referenced measure of academic achievement; Seven Composite Scores, 16 subtests. Subtests may be given individually. Includes error analysis with scoring Yields standard scores, percentiles, age/grade equivalents, stanines, NCEs	35–104 min.	Composite Scores: Oral Language, Total Reading, Basic Reading, Reading Comprehension and Fluency, Written Expression, Mathematics, and Math Fluency Subtest Scores: Listening Comprehension, Oral Expression, Word Reading Pseudoword Decoding, Reading Comprehension, Oral Reading Fluency, Alphabet Writing Fluency, Spelling, Sentence Completion, Essay Composition, Math Problem Solving, Numerical Operations, Math Fluency-Addition, Math Fluency-Subtraction, Math Fluency-Multiplication	Pearson http://bit.ly/1y9M3Of
Woodcock-Johnson Tests of Achievement—Third Edition (WJ-III) Woodcock, McGrew, & Mather (2001) Normative Update (WJ-III ACH/NU) (2005)	2–90	Individually administered, norm-referenced comprehensive measure of reading ability; 12 standard subtests, 10 extended for diagnostic use; includes measures of phonological awareness; co-normed with the WJ-III Tests of Cognitive Abilities Yields age- and grade-based standard scores, percentiles, stanines, NCEs, and age/grade equivalents	30–120 min.	Cluster scores with corresponding subtests: Oral Expression (2), Listening Comprehension (4), Written Expression (6), Basic Reading Skills (5), Reading Comprehension (2), Reading Fluency (3), Math Calculation Skills (2), Math Reasoning (2)	Riverside Publishing http://bit.ly/1okuB8S

Name of Tool/ Author (Year)	Age Range (in years except where noted)	Method of Administration/Format	Approximate Time to Administer	Subscales	Availability
Woodcock-Muñoz Language Survey, Revised Normative Update (WMLS-R NU) Woodcock, Muñoz-Sandoval, Ruef, & Alvarado (2005) Normative Update: Schrank, Wendling, & Alvarado, 2010)	2–90+	Individually administered, norm-referenced measure of language proficiency in English or Spanish. Yields standard scores, T-scores, z-scores, percentiles, age/grade equivalents, CALP score to determine if student is proficient in English for valid assessment to occur in English	25 min. for screening	Oral Language, Listening, Oral Expression, Oral Language-Total; Cognitive Academic Language Proficiency (CALP) level – negligible, very limited, limited, fluent, advanced.	Riverside Publishing http://bit.ly/1sAY4vt
Woodcock Reading Mastery Tests, Third Edition (Woodcock, 2011)	4–6 and 11–79	Individually administered, norm-referenced comprehensive measure of reading ability Yields standard scores, percentile ranks, confidence intervals, age and grade equivalents, Relative Performance Index, instructional ranges, Growth Scale Values, descriptive categories, Aptitude-Achievement Discrepancy Analysis, cluster scores for Total Reading, Readiness, Basic Skills, Reading Comprehension	15–45 min.	Parallel Forms A and B. Cluster scores: Total Reading, Readiness, Basic Skills, and Reading Comprehension Subscales: Letter Identification, Word Identification, Word Attack, Word Comprehension, Passage Comprehension, Listening Comprehension, Oral Reading Fluency, Phonological Awareness, and Rapid Automatic Naming	Pearson http://bit.ly/1lEaWvO

Research on Academic Achievement Instruments

Currently there is little research to support the use of various achievement assessments with individuals with autism spectrum disorder. The one published article using the WIAT-II found that students with high functioning autism demonstrate significant deficits in written language (Mayes & Calhoun, 2008). Typical patterns of performance indicate strengths in rote skills such as knowledge of math facts and ability to word call, but deficits in skills involving problem solving,

such as reading comprehension and math reasoning. Practitioners are encouraged to use formal and informal assessments based on the individual's needs (Hagiwara, 2001-2002; Meyer, 2001-2002).

Number of Studies	Age Range (in years)	Sample Size	Purpose of Study	Outcome
1	6–14	54	To determine if specific neuropsychological and learning profiles emerge To compare findings with previous research on the WISC-III and WIAT-II	Strengths in PRI and VCI (verbal and visual reasoning); Matrix Reasoning highest PRI subtest Weaknesses in PSI and WMI (attention, grapho-motor, processing speed); Comprehension lowest VCI subtest (language comprehension and social reasoning); Block Design lowest PRI subtest Weaknesses in written comprehension Findings correlate to previous studies using WISC-III and WIAT-II

MISCONCEPTIONS

Myth	Reality
Formal IQ is more valid than informal data from the classroom.	Informal classroom data provide information about how the student functions on a daily basis. Analyzing formal and informal data to determine patterns of skills and learning is a key component of assessment (Hagiwara, 2001-2002). Informal data from the classroom may be more valuable than information gathered in a contrived one-on-one setting when determining programming for a student with autism spectrum disorder.
If students have high abilities in word calling and/or reading fluency, they have good general reading skills.	Many students with ASD have good rote skills, but may still have great difficulty with inferencing, sequencing, and comprehension skills. Their lack of understanding of social situations may make gaining meaning from reading very difficult. Formal assessment data and informal data should be analyzed for patterns of deficits in reading.
If a student has a high IQ or high achievement, he/she should be successful in the general education classroom.	Because students with autism spectrum disorder have difficulty with language, communication, and social skills, they may struggle in the general education classroom in activities that involve these skills (e.g., group discussions, small group activities, following directions).
If a student has good expressive and receptive language skills, there is no need to refer the student for a comprehensive speech and language evaluation.	Autism spectrum disorder, by definition, is a social-communication disorder. It is common for students who have or are suspected of having ASD to perform well on rote language tasks. It is still necessary to conduct a comprehensive speech and language evaluation to determine functioning in pragmatic language, social interaction skills, and understanding of nonverbal language.

REFERENCES

Brown, V., Cronin, M., & McEntire, E. (1994). *Test of Mathematical Abilities, Third Edition*. Austin, TX: Pro-Ed.

Brown, V., Wiederholt, J. L., & Hammill, P. (2009). *Test of Reading Comprehension, Fourth Edition*. Austin, TX: Pro-Ed.

Carrow-Woolfolk, E. (2011). *Oral and Written Language Scales, Second Edition*. Saddle River, NJ: Pearson Assessments.

Connolly, A. J. (2007). *KeyMath Diagnostic Assessment, Third Edition*. Minneapolis, MN: Pearson Assessments.

Ginsburg, H. P., & Baroody, A. J. (2003). *Test of Early Math Achievement, Third Edition*. Austin, TX: Pro-Ed.

Hagiwara, T. (2001-2002). Academic assessment of children and youth with Asperger Syndrome, pervasive developmental disorders-not otherwise specified, and high-functioning autism. *Assessment for Effective Intervention, 27(1&2),* 89-100.

Hammill, D., & Larsen, S. (2009). *Test of Written Language, Fourth Edition*. Austin, TX: Pro-Ed.

Hresko, W. P., Herron, S., & Peak, P. (2012). *Test of Early Written Language, Third Edition*. Austin, TX: Pro-Ed.

Individuals With Disabilities Education Improvement Act of 2004, Public Law 108–466, U.S. Statutes at Large 118 (2004): 2647.

Kaufman, A. S., & Kaufman, N. L. (2004). *Kaufman Test of Educational Achievement, Second Edition*. Minneapolis: Pearson Assessments.

Larsen, S., Hammill, D., & Moats, L. (2013). *Test of Written Spelling, Fifth Edition*. Austin, TX: Pro-Ed.

Markwardt, F. C. (1997). *Peabody Individual Achievement Test-Revised/Normative Update*. Minneapolis: Pearson Assessments.

Mayes, S. D., & Calhoun, S. L. (2008). WISC-IV and WIAT-II Profiles in children with high functioning autism. *Journal of Autism and Developmental Disorders, 38,* 428-439.

Meyer, J. (2001-2002) Cognitive patterns in autism spectrum disorders. *Assessment for Effective Intervention, 27(1&2)*, 27-35.

Muñoz-Sandoval, A. F., Cummins, J., Alvarado, C. G., & Ruef, M. L. (2005). *Bilingual-Verbal Ability Tests*. Itasca, IL: Riverside Publishers.

Newcomer, P. (2014). *Diagnostic Achievement Battery, Fourth Edition*. Austin, TX: Pro-Ed.

Reid, D. K., Hresko, W., P., & Hammill, D. D. (2001). *Test of Early Reading Achievement, Third Edition*. Austin, TX: Pro-Ed.

Schrank, F. A., Alvarado, C. G., & Wendling, B. J. (2010). *Interpretive Supplement: Instructional Interventions for English language learners related to the Woodcock-Muñoz Language Survey–Revised Normative Update*. Rolling Meadows, IL: Riverside Publishing.

Torgesen, J. K., Wagner, R. K., & Rashotte, C. A. (2012). *Test of Word Reading Efficiency, Second Edition*. Austin, TX: Pro-Ed.

Wechsler, D. (2009). *Wechsler Individual Achievement Test, Third Edition*. San Antonio, TX: NCS Pearson.

Wiederholt, J. L., & Bryant, B. R. (2012). *Gray Oral Reading Test, Fifth Edition*. Austin, TX: Pro-Ed.

Woodcock, R. W. (2011). *Woodcock Reading Mastery Test, Third Edition*. San Antonio, TX: NCS Pearson.

Woodcock, R. W., & Johnson, M. B. (1989). *Woodcock-Johnson-Revised Tests of Cognitive Ability*. Itasca, IL: Riverside Publishing.

Woodcock, R. W., McGrew, K. S., & Mather, N. (2001). *Woodcock-Johnson Tests of Achievement, Third Edition/Normative Update*. Itasca, IL: Riverside Publishers.

Woodcock, R. W., Muñoz-Sandoval, A. F., Ruef, M., & Alvarado, C. G. (2005). *Woodcock-Muñoz Language Survey, Revised Normative Update*. Itasca, IL: Riverside Publishers.