**psychological Assessment**

|  |  |
| --- | --- |
| **Name:** | **Date of Birth:** |
| **Dates of Testing:** | **Age at Assessment:** |
| **Date of Report:**  MM/DD/YYYY | **Referral Source:**  N/A |

**SOURCES OF INFORMATION**

Clinical Interview with Guardian

Review of Any Past Documentation Provided

Beery-Buktenica Test of Visual-Motor Integration, 6th Edition (VMI)

Beery-Buktenica Visual Perception Test, 6th Edition

Beery-Buktenica Motor Co-ordination Test, 6th Edition

Continuous Performance Task, 3rd Edition (CPT-3)

Comprehensive Behavior Rating Scales (CBRS) – Parent and Teacher Forms

Comprehensive Executive Functioning Inventory (CEFI) – Parent and Teacher Forms

Child and Adolescent Memory Profile (ChAMP)

Comprehensive Test of Phonological Processing, 2nd Edition (CTOPP-2)

Wechsler Intelligence Scale for Children, 5th Edition (WISC-V, Canadian norms; selected subtests)

Wechsler Individual Achievement Test, 4th Edition (WIAT-4 Canadian Edition, selected subtests)

**BEHAVIOURAL OBSERVATIONS DURING ASSESSMENT**

John presented as. His eye contact was. His mood was and his affect was

On the second day of testing with a different examiner, John presented similarly.

Overall, John showed fair to good effort during the assessment. As such this assessment is felt to be a good estimate of his abilities in the domains considered at the present time.

**ASSESSMENT RESULTS**

***Psychological tests are associated with measurement error and as such, a 95% confidence interval may be reported for some domain scores in the body of the report. This indicates that the individual’s performance in that domain will fall within the reported range 95% of the time.***

***Percentiles indicating the proportion of the standardization sample falling either above or below an individual’s score in a domain are also provided. For example, a score at the 80th percentile indicates that the individual performed better in that domain than 80% of the individuals in the standardization sample.***

***Composite scores are standard scores each with a mean of 100 and a standard deviation of 15 points. Scaled scores are provided for some subtests each with a mean of 10 and a standard deviation of 3 points. Age-based, and where possible Canada specific, normative data was used for all tests.***

**INTELLECTUAL FUNCTIONING**

As part of the evaluation John was administered the **WISC-V**, a standardized test of intellectual functioning. His performance was compared to peers his age in Canada. The WISC-V is composed of sixteen subtests, ten of which must be completed to derive the five Index scores and seven of those ten combine to provide a full-scale intelligence quotient (FSIQ). The additional subtests are supplementary and can provide additional information. John completed **14 of the sixteen** subtests.

In addition to the Normative Category for each global ability score or broad index, a determination regarding Cohesion is provided along with additional analysis regarding whether the index or score is clinically meaningful or not. Note that when a score is deemed to be clinically meaningful, it is defined as having sufficient cohesion to accurately represent the ability it is intended to measure. Conversely, when a score is deemed not to be clinically meaningful, it indicates substantial subtest variability such that it may not be a good representation of the ability it is intended to measure.

John exhibited significant disparity in his cognitive profile and as such his full-scale intelligence quotient (FSIQ) is not representative of his overall abilities. His index scores will need to be considered separately, and a GAI and CPI may be calculated for consideration and are explained in more detail.

|  |  |  |  |
| --- | --- | --- | --- |
| **Index/Subtest** | **Percentile** | **Qualitative Descriptor** | **Unitary Concept** |
| **Verbal Comprehension (VCI)** | **{{VCI Percentile}}** | **{{VCI Classification}}** |  |
| **Similarities** | **{{Similarities Percentile}}** | **{{Similarities Classification}}** |
| **Vocabulary** | **{{Vocabulary Percentile}}** | **{{Vocabulary Classification}}** |
| Information | {{Information Percentile}} | {{Information Classification}} |
| Comprehension | {{Comprehension Percentile}} | {{Comprehension Classification}} |
| **Visual Spatial (VSI)** | {{VSI Percentile}} | {{VSI Classification}} |  |
| **Block Design** | {{Block Design Percentile}} | {{Block Design Classification}} |
| **Visual Puzzles** | {{Visual Puzzles Percentile}} | {{Visual Puzzles Classification}} |
| **Fluid Reasoning (FRI)** | **{{FRI Percentile}}** | **{{FRI Classification}}** |  |
| **Matrix Reasoning** | **{{Matrix Reasoning Percentile}}** | **{{Matrix Reasoning Classification}}** |
| **Figure Weights** | **{{Figure Weights Percentile}}** | **{{Figure Weights Classification}}** |
| Picture Concepts | {{Picture Concepts Percentile}} | {{Picture Concepts Classification}} |
| Arithmetic | {{Arithmetic Percentile}} | {{Arithmetic Classification}} |
| **Working Memory (WMI)** | **{{WMI Percentile}}** | **{{WMI Classification}}** |  |
| **Digit Span** | **{{Digit Span Percentile}}** | **{{Digit Span Classification}}** |
| **Picture Span** | **{{Picture Span Percentile}}** | **{{Picture Span Classification}}** |
| Letter-Number Sequencing | {{LetterNumber Seq Percentile}} | {{LetterNumber Seq Classification}} |
| **Processing Speed (PSI)** | **{{PSI Percentile}}** | **{{PSI Classification}}** |  |
| **Coding** | **{{Coding Percentile}}** | **{{Coding Classification}}** |
| **Symbol Search** | **{{Symbol Search Percentile}}** | **{{Symbol Search classification}}** |
| **Full-Scale Intelligence Quotient (FSIQ)** | **{{FSIQ Percentile}}** | **{{FSIQ Classification}}** |  |
| **General Ability Index (GAI)** | **{{GAI Percentile}}** | **{{GAI Classification}}** |  |
| **Cognitive Proficiency Index (CPI)** | **{{CPI Percentile}}** | **{{CPI Classification}}** |  |

**Verbal Comprehension Index (VCI)**

The VCI provides an estimate of Crystallized Intelligence (Gc). Gc refers to an individual’s knowledge base (or general fund of information) that develops as a result of exposure to language, culture, general life experiences, and formal schooling. This index measures one’s ability to access and apply acquired word knowledge. The application of this knowledge involves verbal concept formation, reasoning, and expression. This index is comprised of four subtests, two of which are primary subtests and two of which are secondary.

***Similarities (SI)*** is a primary subtest, and it presents the individual with two words that represent common objects or concepts that they have to describe how they are similar. This measures verbal concept formation and abstract reasoning. John scored at the {{Similarities Percentile\*}} percentile and in the {{Similarities Classification}} range.

***Vocabulary (VC)*** is a primary subtest, and it has the individual define a word that is read aloud and measures word knowledge and verbal concept formation. John scored at the {{Vocabulary Percentile\*}} percentile and in the {{Vocabulary Classification}} range.

***Information (IN)*** is a secondary subtest and asks questions about a broad range of general-knowledge topics and measures one’s ability to acquire, retain, and retrieve general factual knowledge. John scored at the {{Information Percentile\*}} percentile and in the {{Information Classification}} range.

***Comprehension (CO)*** is a secondary subtest and has the individual answer questions based on their understanding of general principles and social situations and measures verbal reasoning and conceptualisation, verbal comprehension and expression, the ability to evaluate and use experience, and the ability to demonstrate practical knowledge and judgement. John scored above the {{Comprehension Percentile\*}} percentile and in the {{Comprehension Classification}} range.

The difference between the scores that comprise the VCI is not significant and considered common in the general population. However, this domain was not cohesively developed. This means that the VCI is likely a good summary of Verbal Comprehension. However, individual subtests should be considered when evaluating results.

The VCI is classified as in the {{VCI Classification}} range and is ranked at the {{VCI Percentile\*}} percentile, indicating performance as good as or better than {{VCI Percentile}}% of same age peers from the general population. The difference between the VCI and the average of all five primary index scores is not significant and considered uncommon in the general population. Overall, one or more of John’s Verbal Comprehension abilities may facilitate learning, particularly the abilities that are at least average.

**Visual Spatial Index (VSI)**

The VSI provides an estimate of Visual Processing (Gv). Gv refers to an individual’s ability to generate visual images and perceive and analyze visual patterns and visual information. The VSI provides an estimate of Visual Processing (Gv). This index measures one’s ability to evaluate visual details and to understand visual spatial relationships to construct geometric designs from a model, which requires visual spatial reasoning, integration and synthesis of part-whole relationships, attentiveness to visual detail, and visual-motor integration. This index is comprised of two subtests, both of which are primary subtests.

***Block Design (BD)*** has an individual view a model and/or picture and utilises two-colour blocks to recreate the design or pattern within a time limit and measures the ability to analyse and synthesise abstract visual stimuli. John scored at the {{Block Design Percentile\*}} percentile and in the {{Block Design Classification}} range.

***Visual Puzzles (VP)*** has the individual view a completed puzzle and selects three response options from six that when combined reconstruct the puzzle within a time limit. This measures mental, non-motor construction ability, which requires visual and spatial reasoning, mental rotation, visual working memory, understanding part-whole relationships, and the ability to analyses and synthesise abstract visual stimuli. John scored at the {{Visual Puzzles Percentile\*}} percentile and in the {{Visual Puzzles Classification}} range.

The difference between the scores that comprise the VSI is not significant, and a difference of this size is considered common in the general population. This means that the VSI is a good summary of Visual Processing.

The VSI is classified as in the {{VSI Classification}} range and is ranked at the {{VSI Percentile\*}} percentile, indicating performance as good as or better than {{VSI Percentile}} % of same age peers from the general population. The difference between the VSI and the average of all five primary index scores is not significant and considered common in the general population. Overall, one or more of John’s Visual Spatial abilities may facilitate learning, particularly the abilities that are at least average.

**Fluid Reasoning Index (FRI)**

The FRI provides an estimate of Fluid Reasoning (Gf). Gf refers to a type of thinking that an individual may use when faced with a relatively new or novel task that cannot be performed automatically. This index measures one’s ability to detect the underlying conceptual relationship among visual objects and to use reasoning to identify and apply rules which requires inductive and quantitative reasoning, broad visual intelligence, simultaneous processing, and abstract thinking. This index is comprised of four subtests, two of which are primary subtests and two of which are secondary.

***Matrix Reasoning (MR)*** is a primary subtest and has an individual view an incomplete matrix or series and selects the response option from five possibilities that completes the matrix or series. It requires the individual to use visual-spatial information to identify the underlying conceptual rule that links all the stimuli and then apply the underlying concept to select the correct response. It measures fluid intelligence, broad visual intelligence, classification and spatial ability, knowledge of part-whole relationships, and simultaneous processing. John scored at the {{Matrix Reasoning Percentile\*}} percentile and in the {{Matrix Reasoning Classification}} range.

***Figure Weights (FW)*** is a primary subtest and has an individual view a scale with missing weight(s) and select the response option that keeps the scale balanced. It requires an individual to apply the quantitative concept of equality to understand the relationship among objects and apply the concepts of matching, addition, and/or multiplication to identify the correct response. It measures quantitative fluid reasoning and induction. John scored at the {{Figure Weights Percentile\*}} percentile and in the {{Figure Weights Classification}} range.

***Picture Concepts (PC)*** is a secondary subtest and has an individual view two or three rows of pictures and select one picture from each row to form a group with a common characteristic. It requires an individual to use the semantic representation of nameable objects to identify the underlying conceptual relationship among the objects and to apply that concept to select the correct response. This is not timed. It measures fluid and inductive reasoning, visual-perceptual recognition and processing, and conceptual thinking. John scored at the {{Picture Concepts Percentile\*}} percentile and in the {{Picture Concepts Classification}} range.

***Arithmetic (AR)*** is a secondary subtest that has an individual solve arithmetic problems within a time limit. It involves mental manipulation, concentration, brief focussed attention, working memory, short- and long-term memory, numerical reasoning ability, applied computational ability, and mental alertness. John scored at the {{Arithmetic Percentile\*}} percentile and in the {{Arithmetic Classification}} range.

The difference between the scores that comprise the FRI is not significant and a difference of this size is considered common in the general population. This means that the FRI is a good summary of Fluid Reasoning.

The FRI is classified as {{FRI Classification}} and is ranked at the {{FRI Percentile\*}} percentile, indicating performance as good as or better than {{FRI Percentile}}% of same age peers from the general population. The difference between the FRI and the average of all five primary index scores is not significant and common in the general population. Overall, one or more of John’s Fluid Reasoning abilities may facilitate learning, particularly the abilities that are at least average.

**Working Memory Index (WMI)**

The WMI provides an estimate of Short-term Working Memory (Gsm). Gsm refers to the ability to hold information in immediate awareness and then manipulate or transform it in some way within a few seconds. This index measures one’s ability to register, maintain (i.e., the process by which information is kept active in conscious awareness), and manipulate (i.e., the mental resequencing of information based on the application of a specific rule) visual and auditory information in conscious awareness, which requires attention, auditory and visual discrimination, and concentration. This index is comprised of three subtests, two of which are primary subtests and one of which is secondary.

***Digit Span (DS)*** is a primary subtest that has an individual listen to a sequence of numbers read to them and they must recall them in the same order (Forward task), reverse order (Backward task), and ascending order (Sequencing task). The shift from one task to another requires cognitive flexibility and mental alertness. All tasks require registration of information, brief focussed attention, auditory discrimination, and auditory rehearsal. John scored at the {{Digit Span Percentile\*}} percentile and in the {{Digit Span Classification}} range.

***Picture Span (PS)*** is a primary subtest and has an individual view a stimulus page with one or more pictures of nameable objects for a specified time and then select the picture(s) in sequential order from options on a response page. It measures visual working memory and working memory capacity. John scored at the {{Picture Span Percentile\*}} percentile and in the {{Picture Span Classification}} range.

***Letter-Number Sequencing (LN)*** is a secondary subtest and has an individual listen to a sequence of numbers and letters read to them and recall the numbers in ascending order and then the letters in alphabetical order. It requires auditory discrimination, brief focussed attention, concentration, registration, and auditory rehearsal. John scored at the {{LetterNumber Seq Percentile\*}} percentile and in the {{LetterNumber Seq Classification}} range.

The difference between the scores that comprise the WMI is significant, and a difference of this size is seen in only 20.9% of the general population. This means that the WMI is not necessarily a good summary or Working Memory. Individual subtests should be considered when evaluating scores.

The WMI is classified as {{WMI Classification}} and is ranked at the {{WMI Percentile\*}} percentile, indicating performance as good as or better than {{WMI Percentile}}% of same age peers from the general population. The difference between the WMI and the average of all five primary index scores is significant and considered uncommon in the general population. This indicates that Working Memory is an area of **weakness** for John.

**Processing Speed Index (PSI)**

The PSI provides an estimate of Processing Speed (Gs). Gs refers to the efficiency of cognitive processing or speed of mental activity. It involves the ability to perform simple clerical-type tasks quickly, especially when under pressure to maintain attention and concentration. This index measures the speed and accuracy of visual identification, decision-making, and decision implementation, which is related to visual scanning, visual discrimination, short-term visual memory, visuomotor coordination, and concentration. This index is comprised of two primary subtests.

***Coding (CD)*** has an individual work within a time limit and use a key to copy symbols that correspond with simple geometric shapes or numbers. It measures short-term visual memory, procedural and incidental learning ability, psychomotor speed, visual perception, visual-motor coordination, visual scanning ability, cognitive flexibility, attention, concentration, and motivation. John scored at the {{Coding Percentile\*}} percentile and in the {{Coding Classification}} range.

***Symbol Search (SS)*** has an individual scan search groups and indicate whether target symbols are present, within a specified time limit. It involves short-term visual memory, visual-perceptual identification and matching and decision-making speed, visual-motor coordination, inhibitory control, visual discrimination, psychomotor speed, sustained attention, and concentration. John scored at the {{Symbol Search Percentile\*}} percentile and in the {{Symbol Search Classification}} range.

The difference between the scores that comprise the PSI is not significant, and a difference of this size is considered common in the general population. This means that the PSI is a good summary of Processing Speed.

The PSI is classified as {{PSI Classification}} and at the {{PSI Percentile\*}} percentile, indicating performance as good as or better than {{PSI Percentile}}% of same age peers from the general population. The difference between the PSI and the average of all five primary index scores is not significant and common in the general population.

**Ancillary Indexes and Clinical Composites**

The table below presents a summary of the Normative Category and Cohesion for the Ancillary Indexes and Clinical Composites. There are five scales at the Ancillary Index level. The Ancillary Index scores are derived from combinations of primary and secondary subtests. They provide additional information regarding cognitive ability.

It should be noted that nearly 70% of the population obtains standard scores on norm referenced tests that fall “Within Normal Limits” (16th to 84th percentiles). Therefore, scores that fall in this range should be considered as indicative of expected performance relative to most people. However, scores that fall at the lower end of this range (i.e., 16th to 23rd percentiles; Low Average) may represent areas of difficulty. As such, multiple data sources should be considered prior to suggesting that a Low Average score is problematic for the individual.

**John had -- to -- scores.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Ancillary Index/Subtest** | **Percentile** | **Qualitative Descriptor** | **Unitary Concept** |
| Quantitative Reasoning (QRI) | {{QRI Percentile}} | {{QRI Classification}} |  |
| Auditory Working Memory (AWMI) | {{AWMI Percentile}} | {{AWMI Classification}} |  |
| Nonverbal (NVI) | {{NVI Percentile}} | {{NVI Classification}} |  |
| General Ability (GAI) | {{GAI Percentile}} | {{GAI Classification}} |  |
| Cognitive Proficiency (CPI) | {{CPI Percentile}} | {{CPI Classification}} |  |

**Quantitative Reasoning Index (QRI)**

The QRI is derived from the sum of scaled scores for the Figure Weights (FW) and Arithmetic (AR) subtests.

QR is an indicator of an individual’s quantitative reasoning skills, which is closely related to general intelligence. Assessing QR assists in potentially more accurately predicting both reading and mathematics achievement scores, creativity, and future academic success. This index provides additional information regarding John’s reasoning skills, specifically those involving numeric information. It is often helpful in assisting to identify learning issues around math problem solving.

The difference between the scores that comprise the composite is not significant and is common in the general population. The composite is, therefore, cohesive meaning that it is likely to be a good summary of the theoretically related abilities it was intended to represent.

John is performing consistently at the {{QRI Percentile\*}} percentile in the {{QRI Classification}} range.

**Auditory Working Memory Index (AWMI)**

The AWMI is derived from the sum of scaled scores for the Digit Span (DS) and Letter-Number Sequencing (LN) subtests and is an indicator of an individual’s auditory working memory skills.

The WMI as discussed previously provides a composite measure of working memory across mixed modalities (auditory and visual) while the AWMI provides a purer measure of auditory working memory. This index allows for a comparison with the Working Memory Index, which assesses complex visual-spatial working memory versus auditory working memory. AWMI tasks are generally more related to academic achievement than are visual working memory tasks especially for reading, math problem solving, and written expression. The two modalities of working memory may be differentially sensitive to specific learning disorders.

The difference between the scores that comprise the composite is not significant and is common in the general population. The composite is, therefore, cohesive meaning that it is likely to be a good summary of the theoretically related abilities it was intended to represent.

John is performing in the {{AWMI Classification}}range at the {{AWMI Percentile\*}} percentile. The difference between his WMI ({{WMI Percentile\*}} percentile) and AWMI ({{AWMI Percentile\*}} percentile) was not significant.

**Nonverbal Index (NVI)**

The NVI is derived from the sum of six subtest scaled scores (BD, MR, CD, FW, VP, & PS) from tasks that do not require any verbal responses and can be interpreted as a measure of general intellectual ability that minimises expressive demands.

The Fluid and Visual Spatial domains assess a single primary cognitive construct: Reasoning with Nonverbal Visual Material. While the NVI should not be conceptualised as a language-free measure, it may be more accurately described as language-reduced as it is derived from subtests that require an individual to understand instructions in English.

John scored in the {{NVI Classification}} range at the {{NVI Percentile\*}}percentile. While his score was cohesively developed it is not necessarily a good representation of their abilities.

**General Ability Index (GAI)**

The GAI is based on the Verbal Comprehension, Visual Spatial, and Fluid Reasoning subtests that contribute to the FSIQ (BD, SI, MR, VC, & FW), it was specifically developed to assist with the identification of relative strengths and weaknesses based on comparisons.

Conceptually, the GAI provides an estimate of general intellectual ability that is less reliant on working memory and processing speed relative to the FSIQ, which includes these measures in its overall calculation. The GAI is often considered a better estimate of overall intellectual ability than the FSIQ because it contains only high g-loaded tests, whereas the FSIQ contains high g-loaded tests as well as moderate to low g-loaded tests (e.g., Coding). The most g-loaded tests involve complex cognitive operations (e.g., inductive and deductive reasoning, as well as abstraction) while tests with low g-loadings involve less complex cognitive operations (e.g., sensory discriminations, reaction times to simple stimuli, and rote memory).

John’s GAI was at the {{GAI Percentile\*}} percentile in the {{GAI Classification}} range. His score was not cohesively developed and may not be the best representation of his skills in this area. The difference between John’s stronger GAI and his uninterpretable FSIQ, which would have been at the {{GAI Percentile\*}} percentile was not significant

**Cognitive Proficiency Index (CPI)**

The CPI is based on the subtests that contribute to the WMI and the PSI (DS, CD, PS, & SS).

Conceptually, the CPI provides an estimate of the efficiency with which information is processed in the service of learning, problem-solving, and higher-order reasoning. This index looks at proficient processing and how it facilitates fluid reasoning and the acquisition of new material by reducing the cognitive demands of novel or higher order tasks. The CPI provides an estimate of John’s cognitive information processing efficiency. Quick processing speed facilitates information processing before decay from working memory occurs.

This index is most useful in the context of a pairwise difference comparison with the GAI. John’s CPI is in the {{CPI Classification}} range at the {{CPI Percentile\*}} percentile. His CPI was cohesively developed.

The difference between his {{GAI Classification}} GAI ({{GAI Percentile\*}} percentile) and his {{CPI Classification}} CPI ({{CPI Percentile\*}} percentile) was not significant.

**Summary of Intellectual Test Results**

The pattern of intellectual testing indicates that John

**ACADEMIC ACHIEVEMENT**

The **WIAT-4** was used to obtain information about John’s current skills levels in achievement areas and their relationship to his intellectual abilities. Standardised achievement tests are used to describe selected academic skills, which are considered to be key components in a person’s aptitude for learning school-type tasks.

Comparisons with North American peers of the same age are shown on the graph below. The subtest label indicates what specific aspect of an academic skill was assessed. For example, Word Reading assesses sight word skills. While this is a major component of reading it does not assess every aspect of reading in any educational curriculum.

The tables depict a person’s skills relative to peers the same age and provide a profile of strengths and weaknesses. To consider an individual’s needs a comparison is made between their age-based scores and their ability level.

|  |  |  |
| --- | --- | --- |
| **Subtest/Composite** | **Percentile** | **Qualitative Descriptor** |
| Word Reading | {{Word Reading Percentile}} | {{Word Reading Classification}} |
| Orthographic Fluency | {{Orthographic Fluency Percentile}} | {{Orthographic Fluency Classification}} |
| Pseudoword Decoding | {{Pseudoword Decoding Percentile}} | {{Pseudoword Decoding Classification}} |
| Decoding Fluency | {{Decoding Fluency Percentile}} | {{Decoding Fluency Classification}} |
| Reading Comprehension | {{Reading Comprehension Percentile}} | {{Reading Comprehension Classification}} |
| Oral Reading Fluency | {{Oral Reading Fluency Percentile}} | {{Oral Reading Fluency Classification}} |
| Phonemic Proficiency | {{Phonemic Proficiency Percentile}} | {{Phonemic Proficiency Classification}} |
| **Reading Composite** | **{{Reading Percentile}}** | **{{Reading Classification}}** |
| **Basic Reading Composite** | **{{Basic Reading Percentile}}** | **{{Basic Reading Classification}}** |
| **Decoding Composite** | **{{Decoding Percentile}}** | **{{Decoding Classification}}** |
| **Reading Fluency Composite** | **{{Reading Fluency Percentile}}** | **{{Reading Fluency Classification}}** |
| **Dyslexia Index** | **{{Dyslexia Index3 Percentile}}** | **{{Dyslexia Index3 Classification}}** |

***Word Reading*** measures the speed and accuracy of decontextualized word recognition. The individual reads aloud from a list of words that increase in difficulty. John’s ability to read sight words was {{Word Reading Classification}} ({{Word Reading Percentile\*}} percentile). John’s word reading speed was {{Orthographic Fluency Classification}} ({{Orthographic Fluency Percentile\*}} percentile).

***Pseudoword Decoding*** measures the ability to decode nonsense words which requires his to read words that are not real and hence he has to map the sounds onto letter forms to read the word. The individual reads aloud from a list of pseudowords that increase in difficulty. He performed in the {{Pseudoword Decoding Classification}} range ({{Pseudoword Decoding Percentile\*}} percentile). John’s pseudoword decoding speed was {{Decoding Fluency Classification}} ({{Decoding Fluency Percentile\*}}percentile).

***Reading Comprehension*** measures the untimed reading comprehension of various types of text, including fictional stories, informational text, advertisements, and how-to passages. The individual may read passages aloud or silently. After each passage, the individual orally responds to literal and inferential comprehension questions that are read aloud by the examiner. His ability to answer comprehension questions after reading a passage was {{Reading Comprehension Classification}} and at the {{Reading Comprehension Percentile\*}} percentile.

***Oral Reading Fluency*** measures the speed, accuracy, fluency, and prosody of contextualized oral reading. The individual reads passages aloud. After each passage, the individual orally responds to comprehension questions that are read aloud by the examiner. Overall reading fluency was {{Oral Reading Fluency Classification}} and at the {{Oral Reading Fluency Percentile\*}} percentile.

***Phonemic Proficiency***

Overall, reading skills were in the {{Reading Classification}} range.

**Mathematics**

|  |  |  |
| --- | --- | --- |
| **Subtest/Composite** | **Percentile** | **Qualitative Descriptor** |
| Math Fluency – Addition | {{Math FluencyAddition Percentile}} | {{Math FluencyAddition Classification}} |
| Math Fluency – Subtraction | {{Math FluencySubtraction Percentile}} | {{Math FluencySubtraction Classification}} |
| Math Fluency – Multiplication | {{Math FluencyMultiplication Percentile}} | {{Math FluencyMultiplication Classification}} |
| **Math Fluency Composite** | **{{Math Fluency Percentile}}** | **{{Math Fluency Classification}}** |
| Math Problem Solving | {{Math Problem Solving Percentile}} | {{Math Problem Solving Classification}} |
| Numerical Operations | {{Numerical Operations Percentile}} | {{Numerical Operations Classification}} |
| **Mathematics Composite** | **{{Mathematics Percentile}}** | **{{Mathematics Classification}}** |

***Math Problem Solving*** measures untimed math problem-solving skills in the domains of basic concepts, everyday applications, geometry, and algebra. Many of the problems included visual and/or graphic aids. The individual provides oral and/or pointing responses. John’s ability to complete word problems with a visual aid was {{Math Problem Solving Classification}} and at the {{Math Problem Solving Percentile\*}}percentile.

***Numerical Operations*** measures untimed, written math calculation skills in the domains of basic skills, basic operations with integers, geometry, algebra, and calculus. John’s ability to do various types of math questions with paper and pencil without time limits was in the {{Numerical Operations Classification}} range and at the {{Numerical Operations Percentile\*}}percentile.

***Math Fluency*** measures the speed and accuracy of calculations in addition, subtraction, and multiplication. His ability to do single digit addition, subtraction and multiplication under timed conditions using paper and pencil was in the Unusually Low range and at the {{Math FluencyAddition Percentile\*}}, {{Math FluencySubtraction Percentile\*}}, and {{Math FluencyMultiplication Percentile\*}} percentiles, respectively. Overall, math fluency was {{Math Fluency Classification}} ({{Math Fluency Percentile\*}} percentile).

Overall, math skills were {{Mathematics Classification}}.

**Written Expression**

|  |  |  |
| --- | --- | --- |
| **Subtest/Composite** | **Percentile** | **Qualitative Descriptor** |
| Spelling | {{Spelling Percentile}} | {{Spelling Classification}} |
| Sentence Writing Fluency | {{Sentence Writing Fluency Percentile}} | {{Sentence Writing Fluency Classification}} |
| **Sentence Composition** | **{{Sentence Composition Percentile}}** | **{{Sentence Composition Classification}}** |
| Sentence Building | {{Sentence Building Percentile}} | {{Sentence Building Classification}} |
| Sentence Combining | {{Sentence Combining Percentile}} | {{Sentence Combining Classification}} |
| **Essay Composition** | **{{Essay Composition Percentile}}** | **{{Essay Composition Classification}}** |
| **Written Expression Composite** | **{{Written Expression Percentile}}** | **{{Written Expression Classification}}** |

***Spelling*** measures written spelling of letter sounds and single words. The individual hears each letter sound within the context of a word and each word within the context of a sentence and they then write the target letter sound or word. On the Spelling subtest, John performed in the {{Spelling Classification}} range at the {{Spelling Percentile\*}} percentile.

***Sentence Writing Fluency***

***Sentence Composition*** consists of two components.

Sentence Building measures sentence formulation skills and written syntactic ability. For each item, the individual is asked to write one sentence that uses a target word with appropriate context. On this task, John

Sentence Combining measures sentence formulation skills and written syntactic maturity. The individual combines two or three sentences into one sentence that preserves the meaning of the original sentences. On this task, John

John’s overall ability to construct sentences under different task demands was in the {{Sentence Composition Classification}} range and at the {{Sentence Composition Percentile\*}}percentile.

***Essay Composition*** measures spontaneous, compositional writing skills within a ten-minute time limit. His Essay Composition performance was in the {{Essay Composition Classification}} range. On this task, John

Overall, Written Expression was in the {{Written Expression Classification}} range ({{Written Expression Percentile\*}} percentile).

**Oral Language**

|  |  |  |
| --- | --- | --- |
| **Subtest/Composite** | **Percentile** | **Qualitative Descriptor** |
| **Listening Comprehension** | **{{Listening Comprehension Percentile}}** | **{{Listening Comprehension Classification}}** |
| Receptive Vocabulary | {{Receptive Vocabulary Percentile}} | {{Receptive Vocabulary Classification}} |
| Oral Discourse Comprehension | {{Oral Discourse Comprehension Percentile}} | {{Oral Discourse Comprehension Classification}} |
| **Oral Expression** | **{{Oral Expression Percentile}}** | **{{Oral Expression Classification}}** |
| Expressive Vocabulary | {{Expressive Vocabulary Percentile}} | {{Expressive Vocabulary Classification}} |
| Oral Word Fluency | {{Oral Word Fluency Percentile}} | {{Oral Word Fluency Classification}} |
| Sentence Repetition | {{Sentence Repetition Percentile}} | {{Sentence Repetition Classification}} |
| **Oral Language Composite** | **{{Oral Language Percentile}}** | **{{Oral Language Classification}}** |

***Listening Comprehension*** is composed of two components.

The Receptive Vocabulary component measures listening vocabulary. The individual points to a picture that best illustrates the meaning of each word they hear. John’s ability to select a picture from four choices corresponding to a word orally presented by the examiner was in the {{Receptive Vocabulary Classification}} range ({{Receptive Vocabulary Percentile\*}} percentile).

The Oral Discourse Comprehension component measures the ability to make inferences about, and remember details from, oral sentences and discourse. The individual listens to sentences and passages and orally responds to comprehension questions. His ability to answer questions immediately after listening to a text was {{Oral Discourse Comprehension Classification}} and at the {{Oral Discourse Comprehension Percentile\*}} percentile.

***Oral Expression*** is composed of three components.

Expressive Vocabulary measures speaking vocabulary and word retrieval ability. The individual says the word that best corresponds to a given picture and definition. His ability to generate words corresponding to pictures shown to his was in the {{Expressive Vocabulary Classification}} range at the {{Expressive Vocabulary Percentile\*}} percentile.

Oral Word Fluency measures the efficiency of word retrieval and flexibility of thought processes. The individual names as many things as possible belonging to a given category (i.e., animals, colors) within 60 seconds. His ability to generate as many names of things (e.g., animals) under timed conditions was {{Oral Word Fluency Classification}} ({{Oral Word Fluency Percentile\*}} percentile).

Sentence Repetition measures oral syntactic knowledge and short-term memory. The individual listens to sentences that increase in length and complexity and repeats each sentence verbatim. His ability to repeat sentences of increasingly longer length back to the examiner immediately after hearing them was in the {{Sentence Repetition Classification}} range ({{Sentence Repetition Percentile\*}} percentile).

Overall, Oral Language was {{Oral Language Classification}} and at the {{Oral Language Percentile\*}} percentile.

**Summary of Academic Functioning**

Total achievement was {{Total Achievement Classification}} and at the {{Total Achievement Percentile\*}} percentile. Overall, John’s achievement skills were

**MEMORY**

As part of the evaluation John was administered the **ChAMP**, a multi-dimensional standardized memory battery. The ChAMP consists of four subtests that measure essential aspects of verbal and visual memory. All of the subtests involve learning information through repeated learning trials, and each has immediate and delayed memory trials. Administration time on average takes approximately 30-45 minutes.

The ChAMP has an index validity indicator. This flags scores that may not reflect credible performance. It is based on a binomial probability that flags scores that may have been chosen in a random manner for a number of reasons. The results of John’s ChAMP performance may be considered **valid** and **interpretable**.

His overall memory for verbal and visual information of various types was in the {{Total Memory Index Classification}} range and comparable to {{Total Memory Index Percentile}} percent of peers. The differences between scores was significant and individual subtests should be used when evaluating scores. His memory for verbal information was significantly stronger than his visual memory ({{Verbal Memory Index Percentile\*}} versus {{Visual Memory Index Percentile\*}} percentiles respectively).

|  |  |  |  |
| --- | --- | --- | --- |
| **Index/Subtest** | **Percentile** | **Qualitative Descriptor** | **Consistent** |
| **Verbal Memory Index** | **{{Verbal Memory Index Percentile}}** | **{{Verbal Memory Index Classification}}** |  |
| Lists | {{Lists Percentile}} | {{Lists Classification}} |
| Instructions | {{Instructions Percentile}} | {{Instructions Classification}} |
| Lists Delayed | {{Lists Delayed Percentile}} | {{Lists Delayed Classification}} |
| Instructions Delayed | {{Instructions Delayed Percentile}} | {{Instructions Delayed Classification}} |
| **Visual Memory Index** | **{{Visual Memory Index Percentile}}** | **{{Visual Memory Index Classification}}** |  |
| Objects | {{Objects Percentile}} | {{Objects Classification}} |
| Places | {{Places Percentile}} | {{Places Classification}} |
| Objects Delayed | {{Objects Delayed Percentile}} | {{Objects Delayed Classification}} |
| Places Delayed | {{Places Delayed Percentile}} | {{Places Delayed Classification}} |
| **Immediate Memory Index** | **{{Immediate Memory Index Percentile}}** | **{{Immediate Memory Index Classification}}** |  |
| Lists | {{Lists Percentile}} | {{Lists Classification}} |
| Objects | {{Objects Percentile}} | {{Objects Classification}} |
| Instructions | {{Instructions Percentile}} | {{Instructions Classification}} |
| Places | {{Places Percentile}} | {{Places Classification}} |
| **Delayed Memory Index** | **{{Delayed Memory Index Percentile}}** | **{{Delayed Memory Index Classification}}** |  |
| Lists Delayed | {{Lists Delayed Percentile}} | {{Lists Delayed Classification}} |
| Objects Delayed | {{Objects Delayed Percentile}} | {{Objects Delayed Classification}} |
| Instructions Delayed | {{Instructions Delayed Percentile}} | {{Instructions Delayed Classification}} |
| Places Delayed | {{Places Delayed Percentile}} | {{Places Delayed Classification}} |
| **Recognition Subtests** | **N/A** | **N/A** | **N/A** |
| Lists Recognition | {{Lists Recognition Percentile}} | {{Lists Recognition Classification}} |
| Instructions Recognition | {{Instructions Recognition Percentile}} | {{Instructions Recognition Classification}} |
| **Total Memory Index** | **{{Total Memory Index Percentile}}** | **{{Total Memory Index Classification}}** |  |
| **Screening Memory Index** | **{{Screening Memory Index Percentile}}** | **{{Screening Memory Index Classification}}** | **N/A** |

John’s **verbal memory** for lists or instructions was significantly stronger than his visual memory and in the {{Verbal Memory Index Classification}} range overall ({{Verbal Memory Index Percentile\*}} percentile).

**Lists** is a standard listing-learning verbal memory test measuring non-contextual recall. A delayed and a recognition trial are also administered. His overall ability to learn a list of words read to his over three trials was {{Lists Classification}} and better than {{Lists Percentile\*}} of peers.

John recalled more/same/less words on each successive trail. His retention of words from the list after a delay was {{Lists Delayed Classification}} ({{Lists Delayed Percentile\*}} percentile). Recognition of words from the list read to his multiple times was in the {{Lists Recognition Classification}} range and at the {{Lists Recognition Percentile\*}} percentile.

**Instructions** is a standard paragraph memory task measuring contextual auditory-verbal memory. A delayed and a recognition trial are also administered. His ability to recall a morning routine that was read to his immediately after hearing it over two trials was in the {{Instructions Classification}} and at the {{Instructions Percentile\*}} percentile.

John’s recall improved/remained the same/decreased on the second trial. It was {{Instructions Delayed Classification}} after a delay ({{Instructions Delayed Percentile\*}} percentile). His recognition of information from the morning routine after a delay was {{Instructions Recognition Classification}} range ({{Instructions Recognition Percentile\*}} percentile).

John’s **visual memory** for pictures of abstract objects or detailed visual scenes was relatively similar to verbal memory and in the {{Visual Memory Index Classification}} range overall ({{Visual Memory Index Percentile\*}} percentile).

**Objects** measures visual memory for items based on shape, texture, visual detail, and three-dimensional characteristic of man-made and natural (i.e., geometric, and non-geometric) objects. A delayed trial is also administered. His ability to recall pictures of abstract objects shown to his immediately after seeing them over two exposures was in the {{Objects Classification}} range at the {{Objects Percentile\*}} percentile. His recall after the second trial increased/stayed the same/decreased. It was {{Objects Delayed Classification}} after a delay.

**Places** measures memory for visual scenes, including the recognition of spatial configurations and contextual visual details. A delayed trial is also administered. His ability to recognize detailed scenes shown to his immediately after seeing them over two exposures was in the {{Places Classification}} range and at the {{Places Percentile\*}} percentile. His recall after the second trial increased/stayed the same/decreased. It was {{Places Delayed Classification}} after a delay.

**In summary**, John’s memory profile based on the ChAMP suggests that he

**VISUAL-MOTOR INTEGRATION**

The **Beery-Buktenica Developmental Test of Visual-Motor Integration (VMI)** was administered. This instrument assesses the extent to which individuals can integrate their visual and motor abilities (eye-hand co-ordination) and acts as a screener for a more comprehensive assessment of these areas if necessary.

The main task form of the ***Beery VMI*** is composed of a developmental sequence of geometric forms to be copied with paper and pencil. The Beery can be used to identify, through early screening, children who may need special assistance, to obtain special services needed, to test the effectiveness of educational and other intervention (e.g., OT), and to advance research. It is also a valuable tool for assessing visual-motor integration with adolescents and adults. It is assessing basic neuropsychological abilities. Children’s ability to copy geometric forms correlates significantly with their academic achievement. Ultimately, the Beery VMI is designed to measure visual-motor integration on the premise that a whole can be greater than the sum of its parts and that the parts may function well independently but not in combination.

The supplementary ***Visual Perception (VP)*** task is best defined as interpreting visual stimuli, the intermediate step between simple visual sensation and cognition. As such, VP is visual acuity or sensation. Normal human child development up to age three focuses on “wholes” with little attention to detail. Around age 4 to 5 the focus shifts to “parts” and to “details” by age six. By age nine there is usually more integration of well-differentiated parts into wholes. These are ‘rough foci’ of attention.

The supplementary ***Motor Co-ordination (MC)*** task is best defined as a developmental task that involves motor manipulation that progresses developmentally from generalised to more specific. While visual perception cannot be completely eliminated from this task, the visual-perceptual demands are greatly reduced.

John’s results are included in the table that follows.

|  |  |  |
| --- | --- | --- |
| **Index/Subtest** | **Raw Score** | **Percentile** |
| Visual-Motor Integration (VMI) | /30 |  |
| Visual Perception (VP) | /30 |  |
| Motor Co-ordination (MC) | /30 |  |

***It should be noted that the VP and MC tasks are timed, while the VMI task is not. As a result, respondents sometimes rush through the latter two tasks and are more careful during the first. This should be considered when evaluating results.***

John had to copy various types of geometric designs that he saw with paper and pen (VMI). On each of the three tasks, there were 30 items to complete. His overall performance (VMI) on this test was in the Low Average range at the 23rd percentile.

Performance on a subsequent subtest where he had to examine a target shape and then decide which from a group was the same as the target within a 3-minute time limit (VP) was in the Average range at the 42nd percentile. He completed all of the items in \*\* minutes.

His ability to copy figures of progressively smaller sizes while staying within the lines within a five-minute time limit (MC) was Extremely Low and at the 1st percentile. He completed all of the items in \*\* minutes.

**In summary**,

**ATTENTION AND CONCENTRATION**

John completed the Conners **CPT3**. This computer administered assessment instrument examines attention-related problems in individuals aged eight and older. During the 14 minute, 360 trial administration, respondents are required to respond when any letter appears, except the non-target letter “X.” This instrument indexes a respondent’s performance in areas of inattentiveness, impulsivity, sustained attention, and vigilance. This instrument can act as a useful adjunct to the process of diagnosing attentional deficits as well as other psychological and neurological issues related to attention.

The Conners CPT 3 performs a validity check based on the number of hits and omission errors committed, as well as a self-diagnostic check of the accuracy of the timing of each administration. If there is an insufficient number of hits to compute scores, and/or if the omission error rate exceeds 25%, these issues will be noted. Also, the program will issue a warning message noting that the administration was invalid if a timing issue is detected. There was no indication of any validity issues; **the current administration should be considered valid**.

The variable C represents an individual’s natural response style in tasks that involve a speed-accuracy trade-off. Based on his or his score on this variable, a respondent can be classified as having one of the following three response styles: a conservative style (T-score ≥ 60) of responding that emphasizes accuracy over speed; a liberal style (T-score ≤ 40) of responding that emphasizes speed over accuracy; or a balanced style (T-score = 41-59) of responding that is sensitive to both speed and accuracy. Based on John’s responses, **he has a balanced style of responding that is sensitive to both speed and accuracy** (T-score = 52). This response style is not likely to bias other Conners CPT 3 scores.

Compared to same-aged peers, John was less able to differentiate targets from non-targets (detectability), made more commission errors (responding to non-targets) and perseverative errors (random or anticipatory responses), displayed less consistency and more variability in response speed and displayed a reduction in response speed in later blocks and with longer intervals between stimuli. Overall, John had a total of **7 atypical T-scores,** which is associated with a **high** likelihood of having a disorder charactered by an attention deficit. His profile showed some indication of difficulty with impulsivity and vigilance (ability to maintain performance when task rate is slowed), and strong indication of difficulty with inattentiveness and sustained attention (ability to maintain performance throughout the administration). He also had a High Average number of omission errors (failure to respond to targets).

***Inattentiveness:*** This section summarizes John’s scores on the inattentiveness measures and provides information about how he compares to the normative group. Indicators of inattentiveness on the Conners CPT 3 are poor Detectability (d'), a high percentage of Omissions and Commissions, a slow Hit Reaction Time (HRT), as well as high levels of inconsistency in response speed (Hit Reaction Time Standard Deviation [HRT SD] and Variability).

***Impulsivity:*** This section summarizes John’s scores on the impulsivity measures and provides information about how he compares to the normative group. Indicators of impulsivity on the Conners CPT 3 include a faster than normal Hit Reaction Time (HRT) in addition to a higher than average rate of Commissions and/or Perseverations.

problems with impulsivity. John’s scores may also indicate inattentiveness problems.

***Sustained Attention:*** This section summarizes John’s scores on the sustained attention measures. Sustained attention is defined as the respondent’s ability to maintain attention as the administration progresses. A decrease in sustained attention across time is captured by atypical slowing in the respondent’s Hit Reaction Times (HRT; as indicated by the variable HRT Block Change), as well as by increases in Omissions and Commissions in later blocks of the administration.

***Vigilance:*** This section summarizes John’s scores on the vigilance measures. Vigilance relates to the respondent’s performance at varying levels of stimulus frequency (inter-stimulus intervals; ISIs) and is defined by the respondent’s ability to maintain performance level even when the task rate is slow. This construct is captured by changes in the respondent’s Hit Reaction Times (HRT), as indicated by the variable HRT ISI Change, as well as the observed pattern of Omissions and Commissions at various ISIs.

**EXECUTIVE FUNCTIONING**

Executive functioning as measured by the **CEFI** relates to skills like sustaining attention, regulating emotions, moving between activities flexibly, inhibiting ongoing behaviours, or other tasks that an individual needs to do well to function effectively across domains. If a standard score on any of the CEFI Scales is greater than 109 and significantly higher than the youth's average score on the CEFI Scales, or less than 90 and significantly lower than the youth's average score, then that score represents an Executive Function Strength or an Executive Function Weakness, respectively.

The percentiles for the **parent** and **teacher** rating scales are presented in the table that follows for comparison.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Scale** | **Parent Percentile** | **Classification** | **Strengths and Weaknesses** | **Teacher Percentile** | **Classification** | **Strengths and Weaknesses** |
| Attention |  |  |  |  |  |  |
| Emotion Regulation |  |  |  |  |  |  |
| Flexibility |  |  |  |  |  |  |
| Inhibitory Control |  |  |  |  |  |  |
| Initiation |  |  |  |  |  |  |
| Organisation |  |  |  |  |  |  |
| Planning |  |  |  |  |  |  |
| Self-Monitoring |  |  |  |  |  |  |
| Working Memory |  |  |  |  |  |  |
| **Total** |  |  |  |  |  |  |

According to John’s **mother** his Full Scale standard score falls in the Average range and is ranked at the 58th percentile. This means that his score is equal to, or greater than, 58% of those obtained by youth his age in the standardization group. There is a 95% probability that John’s true Full Scale standard score is within the range of 100 to 106. The CEFI Full Scale score is made up of items that belong on separate scales called Attention, Emotion Regulation, Flexibility, Inhibitory Control, Initiation, Organization, Planning, Self-Monitoring, and Working Memory. There was no significant variation among the CEFI Scales. This indicates that John obtained similar scores on the separate scales. This also means that the Full Scale is a good description of his executive function behaviors according to his mother’s ratings.

According to John’s **teacher** his Full Scale score was in the Low Average range at the 10th percentile and all of his scores in executive functioning were significantly lower than what his mother reported. Clearly home and school are seeing different things.

There were noted areas of strength/weakness in the following executive functioning domains:

**Attention** [copy/paste from computer report highs/lows]

**Initiation**

**Inhibitory Control**

**Planning**

**Working Memory**

**Organization**

**Emotion Regulation**

**Flexibility**

**Self-Monitoring**

**In summary**,

**SOCIAL-EMOTIONAL FUNCTIONING**

As part of the assessment John’s mother and teacher and John himself completed the **Conners CBRS**. The CBRS is an assessment tool used to obtain observations about a child's behavior. The use of this assessment is helpful when information regarding a number of childhood disorders and problem behaviors is desired. When used in combination with other information, results from the CBRS can provide valuable information to guide assessment decisions. This report provides information about the rater’s assessment of the youth, how they compare to other youth, and which scales and subscales are elevated.

The computerized report is an interpretive aid and should not be provided to parents or used as the sole criterion for clinical diagnosis or intervention. Administrators are cautioned against drawing unsupported interpretations. Combining information from this report with information gathered from other psychometric measures, interviews, observations, and review of available records will give the assessor or service provider a more comprehensive view of the youth than might be obtained from any one source. This report is based on an algorithm that produces the most common interpretations for the scores that have been obtained. Administrators should review the parent’s responses to specific items to ensure that these interpretations apply to the youth being described.

**Parent Report**

John’s mother endorsed concerns with **Academics**.

The parent report also suggested the following topics that parents may want to discuss with the assessor:

Under the section for **Additional concerns about your child** John’s mother added the following:

Under the section for **Child's strengths or skills** John’s mother added the following:

**Teacher Report**

John’s teacher rated John as experiencing significant difficulty with **Inattention**

The teacher report also suggested the following topics that parents may want to discuss with the assessor:

Under the section for **Additional concerns about student** John’s teacher added the following:

Under the section for **Student strengths or skills** John’s teacher included the following:

**Self-Report**

John completed the Self-Report and reported **Inattention**

The self-report also suggested the following topics that parents may want to discuss with the assessor:

Under the section for **Additional problems** John reported the following:

Under the section for **Strengths or skills** John reported the following:

**In Summary,**

**SUMMARY AND DIAGNOSTIC IMPRESSIONS**

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K. Drover, Registered C. Psych. Board Certified Psychologist in Autonomous Practice

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Description automatically generated with medium confidence

Hisham Sawan, B.Sc. (Psychology & Neuroscience) Psychometrist