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Special Composite Scores for the SB5

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For several decades, clinicians have used patterns of subtest scores to form clinical and diagnostic hypotheses. This bulletin explores the psychometric and clinical characteristics of several new composites for the Stanford-Binet Intelligence Scales, Fifth Edition *(SB5). First, subtests are grouped into composites useful for predicting learning disabilities. Second, composites are provided for both slow learning and giftedness. Third, composites for general clinical use are presented, followed by applications to various special populations, such as individuals with attentional problems, traumatic brain injuries, and dual exceptionalities (such as giftedness coupled with learning disabilities).*

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Special Composite Scores for the SB5

Overview

For several decades, clinicians have used patterns of subtest scores to form clinical and diagnostic hypotheses. Tellegen and Briggs (1967) and Silverstein (1968) were among the originators of the idea of combining subtest scores to form composite indexes for the Wechsler scales (e.g., Wechsler, 1991), and many more composites have been developed since (e.g., Kaufman, 1994). This bulletin explores the psychometric and clinical characteristics of the composites developed thus far for the *Stanford-Binet Intelligence Scales, Fifth Edition* (SB5) (Roid, 2003a) First, subtests are grouped into composites useful for predicting learning disabilities. Second, composites are provided for both slow learning and giftedness. Third, composites for general clinical use are presented, followed by applications to individuals with attention problems, traumatic brain injuries, and dual exceptionalities (e.g., giftedness coupled with learning disabilities). Further technical discussion for many of these composites is provided in Roid, 2003c (pp. 38–46).

Prediction of Learning Disabilities

The assessment and diagnosis of specific learning disabilities (LD) is both challenging and complex. Researchers, clinicians, and diagnosticians have suggested numerous methods to address this task, such as cognitive batteries like the SB5. Chapter 5 of the SB5 Examiner's Manual (2003b) provides a general introduction to issues related to LD identification, and Chapter 5 of the SB5 Technical Manual (2003d) refers to the tables for using the SB5 in ability-achievement discrepancy analysis. As this bulletin publishes, the reauthorization legislation for the Individuals with Disabilities Education Act (IDEA, 1997) (U.S. Department of Education, 2002, August 26) is pending in Congress. It includes guidelines for the assessment of LD. Some of the major concerns of those advocating changes in IDEA relate to the effectiveness of discrepancy methods in identifying LD, particularly at earlier ages and grades.

Evans, Floyd, McGrew, and Leforgee (2001) showed that cognitive ability scores based on the Cattell-Horn-Carroll (CHC) theory can be very effective in early prediction of reading, mathematics, and other academic underachievement. Given that the SB5 measures some of the key abilities from CHC theory—such as Knowledge and Working Memory—that are predictive of learning difficulties (see Barkley, 1990), it appears likely that SB5 scores could be used in the early age range for prediction of LD. Consistent with this expectation, research by Roid (2003c) and Roid and Pomplun (in press) demonstrated that SB5 Working Memory and Knowledge scores did predict reading achievement, and that Working Memory and Quantitative Reasoning scores similarly predicted mathematics achievement. The results of this research suggest that it should be possible to develop a method of predicting risk for LD from the SB5 alone, instead of having to wait for reading skills to develop in elementary school and for the administration of achievement tests.

As shown in Table 1, composite scores can be calculated from SB5 subtest scores to predict the risk of LD in the age range of 5 to 7 years and beyond. Table 4.10 in the SB5 Interpretive Manual (Roid 2003c, p. 44) shows that the LD-Reading composite (in the upper section of that table) (the sum of NVKN, NVWM, VKN, and VWM subtest scaled scores) identified 66.7% of cases with documented disabilities in reading. A total of 528 cases in the 5-to-7-year-old age range, including 27 with documented reading disabilities, were classified using a cut point of 89 points on the new composite standard score scale (see Table 4.10) with 81% of cases classified correctly overall. Documented LD cases had been established by independent assessment in schools using achievement tests and IQ measures other than SB5. The reliability of the composites in Table 1 (.95) is quite high because the reliabilities of the four individual subtests (.84 to .89) combine together. However, examiners should use this composite for screening purposes, not diagnosis, because the classification is only adequate for identifying risk status. For example, the LD-Reading composite, with a cut point of 89, also identifies false positive cases (normative cases erroneously labeled LD) at a 17% rate.

To calculate the composites, use the example in Table 2 as a guide. Add the four subtest scaled scores together to form the sum. Then multiply the sum by the value indicated in the equation and add the final constant to the result. The case shown in Table 2 has a composite score of 63, which is quite low compared to a mean (*M*) of 100—more than two standard deviations below average—giving a strong indication of risk for learning disabilities in reading. Of course, the case was selected as an example knowing that this boy had been identified previously as LD by a local school district. Note that the equations in Table 1 change slightly for screening of learning disabilities in the school-age range (6 to 18 years) and above. If the boy had been older, the resulting value would have been 69—still more than two standard deviations below the average of 100. The LD composites in the lower section of Table 1 were recalculated on the SB5 normative sample for older examinees. Because the standard deviation (*SD*) of the composite is different in older examinees, the equation has slightly different constants than those in the early-prediction equations in the upper section of Table 1, as derived by Roid (2003c).

Table 1

Learning Disability Composites of SB5 Subtest Scaled Scores: Formula for Sums, Reliability, and Conversion Equations

Composite	Formula for Sum	Reliability	Equation
Early Learning Disabilities (Ages 5–7)			
LD-Reading	NVKN + NVWM + VKN + VWM	.95	1.875Sum + 25.0
LD-Mathematics	NVQR + NVWM + VQR + VWM	.95	1.875Sum + 25.0
School-age and Adult LD			
LD-Reading	NVKN + NVWM + VKN + VWM	.95	1.56Sum + 37.9
LD-Mathematics	NVQR + NVWM + VQR + VWM	.95	1.49Sum + 41.2

Notes. Source of the Early Learning Disability formulas is Roid (2003c).
Abbreviations are as follows: LD = learning disabilities, NV = Nonverbal, V = Verbal, KN = Knowledge, QR = Quantitative Reasoning, WM = Working Memory, Sum = the sum of the scaled scores of the subtests in the composite.

Table 2

Example of the LD-Reading Composite Score Calculation for a Young Boy With a Documented Learning Disability in Reading

Subtest Names Included in Composite	Scaled Scores and Sum
Nonverbal Knowledge	7
Nonverbal Working Memory	4
Verbal Knowledge	4
Verbal Working Memory	5
Sum of Scaled Scores	20

Example of Equation and Calculation	Results
STEP 1: 1.875Sum = 1.875(20) =	37.5
STEP 2: + 25.0 = 37.5 + 25.0 =	62.5
STEP 3: Round the answer to =	63

Composites for Slow Learners and the Intellectually Gifted

Just as special composite scores may be developed to better identify individuals with risk of LD, it seemed likely that SB5 profiles also could be developed for slow learners and intellectually gifted individuals. When both IQ and achievement scores are in the range of 71 to 85, significant discrepancies are difficult to document, and the student may therefore not qualify for LD services. Aaron (1997) and others (e.g., Stuebing et al., 2002) have called for attention to slow learner profiles that show both ability and achievement scores in the borderline range. The Full Scale IQ (FSIQ) may be low due to the presence of significant process deficits, as evidenced by extremely low Working Memory scores on the SB5 or low Freedom from Distractibility scores on the *Wechsler Intelligence Scale for Children®–Third Edition* (WISC-III®) (Wechsler, 1991). If teacher and parent observations and achievement test data show specific patterns of delayed learning, reading, or mathematics deficiencies, and low Working Memory scores on the SB5 have deflated the FSIQ, further testing should be conducted. This pattern is especially important when the Nonverbal IQ (NVIQ) or certain nonverbal subtest scores are significantly higher than the Verbal IQ (VIQ) or verbal subtest equivalent. Relative nonverbal strengths may indicate that the examinee has some nonverbal abilities that are masked by multiple verbal scores in the low range.

In the SB5 Interpretive Manual (p. 41), Roid (2003c) describes the development of the subtest profile for slow learners, along with studies of classification accuracy for the resulting composite. The composite, shown in Table 3, was based on a study of the relationship between ability and achievement in the SB5/WJ III linking sample (N = 472), which was part of the SB5 standardization project. A subsample of 99 cases was identified with FSIQ scores in the 71–85 range. In a series of stepwise linear regression analyses, the 10 SB5 subtests were used as predictors for each of the four WJ III achievement scores: Basic Reading Skills, Reading Comprehension, Math Calculation Skills, and Math Reasoning. A subset of 5 of the 10 SB5 subtests was a consistent predictor of two or more of the four achievement scores; those subtests were therefore combined to form the

Table 3

Composites of SB5 Subtest Scaled Scores for Slow Learners and the Intellectually Gifted

Composite	Formula for Sum	Reliability	Equation
Slow Learner	NVFR + NVQR + NVWM + VFR + VQR	.96	1.271Sum + 36.4
Intellectual Giftedness			
Gifted	NVFR + NVKN + NVQR + VFR + VKN + VQR + VVS	.97	0.932Sum + 34.8
Nonverbal Gifted	NVFR + NVKN + NVQR + NVVS	.95	1.596Sum + 36.2

Notes. Based on analysis of special population samples within the SB5 normative sample (N = 4,800).
Abbreviations are as follows: NV = Nonverbal, V = Verbal, FR = Fluid Reasoning, KN = Knowledge, QR = Quantitative Reasoning, VS = Visual-Spatial, WM = Working Memory, Sum = the sum of the scaled scores of the subtests in the composite.

composite score to identify LD among slow learners, with resulting reliability of .96. Consistent with the restriction of range involved in the achievement and ability scores among the sample of slow learners studied, overall there was not a large discrepancy between achievement and ability scores. However, Roid (2003c, pp. 41–42) noted that only a small percentage (about 3%) of the slow learners identified using the special composite score showed achievement scores 10 or more points lower than ability scores. Interpretation of the Slow Learner composite is in the experimental stage at this point (Roid, 2003c, p. 41), but it seems reasonable to assume that the lower the composite score, the greater the likelihood that the individual would experience difficulties in mastering the basic curriculum.

Turning to an assessment issue at the other end of the ability distribution, the gifted sample collected for the validity studies showed a profile of mean factor index scores that included a lower mean for the Working Memory factor index (115.8 versus a median factor index score of about 121 and FSIQ mean of 123.7; see Roid, 2003d, p. 97). Gifted children who have a reflective thinking style are often slower to respond and do poorly on the timed subtests of the WISC-III (Kaufman, 1994). Experts in gifted assessment who tested subjects for the SB5 validity studies reported that gifted examinees who were “meticulous” had particularly poor performance on the Working Memory subtests. Carroll (1993) showed that factors other than short-term memory and processing speed had higher g loadings and were more central to the concept of reasoning in general cognitive ability, as originally defined by Spearman (1927). Stepwise regression analyses on the SB5/WJ III linking sample also showed the Fluid Reasoning and Quantitative Reasoning subtests to be more predictive of achievement than the Working Memory subtests. For these reasons, a composite was developed to emphasize the reasoning aspect of general ability and giftedness. Table 3 shows the Gifted composite with seven subtests, excluding Nonverbal Visual-Spatial Processing and the Working Memory subtests. A Nonverbal Gifted version of the composite is also listed in Table 3.

To evaluate the classification accuracy of the gifted composites shown in Table 3, 96 cases of documented intellectual giftedness were taken from the validity sample (see Chapter 4 of the SB5 Technical Manual, Roid, 2003d). The criteria for inclusion of the gifted cases (previous IQ scores and teacher referrals) were those used by various school districts around the United States. These cases were combined with the 1,879 normative cases, ages 5 to 18, from the SB5 standardization sample. A cut point of 120 was found to be optimal. The Gifted and Nonverbal Gifted composites had high total classification accuracy (93.5% and 91.4%, respectively) and high specificity for classifying the normative cases

(93.5% and 93.3%, respectively). However, the sensitivity in sorting the gifted cases was moderate, with the nonverbal composite being lower (58.6%). Use of these gifted composites would lead to approximately 6% misclassification of normative cases as gifted (false positive), an error that is usually considered flattering, rather than damaging, to the individual. Clearly, the gifted composites should be used in combination with other data and information on each individual. Of course, these findings may also suggest that factors other than intellectual ability (such as effort, interests, and personality) may contribute to decisions to classify individuals as gifted.

Ruf (2003) provides further discussion of the application of gifted composite scores in practice, including discussion of cases. Roid (2003c) also provides a gifted case, along with the twice-exceptional case that is discussed later in this bulletin.

General Clinical Applications: Shared Ability Composites

A series of additional "shared ability composites" (Kaufman, 1994, p. 273) were developed for general clinical applications of SB5. These composites are formed by summing sets of SB5 subtest scores. Each set of subtest scores shares common characteristics, such as time limits, and long questions, that require similar cognitive abilities, as defined in Table 4. When composite scores are either very high or very low, important insights or clinical hypotheses can be formed for individual cases, using the definitions in Table 4. Table 5 presents the names of

Table 4

Definitions of Shared Abilities Used in Composites Among SB5 Subtests

Composite	Definition
Planning Ability	The cognitive ability to recall and apply mental strategies for solving problems or completing tasks in an efficient manner
Trial and Error Problem Solving	The mental strategy of trying multiple methods of solving problems, sometimes in a random order or fashion, until a solution is found
Visual-Motor Ability	The neuropsychological processing and application of visual input to guide purposeful movements of body parts
Abstract Conceptualization	Using principles, rules, and other concepts that generalize beyond a given task or setting, to solve problems, reason, or form categories of information
Understanding Long Questions	The ability to process all information in a long series of words or illustrations to understand the statement of a problem or question
Attention and Concentration	Several mental and sensory processes that receive stimuli and focus the individual onto an array of incoming information, including selective attention, sustained attention (vigilance), divided attention, and alternating attention (Lezak, 1995)
Performance Under Time Pressure	Ability to remain focused on a task and continue to pursue solutions and remember details under time pressure
High Performers Under Time Pressure	Ability to find solutions to difficult problems under time constraints (*Note.* Use this composite only for examinees who reach Level 4 in either Item Book 2 or 3.)
Cultural Knowledge	Ability to accumulate, recall, and apply factual and conceptual knowledge gathered from society, media, and everyday cultural experiences
Acquired Knowledge	Accumulation, recall, and application of knowledge gained from formal schooling, training, or disciplined study

Table 5

Shared Ability Composites of SB5 Subtest Scaled Scores

Composite	Formula for Sum	Reliability	Equation
Planning Ability	NVWM + VFR + VVS	.94	1.95Sum + 42.1
Trial and Error Problem Solving	NVQR + NVVS	.91	2.84Sum + 43.3
Visual-Motor Ability	NVWM + NVVS + VVS	.94	2.02Sum + 39.5
Abstract Conceptualization	VFR + VQR + VVS	.94	1.86Sum + 45.0
Understanding Long Questions	NVQR + VQR + VVS	.94	1.86Sum + 44.7
Attention and Concentration	NVFR + NVWM + VVS + VWM	.95	1.56Sum + 37.8
Performance Under Time Pressure	NVVS + NVWM + VWM	.93	2.05Sum + 38.8
High Performers Under Time Pressure	NVFR + NQR + NVVS + NVWM + VQR + VWM	.96	1.06Sum + 36.9
Cultural Knowledge	NVKN + VFR + VKN	.94	1.93Sum + 42.7
Acquired Knowledge	NVKN + VFR + VKN + VQR	.95	1.48Sum + 41.6

Notes. Based on analysis of the SB5 normative sample (N = 4,800).
Abbreviations are as follows: NV = Nonverbal, V = Verbal, FR = Fluid Reasoning, KN = Knowledge, QR = Quantitative Reasoning, VS = Visual-Spatial, WM = Working Memory, Sum = the sum of the scaled scores of the subtests in the composite.

the composites, the subtests included, the reliability of the composite, and the conversion equation necessary to transform the sums to the IQ metric ($M = 100$, $SD = 15$) for comparative purposes. All the composites in Table 5 have high reliabilities (.91 to .96), as calculated from the formula for composite reliability given in Tellegen and Briggs (1967). To calculate these composites, gather the SB5 subtest scaled scores and follow the example given in Table 2.

Some of the clinical applications of shared composites are presented below. Cases with attention-deficit hyperactivity disorder (ADHD), traumatic brain injury (TBI), and individuals with intellectual giftedness coupled with ADHD are particularly highlighted.

Attention-Deficit Hyperactivity Disorder

As many as 9% of boys and 3% of girls in North American schools show signs of attention-deficit hyperactivity disorder (ADHD) (Szatmari, 1992). The *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV) (American Psychiatric Association, 1994) defines three subtypes of ADHD: the predominantly inattentive type, the hyperactive-impulsive type, and the combined type. Parents and teachers can easily describe the manifestations of the condition, including distractibility, poor listening skills, avoidance of tasks requiring sustained effort, fidgeting, inability to stay quietly seated, excessive talking, blurting out answers, and interrupting. Each of these behavior patterns forms part of the DSM-IV criteria for ADHD diagnosis. Volumes of research have been published on ADHD, and it is impossible to summarize the findings and assessment applications in this brief review. The reader should consult references such as Schwean and Saklofske (1998) to gain a thorough understanding of the disorder and its assessment.

Roid (2003d) presents data on a sample of 94 students, ages 5 to 18, previously diagnosed with one of the three ADHD types by DSM-IV criteria. The sample was 74% male, and had a mixture of ethnicity and parental-education levels. The pattern of SB5 mean scores for the sample showed a significantly lower Working

Memory Factor Index score (90.2) compared to Fluid Reasoning (93.4), Quantitative Reasoning (95.9), and Visual-Spatial Processing (95.1). The SB5 Knowledge Factor Index mean score (92.7) was not significantly different from the Working Memory score. This pattern of low memory scores, combined with moderate crystallized (Knowledge) scores in an individual profile, is similar to the classic ACID (Arithmetic, Coding, Information, Digit Span) pattern of the WISC-III subtest scores (Schwean & Saklofske, 1998). This pattern typically has been interpreted as showing the effects of distractibility on memory processing and delays in academic performance in ADHD cases.

Examiners using SB5 with ADHD individuals should be prepared for the examinee to exhibit possible high levels of activity or inattentiveness during testing. (Note that the Attention and Concentration composite in Table 5 may be useful in estimating the degree to which this is *generally* a problem for the examinee, although of course one would be able to obtain this score only after completion of testing.) Having materials ready and out of the child's reach, sitting near the examinee (e.g., to retrieve materials), establishing rapport, gaining eye contact, using cues like "Ready?," and other techniques are strongly advised. The testing room should be free of distractions. Working with caregivers to prepare the child with extreme symptoms and establishing clear rules of conduct (e.g., to remain seated, focus on tasks) during testing may be necessary.

Assessment of Traumatic Brain Injury

Head injuries that are serious enough to cause unconsciousness are one of the most serious pediatric disabilities among children in the United States (Ryan, Lamarche, Barth, & Boll, 1996). Traumatic brain injury (TBI) occurs more in males and is associated with car accidents, falls, recreational accidents, and child abuse, resulting in a complex array of neuropsychological and cognitive difficulties (see Kamphaus, 2001, pp. 564–566, for more details). TBI cases can be difficult to test with any instrument if testing is attempted too soon after the injury because of the disorientation and emotional trauma suffered by the individual and the family. Examiners must be sensitive to these emotional difficulties, the short attention span, fatigue, or other conditions that may be present in TBI cases, particularly with frail, young children who have communication difficulties. SB5 studies of TBI should begin to emerge in the literature as more of these difficult-to-access cases become available, as has been the case with WISC-III (Donders, 1997; Kamphaus, 2001).

In unpublished case studies submitted to the SB5 author, initial results show that TBI cases show profile weaknesses (low subtest scores relative to the individual's average for all 10 subtests) in Nonverbal Fluid Reasoning (NVFR), Verbal Visual-Spatial Processing (VVS), the complex problems in Nonverbal Quantitative Reasoning (NVQR), and both the working memory subtests (NVWM and VWM).[1] These weaknesses appear to be related to the well-documented effects of TBI on memory, mental-comparison processes (such as occur in working memory tasks), visual-spatial processes, distractibility, and attention deficits (Kamphaus, 2001; Lezak, 1995, p. 186). Use of the shared ability composites on Attention and Concentration and on Understanding Long Questions may be

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[1] The senior author thanks David Quinn, PsyD, of Ft. Meyers, Florida, for submitting the TBI cases.

helpful in studying SB5 results for TBI cases (see Table 5). For example, a 52-year-old woman with traumatic head injuries had scaled scores of 9 (NVFR), 11 (NVKN), 6 (NVQR), 8 (NVVS), 6 (NVWM), 14 (VFR), 8 (VKN), 7 (VQR), 4 (VVS), and 8 (VWM). The 5-point difference between NVFR and VFR was a statistically significant difference. Also, her low scores on NVWM, VWM, and VVS were weaknesses in her profile compared to an average of 8.1 among all 10 subtest scores. Thus, the Verbal Visual-Spatial Processing subtest emerges as the most significant weakness in the profile, being significant in both statistical (.05 level) and infrequency criteria (only 2% of the general population have VVS subtests lower than 4 points below the profile average). On the Attention and Concentration composite, this 52-year-old woman had a scaled-score total of 27, resulting in a composite score of 80—more than 1 *SD* below the average of 100. On Understanding Long Questions, she had a sum of 17 (NVQR = 6, VQR = 7, and VVS = 4), resulting in a very low composite of 76—nearly 2 *SD* below average. In another adult TBI case, a 53-year-old man with a history of high educational attainment and creativity before the injury, had subtest scores of 5 on NVFR compared to 19 on VFR. This is a huge difference. Also, he had low scores on NVWM (6) and VWM (5), compared to a profile average of 10.6. Again, these are highly significant weaknesses. Despite a score of 13 on VVS, this man had an Attention and Concentration composite of 92, compared to a Cultural Knowledge composite of 128 (NVKN = 13, VKN = 12, and VFR = 19)—another huge 36-point difference. In short, identifying TBI using shared ability composites holds great promise.

Assessment of the Gifted Twice-Exceptional Individual

Specialists in the assessment of children and adults with exceptional intellectual giftedness provided important suggestions during the development of the SB5 (Roid, 2003b). Out of the 8 to 10 possible cognitive factors that could have been included in the SB5 (the total number in the full CHC model), experts in giftedness suggested an emphasis on reasoning abilities, such as the five factors chosen for the SB5. Also, speed of performance was de-emphasized by reducing the number of timed subtests because meticulous, gifted children are often punished by time bonuses. In addition, examiners are finding a growing group of twice-exceptional children (Kay, 2000) who are both intellectually gifted (e.g., Full Scale IQ above 125 or 130) and who are diagnosed with ADHD, learning disabilities, or occasionally, autistic-like symptoms (the latter is often associated with Asperger's syndrome). The availability of the Working Memory subtests and the composites in Tables 3 and 5 help to meet some of the assessment needs of the twice exceptional. One case study collected as part of the SB5 special-group studies (Roid, 2003d) was a 9-year-old boy with ADHD symptoms. He showed a Full Scale IQ of 130 and high scaled scores of 13 (NVFR), 18 (NVKN), 15 (NVQR), 13 (NVVS), 13 (NVWM), 18 (VFR), 15 (VKN), 13 (VQR), 15 (VVS), and 13 (VWM). The lower scores on Working Memory subtests resulted in a Working Memory Factor Index of 117—a significant 23 points lower than his FSIQ. The Giftedness composite (Table 3) and composites such as Cultural Knowledge (Table 5) were designed for such cases. Based on studies of gifted cases, the Giftedness composite deletes the Working Memory subtests and the timed Nonverbal Visual-Spatial

Processing subtest. Some meticulous or twice-exceptional gifted children failed the difficult Form Patterns activity in NVVS due to the time limits. In the profile of the 9-year-old boy, the Giftedness composite is 135 and the Cultural Knowledge composite is 141, compared to 122 for the High Performers under Time Pressure composite, giving support to the concern over timed tasks with gifted children.

In addition to the composites shown in Tables 3 and 5, the new Extended IQ (EXIQ) scoring, available in the SB5 Interpretive Manual (Roid, 2003c), provides examiners with methods to evaluate the extremely and profoundly gifted. The EXIQ uses all raw score points to calculate IQ values as high as 225. When individuals have both giftedness and learning disabilities, they may have exceptionally high scores in the verbal subtests such as Vocabulary (VKN), but low scores on Working Memory subtests. Because there is an implicit ceiling on the normalized scaled scores (all the highest raw scores are truncated into a scaled score of 19), the conventional standard score IQ (e.g., Full Scale IQ) may not show the full extent of the individual's giftedness. By using the raw-score based EXIQ, additional range of measurement may be obtained. However, as detailed elsewhere (Roid, 2003c; Ruf, 2003), only the smallest portion of the population will obtain EXIQ scores above 160 (estimated to be just over 920 individuals across all ages in the United States).

Conclusions

This bulletin provides a summary of the set of 17 special composite scores developed thus far for the SB5. Such composites represent a way station between reliance on a general indicator of ability (intelligence or *g*) and reliance on factor or subtest scores, by creating an indicator of general ability that is highly flavored with a particular mix (and weighting) of specific abilities. In a sense, the special composite scores provide the answer to the question, "Intelligence for what?" Individuals use their intelligence to particular ends, and in identifying the ends to which intelligence is directed, we can specify particular and tailored definitions of the sort of intelligence required for those ends. The special composite scores discussed in this bulletin should allow practitioners to provide more flexible and targeted assessment by using the SB5 as more of a whole than is possible by using the basic test scores alone.

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