

## WISC-V CDN Interpretive Considerations for Sample Child #2 (08/27/2015)

Interpretive considerations provide additional information to assist you, the examiner, in interpreting Sample Child'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.

### 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 Verbal Comprehension Skills' was included in the report because the examinee's verbal skills were an area of weakness relative to other areas of cognitive functioning.

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 weakness relative to her 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 weakness relative to other areas of cognitive ability.

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 strength 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 weakness.

### End of Interpretive Considerations



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WISC<sup>®</sup>-V<sup>CDN</sup>

Wechsler Intelligence Scale for Children<sup>®</sup>-Fifth Edition: Canadian  
Interpretive Report (Canadian Norms)

Examinee Name	Sample Child #2	Date of Report	08/27/2015	
Examinee ID		Grade	4	
Date of Birth	06/06/2006	Primary Language	English	
Gender	Female	Handedness	Left	
Race/Ethnicity	Latin American	Examiner Name	Clinical Psychologist	
Date of Testing	08/27/2015	Age at Testing	9 years 2 months	Retest? No

Comments:



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[ 1.2 / RE1 / QG1 ]

## TEST SESSION BEHAVIOUR

Sample Child arrived on time for the test session accompanied by her teacher.

## ABOUT WISC-V CDN SCORES

Sample Child 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 index scores, 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. The ancillary index scores represent cognitive abilities using different primary and secondary subtest groupings than do the primary index scores. The ancillary index scores are also 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) scores 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 processes 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 composite and subtest score to show Sample Child's standing relative to other same-age children in the WISC-V normative sample. If the percentile rank for her Verbal Comprehension Index score is 96, for example, it means that she performed as well as or better than approximately 96% of children her age. This appears in the report as PR = 96.

The scores obtained on the WISC-V reflect Sample Child'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 Sample Child, there is a 95% certainty that her true score falls within the listed range.

It is common for children to exhibit score differences across areas of performance. Comparing the score differences in relation to three separate benchmarks may yield a richer portrait of a child's strengths and

weaknesses. The three types of score difference comparisons presented in this report use interpretive statements that describe what can be generically understood as strengths or weaknesses. Because many score comparisons are possible within the WISC-V, attention to exactly what the scores are compared to is necessary to understand Sample Child's performance. The first type of comparison may be used to detect a normative strength or weakness, which occurs if a composite or subtest score differs from what is typical in the normative sample. For the purposes of this report, scores that fall above or below the Average qualitative descriptor range suggest either a normative strength or a normative weakness. The report will include phrases such as 'very high for her age' or 'lower than most children her age' when this occurs. The second type of comparison may be used to examine score differences from an intrapersonal perspective. For this comparison, a score is described as a strength or weakness if a primary index or subtest score differs from an indicator of overall performance (i.e., the mean of the primary index scores, the mean of the FSIQ subtest scores, the mean of the primary subtest scores, or the mean of the FSIQ subtest scores). Statistically significant differences are described with phrases such as 'personal strength' or 'personal weakness' or as one of the child's 'strongest or weakest areas of performance'. The third type of comparison may be used to examine scores for a relative strength or weakness, which occurs if a composite or subtest score differs in relation to another score of the same type (e.g., scaled, standard). When a scaled or standard score is compared with another scaled or standard score, the phrases 'relative strength' and 'relative weakness' are used to describe statistically significant differences when comparing performance on one score in relation to another.

If the difference between two scores is statistically significant, it is listed in the report with a base rate to aid in interpretation. The statistical significance and base rate results provide different information. A statistically significant difference suggests that the result is reliable and would likely be observed again if the assessment were repeated (i.e., the difference is not due to measurement error). The base rate (BR) provides a basis for estimating how common or rare a particular score difference was in the WISC-V normative sample. For example, a base rate of  $\leq 10\%$  is reported if the score for the the Working Memory Index is 13.40 points higher than the mean primary index score (MIS). This appears on the report as  $WMI > MIS, BR = \leq 10\%$ . This means that  $\leq 10\%$  of children in the WISC-V normative sample obtained a difference of this magnitude or greater between those two scores. In many cases, a statistically significant difference may be accompanied by a base rate of greater than 15%, which indicates that the difference, while reliable and not due to measurement error, is relatively common among children. This result does not necessarily reduce the importance of the difference, but does indicate a difference that large or larger is relatively common.

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 Sample Child were tested again on a different day. It is therefore important to view these test scores as a snapshot of Sample Child'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 is derived from seven subtests and summarizes ability across a diverse set of cognitive functions. This score is typically considered the most representative indicator of general intellectual functioning. Subtests are drawn from five areas of cognitive ability: verbal comprehension, visual spatial, fluid reasoning, working memory, and processing speed. Sample Child's FSIQ score is in the Extremely High range when compared to other children her age (FSIQ = 137, PR = 99, CI = 130-141). 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 Sample Child'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 many others display areas of cognitive strengths and weaknesses.

### Verbal Comprehension

The Verbal Comprehension Index (VCI) measured Sample Child'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, Sample Child's performance on the VCI was strong for her age (VCI = 127, PR = 96, Very High range, CI = 117-132). High scores in this area indicate a well-developed verbal reasoning system with strong word knowledge acquisition, effective information retrieval, good ability to reason and solve verbal problems, and effective communication of knowledge. Sample Child's Verbal Comprehension performance, while very high for her age, was weaker than scores obtained on tasks requiring her to mentally manipulate information (VCI < WMI, BR = 14.1%).

With regard to individual subtests within the VCI, Similarities (SI) required Sample Child to describe a similarity between two words that represent a common object or concept and Vocabulary (VC) required her to name depicted objects and/or define words that were read aloud. She performed comparably across both subtests, suggesting that her abstract reasoning skills and word knowledge are similarly developed at this time (SI = 15; VC = 15). In addition to the two subtests that contribute to the VCI, two other verbal comprehension subtests were administered to gain a more detailed understanding of Sample Child's verbal comprehension abilities. For Information (IN), she answered questions about a broad range of general-knowledge topics. Her performance was strong for her age, suggesting advanced ability to acquire, remember, and retrieve knowledge about the world around her (IN = 15). On Comprehension (CO), a subtest requiring her to answer questions based on her understanding of general principles and social situations, Sample Child's performance was extremely strong for her age. This suggests exceptional understanding of practical knowledge and ability to verbalize meaningful concepts (CO = 17).

## Visual Spatial

The Visual Spatial Index (VSI) measured Sample Child'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, Sample Child exhibited performance that was very advanced for her age (VSI = 128, PR = 97, Very High range, CI = 117-134). High scores in this area indicate a well-developed capacity to apply spatial reasoning and analyze visual details. Sample Child quickly and accurately assembled block designs and puzzles in her mind. Her performance in this area was weak in relation to her performance on working memory tasks (VSI < WMI, BR = 16.5%).

The VSI is derived from two subtests. During Block Design (BD), Sample Child viewed a model and/or picture and used two-coloured blocks to re-create the design. Visual Puzzles (VP) required her to view a completed puzzle and select three response options that together would reconstruct the puzzle. She performed comparably across both subtests, suggesting that her visual-spatial reasoning ability is equally well developed, whether solving problems that involve a motor response and reuse the same stimulus repeatedly while receiving concrete visual feedback about accuracy, or solving problems with unique stimuli that must be solved mentally and do not involve feedback about accuracy (BD = 16; VP = 14). 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. Sample Child's BDn score (BDn = 17) 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. Sample Child's BD score is significantly higher than her BDp score (BDp = 12), indicating that response speed and attention to detail did not disrupt her performance on Block Design.

## Fluid Reasoning

The Fluid Reasoning Index (FRI) measured Sample Child'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. Overall, Sample Child's performance on the FRI was strong for her age (FRI = 129, PR = 97, Very High range, CI = 120-134). High FRI scores indicate a well-developed ability to abstract conceptual information from visual details and to effectively apply that knowledge. Although Fluid Reasoning performance was very high for her age, it was relatively low in relation to her performance on working memory tasks (FRI < WMI, BR = 17.3%). It may be that her ability to mentally manipulate and quickly evaluate visual information for decision making is superior to her complex problem solving ability.

The FRI is derived from two subtests: Matrix Reasoning (MR) and Figure Weights (FW). Matrix Reasoning required Sample Child to view an incomplete matrix or series and select the response option that completed the matrix or series. On Figure Weights, she viewed a scale with a missing weight(s) and

identified the response option that would keep the scale balanced. She performed comparably across both subtests, suggesting that her perceptual organization and quantitative reasoning skills are similarly developed at this time (MR = 15; FW = 15). In addition to the two subtests that contribute to the FRI, two additional fluid reasoning subtests were administered to gain a more detailed understanding of Sample Child's fluid reasoning skills. For Picture Concepts (PC), she was asked to view two or three rows of pictures and select one picture from each row to form a group with a common characteristic. Her performance was very high for her age, suggesting advanced categorical reasoning skills (PC = 14). On Arithmetic (AR), a timed subtest requiring her to mentally solve math problems, Sample Child's performance was very advanced for her age. This suggests advanced numerical reasoning and applied computational ability (AR = 15).

### Working Memory

The Working Memory Index (WMI) measured Sample Child'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. Working memory was one of Sample Child's strongest areas of performance, with scores that were exceptional for her age (WMI = 143, PR = 99.8, Extremely High range, CI = 132-147; WMI > MIS, BR = <=10%). High WMI scores reflect a well-developed ability to identify visual and auditory information, maintain it in temporary storage, and resequence it for use in problem solving. Sample Child very easily recalled and sequenced series of pictures and lists of numbers. Her performance on these tasks was a relative strength compared to her performance on language-based and visual spatial tasks (WMI > VCI, BR = 14.1%; WMI > VSI, BR = 16.5%). Her working memory performance was also strong when compared to her performance on logical reasoning and processing speed tasks (WMI > FRI, BR = 17.3%; WMI > PSI, BR = 9.6%). Sample Child's much better performance on working memory tasks over those measuring processing speed implies that her ability to identify and register information in short-term memory is a strength, relative to her speed of decision-making using this information. Sample Child's ability to mentally manipulate information is more developed than her ability to solve complex problems.

Within the WMI, Picture Span (PS) required Sample Child to memorize one or more pictures presented on a stimulus page and then identify the correct pictures (in sequential order, if possible) from options on a response page. On Digit Span (DS), she listened to sequences of numbers read aloud and recalled them in the same order, reverse 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 = 18; DS = 17). Her score on Picture Span was extremely strong for her age, and was one of her strongest areas of performance when compared to her overall ability (PS = 18; PS > MSS-P, BR = <=15%). This suggests her ability to ignore proactive interference and concentrate on visual tasks is particularly strong when compared to her other abilities. This represents a strength that can be built upon in her further development. The Digit Span Forward (DSf) scaled process score is derived from the total raw score for the Digit Span Forward task. On this task, Sample Child 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 strong compared to other children her age (DSf = 14). On the Digit Span Forward task, Sample Child's Longest Digit Span Forward score was recorded (LDSf = 6). This raw score reflects the maximum span length recalled on DSf and offers unique information about performance on this task. Examine the consistency of recall across trials or items with

the same number of digits, to determine if Sample Child exhibited variable performance. When performance is variable, this score may provide further insight regarding her performance. 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 Sample Child 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 strong compared to other children her age (DSb = 14). On the Digit Span Backward task, Sample Child's Longest Digit Span Backward score was recorded (LDSb = 6). The Digit Span Sequencing (DSs) scaled process score is derived from the total raw score for the Digit Span Sequencing task. This task required Sample Child 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 strong compared to other children her age (DSs = 15). On the Digit Span Sequencing task, Sample Child's Longest Digit Span Sequence score was recorded (LDSs = 5). Sample Child's performance pattern across two relatively complex working memory tasks may indicate that she has not yet completely learned the skill of sequencing numbers or may have been confused by the requirement to repeat numbers on some trials of Digit Span Sequencing. 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. Sample Child's performance pattern on LPSs and LPSr are worth noting. Her Longest Picture Span Stimulus score was (LPSs = 6) and her Longest Picture Span Response score was (LPSr = 6). In addition to the two subtests that contribute to the WMI, Letter-Number Sequencing (LN) was administered to gain a more detailed understanding of Sample Child's working memory proficiency. On this subtest, she was read sequences of numbers and letters, and was then asked to recall the numbers in ascending order and then the letters in alphabetical order. Her performance was exceptional for her age, suggesting extremely high sequential processing, mental manipulation, and attention (LN = 17). Sample Child's Longest Letter-Number Sequence score was recorded (LLNs = 6).

### **Processing Speed**

The Processing Speed Index (PSI) measured Sample Child'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 overall processing speed performance was strong for her age (PSI = 121, PR = 92, Very High range, CI = 110-127). High PSI scores indicate a well-developed ability to rapidly identify visual information, to make quick and accurate decisions, and to rapidly implement those decisions. Sample Child's performance on processing speed tasks, though very high for her age, was a weakness relative to her performance on tasks requiring her to mentally manipulate information (PSI < WMI, BR = 9.6%).

The PSI is derived from two timed subtests. Symbol Search (SS) required Sample Child to scan a group of symbols and indicate if the target symbol was present. On Coding (CD), she used a key to copy symbols that corresponded with numbers. Performance across these tasks was similar, suggesting that Sample Child's associative memory, graphomotor speed, and visual scanning ability are similarly developed (SS = 13; CD = 14). Relative to her same-age peers, the number of rotation errors Sample

Child made on Coding is more than expected. When copying symbols using a key, she rotated some of her drawings at least 90 degrees. Further evaluation may provide more information regarding her mental rotation processes. In addition to the subtests that contribute to the PSI, Sample Child was administered Cancellation (CA), another processing speed subtest, to gain a more detailed understanding of her processing speed ability. On this timed subtest, she scanned two arrangements of objects (one random, one structured) and marked target objects. Cancellation measures speed, scanning ability, and visual discrimination. Her performance was strong compared to other children her age (CA = 15). Children with superior reasoning ability sometimes tend to perform less well, though still adequately, on processing speed tasks.

## ANCILLARY INDEX SCORES

In addition to the index scores described above, Sample Child was administered subtests contributing to several ancillary index scores. Ancillary index scores do not replace the FSIQ and primary index scores, but are meant to provide additional information about Sample Child'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. Sample Child's overall index score was exceptional for her age (QRI = 131, PR = 98, Extremely High range, CI = 122-136). High scores in this area suggest a well-developed capacity to perform mental math operations and to understand quantitative relationships, as well as above average general intelligence. Assessment of Sample Child'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 Sample Child to listen to numbers and letters presented verbally, then recall or sequence them aloud. This index score measured her ability to register, maintain, and manipulate verbally-presented information. Her overall auditory working memory performance was extremely strong for her age (AWMI = 138, PR = 99, Extremely High range, CI = 127-143). High scores in this area indicate a well-developed ability to temporarily store, rehearse, and manipulate verbally-presented information using the phonological loop. Sample Child performed similarly across the two subtests that contribute to the AWMI, suggesting that her auditory working memory is similarly developed for tasks having both single- and dual-stimulus demands (DS = 17; LN = 17).

### 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. Subtests that contribute to the NVI

are drawn from four of the five primary cognitive domains (i.e., Visual Spatial, Fluid Reasoning, Working Memory, and Processing Speed). Sample Child's performance on the NVI fell in the Extremely High range when compared to other children her age (NVI = 139, PR = 99.5, CI = 131-143). High scores in this area indicate well-developed general intellectual functioning for visually-presented information. Assessment of Sample Child's performance on the NVI may help to estimate her overall nonverbal cognitive ability.

### **General Ability**

Sample Child was administered the five subtests comprising the General Ability Index (GAI), an ancillary index score 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. Overall, this index score was exceptional for her age (GAI = 133, PR = 99, Extremely High range, CI = 125-138). High GAI scores indicate well-developed abstract, conceptual, visual-perceptual and spatial reasoning, as well as verbal problem solving. 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. Sample Child's GAI score was significantly lower than her FSIQ score (GAI < FSIQ, BR = 19.6%). The significant difference between her GAI and FSIQ scores indicates that the effects of cognitive proficiency, as measured by working memory and processing speed, may have led to a higher overall FSIQ score. This estimate of her overall intellectual ability was improved by the inclusion of working memory and processing speed subtests. This result supports that her working memory and processing speed skills are areas of strength that bolster her overall intellectual ability.

### **Cognitive Proficiency**

Sample Child was also administered subtests that contribute to the Cognitive Proficiency Index (CPI). These four subtests are drawn from the working memory and processing speed domains. Her index score suggests that she very efficiently processes cognitive information in the service of learning, problem solving, and higher-order reasoning (CPI = 138, PR = 99, Extremely High range, CI = 128-143). High CPI scores indicate a high degree of cognitive efficiency for manipulating and rapidly processing information. 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. Sample Child's GAI and CPI scores were relatively similar, suggesting that general ability is commensurate with cognitive proficiency.

## **COMPLEMENTARY INDEX SCORES**

### **Storage and Retrieval**

The Storage and Retrieval Index (SRI) provides a broad estimate of Sample Child'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 slightly below other children her age (SRI = 82, PR = 12, Low Average range, CI = 76-90). 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. Low SRI scores can occur for many reasons, including difficulty encoding and/or retrieving information from long-term memory, difficulty acquiring new information, slow processing speed, visual and/or language processing deficits, and/or inattentiveness.

## 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 Sample Child's ability to quickly and accurately name familiar letters and numbers. During the Naming Speed Literacy subtest, Sample Child named elements (e.g., objects of various size and colour, letters and numbers) as quickly as possible. Compared to other children her age, Sample Child's score fell in the Extremely Low range (NSL = 66). On the Naming Speed Quantity subtest, Sample Child named the quantity of squares inside a series of boxes as quickly as possible. On this subtest, her score fell in the Extremely Low range (NSQ = 54). Her overall performance on the NSI was significantly lower than other children her age (NSI = 65, PR = 1, Extremely Low range, CI = 60-77). 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. It is especially important to consider this result when interpreting the NSI. In fact, her NSI score should be interpreted with caution because the number of errors that Sample Child made is rare compared to her same-aged peers. Observation of Sample Child's test behaviours may further clarify interpretation. If she performed a sample item with few or no errors, but then had difficulty on the corresponding item trials, she may have difficulty working under time pressure. Or, it is possible that she had problems with visual tracking due to the additional complexity of the test item pages, which have more stimuli relative to the sample item pages. In contrast, if she committed several errors on a sample item and responded to feedback, but then committed the same type of errors on the item, a different interpretation is likely warranted. In this case, she might have misunderstood the task or she may require ongoing feedback to perform even simple tasks. If she had no errors or only a few errors on the first trial of an item, but then had an increased number of errors on the second trial, her test behaviours might have impacted her performance. Specifically, impatience, impulsivity, or a desire to finish quickly, without a concern for accuracy resulted in additional errors. In this case, a true naming facility deficit is less likely. Further, if she was not prompted to start again after two consecutive errors, the possibility of an administration or recording issue must 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 (i.e., visual-verbal pairs). She was then asked to translate symbol strings into phrases or sentences 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 the measurement of overall intellectual ability. When interpreting her Symbol Translation subtest scores, it is important to remember that DST and RST performance are dependant upon that of IST. Although Sample Child's overall performance was Average compared to same-age peers (STI = 107, PR = 68, CI = 100-113), she showed

some variability across these three tasks. Sample Child was taught word-symbol associations and was asked to remember them immediately and after a delay. Her free recall of these associations before and after the delay were relative strengths, falling in the High Average range (IST = 115; DST = 113). However, her performance weakened on a subsequent recognition task in which she was given multiple choices as to the correct word-symbol translation. On this task, her performance fell to the Average range (RST = 92; IST > RST, BR = 1.9%; DST > RST, BR = 2.4%). This pattern of performance suggests that she does not benefit when given cues to help her remember. Sample Child's performance on the immediate recall and delayed recall tasks was consistent. This suggests that her immediate and delayed recall within visual-verbal associative memory are commensurate. She somewhat easily recalls information as soon as she learns it and somewhat easily recalls information after a delay or interruption. 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 = 1.4%). 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. Sample Child's ability to store and accurately retrieve information is stronger than her naming fluency and automaticity.

## SUMMARY

Sample Child is a 9-year-old girl. The WISC-V was used to assess Sample Child'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. As measured by the WISC-V, her overall FSIQ score fell in the Extremely High range when compared to other children her age (FSIQ = 137). She showed exceptional performance on working memory tasks, which measure concentration and mental control. This was an area of strength relative to her overall level of ability (WMI = 143). When compared to her verbal comprehension (VCI = 127), visual spatial (VSI = 128), fluid reasoning (FRI = 129), and processing speed (PSI = 121) performance, working memory skills were particularly strong. Ancillary index scores revealed additional information about Sample Child'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 Extremely High range (QRI = 131). The Auditory Working Memory Index (AWMI) measured her ability to register, maintain, and manipulate information that was presented orally. Her index score was Extremely High for her age (AWMI = 138). On the Nonverbal Index (NVI), a measure of general intellectual ability that minimizes expressive language demands, her performance was Extremely High for her age (NVI = 139). She scored in the Extremely High 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 = 133). Sample Child's very strong performance on the Cognitive Proficiency Index (CPI) suggests that she very efficiently processes cognitive information in the service of learning, problem solving, and higher order reasoning (CPI = 138). Complementary index scores measured Sample Child'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. Sample Child's NSI score was in the Extremely Low range (NSI = 65). The STI measures visual-verbal associative memory. Her score on the STI fell in the Average range (STI = 107). It is important to compare her performance

across the three Symbol Translation subtests, when interpreting her associative memory ability. Her performance on the SRI was diverse, but overall was Low Average for her age (SRI = 82; STI > NSI, BR = 1.4%). Potential areas for intervention are described in the following section.

## **RECOMMENDATIONS**

### **Recommendations for Verbal Comprehension Skills**

Sample Child's overall performance on the VCI was advanced compared to other children her age. While verbal skills were advanced, they were a relative weakness compared to her other cognitive skills. Classroom activities often involve listening comprehension, verbal reasoning, and oral communication. It is therefore recommended that growth opportunities 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 Sample Child to novel situations and encouraging her to ask the names of unknown objects. Adults can keep a list of words that Sample Child learns and periodically review it with her. Discovering and investigating new concepts can help her to remember vocabulary words. Adults may wish to challenge Sample Child 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 Sample Child 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 Sample Child to elaborate on her thoughts, and complimenting her contributions to the conversation.

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

Sample Child's visual spatial skills fell in the Very High range, but were significantly lower than her other areas of cognitive functioning. Children with relatively low visual spatial skills may have difficulty understanding information that is presented nonverbally. Teachers may best support Sample Child's needs by explicitly presenting information verbally. She may benefit from interventions aimed at analyzing and synthesizing visual information. Examples of these interventions include learning to read maps and creating maps of her house, school, or neighbourhood. She may be taught strategies to complete puzzles, such as identifying puzzle pieces with similar colours and lines. Mental rotation activities, such as drawing a simple shape from different perspectives, may also be helpful. A variety of digital games are available that might engage the child's visual spatial abilities. In addition to having difficulty understanding purely visual information, children with this pattern of functioning can sometimes be awkward in social situations because they may not understand others' subtle nonverbal cues. In such cases, it can be useful to prepare for novel situations. For example, before a new situation, adults can talk to Sample Child about what to expect. If she is anxious about how to respond or behave, role playing may help.

## **Recommendations for Fluid Reasoning Skills**

Sample Child exhibited Very High performance on the FRI. While fluid reasoning skills were advanced compared to others her age, they were a relative weakness compared to other areas of cognitive functioning. Children who have relative difficulty with fluid reasoning tasks may have difficulty solving problems, applying logical reasoning, and understanding complicated concepts. Sample Child may benefit from structure and practice when approaching tasks that are challenging to her. With regard to specific fluid reasoning interventions, she can be asked to identify patterns or to look at a series and 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 building 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. Asking questions about stories can further build fluid reasoning skills. For example, when reading a book or watching a movie, Sample Child can be asked to identify the main idea of the story. Further, she could be encouraged to answer open-ended questions such as, 'What do you think would happen if...' and then think logically about her responses. Reinforcing her ideas with positive feedback may encourage her to grow in this area.

## **Recommendations for Working Memory Skills**

Sample Child's working memory scores fell in the Extremely High range and were a strength relative to other cognitive skills. Working memory skills can help the child ignore distraction and exert mental control. They are an important component of academic success because they help children efficiently process information in the service of learning. It is important to continue to build this area of strength. Digital interventions may be helpful in strengthening both verbal and visual spatial working memory skills. Other strategies that may be useful in increasing working memory include teaching Sample Child to chunk information into categories and connect new information to concepts that she already knows. It is important to reinforce Sample Child's progress during these interventions. Goals should be small and measurable, and should steadily increase in complexity as her skills continue to grow.

## **Recommendations for Processing Speed**

Overall, Sample Child's processing speed scores are an area of relative weakness, indicating that this is a potential area for intervention. While Sample Child's processing speed was measured in the Very High range compared to other children her age, it was an area of personal weakness. This may lead to difficulty keeping up with classroom activities. It is important to identify the factors contributing to Sample Child's performance in this area; while some children simply work at a slow pace, others are slowed down by perfectionism, problems with visual processing, inattention, or fine-motor coordination difficulties. In addition to interventions aimed at these underlying areas, processing speed skills may be improved through practice. Interventions can focus on building Sample Child's speed on simple timed tasks. For example, she can play card-sorting games in which she quickly sorts cards according to increasingly complex rules. Fluency in academic skills can also be increased through similar 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. During the initial stages of these interventions, Sample Child can be rewarded for working quickly rather than accurately,

as perfectionism can sometimes interfere with speed. As her performance improves, both accuracy and speed can be rewarded.

## **RECOMMENDATIONS**

### **Recommendations for Building Verbal Skills**

Sample Child's family is encouraged to set aside time each evening to discuss the day's events. It is important that distractions are minimized during this time, allowing each family member to be given the full attention of those around them. Such activities may help to develop Sample Child's verbal expression skills.

In order to build Sample Child's verbal skills, adults should ask her open-ended questions. Adults are encouraged not to interrupt Sample Child, but instead listen carefully and ask open-ended follow-up questions.

Children who struggle with verbal skills may be reluctant to express themselves. It is therefore important that adults give Sample Child positive feedback when she engages in conversation with them. Positive feedback includes engaging in reciprocal conversation, asking Sample Child to elaborate, and making positive comments about her contributions to the conversation.

An evidence-based shared reading strategy such as dialogic reading may be useful in building early literacy and vocabulary skills. This shared reading intervention encourages adults to ask the child specific questions to encourage interest, comprehension, and enjoyment of reading.

To assist Sample Child in developing analogical reasoning skills, her parents/teachers may wish to play a game in which she is requested to finish the following types of statements: "Pears are bigger than cherries and cherries are bigger than..." Additionally, she can be requested to finish sentences such as "Humans are to homes as birds are to..."

Sample Child's family and teachers could participate in activities to improve Sample Child's language development and verbal categorization ability. For example, naming games can be developed in which Sample Child is asked to list as many objects as she can based on a specific characteristic (e.g., red, round, soft, furry). She can also classify common objects through simple activities such as sorting laundry or putting away toys.

Sample Child may benefit from practicing new skills in several different ways. For example, to reinforce her learning of new vocabulary words, she could finger-paint or mold letters with clay into words, practice with flash cards, and create sentences with the words.

Sample Child's family and teacher could assist her by participating in activities that teach attributes of objects. For example, adults could describe an object in the room and Sample Child can name the object based on its attributes.

Sample Child's teacher and family can assist with Sample Child's language development by participating in story-time activities. For example, a story is read several times, with each reading including a change to the characters, action, or sequence. Sample Child's task is to identify and describe the part of the story that has changed. Sample Child could also be asked to complete an incomplete story or to participate in dramatization of a story.

Several classroom strategies can be used to increase Sample Child's comprehension of class content. Prior to the lesson, Sample Child can be introduced to upcoming content and can learn the meaning of important keywords. During the lesson, the teacher can use visual supports in the form of pictures, diagrams, or graphs. Additionally, the teacher can give Sample Child verbal cues to prepare Sample Child for important information. During the lesson, Sample Child can be provided with a written outline of main ideas to follow along. After the lesson, Sample Child should immediately review her learning by paraphrasing important information in the lesson.

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.

Organizing new information into visual categories that are meaningful may help Sample Child remember the information more easily and accurately.

Teachers may elect to use visual cues to teach operations or skills involving sequencing to help Sample Child retain the facts and skills being taught.

Provide visual supports for lessons and text in the form of pictures, diagrams, or graphs.

Parents and teachers should focus on exposing Sample Child to new vocabulary. For example, when in a store, adults should encourage Sample Child to name objects that she knows, and to identify objects that she cannot name. Adults can then tell her the name of the object.

Further evaluation by a speech-language pathologist is recommended to further explore the nature of Sample Child's speech and language difficulties.

### **Recommendations for Building Visual Spatial and Fluid Reasoning Skills**

Family and teachers can encourage activities that teach the relationship between part and whole. For example, Sample Child can be taught to complete puzzles by matching colours and shapes in each piece that correspond to the completed picture.

To teach sequencing skills, Sample Child can be asked to watch the teacher or family member perform a number of activities in sequence. She can then be asked to imitate the actions. The complexity and number of activities can be varied.

Teachers and family are encouraged to assist Sample Child by participating in activities designed to teach sequential reasoning skills. For example, a story could be developed in which Sample Child is the central character. Sample Child can then be asked to draw/select pictures that illustrate the sequence of events. She can then "read" the story back to her parents/teacher. Another way of developing Sample Child's sequencing skills is to ask her to identify what happened before and after an event in a story. While sequential reasoning skills are important for literacy, they also are useful when learning mathematics and science.

Sample Child could benefit from increased opportunities at home to improve her visual spatial abilities. Such activities may involve visual-motor skills, for example cutting, pasting, tracing, and colouring.

Several evidence-based interventions are available to build children's spatial skills. These include teaching children strategies for mental rotation skills and visual cues that assist in spatial decision-making.

Because of Sample Child's difficulties with tasks requiring visual processing, teachers are encouraged to avoid crowded or "busy" worksheets and leave adequate white space between items.

Because of Sample Child's difficulties with tasks requiring visual processing, teachers are encouraged to extend the time for the completion of assignments that require these skills.

### **Recommendations for Building Processing Speed and Working Memory Skills**

Given Sample Child's struggles with working memory and processing speed, she may benefit from computerized intervention programs. Evidence-based interventions are available to enhance working memory skills and increase speed of processing.

CogMed is an evidence-based computerized intervention program aimed at enhancing working memory skills and increasing processing speed. It is recommended that Sample Child participate in a CogMed training program in order to build her skills in these areas.

When learning new information, Sample Child may benefit from using mnemonic devices or visual imagery to help her remember information. These strategies include mental pictures (using imagery and visualizations) and first-letter cues (to remember the words in a series or statement).

Sample Child may benefit from "chunking" information, a strategy in which pieces of information are grouped together into larger chunks so that fewer pieces of information need to be remembered. For example, the seven digits of a telephone number can be grouped into four numbers: 555-5678 becomes five, fifty-five, fifty-six, seventy-eight.

Because of Sample Child's working memory difficulties, it may be challenging for her to remember new information. It may help her to remember new information if she links the new information to information that she already knows.

Because Sample Child has difficulty working quickly, she may benefit from extended time on tests and quizzes. When evaluating whether Sample Child requires extended time, her parents and teachers should monitor how often she uses extended time in regular class work and provincial tests.

An occupational therapy evaluation is strongly recommended. This type of evaluation will identify specific areas for intervention with regard to Sample Child's fine- and gross-motor challenges. Addressing these issues may help Sample Child develop greater speed on fine-motor tasks.

### **Recommendations for Executive Functioning**

Sample Child's parents or guardians are encouraged to provide immediate reinforcement for demonstrations of increased self-control or longer periods of maintaining attention.

Sample Child's parents and teachers can facilitate her development of executive functioning by praising her for working hard, rather than telling her that she is "smart." When children are praised for working hard, they may learn to persevere when faced with difficult concepts.

Mindfulness is a technique in which Sample Child can learn to ignore distracting thoughts and concentrate on the task at hand. Children of all ages can benefit from mindfulness training, which can help them to develop impulse control.

Learning to delay gratification has been shown to help children regulate their impulses and promotes positive social interactions.

To improve self-control, Sample Child and her parents can play a game in which they are asked to "freeze" when they hear a certain sound, e.g., a bell. Another game may involve clapping during a song, except during certain words. These games can build in complexity, such as clapping twice during certain words but not clapping during other words. Such activities can help to build her ability to inhibit motor impulses and regulate her motor output.

Parents, guardians, and teachers are encouraged to set appropriate time limits for clearly defined tasks and to allow Sample Child to monitor her own progress with a timing device.

Sample Child's sense of time may be enhanced by having her estimate the length of time needed to complete specific activities.

Sample Child can build her time management skills by learning to use a schedule. Deadlines, appointments, and homework assignments can be recorded on a calendar and she can check her progress daily.

Sample Child's family is encouraged to teach her to set realistic goals and monitor her progress toward those goals.

Parents, guardians, and teachers may wish to use a contract approach, when appropriate, to help Sample Child develop independence and self-direction. Involve Sample Child in development of contracts to ensure her investment in the outcome.

In order to complete multistep assignments in a timely manner, Sample Child may be taught to break larger tasks into smaller, more manageable steps. She can then learn to set realistic goals for each step and monitor her progress.

Sample Child may need to be taught the steps required to solve a problem or complete a task and be given the opportunity to rehearse the steps. Whenever possible, Sample Child can be offered a logical structure or procedure in solving problems.

Sample Child may need encouragement to assume responsibility for completing assignments and turning in work on time. Clear rules and timeliness can be established and maintained.

### **Recommendations for Attention Difficulties**

Sample Child may maximize her productivity during study time by eliminating outside distractions, extraneous noise, and unnecessary interruptions. At school, Sample Child should be given a quiet place to work away from other students. At home, Sample Child's family may help her complete her homework assignments by providing a location where she can be monitored. It is recommended that she not do her homework in an unsupervised room, as this affords too many opportunities for distraction.

To help Sample Child maintain focus on cognitive tasks, teachers are encouraged to provide "motor breaks." These are periods of 3 to 5 minutes of physical movement or motor activity, and occur after every 15 to 20 minutes of cognitive effort. Sample Child would additionally benefit from stretch breaks. This means that she should be allowed, when appropriate, to stand up and stretch during extended periods of cognitive effort.

Sample Child may benefit from assistance in channelling her excess energy into appropriate activities. For example, teachers may allow her to stand during seatwork or use activity (e.g., running an errand, arranging classroom materials, cleaning the chalkboard) as a reinforcement for task completion.

Children with attention problems may find it useful to relieve excess physical energy by fidgeting during class. To allow her to fidget, Sample Child can be given a "wobble seat" or stress ball to squeeze during class. This allows her a chance to relieve her excess physical energy in a socially appropriate manner.

Sample Child may benefit from techniques utilizing "self-talk" in situations where attention is vital. These inner reminders might include statements such as "Sit up straight, eyes on the speaker," "I need to keep looking at the person speaking," and "I need to write this down." Additionally, she should be encouraged to self-monitor by asking herself, "Did I get everything this person said?" and by double-checking with the speaker.

Children with attention problems often find it helpful to keep track of their on- and off-task behaviour. For example, Sample Child can keep a chart at her desk that is divided in half. At regular intervals, a timer can cue her to mark whether she was on or off task during that interval. She can be encouraged to calculate her performance by determining what percentage of the time she was on or off task. As her ability to attend to task improves, these intervals can become longer.

A prearranged, unobtrusive, non-punitive signal, such as a tap on the shoulder, may be used as a means of bringing Sample Child back on task. Teachers are encouraged to use such cues when Sample Child is engaged in off-task behaviours such as daydreaming or talking to peers. It is recommended that the teacher discuss the use of this cue with Sample Child prior to implementation, allowing Sample Child to decide the type of cue that would be most helpful to her.

Because of Sample Child's difficulties remembering task instructions and details, she may benefit from increased assistance from peers. For example, she could be assigned a classmate whom she can call with questions. She may also benefit from working in small groups, with one other student, or with a peer tutor to share ideas and "talk through" tasks.

Sample Child's teachers may wish to use behavioural techniques to keep her on task by reinforcing target behaviours or charting successful completion of assignments.

Sample Child should benefit from a mixture of high- and low-interest tasks. For example, teachers could follow a lecture with a hands-on activity. She is more likely to maintain attention when presented with a variety of tasks rather than a series of either high-interest or low-interest activities.

Sample Child's tasks should be short, well within her attention span, varied, and should gradually increase in length. Long or complex tasks should be broken into smaller pieces that she can easily complete. For example, if a task consists of three steps, Sample Child should be given one step at a time rather than all at once.

Family and teachers are encouraged to establish eye contact with Sample Child before giving instructions.

Teachers are encouraged to use multiple teaching modalities when teaching Sample Child new material, as she will have significant difficulty attending to the same modality for extended periods of time.

Sample Child would benefit from a well-structured learning environment that is carefully planned and consistently implemented in terms of the physical arrangement, schedule of activities, and expected behaviours.

Teachers could facilitate Sample Child's attention to important information by having her use highlighting or underlining to emphasize task directions or other areas of difficulty.

Because Sample Child may not remember everything at once, she can be encouraged to start with main ideas, until that information becomes part of her general fund of knowledge. She can then classify new information based on these main ideas. She should attempt to classify information into clusters based on similarities in meaning, making it easier for her to remember.

Because Sample Child is prone to rushing through her work, she should be encouraged to proofread her work before a grade is assigned. This will be most effective if Sample Child proofreads her work a few hours or days after she completed the initial draft. Sample Child should also be encouraged to proofread her tests for errors and mistakes. If appropriate, she could then be reinforced (e.g., receive partial credit) for correcting assignments.

Sample Child should be taught to advocate for her own needs, requesting additional time for scheduled tests, and separating herself from sources of distraction.

### **Recommendations to Build Reading Skills**

Sample Child should receive an evidence-based intervention to remediate reading difficulties. It is important that Sample Child's reading progress is carefully monitored so that the intervention can be tailored to her needs.

Sample Child is encouraged to highlight important material (e.g., key words, instructions, main ideas) in texts or handouts.

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

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

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

An evidence-based shared reading strategy such as dialogic reading may be useful in building early literacy and vocabulary skills. This shared reading intervention encourages adults to ask the child specific questions to encourage interest, comprehension, and enjoyment of reading.

To build orthographic awareness, Sample Child and her family can play a game in which Sample Child spells the same word as many ways as possible. For example, for the word "table," acceptable responses would be "tabel," "taebul," "taybull," etc. A small prize can be given for the person who generates the most acceptable spellings while maintaining the same pronunciation. This type of activity helps Sample Child to expand her knowledge of the letters and letter combinations that correspond to specific phonemes.

Sample Child demonstrates weaknesses in phonological processing that appear to interfere with her reading and writing skills. In addition to using an evidence-based intervention to build Sample Child's phonological processing skills, it may also help to practice playing word games that require rhyming, blending sounds together to form a word, removing a sound from a word to form another word, and saying a word one syllable or one sound at a time. In some cases, incorporating letters (orthography) is helpful for supporting and building phonological processing. For example, use letter cards to build a word and then change one or more letters or letter combinations to form a different word.

Reading teachers are encouraged to focus on developing Sample Child's reading fluency and de-emphasize individual word analysis. Teachers can combine fluency techniques such as imitative reading, repeated reading, radio reading, phrase reading, paired reading, and echo reading with basic sight-word recognition, decoding, vocabulary development, and comprehension lessons.

Read sentences to Sample Child 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.)

Sample Child should be encouraged to ask adults to define unfamiliar words. She can write down these words in a log and make flashcards, reviewing these words until they have become part of her sight-word vocabulary.

Sample Child's progress in reading fluency and comprehension should be monitored daily or weekly by collecting data. Graphing this data can assist in understanding her progress and setting appropriate literacy goals.

Sample Child's progress in reading fluency and comprehension should be monitored daily or weekly by collecting data. Computerized systems such as aimsweb can be useful in monitoring progress. Graphing this data can assist in understanding her progress and setting appropriate literacy goals.

Teachers and family could record brief passages from a story in which Sample Child is interested, yet is too difficult for her to read. Sample Child could then follow the script while listening to the passage on tape. Sample Child could repeat the process until she is able to read the passage on her own.

Because of Sample Child's reading difficulties, recorded textbooks may be an appropriate accommodation. Sample Child can listen to the textbook while following along.

Sample Child's parents and teachers are encouraged to provide her with high-interest, low-readability books that will allow her to read for pleasure. She may need assistance finding books that are appropriate to her reading level.

Sample Child's teachers should scaffold her reading activities by discussing the subject matter prior to reading, pre-reading end-of-chapter questions and boldfaced headings, and pausing at the end of each sentence (or paragraph) to summarize or paraphrase the information.

In order to bolster her sense of accomplishment, parents and teachers should keep a list of all the books that Sample Child has read. She should be able to choose a reward when she has read a pre-determined number of books.

Open communication with Sample Child regarding her reading difficulties is encouraged to assist her in gaining acceptance and understanding of her areas of difficulty, as well as the ways in which she can compensate for her difficulties.

Because of Sample Child's reading difficulties, teachers are encouraged to reduce the number of questions or problems to be completed at one time. For example, the teacher could indicate the essential items to be completed and give bonus points for additional items that Sample Child completes.

A number of digital resources are available to develop all aspects of Sample Child's reading skills. Sample Child should be taught to search for these resources on her own and to choose activities that are both fun and educational.

Sample Child's teacher, parents, or guardians are encouraged to visit the International Dyslexia Association (IDA) and the Learning Disabilities Association of Canada (LDAC) websites for information and resources.

Due to Sample Child's reading difficulties, it is recommended that she receive additional time to complete tests, quizzes, and assignments requiring this skill.

### **Recommendations to Build Writing Skills**

Sample Child should participate in an evidence-based writing intervention aimed at her specific areas of weakness. It is important that her progress is carefully monitored throughout this intervention to ensure that the intervention is meeting her needs and tailor the instruction as needed.

Sample Child's family may help her learn to spell words by playing games in which Sample Child is asked to make words (or made-up words) from a group of letters.

Sample Child is encouraged to practice weekly spelling and sight-vocabulary words by using different modalities. For example, she could use a computer, chalkboard, or plastic magnetic letters to work on these skills.

Give Sample Child 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.

Sample Child could develop a list of her problem words, that is, words that she commonly misspells. She could then concentrate on learning these words and could add and remove words from the list as appropriate.

Sample Child's language development may be enhanced through writing activities. For example, Sample Child could write a short story and then rewrite the story by substituting synonyms or rhyming words for existing words.

Because of Sample Child's persistent difficulties with spelling, her teachers are encouraged to not penalize her for misspelled words in subjects other than spelling. However, these mistakes should be pointed out to help Sample Child identify words that she commonly misspells.

Because of Sample Child's difficulties with visual-motor coordination, spatial visualization, and written language, teachers are encouraged to not penalize her for poor handwriting.

On tests with written responses that are not directly measuring writing skills, Sample Child should be allowed to dictate responses to an adult rather than write them during testing. This will reduce the impact of writing/fine motor skills on her test performance.

Parents and teachers should consider allowing Sample Child to use speech-to-text software, which allows her to speak her thoughts rather than writing or typing them. This type of software should supplement, but not replace, writing instruction.

Given Sample Child's fine-motor difficulties, she should be allowed to type her responses on assignments that are not directly assessing writing skills. Reducing demands on fine-motor skills may allow her to concentrate more on the content of her writing.

An occupational therapy evaluation is strongly recommended. This type of evaluation will identify specific areas for intervention with regard to Sample Child's fine- and gross-motor challenges. Addressing these issues may help Sample Child develop greater speed on fine-motor tasks.

### **Recommendations to Build Maths Skills**

To develop rote counting skills and one-to-one correspondence, Sample Child's parents may wish to use an egg carton and ask her to place objects (e.g., toys, blocks) into a specified number of holes.

Because poor visual organizational skills may make the alignment of multiple-digit numbers more difficult, teachers are encouraged to allow Sample Child to use graph paper. This will allow her to align rows and columns of numbers more easily.

To help Sample Child build automaticity in her retrieval of basic math facts, practice counting by 2s, 3s, 4s, 5s, 6s, etc. (multiplication is repeated addition, and fast counting facilitates quick addition), teach her strategies and tricks for remembering math facts (e.g., finger trick for multiplying by 9), use mnemonics and rhymes, and use flash cards and digital games with immediate feedback and reinforcement.

Teachers are encouraged to incorporate the use of manipulatives, drawing, and other hands-on activities when teaching Sample Child mathematical concepts or skills.

To teach relational skills specific to mass, Sample Child's parents/teachers may wish to fill plastic bags with materials (e.g., Styrofoam, sand, or beans) to demonstrate varying weights. Sample Child should then be asked to identify which of 2 bags is heavier or lighter.

To develop money skills, Sample Child's parents/teachers may wish to attach coins of different denominations to index cards. Pictures could be drawn around each coin to illustrate (e.g., picture of a girl named "Penny"). Review the coins and provide prompts if Sample Child has difficulty with recall.

Because of Sample Child's difficulties with math, she is encouraged to generalize any new skills to "real world" applications (e.g., shopping, making change, cooking). Parents should demonstrate their use of mathematical concepts in everyday life, for example in determining how long it will take them to drive to work.

When completing math tests, quizzes, and assignments that are designed to assess Sample Child's procedural knowledge rather than her computational skills, allowing her to use a calculator is recommended.

Teachers may elect to use visual cues to teach operations or skills involving sequencing or serialization to help Sample Child retain the facts and skills being taught.

Sample Child should participate in an evidence-based math intervention. An intervention should be chosen that specifically targets her areas of weakness. Sample Child's progress should be closely monitored. If she does not make adequate progress, a more intensive intervention should be implemented.

Because of Sample Child's difficulties with math, she will require extended time to complete math tests and quizzes.

### **Recommendations for School Difficulties**

When possible, Sample Child should be presented with new material in a small-group setting. This will allow for fewer distractions and will allow the teacher to monitor Sample Child's learning more closely.

Teachers are encouraged to provide frequent, immediate, and specific feedback on Sample Child's task performance. This is particularly important as Sample Child is learning new skills. For example, rather than using a vague statement such as "Try again," a more effective phrase could be, "You added these two numbers, but you should have added these two instead." Immediate feedback regarding incorrect practice or response patterns should reduce the need for retraining.

Teachers are encouraged to make tasks concrete whenever possible by providing manipulatives, pictures, models, diagrams, and graphs.

Teachers are encouraged to repeat new concepts in a variety of ways to provide Sample Child ample opportunity to generalize and internalize the new material.

Teachers are encouraged to provide maintenance activities for newly mastered skills and concepts to ensure that Sample Child retains novel learning.

It is recommended that assigned tasks and activities be appropriately challenging for Sample Child's ability level. Positive reinforcement can be given at home and school before, during, and after Sample Child successfully completes a task. Giving Sample Child appropriately challenging work can help build her self-esteem and sense of accomplishment.

Sample Child's activities could be shortened and then gradually lengthened. For example, if Sample Child is required to complete ten arithmetic problems, the teacher might first give her two problems and then gradually increase the number presented.

Sample Child is encouraged to seek extra help from teachers or students when she does not understand an assignment. The teacher can suggest names of specific students with whom she may work best to enable her to feel more comfortable pursuing this help. Also, Sample Child may be more willing to seek help from those teachers who make it known to her that they are available when needed or who set up specific times to help.

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

It is recommended that Sample Child learns to type more fluently through either a class or digital program. This may help her to work more efficiently when using a computer.

Sample Child'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 Sample Child completes assignments successfully, her family should consider displaying her work at home.

In order to ensure Sample Child's understanding of a task, it may be helpful if directions are presented one at a time and she is asked to rephrase the directions prior to proceeding with the task.

Participation in a mentoring or tutoring program for younger students may enhance Sample Child's self-confidence and ability to identify personal areas of strength.

Because Sample Child has experienced academic difficulty, school staff, as well as parents or guardians, are encouraged to monitor her academic work.

Teachers are encouraged to complete weekly progress reports to assist Sample Child in monitoring her accomplishments and areas in need of improvement.

Sample Child could bring her homework home and review materials covered in class. The teacher may wish to assist her in developing a homework log in which assignments are noted. At the end of each school day, Sample Child can review which assignments are due and which materials she needs to bring home.

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

A multi-disciplinary conference is recommended to evaluate Sample Child's current level of functioning and plan appropriate educational programs, placement, or services.

A number of digital resources are available to develop all aspects of Sample Child's math skills. Sample Child should be taught to search for these resources on her own and to choose activities that are both fun and educational.

Sample Child would benefit from the assistance of a mentor to support her in the school environment.

It is recommended that Sample Child's family set realistic expectations, goals, or responsibilities on Sample Child that build on her strengths and skills or target desired emerging behaviours.

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

Sample Child's teachers are encouraged to provide as much structure as possible. For example, the homeroom teacher can post a schedule of daily activities or classroom periods, provide a designated place to pick up assignments and leave completed assignments, and provide frequent and specific feedback on Sample Child's performance.

It is recommended that Sample Child's abilities or skills be tested further with an individual achievement measure, an assessment of basic conceptual knowledge, or an assessment of emerging literacy skills.

While creating an intervention plan for Sample Child, 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 Sample Child to better access the curriculum.

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

When giving directions, pause frequently at appropriate junctures (e.g., at the end of clauses), and/or reduce speaking rate to allow the student time to process information.

Redirect Sample Child to promote attention and listening by providing verbal, visual, or written cues.

Providing written lesson outlines and instructions may promote increased understanding of lesson content and teacher expectations.

Teachers may need to paraphrase or rephrase directions to ensure that Sample Child has understood each task.

Sample Child should be seated close to the source of auditory information or instructions (e.g., the teacher, television, speaker).

Family and teachers should encourage Sample Child to ask the meaning of unfamiliar words.

Provide visual supports for lessons and text in the form of pictures, diagrams, or graphs.

Introduce key concepts of the lesson (e.g., main idea, characters, conflict) before reading text and review them after reading.

Given Sample Child's difficulty with reading comprehension, she may need to be taught specific comprehension strategies such as reading for the main idea, using context clues to determine word meaning, and identifying cause and effect.

Give visual or verbal cues to prepare Sample Child for key information.

Because of Sample Child's challenges with auditory comprehension, she will have difficulty comprehending material presented in lectures. She should therefore be allowed to record lectures so that she can review content at a later time.

Build schema by capitalizing on Sample Child'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 Sample Child and ask her to identify each.

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

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

Read sentences to Sample Child 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 Sample Child 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 Sample Child 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 Sample Child for transitions by writing and posting the steps that will be required.

Provide strategies for immediate recall (e.g., association, acronyms) to help Sample Child remember facts and details of complex text.

Create and review scripts with Sample Child that involve responding to praise and criticism.

Create and review scripts for polite behaviour and responses inside and outside the classroom.

Create and review scripts with Sample Child 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 Sample Child'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.

Read various statements of fact and opinion. Ask Sample Child to identify which are fact or opinion and why. For more advanced directions, ask Sample Child to change statements of fact to opinion and vice versa.

Read aloud definitions of various words. Sample Child must name the word that best fits the definition.

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.

Read a comic strip to Sample Child. Cut the comic strip apart and present the frames (shuffled) to Sample Child. Tell Sample Child to sequence the frames and re-create the story.

Give each student a sheet of graph paper with the same starting point marked on each. Have Sample Child follow your directions to create a drawing. Check the completed drawings against your original drawing.

Create a fictional menu of popular food items, and gather pictures of the foods. Sample Child can take the order (or more than one order to increase difficulty), and serve the pictures of the food to the "customer(s)."

### **Recommendations for Emotional and Behavioural Difficulties**

Sample Child may benefit from application of the problem-solving approach to problematic situations. Steps in this approach include identifying the problem, evaluating all possible solutions, choosing a strategy or behaviour, and evaluating the outcome. Concrete examples may be used to teach the approach (e.g., the teacher describes a hypothetical situation where a student is studying and another student begins to talk).

It is recommended that Sample Child be referred for individual counselling.

A mental health professional at Sample Child's school is encouraged to schedule weekly contact with her to discuss any concerns she might have.

Sample Child and her family may wish to become involved with a support program for children with similar challenges. This will allow the family to share experiences and gain emotional support.

Parents and teachers are encouraged to reduce stress on Sample Child by providing Sample Child with clear behavioural expectations. For example, instead of telling Sample Child, "pay attention," they might say, "put both feet on the floor and face the front of the room."

Sample Child's teachers are encouraged to explain classroom rules and consequences in a clear manner. When Sample Child's behaviour does not comply with class rules, she should be asked in a non-punitive manner whether her behaviour is consistent with class rules. Consequences should be consistent, fair, and predictable.

Sample Child would benefit from a well-structured learning environment that is carefully planned and consistently implemented in terms of the physical arrangement, schedule of activities, and expected behaviours.

Sample Child's teachers are encouraged to provide as much structure as possible. For example, the homeroom teacher can post a schedule of daily activities or classroom periods, provide a designated place to pick up assignments and leave completed assignments, and provide frequent and specific feedback on Sample Child's performance.

To help Sample Child develop appropriate interpersonal relationships and social behaviours at home and school, family and teachers are encouraged to share behaviour-management strategies so that limits are well defined and consistently applied.

Sample Child's teachers are encouraged to reinforce her appropriate behaviours by rewarding her with free-time tokens or time to do her favourite activity. Immediate verbal feedback may also be used to reinforce appropriate behaviour. For example, the teacher might say, "I like the way you are sitting next to Jim. You are not touching him and you are keeping your hands in your lap." It is important that feedback is immediate and specific.

To reduce Sample Child's problem behaviour, it can be useful to reinforce alternate behaviours that are incompatible with the problem behaviour. For example, if out-of-seat behaviour is problematic, the teacher can reinforce Sample Child for staying seated for increasingly long periods of time.

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

Sample Child's teachers and parents or guardians are encouraged to create opportunities for appropriate behaviour to occur. For example, to increase helping behaviours, Sample Child can be asked to assist in classroom demonstrations or with appropriate household chores.

Focus on reinforcing positive behaviours rather than punishing negative behaviours. For example, if Sample Child interacts positively with others, one might say, "Thank you for picking up those puzzle pieces. You are a good helper."

It is recommended that Sample Child's family set realistic expectations, goals, or responsibilities on Sample Child that build on her strengths and skills or target desired emerging behaviours.

Sample Child's appropriate behaviours can be reinforced with tokens that she can redeem for desired activities and/or possessions. It is important to revisit the desired activities and reinforcers periodically with Sample Child to ensure that they remain motivating over time.

Sample Child's teachers may implement verbal or nonverbal interruption of self-stimulating behaviour. For example, for nonverbal interruption, the teacher can tape five short strips of paper to the side of Sample Child's desk. If Sample Child rocks during a lesson, a strip is removed. If she attends appropriately during a lesson, a strip is added. The strips can serve as tokens for purchasing desired rewards, such as extra computer time or the job of line leader.

Sample Child's family is encouraged to consider family counselling to help resolve possible family issues that may be causing stress for Sample Child, as this stress may be related to her irritable, argumentative, and aggressive behaviour.

Participation in family counselling may help Sample Child and her family to discuss their feelings and alleviate stress.

When upcoming events may require additional control or new skills, Sample Child may benefit from role-playing those events ahead of time with an adult.

Sample Child's family may help her identify and cope with her feelings by encouraging her to verbally label and openly discuss emotions, or by demonstrating that everyone experiences emotions. If Sample Child has difficulty identifying her feelings, many "feeling charts" are available that allow Sample Child to choose her feelings from multiple options.

Sample Child is encouraged to communicate her displeasure, anger, frustration, and other similar feelings in a socially acceptable manner. Family and teachers may need to assist her in determining how to communicate these feelings appropriately.

Family and teachers are encouraged to give Sample Child appropriate chores or responsibilities to be performed regularly to build her sense of worth and value as a member of the home and classroom. Chores appropriate to Sample Child's age and ability will reduce the likelihood of failure. It is important that Sample Child see such chores as genuine involvement, not as punishment.

Exercise and physical activity may alleviate Sample Child's depressive symptoms.

Sample Child's family may help her cope with failures by openly discussing difficulties and emphasizing successes. Sharing examples of others' failures will help demonstrate open discussion.

Avoid trying to "talk Sample Child out of depression" and instead present concrete evidence of her accomplishments and completion of assignments or chores. Examine task performance with Sample Child when she states that she is terrible at a task or is a failure.

Teachers and family may choose to work with Sample Child to establish realistic goals and keep a record of the goals that are accomplished. Because depressed children often set unrealistically high expectations and then feel disappointed when they do not meet them, it is important to emphasize realistic expectations.

Family or teachers could ask Sample Child what her peers do for fun and develop a program requiring her to do one thing for fun each day. (The question must be phrased this way because depressed children often respond that they do not have any fun when directly asked what they do for fun.)

Participation in a mentoring or tutoring program for younger students may enhance Sample Child's self-confidence and ability to identify personal areas of strength.

Instruct Sample Child in the use of positive coping statements when she encounters difficult situations or experiences failure (e.g., "Oh, I made a mistake. Next time I'll be more careful and maybe I'll get it right").

Sample Child may benefit from relaxation techniques, such as deep breathing, progressive muscle relaxation, and meditation when facing an upcoming, potentially stressful event.

Sample Child appears to have significant anxiety when faced with testing situations. It is recommended that she receive assistance from professionals who are knowledgeable about ways of reducing test anxiety and other test-taking strategies.

Sample Child's family is encouraged to consider family counselling to help resolve possible family issues that may be causing stress for Sample Child, as this stress may be related to her difficulty concentrating.

Further psychological assessment of Sample Child's depression is recommended.

It is recommended that Sample Child's family consult a therapist regarding potential strategies to reduce Sample Child's anxiety.

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

Sample Child would likely benefit from structured peer activities that allow her to excel. For example, scouting, sports, or band may allow Sample Child to interact with peers in a structured, non-threatening manner.

Sample Child may need encouragement to learn ways of handling social situations appropriately and successfully without conflict. Role-playing is an engaging method for practicing these skills.

Sample Child could be assisted by others who model socially appropriate behaviours, such as initiating a conversation, maintaining appropriate eye contact, and body distancing during conversations. It is important that adults model behaviour that is similar to other children Sample Child's age, rather than modelling overly dramatic or formal behaviour.

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

Sample Child 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 Sample Child in social communication as often as possible.

Rather than punishing Sample Child for lack of communication, teachers and family members are encouraged to reward any appropriate behaviours as they are observed.

Sample Child is encouraged to participate in an evidence-based intervention to build her social skills. This type of intervention should include structured, enjoyable, and appropriately challenging activities. Sample Child's progress should be monitored over time.

### **Recommendations for Adaptive Functioning Skills**

An incentive system designed to help Sample Child develop independence may be helpful. Small, simple incentives could motivate Sample Child to complete tasks without being told. She may also assist in identifying appropriate incentives.

Sample Child would benefit from further development of her adaptive skills. Her family and teachers should identify specific areas for adaptive skill development and set realistic goals in those areas.

Sample Child is encouraged to develop a personal hygiene program. For example, she could create a visual and/or written checklist of personal hygiene activities that need to be completed each day and check them off as they are completed.

Sample Child's family is encouraged to positively reinforce small improvements in her performance of simple routines. It is important to maintain consistent limits and establish simple routines. As Sample Child masters simple tasks, additional tasks may be added to develop simple routines. For example, "Brush your teeth and come tell me when you are through" can be gradually increased to "Brush your teeth, use the bathroom, put on your pyjamas, and bring me a story to read."

Adults should assist Sample Child in dividing daily routines into simple steps. Sample Child can then use a checklist to complete the routine until she has mastered it. For example, the larger activity of "getting ready for school" can be divided into smaller steps such as "brush teeth, wash face, choose clothes," etc. Sample Child can then use self-talk during each task to reinforce the sequencing of the steps required for successful completion.

Given Sample Child's challenges with mobility, it is strongly recommended that she is assessed by a mobility specialist. This type of evaluation will result in specific recommendations to increase Sample Child's mobility and independence.

A variety of assistive technology options may be available to Sample Child. An assistive technology evaluation is recommended.

### **Recommendations for Further Evaluation**

Children's problematic behaviour can sometimes serve a purpose for the child. A functional analysis of behaviour (FBA) can be useful in identifying the reason that a child performs a particular behaviour. Findings from an FBA can result in targeted areas for behavioural intervention.

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

A multi-disciplinary conference is recommended to evaluate Sample Child's current level of functioning and plan appropriate educational programs, placement, or services.

A comprehensive neuropsychological evaluation is recommended to better understand the nature of Sample Child's difficulties and to design interventions tailored to Sample Child's unique needs.

It is recommended that Sample Child's abilities or skills be tested further with an individual achievement measure, an assessment of basic conceptual knowledge, or an assessment of emerging literacy skills.

Because no current hearing difficulties are reported, an audiological screening and review of Sample Child's medical and developmental history is recommended to identify possible physical reasons for Sample Child's language difficulties.

Given Sample Child'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.

Further psychological assessment of Sample Child's depression is recommended.

It is recommended that Sample Child's family consult a therapist regarding potential strategies to reduce Sample Child's anxiety.

It is recommended that Sample Child's medication regimen be evaluated by a physician to determine if any changes, such as type and dosage, are warranted.

Given Sample Child's challenges with mobility, it is strongly recommended that she is assessed by a mobility specialist. This type of evaluation will result in specific recommendations to increase Sample Child's mobility and independence.

A variety of assistive technology options may be available to Sample Child. An assistive technology evaluation is recommended.

Thank you for the opportunity to assess Sample Child. 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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Clinical Psychologist

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Date

Sample

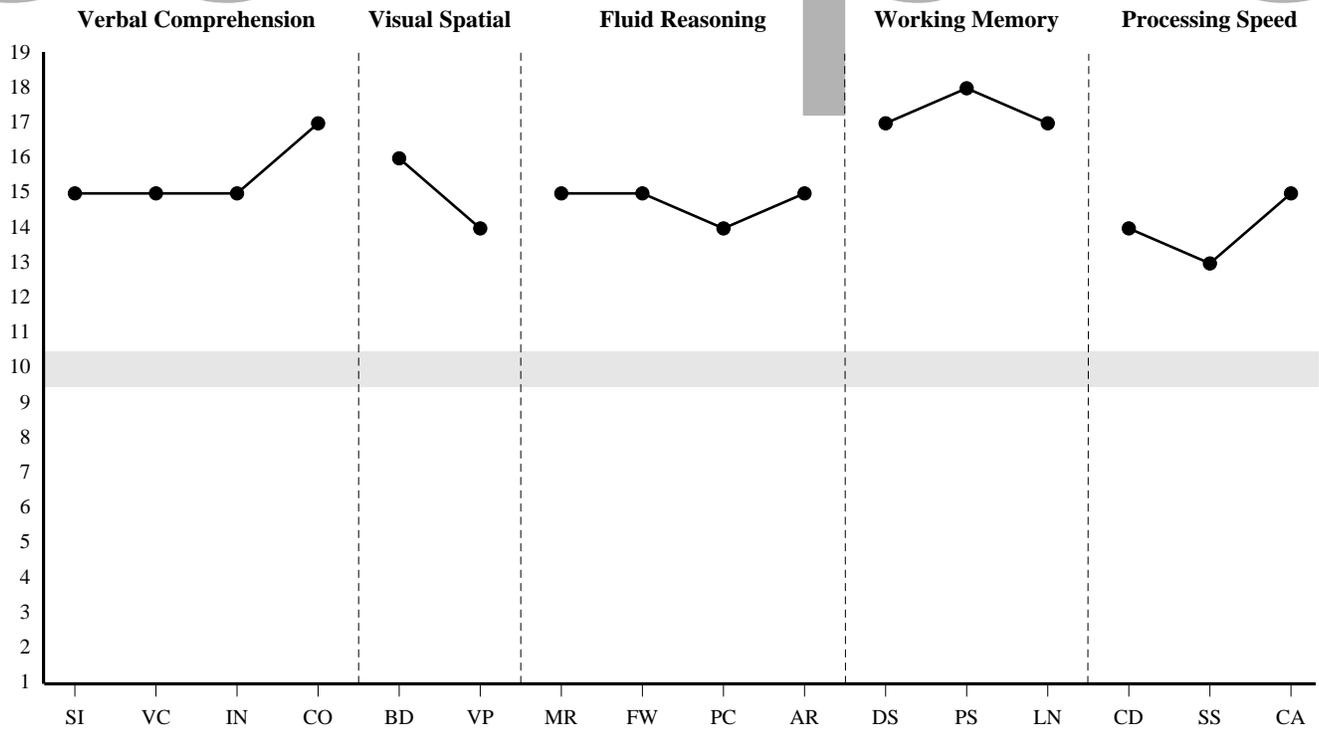
## PRIMARY SUMMARY

### Subtest Score Summary

Scale	Subtest Name		Total Raw Score	Scaled Score	Percentile Rank	Age Equivalent	SEM
Verbal Comprehension	<b>Similarities</b>	SI	32	15	95	14:10	0.90
	<b>Vocabulary</b>	VC	33	15	95	13:6	1.08
	(Information)	IN	21	15	95	14:2	1.31
	(Comprehension)	CO	26	17	99	13:10	1.08
Visual Spatial	<b>Block Design</b>	BD	41	16	98	16:2	1.27
	Visual Puzzles	VP	20	14	91	15:6	0.90
Fluid Reasoning	<b>Matrix Reasoning</b>	MR	23	15	95	>16:10	1.24
	<b>Figure Weights</b>	FW	26	15	95	16:2	0.73
	(Picture Concepts)	PC	17	14	91	14:6	1.41
	(Arithmetic)	AR	24	15	95	15:2	1.12
Working Memory	<b>Digit Span</b>	DS	33	17	99	>16:10	0.95
	Picture Span	PS	42	18	99.6	>16:10	0.95
	(Letter-Number Seq.)	LN	22	17	99	>16:10	1.24
Processing Speed	<b>Coding</b>	CD	48	14	91	11:2	1.37
	Symbol Search	SS	26	13	84	11:2	1.34
	(Cancellation)	CA	89	15	95	16:2	1.24

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

### Subtest Scaled Score Profile



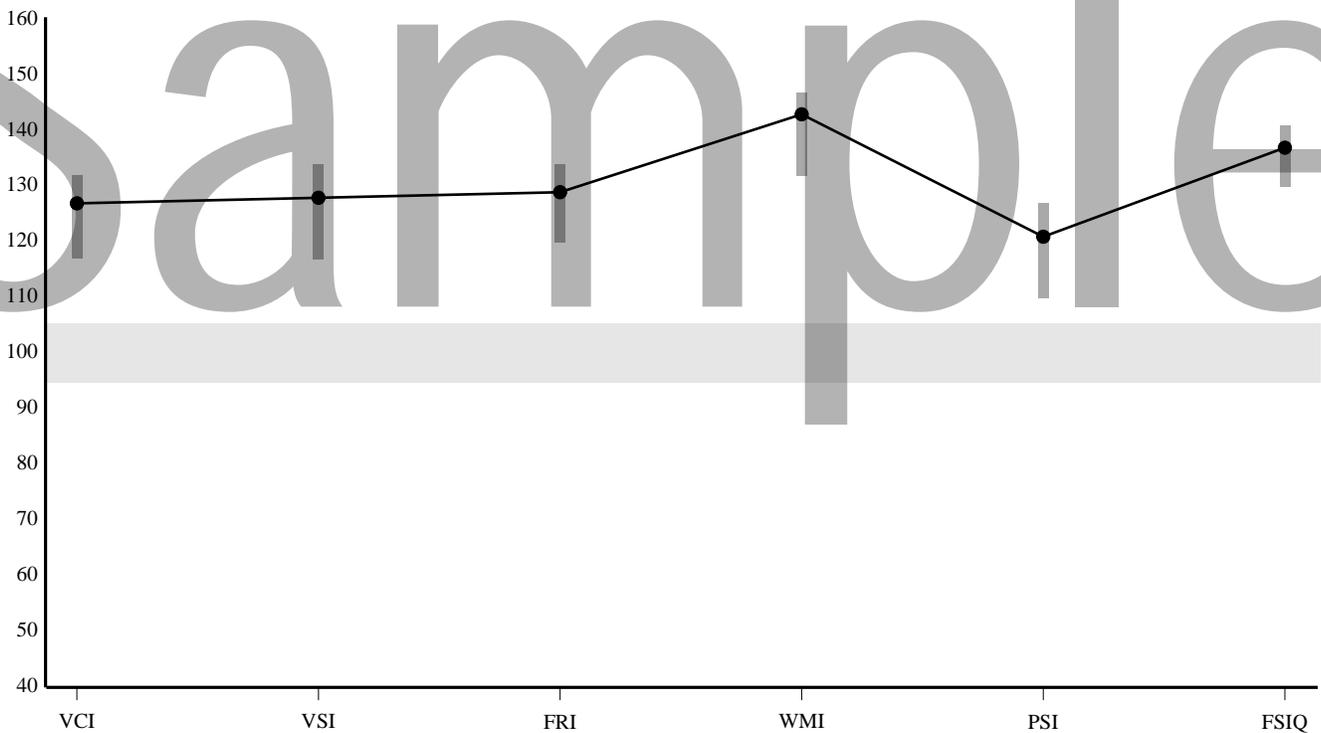
## PRIMARY SUMMARY (CONTINUED)

### Composite Score Summary

Composite		Sum of Scaled Scores	Composite Score	Percentile Rank	95% Confidence Interval	Qualitative Description	SEM
Verbal Comprehension	VCI	30	127	96	117-132	Very High	3.67
Visual Spatial	VSI	30	128	97	117-134	Very High	4.50
Fluid Reasoning	FRI	30	129	97	120-134	Very High	4.24
Working Memory	WMI	35	143	99.8	132-147	Extremely High	3.97
Processing Speed	PSI	27	121	92	110-127	Very High	5.61
Full Scale IQ	FSIQ	107	137	99	130-141	Extremely High	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	127	129.6	-2.6	8.92		>25%
VSI	128	129.6	-1.6	10.31		>25%
FRI	129	129.6	-0.6	9.87		>25%
WMI	143	129.6	13.4	9.41	S	<=10%
PSI	121	129.6	-8.6	12.28		<=25%

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

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

Base rates are reported by overall sample.

### Index Level Pairwise Difference Comparisons

Index Comparison	Score 1	Score 2	Difference	Critical Value	Significant Difference	Base Rate
VCI - VSI	127	128	-1	11.38	N	48.9%
VCI - FRI	127	129	-2	10.99	N	46.2%
VCI - WMI	127	143	-16	10.60	Y	14.1%
VCI - PSI	127	121	6	13.14	N	38.0%
VSI - FRI	128	129	-1	12.12	N	49.4%
VSI - WMI	128	143	-15	11.76	Y	16.5%
VSI - PSI	128	121	7	14.10	N	34.9%
FRI - WMI	129	143	-14	11.38	Y	17.3%
FRI - PSI	129	121	8	13.78	N	34.5%
WMI - PSI	143	121	22	13.47	Y	9.6%

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

Base rates are reported by overall sample.

## PRIMARY ANALYSIS (CONTINUED)

### Subtest Level Strengths and Weaknesses

Subtest	Score	Comparison Score	Difference	Critical Value	Strength or Weakness	Base Rate
SI	15	15.2	-0.2	2.45		>25%
VC	15	15.2	-0.2	2.87		>25%
BD	16	15.2	0.8	3.32		>25%
VP	14	15.2	-1.2	2.45		<=25%
MR	15	15.2	-0.2	3.25		>25%
FW	15	15.2	-0.2	2.07		>25%
DS	17	15.2	1.8	2.57		<=25%
PS	18	15.2	2.8	2.57	S	<=15%
CD	14	15.2	-1.2	3.56		>25%
SS	13	15.2	-2.2	3.49		<=25%

Comparison score mean derived from the ten primary subtest scores (MSS-P).  
Statistical significance (critical values) at the .05 level.

### Subtest Level Pairwise Difference Comparisons

Subtest Comparison	Score 1	Score 2	Difference	Critical Value	Significant Difference	Base Rate
SI - VC	15	15	0	3.08	N	
BD - VP	16	14	2	3.22	N	26.3%
MR - FW	15	15	0	2.74	N	
DS - PS	17	18	-1	2.90	N	45.1%
CD - SS	14	13	1	3.63	N	38.1%

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

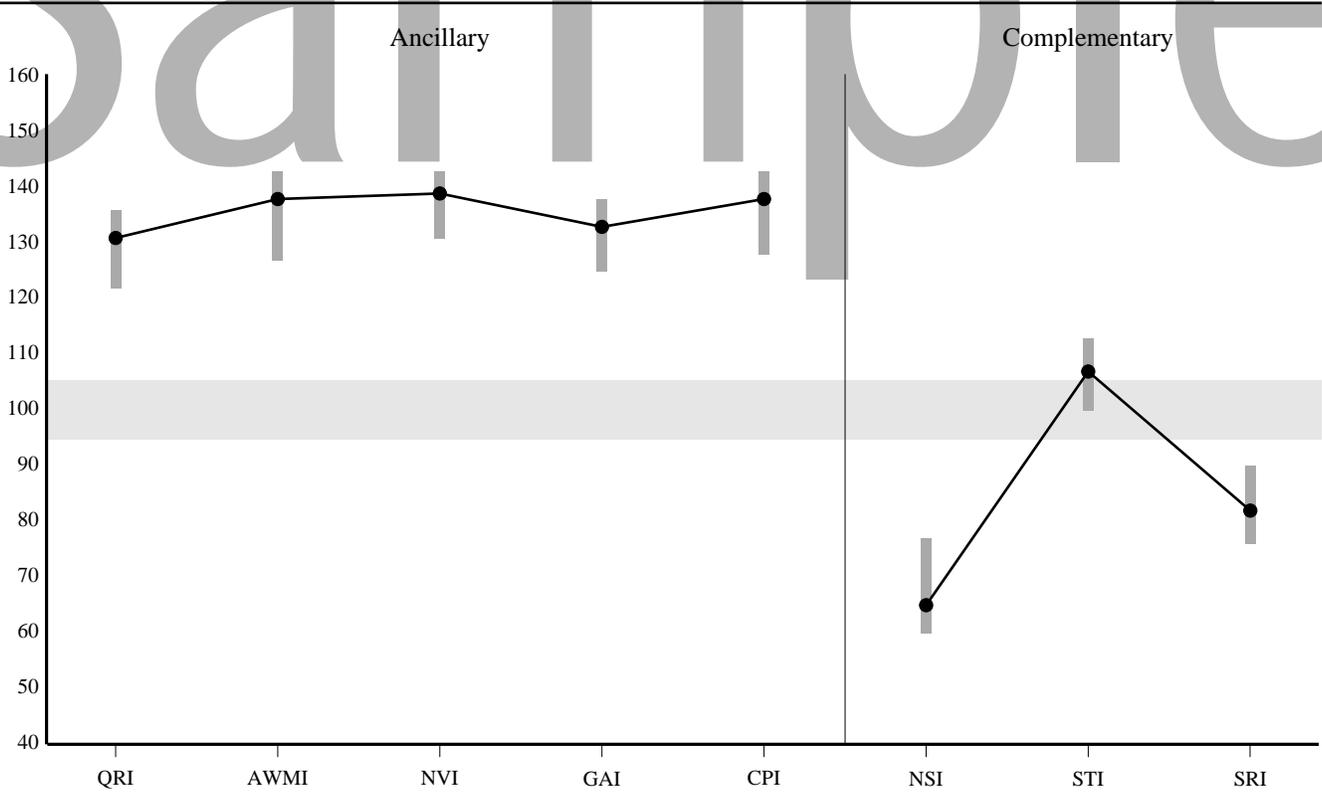
## ANCILLARY & COMPLEMENTARY SUMMARY

### 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	30	131	98	122-136	Extremely High	3.67
Auditory Working Memory	AWMI	34	138	99	127-143	Extremely High	4.24
Nonverbal	NVI	92	139	99.5	131-143	Extremely High	3.35
General Ability	GAI	76	133	99	125-138	Extremely High	3.35
Cognitive Proficiency	CPI	62	138	99	128-143	Extremely High	3.97
<b>Complementary</b>							
Naming Speed	NSI	120	65	1	60-77	Extremely Low	5.20
Symbol Translation	STI	320	107	68	100-113	Average	3.67
Storage & Retrieval	SRI	172	82	12	76-90	Low Average	3.97

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

### Ancillary/Complementary Index Score Profile



*Note.* 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	100	66	1	<9:2	6.87
	Naming Speed Quantity	NSQ	100	54	0.1	<7:2	6.54
Symbol Translation	Immediate Symbol Translation	IST	80	115	84	13:6	5.81
	Delayed Symbol Translation	DST	61	113	81	13:6	5.81
	Recognition Symbol Translation	RST	25	92	30	7:2	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	133	137	-4	3.80	Y	19.6%
GAI - CPI	133	138	-5	10.18	N	36.7%
WMI - AWMI	143	138	5	6.18	N	27.7%
<b>Complementary</b>						
NSI - STI	65	107	-42	12.47	Y	1.4%

Statistical significance (critical values) at the .05 level.  
Base rates are reported by overall sample.

### Subtest Level Pairwise Difference Comparisons

Subtest Comparison	Score 1	Score 2	Difference	Critical Value	Significant Difference	Base Rate
<b>Ancillary</b>						
FW - AR	15	15	0	2.57	N	
DS - LN	17	17	0	2.97	N	
<b>Complementary</b>						
NSL - NSQ	66	54	12	18.59	N	15.3%
IST - DST	115	113	2	16.10	N	39.3%
IST - RST	115	92	23	17.40	Y	1.9%
DST - RST	113	92	21	17.40	Y	2.4%

Statistical significance (critical values) at the .05 level.  
Base rates are reported by overall sample.

## PROCESS ANALYSIS

### Total Raw Score to Scaled Score Conversion

Process Score		Raw Score	Scaled Score
Block Design No Time Bonus	BDn	40	17
Block Design Partial Score	BDp	41	12
Digit Span Forward	DSf	11	14
Digit Span Backward	DSb	11	14
Digit Span Sequencing	DSs	11	15
Cancellation Random	CAr	43	15
Cancellation Structured	CAs	46	15

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

Process Score Comparison	Score 1	Score 2	Difference	Critical Value	Significant Difference	Base Rate
BD - BDn	16	17	-1	3.56	N	8.1%
BD - BDp	16	12	4	3.42	Y	0.0%
DSf - DSb	14	14	0	3.60	N	
DSf - DSs	14	15	-1	3.74	N	44.5%
DSb - DSs	14	15	-1	3.51	N	40.7%
LN - DSs	17	15	2	3.48	N	31.3%
CAr - CAs	15	15	0	3.59	N	

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

## PROCESS ANALYSIS (CONTINUED)

### Total Raw Score to Base Rate Conversion

Process Score		Raw Score	Base Rate
Longest Digit Span Forward	LDSf	6	58.2%
Longest Digit Span Backward	LDSb	6	11.4%
Longest Digit Span Sequence	LDSs	5	74.1%
Longest Picture Span Stimulus	LPSs	6	11.5%
Longest Picture Span Response	LPSr	6	98.6%
Longest Letter-Number Sequence	LLNs	6	20.8%
Block Design Dimension Errors	BDde	0	>25%
Block Design Rotation Errors	BDre	0	<=15%
Coding Rotation Errors	CDre	1	<=10%
Symbol Search Set Errors	SSse	0	<=25%
Symbol Search Rotation Errors	SSre	0	<=10%
Naming Speed Literacy Errors	NSLe	0	>25%
Naming Speed Quantity Errors	NSQe	0	<=25%

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	6	6	0	
LDSf - LDSs	6	5	1	64.2%
LDSb - LDSs	6	5	1	9.7%

Base rates are reported by overall sample.

### End of Report



WISC®-V<sup>CDN</sup>

Wechsler Intelligence Scale for Children®-Fifth Edition: Canadian  
Parent Summary Report (Canadian Norms)

Examinee Name	Sample Child #2	Date of Report	08/27/2015	
Examinee ID		Grade	4	
Date of Birth	06/06/2006	Primary Language	English	
Gender	Female	Handedness	Left	
Race/Ethnicity	Latin American	Examiner Name	Clinical Psychologist	
Date of Testing	08/27/2015	Age at Testing	9 years 2 months	Retest? No

Sample



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[ 1.2 / RE1 / QG1 ]

## TEST SESSION BEHAVIOUR

Sample Child arrived on time for the test session accompanied by her teacher.

## ABOUT THE WISC-V CDN

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 Sample Child's overall intellectual ability (FSIQ), as well as primary index scores that measure the following areas of cognitive functioning: verbal comprehension, visual spatial processing, fluid reasoning, working memory, and processing speed. Sample Child was also administered subtests contributing to five ancillary index scores that provide additional information about her cognitive skills. In addition, she was administered subtests contributing to three complementary index scores. These subtests provide additional information about her learning styles.

WISC-V scores show how well Sample Child performed compared to a group of children her age from Canada. 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.

Scores on the WISC-V can be influenced by motivation, attention, interests, and opportunities for learning. For these reasons, some scores might be slightly higher or lower if Sample Child was tested again at another time. It is therefore important to view these test scores as a snapshot of Sample Child'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 CDN SCORE INTERPRETATION

### Primary Index Scores

Sample Child's FSIQ score, a measure of overall intellectual ability, was in the Extremely High range compared to other children who are 9 years and 2 months old (FSIQ = 137). Overall, her performance on these tasks was better than approximately 99 out of 100 examinees in her age group.

The Verbal Comprehension Index (VCI) measured Sample Child's ability to use word knowledge, verbalize meaningful concepts, and reason with language-based information. Her overall score on the VCI fell in the Very High range (VCI = 127). This means that she performed better than approximately 96 out of 100 examinees in the same age group.

On the Visual Spatial Index (VSI), which measures the ability to evaluate visual details and understand part-whole relationships, Sample Child's overall score was in the Very High range (VSI = 128). Tasks in this index involve constructing designs and puzzles under a time constraint. Her performance was better than approximately 97 out of 100 examinees her age.

The Fluid Reasoning Index (FRI) measured Sample Child's logical thinking skills and her ability to use reasoning to apply rules. Her overall score on the FRI fell in the Very High range (FRI = 129). This means that she performed better than approximately 97 out of 100 examinees in the same age group.

The Working Memory Index (WMI) measured Sample Child's attention, concentration, and mental control. Her overall score on the WMI fell in the Extremely High range (WMI = 143). This means that she performed better than approximately 99.8 out of 100 examinees in the same age group. Working memory skills were one of her strongest areas of performance during this assessment and may be an area that can be built upon even further.

On the Processing Speed Index (PSI), which measures the ability to quickly and correctly scan visual information, Sample Child's overall score was in the Very High range (PSI = 121). Her performance was better than approximately 92 out of 100 examinees her age.

### **Ancillary Index Scores**

The Quantitative Reasoning Index (QRI) measured Sample Child's ability to perform mental math operations. Her overall performance on the QRI fell in the Extremely High range, and was higher than approximately 98 out of 100 examinees her age (QRI = 131).

On the Auditory Working Memory Index (AWMI), which measures the ability to remember information presented verbally, Sample Child's overall score was in the Extremely High range (AWMI = 138). Her performance was better than approximately 99 out of 100 examinees her age.

The Nonverbal Index (NVI) is a measure of general ability that minimizes verbal expression. Sample Child's overall performance on the NVI fell in the Extremely High range, and was higher than approximately 99.5 out of 100 examinees her age (NVI = 139).

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 Extremely High range. She performed better than approximately 99 out of 100 examinees her age (GAI = 133).

The Cognitive Proficiency Index (CPI) provides a summary of Sample Child's working memory and processing speed performance. Her overall performance on the CPI fell in the Extremely High range, and was higher than approximately 99 out of 100 examinees her age (CPI = 138).

### **Complementary Index Scores**

The Naming Speed Index (NSI) measured Sample Child's basic naming ability. Sample Child's performance on the NSI fell in the Extremely Low range, and was higher than approximately 1 out of 100 examinees her age (NSI = 65).

On the Symbol Translation Index (STI), which measures visual-verbal associative memory, Sample Child's overall score was in the Average range, and was better than approximately 68 out of 100 examinees her age (STI = 107).

The Storage and Retrieval Index (SRI) provides an estimate of Sample Child's ability to store and retrieve information. Her overall performance on the SRI fell in the Low Average range, and was higher than approximately 12 out of 100 examinees her age (SRI = 82).

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

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

\_\_\_\_\_  
Clinical Psychologist

\_\_\_\_\_  
Date

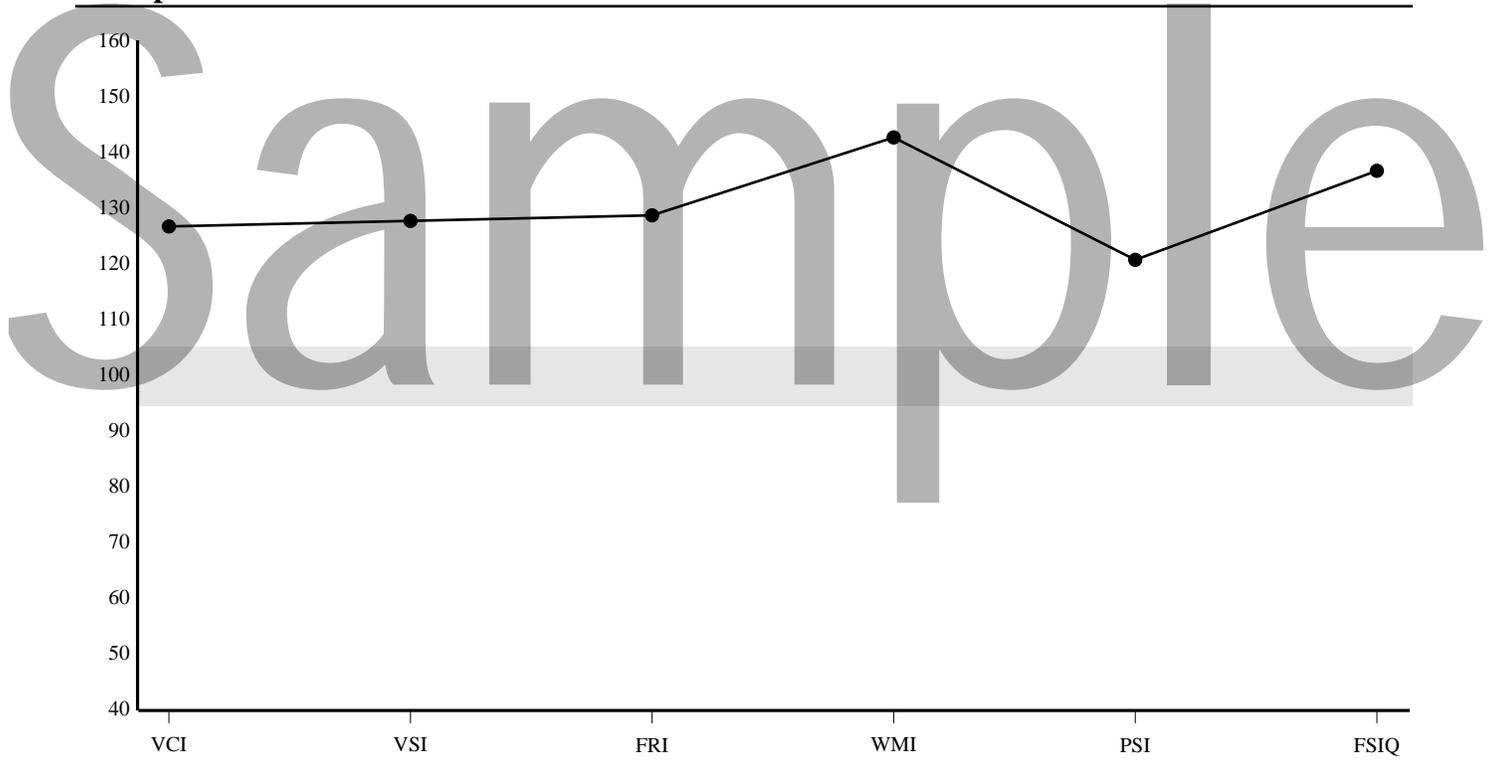
Sample

## WISC-V CDN TEST SCORES

### Score Summary

Composite		Score	Percentile Rank	Qualitative Description
Verbal Comprehension	VCI	127	96	Very High
Visual Spatial	VSI	128	97	Very High
Fluid Reasoning	FRI	129	97	Very High
Working Memory	WMI	143	99.8	Extremely High
Processing Speed	PSI	121	92	Very High
Full Scale IQ	FSIQ	137	99	Extremely High

### Composite Score Profile



### Ancillary/Complementary Score Summary

Composite		Score	Percentile Rank	Qualitative Description
<b>Ancillary</b>				
Quantitative Reasoning	QRI	131	98	Extremely High
Auditory Working Memory	AWMI	138	99	Extremely High
Nonverbal	NVI	139	99.5	Extremely High
General Ability	GAI	133	99	Extremely High
Cognitive Proficiency	CPI	138	99	Extremely High
<b>Complementary</b>				
Naming Speed	NSI	65	1	Extremely Low
Symbol Translation	STI	107	68	Average
Storage & Retrieval	SRI	82	12	Low Average

### Ancillary/Complementary Index Score Profile

