

## **WISC-V Interpretive Considerations for Laurie Jones (6/1/2015)**

Interpretive considerations provide additional information to assist you, the examiner, in interpreting Laurie's performance. *This section should not be provided to the parent or recipient of the report.*

Please review these interpretive considerations before reading the report, as they may suggest that you make changes to the report settings in Q-global. If you make changes to the report settings, you can re-run the report without being charged.

This file contains two full reports: first, the interpretive report, and second, the parent report. Be sure to separate these reports before providing them to the appropriate recipients.

### **Test Behavior Considerations**

Expressive language difficulties were identified that may significantly impact verbal comprehension and auditory memory performance, depending upon the nature and severity of the impairment. You have indicated that Laurie exhibited speech-related or expressive language difficulties. Her scores on verbal measures may underestimate her actual ability.

Laurie displayed notable difficulties with affect and motivation during the test session. In particular, she exhibited a low energy level and poor eye contact. The degree to which these behaviors may have impacted test performance will need to be evaluated within the context of her background, presenting problems, referral reason, and chronicity of the observed difficulties.

### **Score Interpretation Considerations**

Performance was somewhat low on Similarities, a Verbal Comprehension subtest that required Laurie to describe how two words are similar. Difficulties with this subtest may be related to poor abstract reasoning ability, low verbal concept formation, or difficulties with verbal expression. Her performance should be interpreted in light of her performance on other Verbal Comprehension subtests.

Performance was somewhat low on Vocabulary, a Verbal Comprehension subtest that required Laurie to define words. Difficulties with this subtest may be related to poor word knowledge, low verbal concept formation, or difficulties with verbal expression. Her performance should be interpreted in light of her performance on other Verbal Comprehension subtests. If picture items were administered, a comparison of her performance across picture and verbal items might be informative.

Performance was somewhat low on Information, a Verbal Comprehension subtest that required Laurie to answer questions about general-knowledge topics. Difficulties with this subtest may be related to



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difficulty acquiring, retaining, and/or retrieving general factual knowledge. Her performance should be interpreted in light of her performance on other Verbal Comprehension subtests.

Performance was somewhat low on Comprehension, a Verbal Comprehension subtest that required Laurie to answer questions based on her understanding of general principles and social situations. Her performance on this subtest should be interpreted in light of her performance on other Verbal Comprehension subtests. Difficulties with this subtest may be related to low verbal reasoning and expression or poor practical knowledge and judgment. If she appears to have specific difficulties in the area of social pragmatics, interventions should be considered. She may benefit from directed social skills training, role play activities, and social thinking interventions.

### **Recommendation Considerations**

Items listed in the 'Recommendations' section at the end of the report are meant to be an aid to you as a clinician, not a substitute for individualized recommendations that should be provided by a professional who is familiar with the examinee. Please read through the automatically generated recommendations carefully and edit them according to the examinee's individual strengths and needs.

The recommendation section entitled 'Recommendations for General Cognitive Functioning' was included in the report because the examinee's FSIQ fell below a standard score of 90.

The recommendation section entitled 'Recommendations for Verbal Skills' was included in the report because the examinee's VCI fell below a standard score of 90.

The recommendation section entitled 'Recommendations for Visual Spatial Skills' was included in the report because the examinee's visual spatial skills were an area of strength relative to other areas of cognitive functioning.

The recommendation section entitled 'Recommendations for Fluid Reasoning Skills' was included in the report because fluid reasoning skills were an area of strength relative to her overall ability level.

The recommendation section entitled 'Recommendations for Working Memory Skills' was included in the report because the examinee's working memory skills were an area of weakness relative to other areas of cognitive functioning.

The recommendation section entitled 'Recommendations for Processing Speed' was included in the report because the examinee's processing speed skills were an area of strength.

### **End of Interpretive Considerations**



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[ 1.2 / RE1 / QG1 ]



WISC®-V  
Wechsler Intelligence Scale for Children®-Fifth Edition  
Interpretive Report

Examinee Name	Laurie Jones	Date of Report	06/03/2015	
Examinee ID		Grade	4	
Date of Birth	4/01/2007	Primary Language	English	
Gender	Female	Handedness	Right	
Race/Ethnicity	Multiracial	Examiner Name	John Smith	
Date of Testing	6/01/2015	Age at Testing	8 years 2 months	Retest? No

Comments:



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[ 1.2 / RE1 / QG1 ]

## TEST SESSION BEHAVIOR

Laurie arrived on time for the test session accompanied by her parent. She was appropriately dressed and groomed. She was oriented to person, place, time, and situation. She showed a low energy level. Additionally, her eye contact was poor. These factors may have mildly impacted her ability to show her optimal performance. She exhibited notable difficulties with expressive language during testing. In particular, occasional difficulties were seen in the areas of word finding, vocabulary, syntax, and pragmatics and frequent difficulties were seen in the area of morphology. Her expressive language difficulties may have had a moderate effect on her performance on tasks requiring oral responses.

## ABOUT WISC-V SCORES

Laurie was administered 16 subtests from the Wechsler Intelligence Scale for Children-Fifth Edition (WISC-V). The WISC-V is an individually administered, comprehensive clinical instrument for assessing the intelligence of children ages 6:0-16:11. The primary and secondary subtests are on a scaled score metric with a mean of 10 and a standard deviation (*SD*) of 3. These subtest scores range from 1 to 19, with scores between 8 and 12 typically considered average. The primary subtest scores contribute to the primary indexes, which represent intellectual functioning in five cognitive areas: Verbal Comprehension Index (VCI), Visual Spatial Index (VSI), Fluid Reasoning Index (FRI), Working Memory Index (WMI), and the Processing Speed Index (PSI). This assessment also produces a Full Scale IQ (FSIQ) composite score that represents general intellectual ability. The primary index scores and the FSIQ are on a standard score metric with a mean of 100 and an *SD* of 15. The primary index scores range from 45 to 155; the FSIQ ranges from 40 to 160. For both the primary index scores and the FSIQ, scores ranging from 90 to 109 are typically considered average.

Ancillary index scores are also provided for Laurie. The ancillary index scores represent her cognitive abilities using different primary and secondary subtest groupings than do the primary index scales. The ancillary index scores are on a standard score metric with a mean of 100 and an *SD* of 15. The Quantitative Reasoning Index (QRI) and Auditory Working Memory Index (AWMI) have a range of 45-155. The remaining three ancillary index scores have a range of 40-160: Nonverbal Index (NVI), General Ability Index (GAI), and the Cognitive Proficiency Index (CPI). Scores ranging from 90 to 109 are typically considered average. Further, the WISC-V provides complementary index scores that measure additional cognitive abilities related to academic achievement and learning-related issues. The complementary index scores include the Naming Speed Index (NSI), Symbol Translation Index (STI), and the Storage and Retrieval Index (SRI). Both the complementary subtests and index scores are on a standard score metric with a mean of 100 and an *SD* of 15, with a range of 45-155. Scores ranging from 90 to 109 are typically considered average.

A percentile rank (PR) is provided for each reported index and subtest score to show Laurie's standing relative to other same-age children in the WISC-V normative sample. If the percentile rank for Laurie's Verbal Comprehension Index score is 1, for example, it means that Laurie performed as well as or better than approximately 1% of children her age. This appears in the report as PR = 1.

The scores obtained on the WISC-V reflect Laurie's true abilities combined with some degree of measurement error. Her true score is more accurately represented by a confidence interval (CI), which is a range of scores within which her true score is likely to fall. Composite scores are reported with 95% confidence intervals to ensure greater accuracy when interpreting test scores. For each composite score reported for Laurie, there is a 95% certainty that her true score falls within the listed range.

It is common for children to exhibit different strengths and weaknesses across areas of performance. If the difference between two scores is statistically significant, it is listed in the report with a base rate to aid in interpretation. The base rate (BR) provides a basis for estimating how rare a particular score difference was among other children of similar ability in the WISC-V normative sample. For example, a base rate of  $\leq 2\%$  is reported if the composite score for the Verbal Comprehension Index is 28.80 points lower than the mean primary index score (MIS). This appears on the report as  $VCI < MIS, BR = \leq 2\%$ . This means that  $\leq 2\%$  of children of similar ability level in the WISC-V normative sample obtained a difference of this magnitude or greater between those two scores.

It is possible for intellectual abilities to change over the course of childhood. Additionally, a child's scores on the WISC-V can be influenced by motivation, attention, interests, and opportunities for learning. All scores may be slightly higher or lower if Laurie were tested again on a different day. It is therefore important to view these test scores as a snapshot of Laurie's current level of intellectual functioning. When these scores are used as part of a comprehensive evaluation, they contribute to an understanding of her current strengths and any needs that can be addressed.

## **INTERPRETATION OF WISC-V RESULTS**

### **FSIQ**

The FSIQ composite score is derived from seven subtests and summarizes ability across a diverse set of cognitive functions. This score is considered the most representative indicator of general intellectual functioning. Subtests are drawn from five areas of cognitive ability: verbal comprehension, visual-spatial ability, fluid reasoning, working memory, and processing speed. Laurie's FSIQ is in the Low Average range when compared to other children her age (FSIQ = 85, PR = 16, CI = 80-91). Although the WISC-V measures various aspects of ability, a child's scores on this test can also be influenced by many factors that are not captured in this report. When interpreting this report, consider additional sources of information that may not be reflected in the scores on this assessment. While the FSIQ provides a broad representation of cognitive ability, describing Laurie's domain-specific performance allows for a more thorough understanding of her functioning in distinct areas. Some children perform at approximately the same level in all of these areas, but most children display areas of cognitive strengths and weaknesses.

### **Verbal Comprehension**

The Verbal Comprehension Index (VCI) measured Laurie's ability to access and apply acquired word knowledge. Specifically, this score reflects her ability to verbalize meaningful concepts, think about verbal information, and express herself using words. Overall, Laurie's performance on subtests within the VCI was much lower than most children her age and was an area of personal weakness compared to

her overall ability (VCI = 65, PR = 1, Extremely Low range, CI = 60-75; VCI < MIS, BR = <=2%). Low scores in this area may occur for a number of reasons including poorly developed word knowledge, difficulty retrieving acquired information, problems with verbal expression, or general difficulties with reasoning and problem solving. Her scores on verbal comprehension tasks were weaker than her performance on tasks that required her to process and evaluate visual information and use logic to solve problems (VCI < VSI, BR = 0.5%; VCI < FRI, BR = 0.8%). Additionally, her Verbal Comprehension performance was somewhat weaker than scores obtained on tasks requiring her to mentally manipulate information and work quickly and efficiently (VCI < WMI, BR = 3.2%; VCI < PSI, BR = 0.8%). Laurie's verbal comprehension ability is the weakest of her skill set.

With regard to individual subtests within the VCI, Similarities (SI) required Laurie to describe similarities between words with common characteristics and Vocabulary (VC) required her to name pictures and/or define words aloud. She performed comparably across both subtests, suggesting that her abstract reasoning skills and word knowledge are similarly developed at this time (SI = 4; VC = 3). In addition to the two subtests in the VCI, two other verbal comprehension subtests were administered to gain a more comprehensive understanding of Laurie's language skills. For Information (IN), she answered general knowledge questions. Her performance was extremely low for her age, suggesting very weak ability to acquire, remember, and retrieve knowledge about the world around her (IN = 3). On Comprehension (CO), a subtest requiring her to answer questions about general principles and social situations, Laurie's performance was very low for her age. This suggests weak understanding of practical knowledge and ability to verbalize meaningful concepts (CO = 5).

Extremely Low verbal skills are consistent with her reported difficulties with expressive language.

## **Visual Spatial**

The Visual Spatial Index (VSI) measured Laurie's ability to evaluate visual details and understand visual spatial relationships in order to construct geometric designs from a model. This skill requires visual spatial reasoning, integration and synthesis of part-whole relationships, attentiveness to visual detail, and visual-motor integration. In this area, Laurie exhibited performance that was similar to other children her age (VSI = 102, PR = 55, Average range, CI = 94-109). Laurie showed average performance when putting together geometric designs using a model. This reflects her ability to understand and apply visual-perceptual and visual-spatial information. Her performance in this area was particularly strong in relation to her performance on verbal reasoning tasks (VSI > VCI, BR = 0.5%). Her visual spatial scores were also particularly strong when compared to her performance on working memory tasks (VSI > WMI, BR = 22.4%). It appears that she can solve complex visual-spatial problems without difficulty, despite working memory weaknesses.

The VSI consists of two tasks. During Block Design (BD), Laurie viewed designs and used blocks to recreate each design. Visual Puzzles (VP) required her to view a completed puzzle and select three pieces that together would reconstruct the puzzle. She performed comparably across both subtests, suggesting that her ability to analyze and synthesize visual information and her ability to understand part-whole relationships are similarly developed (BD = 10; VP = 11). Her score on Visual Puzzles was similar to other children her age and was one of her strongest areas of performance (VP = 11; VP > MSS-F, BR = <=10%). This suggests that her mental rotation skills and ability to understand part-whole relationships may be particularly strong when compared to her other abilities. This represents a strength that can be

built upon in her further development. In addition to the BD score, the Block Design No Time Bonus score (BDn) was calculated. BDn is based on the child's performance on Block Design (BD) without including bonus points for rapid completion of items. The score's reduced emphasis on speed may be useful when a child's limitations, problem-solving strategies, or personality characteristics are believed to affect performance on timed tasks, as this score does not award extra points for working quickly. Laurie's BDn score (BDn = 10) is not significantly different than her BD score, suggesting that both accuracy and speed equally contributed to her performance on this visual-spatial task. The Block Design Partial score (BDp) was also calculated, which awards points for the number of blocks correctly placed when the time runs out, even if the child has not finished the entire design. This score reduces the emphasis on speed and attention to detail, providing an estimate of performance in children who are impulsive or who misperceive the design. Laurie's BDp score (BDp = 9) is similar to her BD score. This suggests that during visual-spatial tasks, her performance is similar regardless of speed, motor, or attention demands.

### **Fluid Reasoning**

The Fluid Reasoning Index (FRI) measured Laurie's ability to detect the underlying conceptual relationship among visual objects and use reasoning to identify and apply rules. Identification and application of conceptual relationships in the FRI requires inductive and quantitative reasoning, broad visual intelligence, simultaneous processing, and abstract thinking. Laurie's performance on subtests within the FRI was diverse, but overall was typical for her age. These subtests emerged as one of Laurie's strongest areas of performance during the current assessment (FRI = 103, PR = 58, Average range, CI = 96-110; FRI > MIS, BR = <=10%). Additionally, her performance on fluid reasoning tasks was particularly strong when compared to her performance on tasks that involved language-based skills (FRI > VCI, BR = 0.8%). Laurie's relatively strong fluid abilities might be further examined to determine if the difference between her fluid and crystallized abilities is primarily related to a preference for visual rather than verbal stimuli. Moreover, her overall performance on the FRI was stronger than performance on tasks that measured working memory (FRI > WMI, BR = 17.8%). It appears that she is well able to solve complex problems despite having difficulty on other tasks.

The FRI consists of two subtests: Matrix Reasoning (MR) and Figure Weights (FW). Matrix Reasoning required Laurie to select the missing piece to complete a pattern. On Figure Weights, she looked at a scale with a missing weight and identified the weight that would keep the scale balanced. Laurie demonstrated diverse performance on these two tasks. Identifying the missing piece in patterns on Matrix Reasoning was a strength for Laurie (MR = 12; MR > MSS-F, BR = <=5%); however, she showed greater difficulty balancing scales under a time constraint during Figure Weights (FW = 9; MR > FW, BR = 20.7%). This pattern of scores implies a relative strength in inductive reasoning compared to quantitative reasoning. It is possible that her understanding of part-whole relationships may currently be better developed than her mathematical reasoning skills. When Laurie solves novel problems, she may have difficulty applying quantitative concepts. In addition to the two subtests in the FRI, two other fluid reasoning subtests were administered to gain a more comprehensive understanding of Laurie's fluid reasoning skills. For Picture Concepts (PC), she was asked to choose pictures from two or three rows to form a group with a common trait. Her performance was similar to other children her age, suggesting age-appropriate categorical reasoning skills (PC = 9). On Arithmetic (AR), a timed subtest requiring her to solve math word problems in her head, Laurie's performance was similar to other children her age. This suggests age-appropriate numerical reasoning ability and concentration skills (AR = 8).

## Working Memory

The Working Memory Index (WMI) measured Laurie's ability to register, maintain, and manipulate visual and auditory information in conscious awareness, which requires attention and concentration, as well as visual and auditory discrimination. Laurie's performance on the WMI was similar to other children her age (WMI = 91, PR = 27, Average range, CI = 84-99). Laurie recalled and sequenced series of pictures and lists of numbers at a level that was average for her age. Her performance on these tasks was relatively strong compared to her performance on language-based tasks (WMI > VCI, BR = 3.2%). Laurie's ability to mentally manipulate information is more developed than her ability to solve complex problems. While performance on working memory tasks was stronger than some cognitive abilities and average compared to peers, it was also somewhat weaker than other cognitive skills. Working memory performance was relatively low compared to her performance on visual spatial tasks (WMI < VSI, BR = 22.4%). Her working memory performance was also relatively weak when compared to her performance on logical reasoning and processing speed tasks (WMI < FRI, BR = 17.8%; WMI < PSI, BR = 18.9%).

Within the WMI, Picture Span (PS) required Laurie to memorize pictures and identify them in order on subsequent pages. On Digit Span (DS), she listened to strings of numbers read aloud and recalled them in the same order, backward order, and ascending order. She performed similarly across these two subtests, suggesting that her visual and auditory working memory are similarly developed or that she verbally mediated the visual information on Picture Span (PS = 8; DS = 9). The Digit Span Forward (DSf) scaled process score is derived from the total raw score for the Digit Span Forward task. On this task, Laurie was required to repeat numbers verbatim, with the number of digits in each sequence increasing as the task progressed. This task required working memory when the number of digits exceeded her ability to repeat the digits without the aid of rehearsal. This task represents basic capacity in the phonological loop. Her performance on DSf was typical compared to other children her age (DSf = 8). On the Digit Span Forward task, Laurie's Longest Digit Span Forward score was (LDSf = 5). This raw score reflects the number of digits recalled on the last correct trial in the Digit Span Forward task and offers insight regarding his ability to focus. The Digit Span Backward (DSb) scaled process score is derived from the total raw score for the Digit Span Backward task. This task invoked working memory because Laurie was required to repeat the digits in a reverse sequence than was originally presented, requiring her to mentally manipulate the information before responding. Her performance on DSb was typical compared to other children her age (DSb = 10). On the Digit Span Backward task, Laurie's Longest Digit Span Backward score was (LDSb = 3). The Digit Span Sequencing (DSs) scaled process score is derived from the total raw score for the Digit Span Sequencing task. This task required Laurie to sequence digits according to value, invoking quantitative knowledge in addition to working memory. The increased demands for mental manipulation of information on the Digit Span Sequencing task places additional demands on working memory, as well as attention. Her performance on DSs was typical compared to other children her age (DSs = 8). On the Digit Span Sequencing task, Laurie's Longest Digit Span Sequence score was (LDSs = 4). The Longest Picture Span Stimulus (LPSs) and Longest Picture Span Response (LPSr) raw process scores may help to further evaluate performance on the Picture Span subtest. These scores reflect the number of stimulus and response pictures, respectively, that appear on the last item with a perfect score. Given the variation in the length of response choices across items (i.e., number of responses may decrease when the stimulus span increases), LPSr should be interpreted in relation to LPSs. Laurie's performance pattern on LPSs and LPSr are worth noting. Her Longest Picture Span Stimulus score was (LPSs = 4) and her Longest Picture Span Response score was

(LPSr = 6). In addition to the two subtests in the WMI, Letter-Number Sequencing (LN) was administered to gain a more comprehensive understanding of Laurie's working memory proficiency. On this subtest, she was read sequences of numbers and letters, then recalled the numbers from lowest to highest and the letters in alphabetical order. Her performance was similar to other children her age, suggesting age-appropriate sequential processing, mental manipulation, and attention (LN = 9). Laurie's Longest Letter-Number Sequence score was (LLNs = 3).

## Processing Speed

The Processing Speed Index (PSI) measured Laurie's speed and accuracy of visual identification, decision making, and decision implementation. Performance on the PSI is related to visual scanning, visual discrimination, short-term visual memory, visuomotor coordination, and concentration. The PSI assessed her ability to rapidly identify, register, and implement decisions about visual stimuli. Her performance across subtests in the PSI was diverse but overall was typical for her age and emerged as a personal strength (PSI = 108, PR = 70, Average range, CI = 98-116; PSI > MIS, BR = <=25%). Additionally, her speed and accuracy when processing visual information were strengths compared to her performance on tasks that involved language-based reasoning (PSI > VCI, BR = 0.8%). This pattern of performance suggests that her ability to quickly evaluate visual information and make simple decisions is a strength relative to her complex problem solving ability. Processing speed is not limiting her performance on tasks involving reasoning. Moreover, her processing speed performance was stronger than performance on tasks requiring her to utilize working memory (PSI > WMI, BR = 18.9%). This pattern of performance suggests that Laurie may be more proficient at rapid decision making with information registered in short-term memory than at manipulating that information. Laurie may work at an average speed and have difficulty holding and manipulating information in her mind.

The PSI consists of two timed subtests. Symbol Search (SS) required Laurie to scan a group of symbols and mark the target symbol. On Coding (CD), she copied symbols that were paired with numbers. Laurie demonstrated uneven performance across subtests within the PSI. Symbol Search was one of her strongest areas of performance (SS = 14; SS > MSS-F, BR = <=2%). However, she showed greater difficulty on Coding (CD = 9; SS > CD, BR = 4.6%). Her performance suggests that accurate visual scanning is a strength relative to associative memory and/or graphomotor speed. In addition to the subtests in the PSI, Laurie was administered Cancellation (CA), another Processing Speed subtest, to gain a more comprehensive understanding of her processing speed ability. On this timed subtest she scanned arrangements of objects and marked target objects. Her performance was typical compared to other children her age (CA = 8). Cancellation measures speed, scanning ability, and visual discrimination. Within Cancellation, Laurie worked more efficiently when faced with a structured, rather than unstructured, presentation format (CA Structured > CA Random; BR = 4.8%). Together, these patterns of performance suggest she currently processes visual information more easily when it is arranged in structured rows that are easy to navigate. She may become overwhelmed by a complex array of unstructured visual information. Children with very low reasoning abilities often tend to do somewhat better on processing speed tasks. This may have practical implications for educational programs in which success depends upon quick and relatively error-free performance of simple tasks.

## ANCILLARY INDEXES

In addition to the indexes described above, Laurie was administered subtests contributing to several ancillary indexes. Ancillary indexes do not replace the FSIQ and primary index scores, but are meant to provide additional information about Laurie's cognitive profile.

### Quantitative Reasoning

Figure Weights and Arithmetic comprise the Quantitative Reasoning Index (QRI), which measures quantitative reasoning skills. Quantitative reasoning is closely related to general intelligence and can indicate a child's capacity to perform mental math operations and comprehend abstract relationships. Laurie's overall performance on this index was similar to other children her age (QRI = 91, PR = 27, Average range, CI = 85-98). Assessment of Laurie's performance on the QRI may help to predict her reading and math achievement scores, creative potential, standardized test performance, and future academic success.

### Auditory Working Memory

The Auditory Working Memory Index (AWMI) is derived from the sum of scaled scores for the Digit Span and Letter-Number Sequencing subtests. These subtests required Laurie to listen to numbers and letters presented verbally, then recall or sequence them aloud. This index measured her ability to register, maintain, and manipulate verbally-presented information. Her overall auditory working memory performance was typical for her age (AWMI = 94, PR = 34, Average range, CI = 87-102). Laurie performed similarly across the two subtests in the AWMI, suggesting that her auditory working memory is similarly developed for tasks having both single- and dual-stimulus demands (DS = 9; LN = 9).

### Nonverbal

The Nonverbal Index (NVI) is derived from six subtests that do not require verbal responses. This index score can provide a measure of general intellectual functioning that minimizes expressive language demands for children with special circumstances or clinical needs, especially those having speech and language difficulties. Subtests in the NVI are drawn from four of the five primary cognitive domains (i.e., Visual Spatial, Fluid Reasoning, Working Memory, and Processing Speed). Laurie's performance on the NVI fell in the Average range when compared to other children her age (NVI = 98, PR = 45, CI = 92-104). Assessment of Laurie's performance on the NVI may help to estimate her overall nonverbal cognitive ability.

### General Ability

Laurie was administered the five subtests comprising the General Ability Index (GAI), an ancillary index that provides an estimate of general intelligence that is less impacted by working memory and processing speed, relative to the FSIQ. The GAI consists of subtests from the verbal comprehension, visual spatial, and fluid reasoning domains. Her overall performance on this index was slightly below other children her age (GAI = 83, PR = 13, Low Average range, CI = 78-89). Low GAI scores may

occur for a number of reasons, including poor reasoning skills, visual-spatial processing difficulties, language deficits, or general low intellectual ability. The GAI does not replace the FSIQ as the best estimate of overall ability. It should be interpreted along with the FSIQ and all of the primary index scores. Laurie's FSIQ and GAI scores were not significantly different, indicating that reducing the impact of working memory and processing speed resulted in little or no difference on her overall performance.

### **Cognitive Proficiency**

Laurie was also administered the Cognitive Proficiency Index (CPI), which consists of four subtests drawn from the working memory and processing speed domains. Her performance on this index suggests that she demonstrates average efficiency when processing cognitive information in the service of learning, problem solving, and higher-order reasoning (CPI = 100, PR = 50, Average range, CI = 93-107). The CPI is most informative when interpreted as part of a comprehensive evaluation, together with its counterpart, the GAI. The practitioner may consider evaluating the GAI-CPI pairwise comparison, as this may provide additional interpretive information regarding the possible impact of cognitive processing on her ability. Laurie's performance on subtests contributing to the GAI was significantly weaker than her overall level of cognitive proficiency (GAI < CPI, BR = 25.2%). The significant difference between her GAI and CPI scores suggests that higher-order cognitive abilities may be a weakness compared to abilities that facilitate cognitive processing efficiency. This result indicates that the effects of cognitive proficiency, as measured by working memory and processing speed, may have led to a lower general ability score. Thus, lowered reasoning skills are not due to limitations in cognitive efficiency.

## **COMPLEMENTARY INDEXES**

### **Storage and Retrieval**

The Storage and Retrieval Index (SRI) provides a broad estimate of Laurie's long-term storage and retrieval accuracy and fluency. Her ability to store and accurately retrieve information from long-term memory impacts her reading, writing, and math performance. While her scores on the SRI were diverse, her overall performance was similar to other children her age (SRI = 97, PR = 42, Average range, CI = 90-104). The SRI is based on the sum of scores for the Naming Speed Index (NSI) and the Symbol Translation Index (STI), each measuring unique aspects regarding the storage and retrieval of information from long-term memory.

### **Naming Speed**

The Naming Speed Index (NSI) is based on the Naming Speed Literacy (NSL) and Naming Speed Quantity (NSQ) subtest scores. The NSI provides a broad estimate of the automaticity of basic naming ability. Interpretation of the NSI enhances the assessment of children with suspected learning disabilities, but is not intended to assess intellectual ability. The NSI measured Laurie's ability to quickly and accurately name familiar objects, colors, letters, and numbers. During the Naming Speed Literacy subtest, Laurie named elements (e.g., objects of various size and color, letters and numbers) as quickly as possible. Compared to other children her age, Laurie's score fell in the Very Low range (NSL = 76).

On the Naming Speed Quantity subtest, Laurie named the quantity of squares inside a series of boxes as quickly as possible. On this subtest, her score fell in the Average range (NSQ = 104). The NSL-NSQ discrepancy comparison provides information about Laurie's performance across a pair of subtests designed to measure naming automaticity. These tasks involve naming multiple dimensions and alternating stimuli. The NSL subtest is particularly sensitive to reading and written expression skills, while the NSQ subtest is possibly associated with mathematics skills. Laurie's performance suggests that she has greater naming facility on tasks related to mathematical, rather than literacy, skills (NSL < NSQ, BR = 2.2%). Although there was variability between Laurie's NSI subtest scores, her overall performance was slightly below other children her age (NSI = 88, PR = 21, Low Average range, CI = 81-98). Low NSI scores may occur for many reasons, including visual-processing deficits, information retrieval difficulties, weak language skills, poor naming skills, or generally slow cognitive functioning. The Naming Speed process scores correspond to the NSL items. Laurie's Naming Speed Size-Color-Object (NSsco) process score reflects her ability to identify elements by their size, color and object attributes, while her Naming Speed Letter-Number (NSln) process score reflects her ability to name letters and numbers, as quickly as possible. When asked to quickly say the name, color, and size of common objects, her rate was slow compared to others her age (NSsco = 73). However, when she was also required to name letters and numbers, her speed became significantly faster, and was compared to her same-age peers (NSln = 121). A discrepancy comparison between NSsco and NSln provides additional insight regarding how Laurie's performance on the NSL subtest varied when letters and numbers were added to the naming task. Laurie's performance may suggest a lapse in attention or motivation during the Naming Speed Size-Color-Object task. It is also possible that she more easily employs successful strategies while progressing across tasks or she more readily improves with experience and practice, relative to her same-age peers (NSln > NSsco; BR = 0.0%). Observational data about her behavior, attention, concentration, and motivation during this subtest should also be considered.

## Symbol Translation

The Symbol Translation Index (STI) provides a broad estimate of visual-verbal associative memory. The STI is based on the Immediate Symbol Translation (IST), Delayed Symbol Translation (DST), and Recognition Symbol Translation (RST) subtest scores. She was shown symbols and taught the word that each symbol represented. She was then asked to recall these associations immediately (IST), after a 20-30 minute delay (DST), and in a multiple-choice recognition format (RST). These measures enhance the assessment of children suspected of having learning problems or declarative memory impairment, rather than overall intellectual ability. When interpreting her STI subtest scores, it is important to remember that DST and RST performance are dependent upon that of IST. Laurie's overall performance across these three tasks was evenly developed. She showed age-appropriate memory skills across all three conditions, and her overall performance was Average compared to same-age peers (STI = 108, PR = 70, CI = 101-114). An NSI vs. STI discrepancy comparison offers insight regarding her relative strengths and weaknesses within the storage and retrieval domain. Her STI score was significantly stronger than her performance on the NSI (STI > NSI; BR = 10.0%). This suggests that learning and memory for recently acquired visual-verbal associations is a strength relative to rapid access of previously acquired visual-verbal associations. Laurie's ability to store and accurately retrieve information is stronger than her naming fluency and automaticity.

## SUMMARY

Laurie is an 8-year-old girl. The WISC-V was used to assess Laurie's performance across five areas of cognitive ability. When interpreting her scores, it is important to view the results as a snapshot of her current intellectual functioning. Challenges with motivation and effort may have impeded her performance. As measured by the WISC-V, her overall FSIQ fell in the Low Average range when compared to other children her age (FSIQ = 85). She performed variably across fluid reasoning tasks during this evaluation. Her scores on the FRI demonstrate that overall this was one of her strongest areas of performance (FRI = 103). Performance on fluid reasoning tasks was an area of particular strength when compared to her performance on working memory (WMI = 91) tasks. Performance on the PSI was variable, but overall she worked at an average speed on the processing speed tasks, which was also one of her strongest performance areas during this assessment (PSI = 108). Processing speed was particularly strong when compared to her working memory (WMI = 91) skills. The language skills assessed appear to be one of Laurie's lowest areas of functioning. She showed very weak performance on the Verbal Comprehension Index (VCI = 65). Verbal scores emerged as an area of need when compared to her performance on visual spatial (VSI = 102) and working memory (WMI = 91) tasks. Performance on visual spatial tasks was similar to other children her age (VSI = 102), and was relatively strong compared to working memory (WMI = 91) skills. Ancillary Index scores revealed additional information about Laurie's cognitive abilities using unique subtest groupings to better interpret clinical needs. Her capacity to perform mental math operations and understand quantitative relationships, as measured by the Quantitative Reasoning Index (QRI), fell in the Average range (QRI = 91). The Auditory Working Memory Index (AWMI) measured her ability to register, maintain, and manipulate information that was presented orally. Her score on this index was Average for her age (AWMI = 94). On the Nonverbal Index (NVI), a measure of general intellectual ability that minimizes expressive language demands, her performance was Average for her age (NVI = 98). She scored in the Low Average range on the General Ability Index (GAI), which provides an estimate of general intellectual ability that is less reliant on working memory and processing speed relative to the FSIQ (GAI = 83). Performance on the Cognitive Proficiency Index (CPI), which captures the efficiency with which she processes information, was comparatively strong, falling in the Average range (CPI = 100). Complementary Index scores measured Laurie's abilities as they relate to academic achievement and learning-related issues. The Storage and Retrieval Index (SRI) provides a broad estimate of long-term storage and retrieval accuracy and fluency. This score is derived from tasks on the Naming Speed Index (NSI) and Symbol Translation Index (STI). The NSI measures basic naming automaticity. Laurie's NSI score was in the Low Average range (NSI = 88). The STI measures visual-verbal associative memory. Her score on the STI fell in the Average range (STI = 108). It is important to compare her performance across the three STI subtests, when interpreting her associative memory ability. Her performance on the SRI was diverse, but overall was Average for her age (SRI = 97; STI > NSI, BR = 10.0%). When evaluating her performance across the subtests in the NSI (i.e., NSL and NSQ), it appears that she has greater naming facility on tasks related to mathematical, rather than reading, skills (NSL < NSQ, BR = 2.2%). Potential areas for intervention are described in the following section.

## **RECOMMENDATIONS**

### **Recommendations for General Cognitive Functioning**

Laurie's FSIQ was measured in the Low Average range, which means that her overall level of cognitive ability is greater than 16% of children her age. Although this ability level is considered average, children with this level of functioning may experience academic difficulty when compared to same-age peers. Laurie may learn new information at a rate that is somewhat slower than other children her age, and may have particular difficulty with abstract thinking. It is therefore recommended that adults support her academic progress using multiple interventions. Pre-teaching and re-teaching lessons learned in school will give her additional exposure to new concepts and may facilitate her comprehension and recall of information. It may be helpful to present new content material in multiple modalities, using relatively simple vocabulary and sentence structure. Focusing on literacy goals is encouraged, as strong reading skills can build a foundation for academic success. It is also recommended that adults involve Laurie in enjoyable hobbies and extracurricular activities, in order to build her competency in a variety of arenas.

### **Recommendations for Verbal Skills**

Laurie's overall performance on the VCI was very weak compared to other children her age. Verbal skills were also weak compared to her other areas of cognitive functioning. Relatively weak verbal skills place the child at risk for reading comprehension problems and may make it difficult to keep up with peers in the classroom. Classroom activities often involve listening comprehension, verbal reasoning, and oral communication. It is therefore recommended that interventions are provided in this area. Verbal interventions include shared reading activities, such as dialogic reading. This strategy allows adults to ask the child specific questions that encourage interest, comprehension, and critical thinking. Vocabulary can be enriched by exposing Laurie to novel situations and encouraging her to ask the names of unknown objects. Adults can keep a list of words that Laurie learns and periodically review it with her. Discovering and investigating new concepts can help her to remember vocabulary words. Adults may wish to challenge Laurie to engage in conversation by creating an open, positive environment for communication. For example, adults can ask open-ended questions and allow her sufficient time to respond, without interruption. Family members can also encourage Laurie to engage in supervised age-appropriate conversation in the community. For example, she can be encouraged to order her own food at a restaurant or ask a store clerk questions. Further, adults may wish to give her positive feedback when she engages in conversation. Positive feedback can include reciprocal conversation, asking Laurie to elaborate on her thoughts, and complementing her contributions to the conversation.

### **Recommendations for Visual Spatial Skills**

Laurie's visual spatial skills fell in the Average range and were an area of personal strength. Visual spatial ability involves skills such as understanding things by looking at them and picturing how details fit together to create a bigger picture. These skills are important to academic success because they may help the child understand how individual parts are related to complex 'whole'. They may also assist in the acquisition of early reading skills. As such, it is important to support Laurie's visual spatial strengths by providing activities that reinforce these skills. For example, she can be encouraged to engage in visual spatial tasks that she enjoys, such as putting together puzzles, creating maps, drawing, or playing

with construction-type toys. Activities that allow her to build creative structures might be especially enjoyable. Many educational digital games are available that may also enrich her visual spatial abilities. When new information is presented in the classroom, Laurie may benefit if visual aids supplement verbally presented content. For example, she will learn best if teachers present lessons using the chalkboard, overhead projector, and/or computer screen. Providing opportunities for visually based learning may help Laurie understand and remember new ideas. As strategies are used to augment Laurie's learning, it is important that they are monitored for effectiveness and are modified according to her needs.

Additionally, Laurie's visual skills are particularly strong when compared to her verbal skills. Children with this particular performance pattern may sometimes experience difficulty putting their ideas into words. If this is the case, it may be helpful to reduce language demands when appropriate. For example, if Laurie experiences difficulty explaining her emotions, it may be helpful to show her a series of pictures depicting emotions, and ask her to select the picture that shows how she feels. In school, if Laurie has a difficult time generating verbal responses, it may be helpful to provide her with several possible responses and ask her to choose the appropriate response. When possible, it may be helpful to ask Laurie to elaborate her words using pictures. As Laurie develops her reading skills, she might choose books that are rich in visual imagery in order to enhance her enjoyment of reading.

### **Recommendations for Fluid Reasoning Skills**

Laurie exhibited Average performance on the FRI. This is one of her stronger areas of performance. Fluid reasoning includes using logic to solve problems and identifying connections between abstract concepts. Because these skills can be an important component in future academic success, it is recommended that Laurie engage in activities that continue to strengthen her fluid reasoning skills. For example, she can look at increasingly challenging patterns or series to identify what comes next. Encourage her to think of multiple ways to group objects and then explain her rationale to adults. Performing age-appropriate science experiments may also be helpful in strengthening logical thinking skills. For example, adults can help her form a hypothesis and then perform a simple experiment, using measurement techniques to determine whether or not her hypothesis was correct. When creating opportunities for Laurie to further build her fluid reasoning skills, it is important to provide activities that are challenging, but within her skill level.

Laurie's fluid reasoning skills appear strong compared to her working memory skills. Children with this pattern of performance may find it easy to understand information while they are looking at it, but then later have difficulty recalling it. Because Laurie has fluid reasoning strengths, it may be helpful to teach her to remember visual information by encoding it into words. For example, rather than simply looking at a picture, she might name different objects in the picture, so that she remembers them better later. It may also be helpful for her to learn to visualize new information in her mind as she is learning it.

### **Recommendations for Working Memory Skills**

Laurie's working memory scores fell in the Average range. Working memory skills are an area of weakness compared to other areas of cognitive functioning, which may make it difficult for her to concentrate and retain large amounts of information presented to her. This may impact her school

performance. Relatively weak working memory skills can lead to reading comprehension problems as text becomes more complex in future grades. Several recommendations are made based upon her performance pattern. Digital interventions may be helpful in building her capacity to exert mental control, ignore distraction, and manipulate information in her mind. Other strategies that may be useful in increasing working memory include teaching Laurie to chunk information and connect new information to concepts that she already knows. As part of a comprehensive intervention plan, literacy goals such as identifying the main idea of stories can be identified. It is important to reinforce Laurie's progress during these interventions. Goals should be small and measurable, and should steadily increase in complexity as her skills grow stronger.

### **Recommendations for Processing Speed**

Overall, Laurie's processing speed performance was relatively strong compared to her other cognitive skills. The ability to quickly scan and discriminate visual information is an important component of academic success. It is important to reinforce Laurie's strengths in this area by continuing to build her speed and accuracy through practice. Speeded flash card drills, such as those that ask the student to quickly solve simple math problems, may help develop automaticity that can free up cognitive resources in the service of more complex academic tasks. Digital interventions may also be helpful in building her speed on simple tasks. It is important to note, however, that some children who work relatively quickly can be reluctant to slow down when tasks require deeper thought. This may result in careless errors. In addition to building speed, it is important to provide other activities in which Laurie is rewarded for accuracy rather than quick completion of tasks.

## **RECOMMENDATIONS**

### **Recommendations for School Difficulties**

Laurie should be encouraged to ask frequent questions to ensure her understanding of task requirements or academic material.

Laurie's family is encouraged to support her efforts in completing homework while avoiding an overemphasis on high grades. Her family may wish to focus upon the quality of work and timely completion of assignments. When Laurie completes assignments successfully, her family should consider displaying her work at home.

Laurie's family, teachers, therapists, school counselor, and/or school psychologist are encouraged to maintain regular communication to ensure that they use consistent approaches throughout Laurie's day. Homework should reflect concepts learned in class and should include information to parents that indicate how tasks should be completed.

Laurie would benefit from positive reinforcement throughout her day. Teachers and parents should make an effort to identify positive behaviors and point them out to Laurie. For example, they might say "I like the way you are completing that assignment," or "I like the way you are drawing that picture."

While creating an intervention plan for Laurie, it is important to consider the learning environment. It is recommended that an assessment of the learning environment is conducted to identify aspects that could be changed to allow Laurie to better access the curriculum.

### **Recommendations for Speech and Language Difficulties**

Build schema by capitalizing on Laurie's past experiences or popular concepts. Connecting new information to previous knowledge may help her to remember new information.

Read complete and incomplete sentences (fragments) to Laurie and ask her to identify each.

Read sentences to Laurie and ask her to identify nouns, verbs, adjectives, or adverbs.

Model declarative, interrogative, compound, and negative sentences and have Laurie identify each type.

Read sentences to Laurie that contain correct and incorrect grammatical forms (e.g., runned; mouses). Ask her to identify the incorrect instances. (Note that dialectal rules allow different options.)

Give Laurie two simple sentences and a conjunction (e.g., and, but, or), and have her combine them into a compound sentence to increase complexity of language use.

Give Laurie two simple sentences and a transitional word such as a relative pronoun (e.g., who) or an adverb (e.g., when), and have her combine them into a complex sentence.

Prepare Laurie for transitions by writing and posting the steps that will be required.

Create and review scripts with Laurie for conversations via telephone, texting, email, or social media.

Minimize interruptions created by students in the class by providing separate areas for group interaction and quiet activities.

Minimize any echoing effect or reverberation of sounds in the classroom by strategically placing dividers or mobile bulletin boards to separate noisy areas.

Minimize the amount of competing noise from adjoining classrooms and hallways by closing the door or by placing group interaction areas as far from the doorway as possible.

To compensate for Laurie's hearing difficulties, the teacher should adjust the volume and intonation of his/her voice based on background noise and the size of the classroom. An FM system may be an appropriate accommodation.

Decrease overall complexity of classroom discourse and discussions by controlling vocabulary level, reducing multistep commands, controlling sentence length and grammatical complexity, and providing written support.

Students form teams. One partner builds a block tower out of sight of her partner, and must only use her language skills to give instructions to her partner who must build the exact same structure.

### **Recommendations to Build Social Skills**

Laurie's family is encouraged to engage in activities that promote communication and enrich Laurie's verbal environment. For example, family members could take turns recounting the day's events, asking questions, and telling stories.

Laurie may be encouraged to maintain appropriate eye contact with adults and peers. If eye contact is uncomfortable for her, she can be encouraged to employ compensatory strategies such as looking between or slightly above peers' eyes when speaking.

Teachers, other adults, and family are encouraged to engage Laurie in social communication as often as possible.

### **Recommendations for Further Evaluation**

Given Laurie's challenges in the verbal domain, it is recommended that she receive a comprehensive speech and language evaluation. This type of evaluation will identify specific areas of weakness and lead to specific interventions.

Thank you for the opportunity to assess Laurie. Please contact me with any questions you have about these results.

This report is only valid if signed by a qualified professional:

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John Smith

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Date

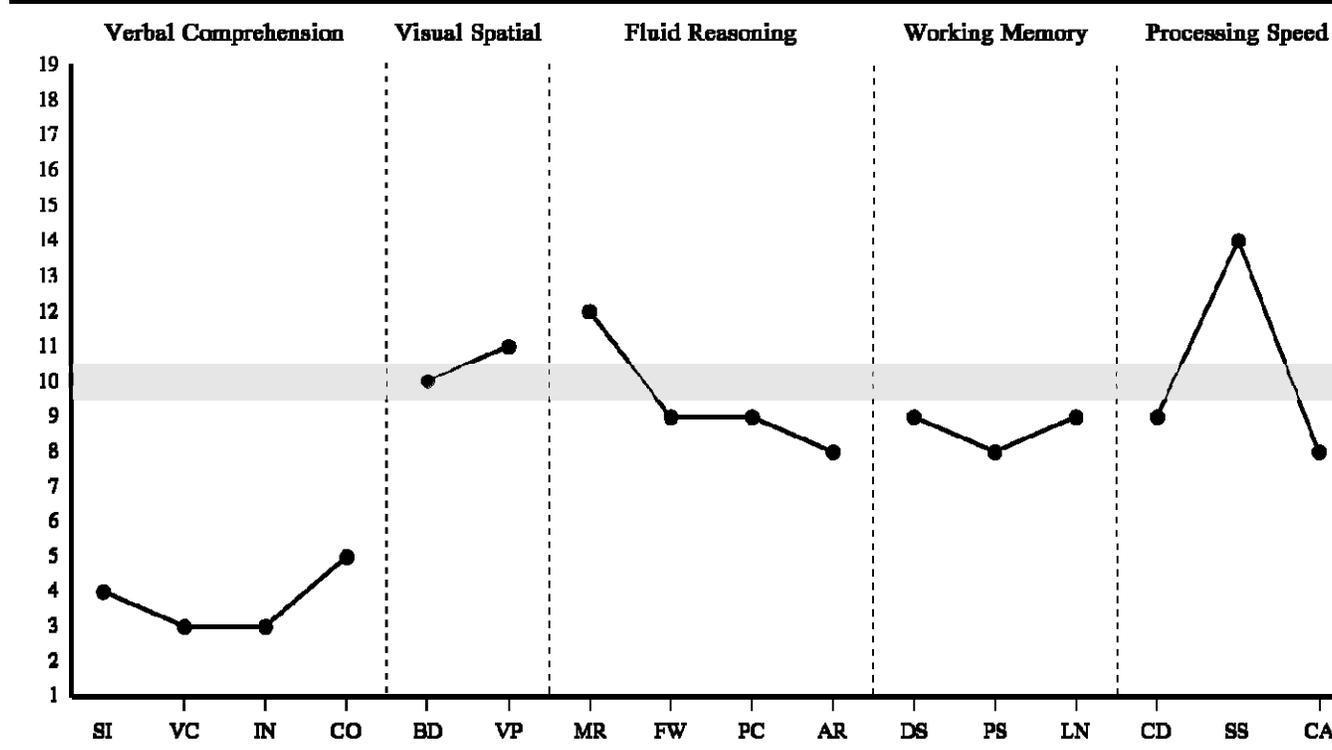
## PRIMARY SUMMARY

### Subtest Score Summary

Scale	Subtest Name		Total Raw Score	Scaled Score	Percentile Rank	Age Equivalent	SEM
Verbal Comprehension	<b>Similarities</b>	SI	8	4	2	<6:2	1.16
	<b>Vocabulary</b>	VC	6	3	1	<6:2	1.24
	(Information)	IN	7	3	1	<6:2	1.31
	(Comprehension)	CO	7	5	5	<6:2	1.34
Visual Spatial	<b>Block Design</b>	BD	22	10	50	8:6	1.04
	Visual Puzzles	VP	13	11	63	8:10	1.08
Fluid Reasoning	<b>Matrix Reasoning</b>	MR	18	12	75	9:10	0.99
	<b>Figure Weights</b>	FW	14	9	37	7:2	0.73
	(Picture Concepts)	PC	10	9	37	7:2	1.24
	(Arithmetic)	AR	12	8	25	7:2	1.04
Working Memory	<b>Digit Span</b>	DS	19	9	37	7:2	0.95
	Picture Span	PS	19	8	25	6:10	1.08
	(Letter-Number Seq.)	LN	12	9	37	7:2	1.24
Processing Speed	<b>Coding</b>	CD	27	9	37	<8:2	1.37
	Symbol Search	SS	25	14	91	10:10	1.34
	(Cancellation)	CA	39	8	25	6:2	1.24

Subtests used to derive the FSIQ are bolded. Secondary subtests are in parentheses.

### Subtest Scaled Score Profile



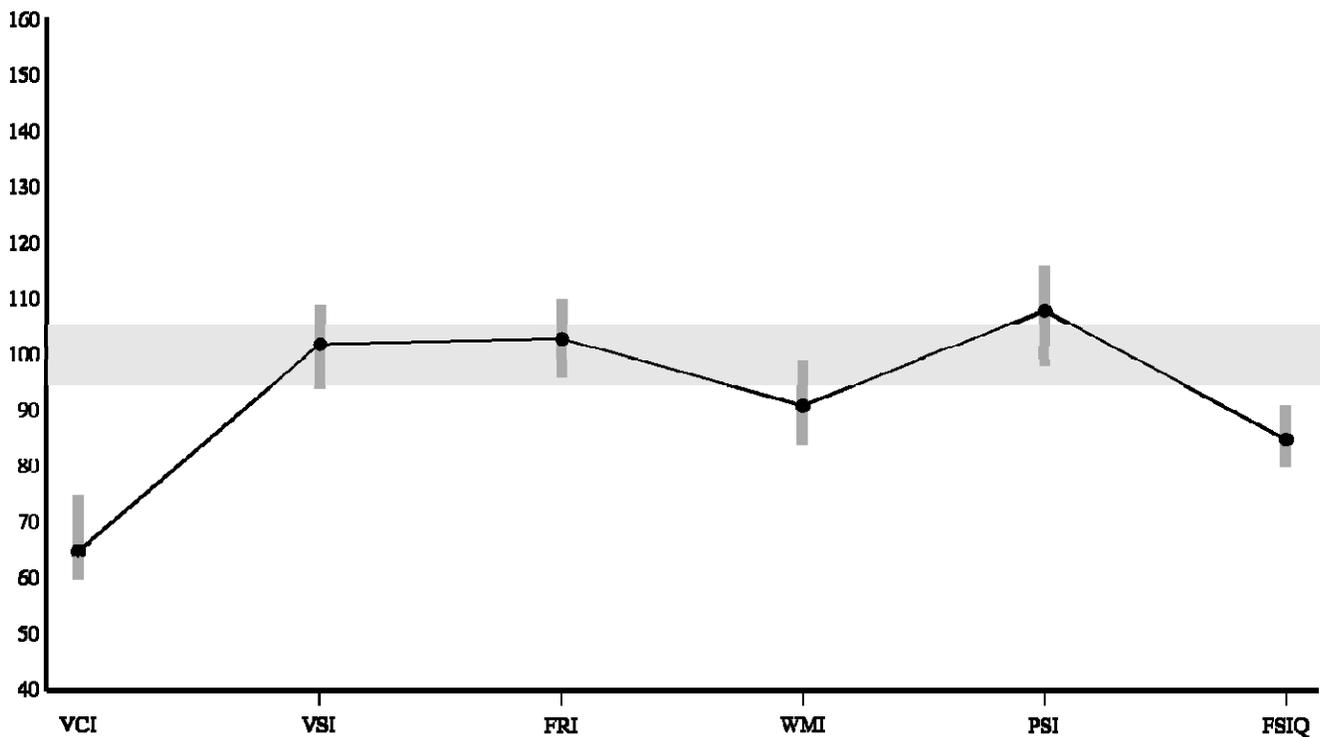
## PRIMARY SUMMARY (CONTINUED)

### Composite Score Summary

Composite		Sum of Scaled Scores	Composite Score	Percentile Rank	95% Confidence Interval	Qualitative Description	SEM
Verbal Comprehension	VCI	7	65	1	60-75	Extremely Low	4.74
Visual Spatial	VSI	21	102	55	94-109	Average	4.24
Fluid Reasoning	FRI	21	103	58	96-110	Average	3.67
Working Memory	WMI	17	91	27	84-99	Average	4.24
Processing Speed	PSI	23	108	70	98-116	Average	5.61
Full Scale IQ	FSIQ	56	85	16	80-91	Low Average	3.00

Confidence intervals are calculated using the Standard Error of Estimation.

### Composite Score Profile



**Note.** Vertical bars represent the Confidence Intervals.

## PRIMARY ANALYSIS

### Index Level Strengths and Weaknesses

Index	Score	Comparison Score	Difference	Critical Value	Strength or Weakness	Base Rate
VCI	65	93.8	-28.8	9.07	W	<=2%
VSI	102	93.8	8.2	8.34		<=25%
FRI	103	93.8	9.2	7.55	S	<=10%
WMI	91	93.8	-2.8	8.34		>25%
PSI	108	93.8	14.2	10.36	S	<=25%

Comparison score mean derived from the five index scores (MIS).

Statistical significance (critical values) at the .15 level.

Base rates are reported by ability level.

### Index Level Pairwise Difference Comparisons

Index Comparison	Score 1	Score 2	Difference	Critical Value	Significant Difference	Base Rate
VCI - VSI	65	102	-37	9.16	Y	0.5%
VCI - FRI	65	103	-38	8.63	Y	0.8%
VCI - WMI	65	91	-26	9.16	Y	3.2%
VCI - PSI	65	108	-43	10.58	Y	0.8%
VSI - FRI	102	103	-1	8.08	N	43.5%
VSI - WMI	102	91	11	8.63	Y	22.4%
VSI - PSI	102	108	-6	10.13	N	47.3%
FRI - WMI	103	91	12	8.08	Y	17.8%
FRI - PSI	103	108	-5	9.65	N	50.3%
WMI - PSI	91	108	-17	10.13	Y	18.9%

Statistical significance (critical values) at the .15 level.

Base rates are reported by ability level.

## PRIMARY ANALYSIS (CONTINUED)

### Subtest Level Strengths and Weaknesses

Subtest	Score	Comparison Score	Difference	Critical Value	Strength or Weakness	Base Rate
SI	4	8.0	-4.0	2.57	W	<=2%
VC	3	8.0	-5.0	2.72	W	<=2%
BD	10	8.0	2.0	2.35		<=25%
VP	11	8.0	3.0	2.80	S	<=10%
MR	12	8.0	4.0	2.26	S	<=5%
FW	9	8.0	1.0	1.79		>25%
DS	9	8.0	1.0	2.18		>25%
PS	8	8.0	0.0	2.80		
CD	9	8.0	1.0	2.97		>25%
SS	14	8.0	6.0	3.39	S	<=2%

Comparison score is the Mean Scaled Score for FSIQ subtests (MSS-F).  
Statistical significance (critical values) at the .15 level.

### Subtest Level Pairwise Difference Comparisons

Subtest Comparison	Score 1	Score 2	Difference	Critical Value	Significant Difference	Base Rate
SI - VC	4	3	1	2.22	N	40.7%
BD - VP	10	11	-1	2.23	N	42.4%
MR - FW	12	9	3	1.91	Y	20.7%
DS - PS	9	8	1	2.12	N	41.6%
CD - SS	9	14	-5	2.67	Y	4.6%

Statistical significance (critical values) at the .15 level.

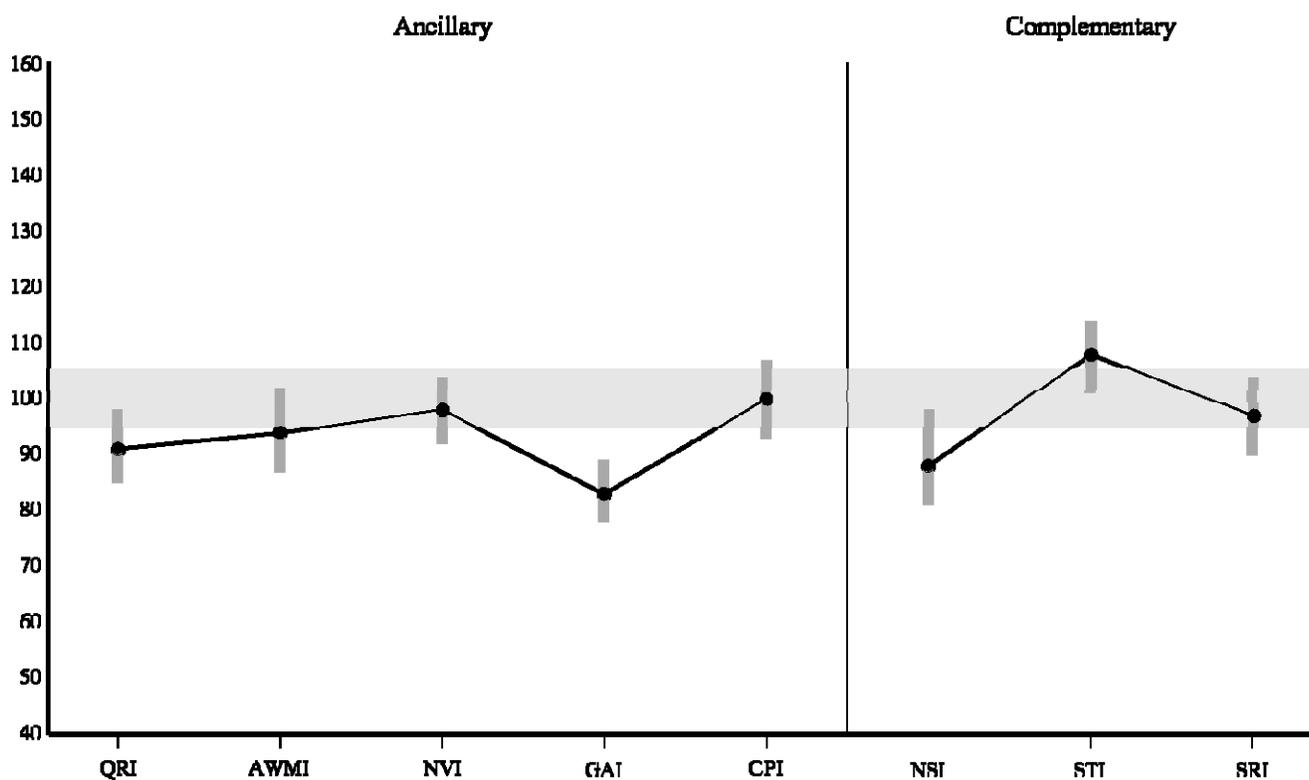
## ANCILLARY & COMPLEMENTARY SUMMARY

### Index Score Summary

Composite		Sum of Scaled/ Standard Scores	Index Score	Percentile Rank	95% Confidence Interval	Qualitative Description	SEM
<b>Ancillary</b>							
Quantitative Reasoning	QRI	17	91	27	85-98	Average	3.67
Auditory Working Memory	AWMI	18	94	34	87-102	Average	4.24
Nonverbal	NVI	59	98	45	92-104	Average	3.35
General Ability	GAI	38	83	13	78-89	Low Average	3.00
Cognitive Proficiency	CPI	40	100	50	93-107	Average	4.24
<b>Complementary</b>							
Naming Speed	NSI	180	88	21	81-98	Low Average	5.61
Symbol Translation	STI	322	108	70	101-114	Average	3.67
Storage & Retrieval	SRI	196	97	42	90-104	Average	4.24

Ancillary index scores are reported using scaled scores and complementary index scores are reported using standard scores.

### Ancillary/Complementary Index Score Profile



**Notes.** Vertical bars represent the Confidence Intervals.

## ANCILLARY & COMPLEMENTARY SUMMARY (CONTINUED)

### Subtest Score Summary

Scale	Subtest/Process Score		Total Raw Score	Standard Score	Percentile Rank	Age Equivalent	SEM
Naming Speed	Naming Speed Literacy	NSL	326	76	5	<7:2	6.87
	Naming Speed Quantity	NSQ	31	104	61	8:10	6.54
Symbol Translation	Immediate Symbol Translation	IST	62	99	47	7:10	5.81
	Delayed Symbol Translation	DST	55	112	79	11:2	5.81
	Recognition Symbol Translation	RST	29	111	77	11:6	6.71

## ANCILLARY & COMPLEMENTARY ANALYSIS

### Index Level Pairwise Difference Comparisons

Index Comparison	Score 1	Score 2	Difference	Critical Value	Significant Difference	Base Rate
<b>Ancillary</b>						
GAI - FSIQ	83	85	-2	3.58	N	50.4%
GAI - CPI	83	100	-17	10.18	Y	25.2%
WMI - AWTMI	91	94	-3	6.85	N	35.1%
<b>Complementary</b>						
NSI - STI	88	108	-20	13.14	Y	10.0%

Statistical significance (critical values) at the .05 level.

For comparisons between GAI and other indexes, base rates are reported by GAI ability level. For remaining comparisons, base rates are reported by FSIQ ability level.

### Subtest Level Pairwise Difference Comparisons

Subtest Comparison	Score 1	Score 2	Difference	Critical Value	Significant Difference	Base Rate
<b>Ancillary</b>						
FW - AR	9	8	1	2.33	N	45.4%
DS - LN	9	9	0	2.81	N	
<b>Complementary</b>						
NSL - NSQ	76	104	-28	18.59	Y	2.2%
IST - DST	99	112	-13	16.10	N	2.4%
IST - RST	99	111	-12	17.40	N	11.4%
DST - RST	112	111	1	17.40	N	50.3%

Statistical significance (critical values) at the .05 level.

Base rates are reported by overall sample for ancillary subtests and by ability level for complementary subtests.

## PROCESS ANALYSIS

### Total Raw Score to Standard Score Conversion

Process Score		Raw Score	Standard Score
Naming Speed Size-Color-Object	NSsco	284	73
Naming Speed Letter-Number	NSln	42	121

### Process Level Pairwise Difference Comparisons (Standard Scores)

Process Score Comparison	Score 1	Score 2	Difference	Critical Value	Significant Difference	Base Rate
NSsco - NSln	73	121	-48	13.66	Y	0.0%

Statistical significance (critical values) at the .15 level.

Base rates are reported by ability level.

### Total Raw Score to Scaled Score Conversion

Process Score		Raw Score	Scaled Score
Block Design No Time Bonus	BDn	22	10
Block Design Partial Score	BDp	26	9
Digit Span Forward	DSf	7	8
Digit Span Backward	DSb	7	10
Digit Span Sequencing	DSs	5	8
Cancellation Random	CAr	14	6
Cancellation Structured	CAs	25	10

### Process Level Pairwise Difference Comparisons (Scaled Scores)

Process Score Comparison	Score 1	Score 2	Difference	Critical Value	Significant Difference	Base Rate
BD - BDn	10	10	0	2.50	N	
BD - BDp	10	9	1	2.29	N	40.1%
DSf - DSb	8	10	-2	2.71	N	32.5%
DSf - DSs	8	8	0	2.67	N	
DSb - DSs	10	8	2	2.69	N	32.3%
LN - DSs	9	8	1	2.48	N	42.5%
CAr - CAs	6	10	-4	2.64	Y	4.8%

Statistical significance (critical values) at the .15 level.

## PROCESS ANALYSIS (CONTINUED)

### Total Raw Score to Base Rate Conversion

Process Score		Raw Score	Base Rate
Longest Digit Span Forward	LDSf	5	88.1%
Longest Digit Span Backward	LDSb	3	91.5%
Longest Digit Span Sequence	LDSs	4	84.5%
Longest Picture Span Stimulus	LPSs	4	81.6%
Longest Picture Span Response	LPSr	6	96.2%
Longest Letter-Number Sequence	LLNs	3	95.1%
Block Design Dimension Errors	BDde	0	>25%
Block Design Rotation Errors	BDre	1	<=5%
Coding Rotation Errors	CDre	-	-
Symbol Search Set Errors	SSse	0	<=10%
Symbol Search Rotation Errors	SSre	0	<=10%
Naming Speed Literacy Errors	NSLe	3	<=25%
Naming Speed Size-Color-Object Errors	NSscoe	0	>25%
Naming Speed Letter-Number Errors	NSlne	3	<=5%
Naming Speed Quantity Errors	NSQe	1	<=10%

Base rates are reported by overall sample for the span and sequence scores and by age group for the error scores.

### Process Level Pairwise Difference Comparisons (Raw Scores)

Process Score Comparison	Raw Score 1	Raw Score 2	Difference	Base Rate
LDSf - LDSb	5	3	2	62.7%
LDSf - LDSs	5	4	1	63.9%
LDSb - LDSs	3	4	-1	68.7%

Base rates are reported by overall sample.

## End of Report



WISC®-V  
Wechsler Intelligence Scale for Children®-Fifth Edition  
Parent Summary Report

Examinee Name	Laurie Jones	Date of Report	06/03/2015	
Examinee ID		Grade	4	
Date of Birth	4/01/2007	Primary Language	English	
Gender	Female	Handedness	Right	
Race/Ethnicity	Multiracial	Examiner Name	John Smith	
Date of Testing	6/01/2015	Age at Testing	8 years 2 months	Retest? No



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[ 1.2 / RE1 / QG1 ]

## TEST SESSION BEHAVIOR

Laurie arrived on time for the test session accompanied by her parent. She was appropriately dressed and groomed. She was oriented to person, place, time, and situation. She showed a low energy level. Additionally, her eye contact was poor. These factors may have mildly impacted her ability to show her optimal performance. She exhibited notable difficulties with expressive language during testing. In particular, occasional difficulties were seen in the areas of word finding, vocabulary, syntax, and pragmatics and frequent difficulties were seen in the area of morphology. Her expressive language difficulties may have had a moderate effect on her performance on tasks requiring oral responses.

## ABOUT THE WISC-V

The WISC-V is used to measure the general thinking and reasoning skills of children aged 6 to 16 years. This assessment provides a composite score that represents Laurie's overall intellectual ability (FSIQ), as well as index scores that measure the following areas of cognitive functioning: verbal comprehension, visual spatial processing, fluid reasoning, working memory, and processing speed. Laurie was also administered subtests from five ancillary indexes that provide additional information about her cognitive skills. In addition, she was administered subtests from three complementary indexes. These subtests provide additional information about her learning styles.

WISC-V scores show how well Laurie performed compared to a group of children her age from the United States. A primary index score can range from 45 to 155, while the FSIQ ranges from 40 to 160. For both the primary index scores and the FSIQ, scores ranging from 90 to 109 are typically considered average. It is common for examinees to exhibit strengths and weaknesses across index scores.

It is possible for intellectual abilities to change over the course of childhood. Additionally, scores on the WISC-V can be influenced by motivation, attention, interests, and opportunities for learning. All scores might be slightly higher or lower if Laurie were tested again on a different day. It is therefore important to view these test scores as a snapshot of Laurie's current level of intellectual functioning. When these scores are used as part of a comprehensive evaluation, they contribute to an understanding of her current strengths and any needs that can be addressed.

## WISC-V SCORE INTERPRETATION

### Primary Indexes

Laurie's FSIQ score, a measure of overall intellectual ability, was in the Low Average range compared to other children who are 8 years and 2 months old (FSIQ = 85). Overall, her performance on these tasks was better than approximately 16 out of 100 examinees in her age group.

The Verbal Comprehension Index (VCI) measured Laurie's ability to use word knowledge, verbalize meaningful concepts, and reason with language-based information. Her overall score on the VCI fell in the Extremely Low range (VCI = 65). This means that she performed better than approximately 1 out of 100 examinees in the same age group. During this evaluation, verbal skills emerged as one of her weakest areas of performance and may be an area for continued development. Examinees with verbal scores in this range may benefit from practice on verbally based tasks and interventions aimed at strengthening verbal skills.

On the Visual Spatial Index (VSI), which measures the ability to evaluate visual details and understand part-whole relationships, Laurie's overall score was in the Average range (VSI = 102). Tasks in this index involve constructing designs and puzzles under a time constraint. Her performance was better than approximately 55 out of 100 examinees her age.

The Fluid Reasoning Index (FRI) measured Laurie's logical thinking skills and her ability to use reasoning to apply rules. Her overall score on the FRI fell in the Average range (FRI = 103). This means that she performed better than approximately 58 out of 100 examinees in the same age group. Laurie's fluid reasoning skills were one of her strongest areas of performance and may be an area for continued growth.

The Working Memory Index (WMI) measured Laurie's attention, concentration, and mental control. Her overall score on the WMI fell in the Average range (WMI = 91). This means that she performed better than approximately 27 out of 100 examinees in the same age group.

On the Processing Speed Index (PSI), which measures the ability to quickly and correctly scan visual information, Laurie's overall score was in the Average range (PSI = 108). Her performance was better than approximately 70 out of 100 examinees her age. During this assessment, Laurie's processing speed performance was relatively strong compared to her overall level of ability. This may be an area that can be built upon in the future.

### **Ancillary Indexes**

The Quantitative Reasoning Index (QRI) measured Laurie's ability to perform mental math operations. On this ancillary index, her overall score fell in the Average range, and was higher than approximately 27 out of 100 examinees her age (QRI = 91).

On the Auditory Working Memory Index (AWMI), which measures the ability to remember information presented verbally, Laurie's overall score was in the Average range (AWMI = 94). Her performance was better than approximately 34 out of 100 examinees her age.

The Nonverbal Index (NVI) is a measure of general ability that minimizes verbal expression. On this ancillary index, Laurie's overall score fell in the Average range, and was higher than approximately 45 out of 100 examinees her age (NVI = 98).

The General Ability Index (GAI) provides an estimate of general intelligence that is less reliant on working memory and processing speed ability, relative to the FSIQ. Her overall score on the GAI fell in the Low Average range. She performed better than approximately 13 out of 100 examinees her age (GAI = 83).

The Cognitive Proficiency Index (CPI) provides a summary score of Laurie's working memory and processing speed performance. On this ancillary index, her overall score fell in the Average range, and was higher than approximately 50 out of 100 examinees her age (CPI = 100).

### **Complementary Indexes**

The Naming Speed Index (NSI) measured Laurie's basic naming ability. On this complementary index, Laurie's overall score fell in the Low Average range, and was higher than approximately 21 out of 100 examinees her age (NSI = 88).

On the Symbol Translation Index (STI), which measures visual-verbal associative memory, Laurie's overall score was in the Average range, and was better than approximately 70 out of 100 examinees her age (STI = 108).

The Storage and Retrieval Index (SRI) provides an estimate of Laurie's ability to store and retrieve information. On this complementary index, her overall score fell in the Average range, and was higher than approximately 42 out of 100 examinees her age (SRI = 97).

Thank you for the opportunity to assess Laurie. Please contact me with any questions you have about these results.

This report is only valid if signed by a qualified professional:

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John Smith

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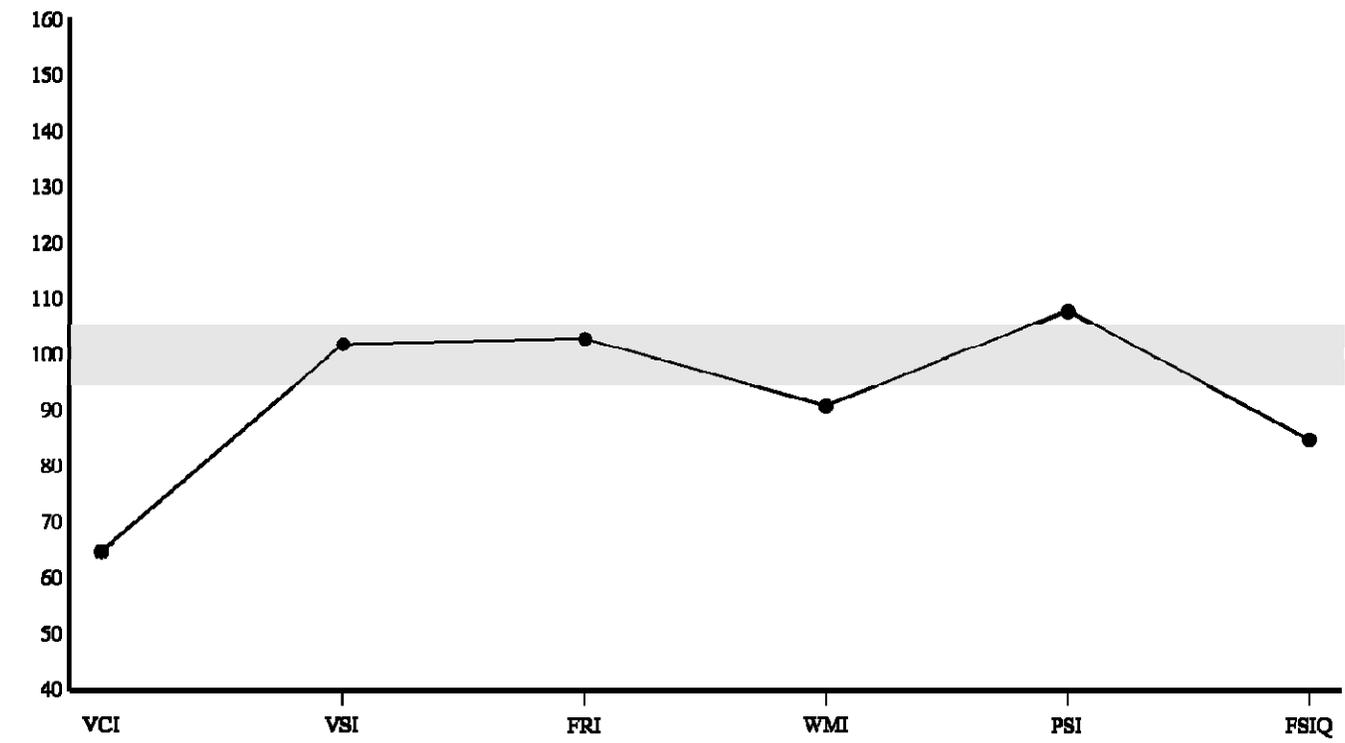
Date

## WISC-V TEST SCORES

### Score Summary

Composite		Score	Percentile Rank	Qualitative Description
Verbal Comprehension	VCI	65	1	Extremely Low
Visual Spatial	VSI	102	55	Average
Fluid Reasoning	FRI	103	58	Average
Working Memory	WMI	91	27	Average
Processing Speed	PSI	108	70	Average
Full Scale IQ	FSIQ	85	16	Low Average

### Composite Score Profile



### Ancillary/Complementary Score Summary

Composite		Score	Percentile Rank	Qualitative Description
<b>Ancillary</b>				
Quantitative Reasoning	QRI	91	27	Average
Auditory Working Memory	AWMI	94	34	Average
Nonverbal	NVI	98	45	Average
General Ability	GAI	83	13	Low Average
Cognitive Proficiency	CPI	100	50	Average
<b>Complementary</b>				
Naming Speed	NSI	88	21	Low Average
Symbol Translation	STI	108	70	Average
Storage & Retrieval	SRI	97	42	Average

### Ancillary/Complementary Index Score Profile

