

Leiter 3 Corrections for Manuals Bought Before 2017

Please include the following corrections in your Leiter-3 manual to ensure that it is current with the latest Leiter-3 manuals. The changes were necessary due to typographical errors that occurred when printing the first editions of the manuals. Though we do our best to make sure that information is accurate at the first printing, occasionally mistakes do occur. Stoelting takes the accuracy of our assessments and printed materials seriously and we will work to constantly improve our products.

The current page describes the changes that were made. The pages following provide printable copies of the pages that were changed for you to print and include in your manual. Please contact Stoelting for any questions you might have in regard to any questions concerning these issues.

Changes

- 1) Page 55- In Figure 2.3, left column, bottom, the Nonverbal IQ score was changed from 95 to 96
- 2) Page 55- Right column, paragraph 1, last sentence, was changed from “Scaled scores range from 1 to 20...” to “Scaled scores range from 0 to 20...”
- 3) Page 59- Left column, last paragraph, Deleted sentences, “To determine... less than 1.” (sentences describing that individuals cannot receive scaled scores of 0; it is possible to receive scaled scores of 0)
- 4) Page 62- Left column, last paragraph, sentence 5, changed “...Rating Scale range from 1 to 10...” to “...Rating Scale range from 1 to 12...”
- 5) Page 62- Left column, last paragraph, sentence 4, changed to Bold font, also changed “...generate composite scores.” to “...generate scaled scores.”
- 6) Page 76- In Figure 4.2, second row under IQ and Composite Scores, changed “130-170” to “130-149”
- 7) Page 82- In Figure 4.6, Growth Score changed from “510” to “502”, also Nonverbal IQ changed from “95” to “96”

- 8) Page 98- In Figure Amanda's Leiter 3 Scores, changed Nonverbal IQ from "78" to "69"
- 9) Page 99- In Figure Max's Cognitive Profile Score, changed Nonverbal IQ from "79" to "70"
- 10) Page 100- In Figure Randy's Cognitive Profile Scores, changed Nonverbal IQ from "85" to "78"; change Figure Ground Raw Score from "19" to "21"; change Figure Ground Scaled Score from "4" to "6"

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Two subtests have slightly more involved rules for obtaining subtest raw scores. For Attention Sustained, the raw score is equal to the total number of targets correctly marked, minus the total number of errors the person has on the AS Booklet. For Attention Divided, the raw score is equal to the total number of cards the person slapped correctly, as well as the number of correctly placed foam pieces.

The availability of very easy Teaching Trial items for each age group should assist examiners in identifying people who do (or do not) understand the nature and the expectations of a subtest. Also, the Teaching Trial items (where as many as three trials are allowed) are very useful in providing some degree of measurement or a “basal” for people with cognitive delays. Since some people may have difficulty with the teaching items, it is not uncommon for a person to initially provide two or more responses. Use the following principles for scoring of such multiple responses:

- If the person intends a response to replace a previous one, the earlier response is ignored and the later one is scored.
- If the person gives both a correct and an incorrect answer to a question, you should use gestures to which one is intended.

Subtest Scaled Scores

The total raw score for each of the Leiter-3 subtests is typically the sum of the correct responses marked on the Record Form. For each subtest, the distribution of raw scores, at each age, was converted to normalized scaled scores with a mean of 10 and a standard deviation of 3. Scaled scores range from 0 to 20 and are commonly used in the subtest profiles of intellectual ability tests.

Tables in Appendix A (for the Cognitive subtests), Appendix B (for the Attention and Memory subtests), or Appendix C (for the Attention/Memory Special Supplemental scores) present the scaled score equivalents of raw scores by age group. Age groups are in the following intervals:

Age in Years	Interval for Norms
3-10	2-month intervals
11-15	5-month intervals
16-19	1-year intervals
20-29	5-year intervals
30-70+	10-year intervals

To convert raw scores to scaled scores for each of the 10 subtests, transfer the raw score totals for each subtest on the Record Form to the appropriately-marked column on the front of the Record Form. (see Figure 2.3). Next, locate the appropriate age group

FIGURE 2.3: Score Conversion of Subtests

Cognitive Subtests (All Ages)					Attention/Memory Battery (All Ages)				
Subtests	Raw Score	Scaled Score (see Appendix A)	Subtests	Raw Score	Scaled Score (see App. B)	Nonverbal Memory (Scaled Score) (see Appendix B)	Processing Speed (Scaled Score) (see Appendix B)		
Figure Ground (FG)	26	10	Attention Sustained (AS)	131	8		8		
Form Completion (FC)	29	9	Forward Memory (FM)	22	10	10			
Classification/ Analogies (CA)	25	11	Reverse Memory (RM)	13	9	9			
Sequential Order (SO)	29	8	Nonverbal Stroop Incongruent Correct (NSic)	19	8		8		
Visual Patterns (VP) (Optional)	()	()	Nonverbal Stroop Congruent Correct (NScc)	31	10				
Sum of 4 Scaled Scores		38	Nonverbal Stroop Effect (NSEff)	12	12				
			Sum of Scaled Scores			19	16		
Cognitive Composite	Sum of 4 Scaled Scores	Nonverbal IQ/ Composite Score (see Appendix D.1)	Percentile (see Appendix F)	% Confidence Interval Range (see Appendix D.3)	Attention/Memory Composite	Sum of Scaled Scores	Composite Score (see Appendix D.2)	Percentile (see Appendix F)	% Confidence Interval Range (see Appendix D.3)
Nonverbal IQ	38	96	37	89-101	Nonverbal Memory	19	97	42	87-107
					Processing Speed	16	90	25	82-96

Composite Scores you will calculate and/or employ in your interpretive report. To simplify scoring, and facilitate the profiling of composites, all scores have been placed on an IQ-type metric (mean of 100 and a standard deviation of 15). **However, be cautious that the Composite Scores are not equated with IQ scores, for they all measure memory or attentional processes, not global intellectual ability.**

The process of obtaining the A/M Battery Composite Scores parallels the one used for the Cognitive Battery described earlier in this chapter. Figure 2.3 presents a completed sample for the Attention and Memory Battery.

The steps included are:

- 1. Organize and record** all the scaled score information on page 1 of the Record Form.
- 2. Sum the scaled scores** (down each column) for the A/M Composites. Remember that raw scores are NOT used in the composites.
- 3. Record the sum of scaled scores** in the appropriate sections on the Record Form.
- 4. Using the tables in Appendix B (A/M Battery-Composite Norms) and the scaled score sums**, find the appropriate Standardized Composite in the body of the table.
- 5. Record the Composite** on the Record Form.
- 6. Calculate the percentile equivalent and confidence intervals** using Appendices D and F for percentiles and confidence intervals. Then, profile all subtest scores and Composites for the A/M Battery.

Using Raw Scores of Zero in IQ Estimates

Raw scores of zero on Leiter-3, and their relation to a person's abilities, are worth special mention. Such raw scores do not indicate a complete absence of the ability measured by the subtest; the person's ability in that particular domain should be considered indeterminate. For example, a young child may score zero on the first subtest, Figure Ground, but still have some ability to select objects out of a complex background. However, if

you find that a person has received ALL zero raw scores on the subtests composing an IQ estimate or Composite, you must note that this total score is indeterminate. We do not know, based on the Leiter-3, the person's true level of functioning.

Use of the Criterion-Referenced Growth Scales

Using the Growth Scale Record Form

The Leiter-3 growth scores, and item growth values, have been developed to counteract a well-deserved criticism of standardized norm-referenced scales: that norm-referenced scaled scores do not always provide detailed information about the skills of an individual, the growth that an individual is achieving, or the skills and processes that should be incorporated into the individual's treatment plan. The imprecision of norm-referenced scores is particularly true for people who are significantly delayed, and lower in functioning level, for their age.

To understand the purpose of growth scores, consider the following analogy of recording the height of a growing child. Marking the height of a child, across time on a wall chart produces a pure growth score. In contrast, comparing the child's height, to the average height of children of the same age, produces a norm-referenced (scaled) score. The shorter child is likely to always have a low norm-referenced score, but we can tell that the "short" child has a normal growth rate, despite ranking below average compared to most children in the same age group.

Using the tables in Appendix G, you can convert the raw scores for each subtest, each composite and each IQ estimate to Growth Scale scores. You can also identify the item growth values for each item passed or failed on the Leiter-3. These converted scores are provided to assist you with program planning, determining change over time, and explaining results to clients, parents, and teachers. To determine an individual's growth value on each item, first locate the item numbers for all the items that person passes. Next, turn to the tables in

Scoring the Leiter-3 Examiner Rating Scale

Calculating Raw Scores on the Examiner Rating Scale

To score the Examiner Rating Scale, circle the number corresponding to the rating of the frequency of the child's typical behavior, 0 for "Rarely/Never", 1 for "Sometimes", 2 for "Often", or 3 for "Usually/ Always". The Examiner Rating Scale is organized into sections ("subscales") such as Attention, Activity Level, Sociability, etc. After marking your ratings, sum your ratings in each subscale and write the subtotal for each section in the spaces provided on the Rating Form.

Transfer these raw scores to the appropriate box at the end of the Form with the appropriate sections (i.e. Section A-D scores and Section E-H Scores).

Converting Raw Scores to Scaled Scores on the Leiter-3 Examiner Rating Scale

To obtain the subdomain scaled scores, follow the same steps as the Cognitive subtest standardized scaled scores. Then, read the far-left column to obtain the standardized scaled score that corresponds to the individual's raw scores, for each subdomain of the rating scales which were administered. Record these scaled scores in the appropriate space on the Rating Scale. **Only four subscales generate scaled scores. These subscales are Attention, Organization, Anxiety, and Energy.** Note that the scaled scores for the Rating Scale range from 1 to 12 ONLY, unlike the Cognitive or A/M subtests, which range from 1 to 20. This occurs because the Rating Scale is designed to measure within the "clinical" or problematic range of behavior frequency. Also, most of the normative sample, on most rating scale subdomains, scored in the average range, thus eliminating the "upper end" of the standard-score scale for most of these subdomains. In other words, most people received average ratings

(mostly "3s"), resulting in skewed and truncated scales. Truncated scales often occur with positively-rated attributes such as self-esteem, for which the general population scores homogeneously in the positive direction. As with all scaled-score profiles, however, clinical attention should be paid to scores of 4 or less (2 or more standard deviations below the mean), and some attention to scores of 5 and 6 (more than 1 SD below the mean). See the section below on Rating Scale Composites to complete the scoring of the ratings.

Calculation of Composites for the Examiner Rating Scale

The Examiner Rating Scale also provides two composite scores, Cognitive/Social and Emotional/Regulations. Calculation of the raw scores for these composite scores is simplified by the use of procedures provided on the Rating Scale Form. The raw scores for each composite score is the sum of all the subdomain raw scores included in that composite.

The steps in the process are:

1. Add the raw scores for the subscales included in the specific composite score in which you are interested.
2. Enter this sum in the appropriate place on the Rating Scale Form.
3. Convert the raw score sum to a standardized composite score (mean 100 and standard deviation of 15) by using the norms tables in Appendix E.1-E.4, and enter the standardized composite score in the space provided.
4. Calculate the subscale Composite Scores by adding all raw scores in the section (i.e. A-D or E-H). Look up the Composite Score in Appendix E.5 for Cognitive Composite Score and E.6 for the Emotional Composite Score (see Figure 2.7).

Figure 2.8 shows the composites for the Examiner Rating Scale.

memory and processing speed) are the basis of the Attention and Memory profile subtests. The model in Figure 4.1 provides a theoretical framework for examining the growth in cognitive abilities.

Other research (e.g., Elliot, 2008) shows a spatial factor becoming differentiated in older children, and functioning similar to Thurstone's (1937) "spatial" factor "S." Nonverbal IQ, as measured in the Leiter-3, appears to include inductive reasoning related to Cattell and Horn's (1966) fluid (Gf) factor (also identified by Carroll, 1993). Some subtests within the Leiter-3 IQ appear related to Thurstone's primary mental construct "General Reasoning" or "R" and to the second-stratum factor (Gv, Broad Visualization) in Cattell and Horn, and in Carroll's models. A slightly different, but similar, view of the factor composition of Leiter-R subtests (most the same as in Leiter-3) has been provided by McGrew and Flanagan (1997).

The individual's total nonverbal IQ score can be interpreted as evidence of the individual's nonverbal cognitive abilities relative to typical people in the same age-group. It provides information about the current status of the individual, and can be useful for program placement, intervention planning and research. The Leiter-3 should not be used to predict a young individual's future abilities unless there is overwhelming evidence of accurate prediction from multiple sources of information. Figure 4.2 presents descriptive classifications of various score levels on the Nonverbal IQ. The right-hand column of Figure 4.2 shows the percentile equivalents of the IQ ranges. The other columns in Figure 4.2

will be helpful in interpreting the other hierarchical levels of score interpretation on the Leiter-3.

Finally, as explained eloquently by Campbell (1996), due to the possible influence of socio-economic, historical, and environmental influences on intelligence levels, the Leiter-3 IQ should NOT be interpreted as a measure of innate capacity, or the maximum potential of the individual. With environmental and educational stimulation, improvements in intelligence may be possible. As Kaufman (1990) has shown with data from the Wechsler Adult Intelligence Scale-Revised (WAIS-R, Wechsler, 1981), Full Scale IQ appears to be strongly associated with years of schooling completed by the individual; thus emphasizing the role of environmental influence on global ability. The information from the Leiter-3, especially the Growth Scale Record Form, can be used to determine an individual's current strengths and limitations on the subtests that compose the IQ Scores. This may be helpful in planning interventions, or curricula, by using the strengths to compensate for the weaknesses, or by focusing on areas which are not strengths. *However, the items in this test should never be made the focus of an intervention plan.* Interventions should employ related, but distinct, tasks for practicing cognitive abilities.

Research and Interpretation of IQ in Autism Assessment

When the Leiter-3 results are available for cases of Autism Spectrum Disorder (ASD), some of the recent research and theory on intelligence in individuals with

FIGURE 4.2: Descriptive Classification Labels for Leiter-3 Nonverbal IQ Scores

IQ and Composite Scores	Subtest Scores	Category	Percentiles
150-170	20	Extremely High/Gifted	99.9
130-149	17-19	Very High/Gifted	98-99
120-129	15-16	High	91-97
110-119	13-14	Above Average	75-90
90-109	8-12	Average	25-74
80-89	6-7	Below Average	9-24
70-79	4-5	Low	3-8
55-69	1-3	Very Low and Mild Delay	1-2
40-54	0	Moderate Delay	0.10
30-39	—	Severe Delay	0.04

Case Study of Growth Scale and Normative Score Usage

FIGURE 4.6: Maria’s Cognitive Scores

Figure Ground	Form Completion	Classification Analogies	Sequential Order
10	9	11	8
Nonverbal IQ		Growth Score	
96		502	

As shown in Figure 4.6, Maria shows a very uniform, average-level profile of scaled scores, and a global level of 95 IQ. Thus, the Leiter-3 appears to have avoided penalizing her for her lack of the English language.

In terms of intervention ideas to explore following her testing, she appears to have mastered many of the types of tasks in visualization and reasoning. Based on the Growth Scale Item Difficulty values of items (see Figure 4.3 or Appendix G), more difficult items for Maria could be challenged with the advanced items in Classification/Analogies and Form Completion. Although the specific items in these subtests would never be the target of instruction, the results suggest that advanced areas of visual transformation (rotation, analogy, 3-dimensional representation) may be challenging new targets for Maria (assuming that these areas are of interest to her and provide new skills relevant to future schooling, career, etc.).

The Concept of “Person Fit” on the Growth Scales

Based on the original work of Wright and Stone (1979), it is possible to examine, systematically, the pattern of item responses in the individual’s protocol. Because the items on all Leiter-3 subtests are arranged in approximate item-difficulty order (from easy to difficult), unusual patterns can be identified, such as missing easy items while passing difficult items. This process has been called “person fit” by Linacre and Wright (1990), to emphasize the question of whether the individual’s responses are as consistent as would be required by a perfect scaling of the items.

Inconsistent responding may be indicative of any one or more of the following:

1. **“Lapses” in Attention.** The distracted individual, or the individual with ADHD, may not attend to difficult items consistently, and may be distracted in the face of simple items. Thus, a poor “person fit” can be an indication of an attention lapse during testing.
2. **“Gaps” in Ability.** Individuals with disabilities, or learning difficulties, often have an inconsistent academic history. Thus, they may show mastery of a few difficult items, while missing easy ones. A review of the academic history, medical history and other circumstances of the individual, may reveal hypotheses concerning response inconsistencies.
3. **“Guessing.”** Although all Leiter-3 items were screened for elimination of guessing factors, some individuals may show a pattern of correctly answering a few difficult items when their Growth Scale Ability Score is much lower than the level of those items. Check the Examiner Rating Scale and see if there is evidence of impulsive responding or guessing (or, if you are the examiner, note the guessing behavior as it occurs, and/or ask the individual questions about the difficult items, following the conclusion of testing).
4. **“Sleeping.”** The individual may miss a series of easy items, and, then, suddenly begin to correctly answer, as if he or she was “asleep” and suddenly “woke up.” After testing, you could ask the individual if they liked the subtest, and try to find out why he/she suddenly improved.
5. **“Plodding” or “Quitting.”** If an individual has a consistent pattern of getting all initial items correct, followed by all incorrect answers (e.g., never gets a more difficult item correct), ask yourself if he/she showed signs of “giving up” easily or lacking motivation to tackle difficult items. Also, the individual may be very deliberate and will not attempt items perceived to be too difficult.

Memory (where there is no longer-term retrieval, only immediate memory) is 13 (one standard deviation above the mean) whereas her score on Reverse Memory (which requires that she retain the image long enough to reverse the order in her mind) is only 7 (one standard deviation *below* the mean). Thus, Sarah would appear to have a deficit in working memory, and it would be misleading to state that her overall Nonverbal memory is in the average range.

Although quantitative interpretation is very useful and forms the basis of clinical interpretation, clinical interpretation allows the examiner to go much deeper into the nature of the subtests to try to elucidate the nature of the individual's abilities and disabilities. Discovery of the processes that underlie his or her performance on the subtests can be more important than the overall score level. For maximum applicability, the score profile information must be combined with information from the parents/caretakers and teachers. It is critical to try to meld the information you have obtained from the Leiter-3 with information about the person's quality of life. The relationship between the person's functional abilities and skills and his/her cognitive strengths and limitations, as derived from the scale, will be of maximum import.

Your clinical interpretation can help to uncover which underlying abilities or processes result in sets of high or low scores in the individual's profile. All Leiter-3 subtests require certain abilities in common (i.e., attention to the task). However, beyond that the attributes of each subtest vary. By analyzing the person's patterns of strengths and weaknesses on subtests, the examiner is synthesizing the person's performance at a much higher conceptual level, than mere reporting of subtest scores.

Case Studies

CASE 1: TRAUMATIC BRAIN INJURY BROUGHT ON BY A STROKE 20 YEARS AGO.

Amanda is an 87 year, 0 month, and 21 day female who suffered from a stroke 20 years ago. This stroke left her with brain injury.

Amanda's Leiter 3 scores

Subtest	Raw Score	Scaled Score
Figure Ground	18	6
Form Completion	22	5
Classification/Analogies	20	7
Sequential Order	14	5
Nonverbal IQ		69

Amanda's mental organizational abilities appear to be quite low, as she scored a 5 on both Form Completion and Sequential Order. Her reasoning and mental flexibility are falling below the average. Although she may understand how objects relate to each other, she struggles with being able to organize them, and have more abstract thought patterns.

Amanda's Attention/Memory Battery Scores

Subtest	Raw Score	Scaled Score
Attention Sustained	53	2
Forward Memory	16	7
Reverse Memory	9	8
NS Incongruent Correct	6	3
NS Congruent Correct	7	2
NS Effect	1	8
Nonverbal Memory	15	87
Processing Speed	5	61

Amanda's ability to visually sustain her attention, which requires good visual scanning and motoric inhibition on a rapid repetitive motor task, is significantly low. Cancellation tasks in general, like the Attention Sustained subtest, "can reflect the general slowing and inattentiveness of diffuse damage or acute brain conditions or the more specific defects of response shifting and motor smoothness or of unilateral inattention" (Lezak, 1995, p.354).

Amanda also showed that she has relatively low Stroop scores, which indicates she is experiencing a significant level of interference.

Amanda's Supplemental A/M Scores

Attention Sustained Errors	0
Attention Divided Correct	12
Attention Divided Incorrect	36
NS Congruent Correct	1
NS Incongruent Incorrect	0

Based on the scores Amanda achieved on the Leiter-3, her ability to sustain attention has been greatly affected by her disability, and is impacting her executive functioning overall. She will struggle with organizing her thoughts and maintaining her attention. Her strength, and her ability which helps to compensate for her weaknesses, are her memory skills. She has good short term and working memory abilities when compared to her other skills. Amanda's performance is also affected by her age. Processing speed is known to decrease with age.

CASE 2: AUTISM WITH SEVERE SPEECH DELAY.

Max is an 8-year, 7 month-old Hispanic male from the Northeast. His household is bilingual. His parents have a combined education of High School. Max has been diagnosed with Autism and also has a severe speech delay. During testing, the examiner had to use Skittles as a reinforcement so that Max would attend to the tasks. He was unable to complete the Attention Divided and Nonverbal Stroop subtest, so a Processing Speed score is not available.

Max's Cognitive Profile Score

Subtest	Raw Score	Scaled Score
Figure Ground	9	4
Form Completion	21	8
Classification/Analogies	16	7
Sequential Order	11	5
Nonverbal IQ		70

Max did a much better job on the subtests requiring him to be mentally flexible and organize images in his head. He appears to perform better on more abstract tasks, where images are non-representational.

He struggled most in a task of basic visual interference, and given the background information provided by the examiner, it can be concluded that Max struggled on this subtest (Figure Ground) because he was unable to attend to the task long enough to find the necessary images embedded in the pictures. He was easily distracted by the extraneous information in the images.

Not surprising, Max also struggled with Sequential Order, which requires focus on a rule generation related to problems of seriation or sequential information.

Max's Attention/Memory Battery Scores

Subtest	Raw Score	Scaled Score
Attention Sustained	23	0
Forward Memory	6	1
Reverse Memory	0	0

Nonverbal Memory Scaled Score = 51

Could not complete the NV or the AD subtests.

Max showed significant inability to sustain his attention on a task, as well as remember short spans of information. These scores should be interpreted with caution, however, as Max may have been resistant, and unwilling to engage in the tasks required by him. Even with that consideration, however, his scores overall support his difficulty in maintaining attention on a task over a period of time.

Max's Examiner Rating Scale Scores

Scale	Raw Score	Scaled Score
Attention	7	2
Organization	12	3
Activity	5	—
Social	10	—
Cognitive/ Social Composite	—	64
Energy and Feeling	12	5
Regulation	7	—
Anxiety	14	7
Sensory	5	—
Emotions/Regulations Composite	—	68

Max demonstrated stereotypical, perseverative, or Autistic-like behaviors. He also made odd verbalizations, or sounds, throughout testing. He was completely nonverbal. Once again, his struggles in maintaining attention are noted. He struggled with organizing mental thought processes through the testing, as well. He does appear to have a positive energy level, and be content with himself and react appropriately to his emotions. He was slightly anxious, although calm and not agitated during the session. His perseverations, however, did interfere with his ability to persist with difficult tasks, and move on to the next task at hand.

In order to support the information gained from Max's performance on the Leiter-3, his parents also filled out the Conners 3 Parent Rating Scale (Stoelting Cat. no. 32850P).

Max's Conners 3 Parent Rating Scores

- Inattention = 79
- Hyperactivity = 76
- Learning Problems = 73
- Executive Functioning = 79
- Aggression = 60
- Peer Relations = 82

Max's T-scores on the Conners 3 Parent Rating Scale show that he struggles most with his peer relationships, but also with his inattention and executive functioning. His performance on the Leiter-3 is supported by his parents' report.

Although Max has Autism and severe speech delays, making it impossible to assess his abilities through a verbal administration of an IQ test, his overall cognitive abilities were able to be assessed by the Leiter-3, which required no verbal responses from him.

CASE 3: SEVERE SPEECH/LANGUAGE IMPAIRMENT, AND DIAGNOSED WITH A LEARNING DISABILITY IN READING.

Randy is a 21 year, 10 month Caucasian male who is currently attending college, but has struggled with a speech/language disorder and learning disabilities his whole life. His scores on the Cognitive Profile of the Leiter-3 are as follows:

Randy's Cognitive Profile Scores

Subtest	Raw Score	Scaled Score
Figure Ground	21	6
Form Completion	30	8
Classification/Analogies	24	9
Sequential Order	31	8
Nonverbal IQ		78

Randy had significant difficulties with Figure Ground, which is a task of basic visual interference, combined with distracters. This task is associated with freedom from distractibility and is related to Randy's cognitive flexibility. It appears as though this is an area in which Randy struggles, as he is not demonstrating good inhibition, and instead responded impulsively, as the complex backgrounds were too stimulating for him.

Randy's Attention/Memory Battery Scores

Subtest	Raw Score	Scaled Score
Attention Sustained	138	9
Forward Memory	23	9
Reverse Memory	16	11
NS Incongruent Correct	21	8
NS Congruent Correct	29	9
NS Effect	8	10
Nonverbal Memory		100
Processing Speed		92