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**WISC-IV**

**Wechsler Intelligence Scale For Children- Fourth Edition**

Descriptive and Graphical Report

Area of Assessment: IQ and cognitive functioning

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### **Reason for Referral:**

John Doe is a 6.2 year old male child who will attend 1<sup>st</sup> Grade in the Fall 2011. He was referred for a psychometric assessment to rule out the possibility of Attention Deficit-Hyperactivity Disorder. John is described as an extremely active child who has significant difficulty staying on task at school.

### **Tests Used:**

Wechsler Intelligence Scale for Children (WISC-IV) - Fourth Edition

### **Behavior Observations:**

Testing was conducted at the child's home. John appeared physically healthy, alert and oriented. He seemed comfortable with the testing process as he was friendly and cooperative. He showed moderate speech delays at the time of testing. A high level of activity and impulsive behavior was noted, as he continually stood from his seat and on several occasions climbed and crouched on it. John also responded to many items impulsively and committed several errors in doing so. He had difficulty maintaining proper eye contact and was easily distracted by any exterior stimuli, requiring frequent redirection and encouragement to complete the tasks at hand. John showed right handed dominance and a tripod pencil grip.

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John Doe

6 years and 2 months old

## WISC-V SCORES SUMMARY

WISC-IV COMPOSITE	SCORE	Classification
Verbal Comprehension Index (VCI)	<b>91</b>	<b>Average</b>
Perceptual Reasoning Index (PRI)	<b>127</b>	<b>High Average</b>
Working Memory Index (WMI)	<b>77</b>	<b>Borderline</b>
Processing Speed Index (PSI)	<b>109</b>	<b>Average</b>
Full Scale IQ (FSIQ)	<b>102</b>	<b>Average</b>

## Composite Scores Summary

Scale	Sum of Scaled Scores	Composite Score	Percentile Rank	95% Confidence Interval	Qualitative Description
Verbal Comprehension (VCI)	25	91	27	85-98	Average
Perceptual Reasoning (PRI)	43	127	96	117-132	Superior
Working Memory (WMI)	12	77	6	71-86	Borderline
Processing Speed (PSI)	23	109	73	99-117	Average
Full Scale (FSIQ)	103	102	55	97-107	Average

## IQ reference chart

	Intelligence Classification
<b>Under 20</b>	Profound Mental Retardation
<b>20-34</b>	Severe Mental Retardation
<b>35-49</b>	Moderate Mental Retardation
<b>50-69</b>	Mild Mental Retardation
<b>70-79</b>	Borderline Mental Retardation
<b>80-89</b>	Below Average
<b>90-114</b>	Average Intelligence
<b>115-129</b>	Above Average/Bright
<b>130-144</b>	Moderately Gifted
<b>145-159</b>	Highly Gifted
<b>160-175</b>	Exceptionally Gifted
<b>&gt;175</b>	Profoundly Gifted

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### Verbal Comprehension Index

**General Skill:** The VCI measures verbal knowledge and understanding obtained through both formal and informal education and reflects the use of verbal skills to new situations.

**Verbal Comprehension Subtest Score Summary (Total Raw Score to Scaled Score Conversions)**

Subtest	Skills Measured	Raw Score	Scaled Score	Percentile Rank	Category
<b>Similarities</b>	Abstract thinking, verbal reasoning, perception of relationships between things and ideas, distinction between nonessential and essential features and verbal expression.	<b>9</b>	<b>11</b>	<b>63</b>	<b>Average</b>
<b>Vocabulary</b>	General word knowledge (use of words and verbal fluency), verbal concept formation, long-term memory/learning ability, degree of language development, and auditory perception.	<b>11</b>	<b>6</b>	<b>9</b>	<b>Deficient</b>
<b>Comprehension</b>	Verbal comprehension and expression, the ability to evaluate and use past experience, practical social knowledge, social judgment and common sense.	<b>8</b>	<b>8</b>	<b>25</b>	<b>Low Average</b>
<b>(Information)</b>	General knowledge, education, exposure to relevant information, and long-term memory of his experience.	<b>11</b>	<b>12</b>	<b>75</b>	<b>Average</b>
<b>(Word Reasoning)</b>	Verbal comprehension, analogical and general reasoning ability, verbal abstraction, domain knowledge, the ability to integrate and synthesize different types of information, and the ability to generate alternative concepts	<b>10</b>	<b>12</b>	<b>75</b>	<b>Average</b>

### Perceptual Reasoning Index

**General Skill:** The PRI measures the ability to interpret and organize visual material and to produce and test hypotheses related to problem solving.

**Perceptual Reasoning Subtest Score Summary (Total Raw Score to Scaled Score Conversions)**

Subtests	Skills Measured	Raw Score	Scaled Score	Percentile Rank	Category
<b>Block Design</b>	Ability to visualize and synthesize abstract visual stimuli, visual perception and organization, simultaneous processing, visual-motor skills and visual-spatial integration.	<b>21</b>	<b>13</b>	<b>84</b>	<b>High Average</b>
<b>Picture Concepts</b>	Abstract and categorical reasoning abilities.	<b>14</b>	<b>14</b>	<b>91</b>	<b>High Average</b>
<b>Matrix Reasoning</b>	Culture-fair and language-free measure of fluid intelligence and a reliable estimate of general intellectual ability.	<b>18</b>	<b>16</b>	<b>98</b>	<b>Superior</b>
<b>(Picture Completion)</b>	Ability to distinguish between essential and non-essential details, attention, concentration, and visual discrimination.	<b>21</b>	<b>15</b>	<b>95</b>	<b>Superior</b>

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### Working Memory Index

**General Skill:** The WMI measures immediate memory and the ability to concentrate, sustain attention, and exert mental control.

**Working Memory Subtest Score Summary (Total Raw Score to Scaled Score Conversions)**

Subtests	Skills Measured	Raw Score	Scaled Score	Percentile Rank	Category
<b>Digit Span</b>	Auditory short-term memory, sequencing, attention and concentration, auditory processing, working memory, visual-spatial imaging, cognitive flexibility and mental alertness.	4	3	1	<b>Deficient</b>
<b>Letter-Number Sequencing</b>	Sequencing, mental manipulation, attention, short term auditory memory, visual-spatial imaging and processing speed.	6	9	37	<b>Average</b>
<b>(Arithmetic)</b>	Concentration, attention, short- and long-term memory, numerical sequencing, addition, subtraction, numerical/logical reasoning and mental computation skills.	12	11	63	<b>Average</b>

### Processing Speed Index

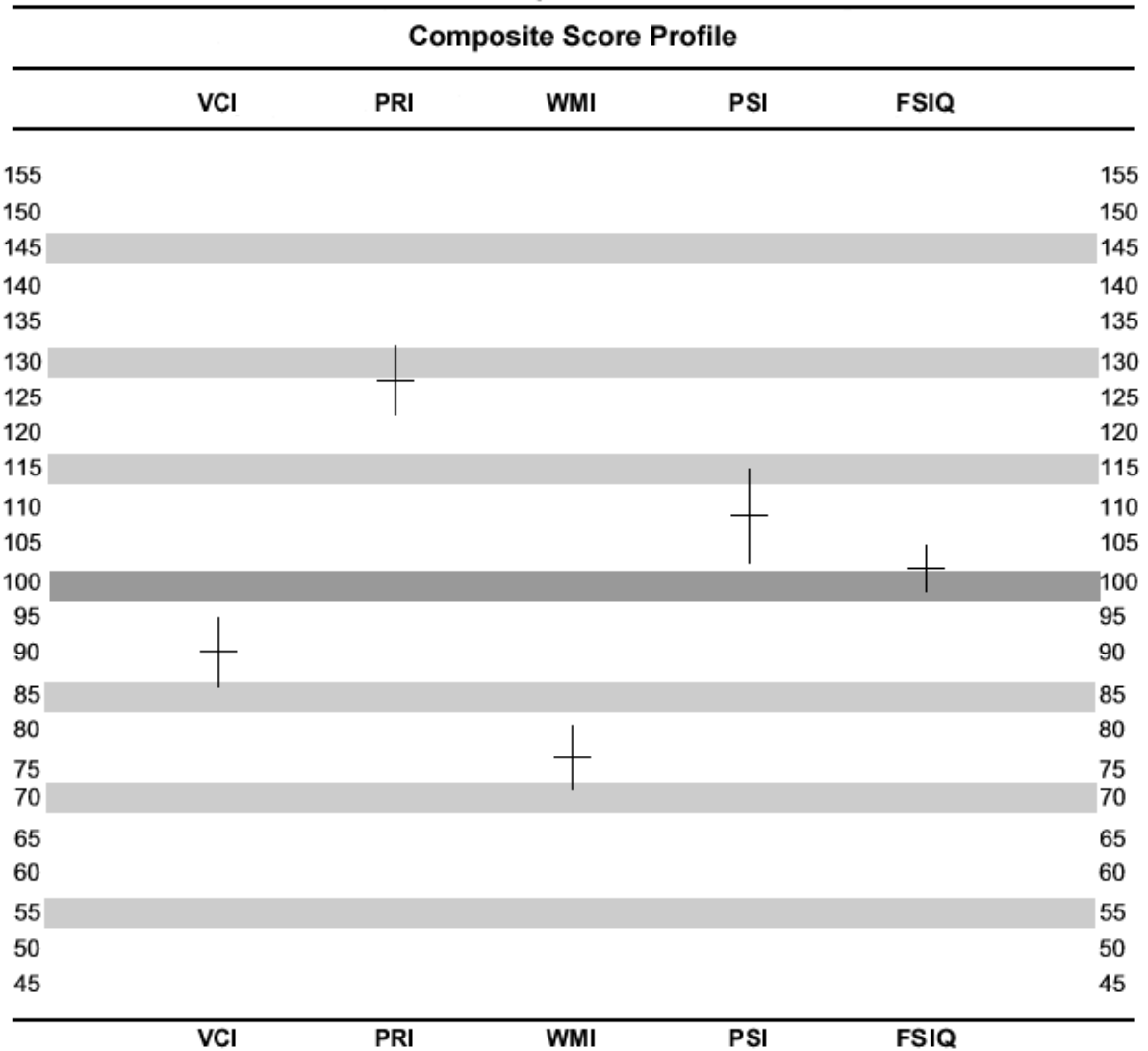
**General Skill:** The PSI measures the ability to process visually perceived material quickly, with concentration and eye-hand coordination.

**Processing Speed Subtest Scores Summary (Total Raw Score to Scaled Score Conversions)**

Subtests	Skills Measured	Raw Score	Scaled Score	Percentile Rank	Category
<b>Coding</b>	Short-term memory, ability to learn new non-verbal material, manual and/or fine-motor speed and precision, visual scanning and perception, sequential processing, attention, concentration, motivation	46	12	75	<b>Average</b>
<b>Symbol Search</b>	Short-term visual memory, visual scanning, visual discrimination, concentration, perceptual organization, planning, and general learning ability.	18	11	63	<b>Average</b>
<b>Cancellation</b>	Visual selective attention, vigilance, and visual scanning and discrimination.	61	12	75	<b>Average</b>



**WISC-IV Composite Score Profile**



Vertical bar represents the Standard Error of Measurement.

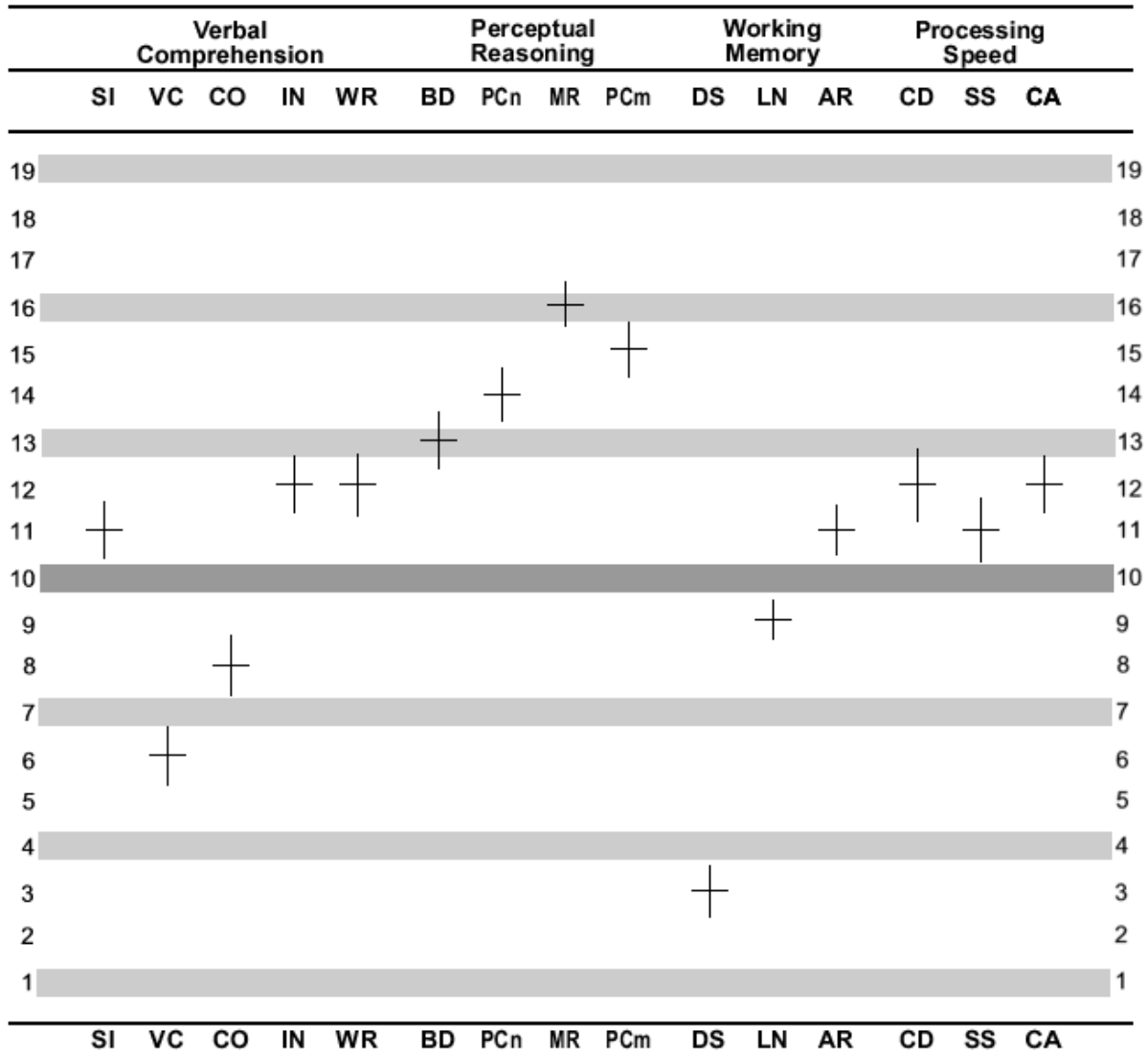
Composite	Score	SEM	Composite	Score	SEM
VCI	91	4.5	PSI	109	6.18
PRI	127	4.5	FSIQ	102	3
WMI	77	4.24			

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## WISC-IV Subtest Scaled Score Profile



Vertical bar represents the Standard Error of Measurement.

Subtest	Score	SEM	Subtest	Score	SEM
Similarities (SI)	11	1.27	Picture Completion (PCm)	15	1.2
Vocabulary (VC)	6	1.27	Digit Span (DS)	3	1.12
Comprehension (CO)	8	1.34	Letter-Number Sequencing (LN)	9	0.85
Information (IN)	12	1.24	Arithmetic (AR)	11	1.12
Word Reasoning (WR)	12	1.37	Coding (CD)	12	1.59
Block Design (BD)	13	1.24	Symbol Search (SS)	11	1.37
Picture Concepts (PCn)	14	1.2	Cancellation (CA)	12	1.24
Matrix Reasoning (MR)	16	0.99			

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### Composite Score Differences

	Scaled Score 1	Scaled Score 2	Diff.	Critical Value	Sig. Diff. Y/N	Base Rate
Discrepancy Comparisons						
VCI - PRI	91	127	-36	12.47	Y	0.6%
VCI - WMI	91	77	14	12.12	Y	15.6%
VCI - PSI	91	109	-18	14.98	Y	14.4%
PRI - WMI	127	77	50	12.12	Y	0.4%
PRI - PSI	127	109	18	14.98	Y	11.7%
WMI - PSI	77	109	-32	14.69	Y	2.6%

Base Rate by Overall Sample

Statistical Significance (Critical Values) at the .05 level

### Subtest Score Differences

	Scaled Score 1	Scaled Score 2	Diff.	Critical Value	Sig. Diff. Y/N	Base Rate
Discrepancy Comparisons						
Digit Span - Letter-Number Sequencing	3	9	-6	2.83	Y	2.5%
Coding - Symbol Search	12	11	1	3.55	N	40.2%
Similarities - Picture Concepts	11	14	-3	3.36	N	20.7%
Digit Span - Arithmetic	3	11	-8	2.94	Y	0.7%
Letter-Number Sequencing - Arithmetic	9	11	-2	2.80	N	27.7%
Coding - Cancellation	12	12	0	3.58	N	
Symbol Search - Cancellation	11	12	-1	3.80	N	43.0%

Statistical Significance (Critical Values) at the .05 level

### Differences between Subtest and Mean of Subtest Scores

Subtest	Subtest Scaled Score	Mean Scaled Score	Diff. from Mean	Critical Value	S/W	Base Rate
Block Design	13	10.3	2.70	3.01		10-25%
Similarities	11	10.3	0.70	3.01		>25%
Digit Span	3	10.3	-7.30	2.87	W	<1%
Picture Concepts	14	10.3	3.70	3.39	S	10-25%
Coding	12	10.3	1.70	3.17		>25%
Vocabulary	6	10.3	-4.30	2.70	W	2%
Letter-Number Sequencing	9	10.3	-1.30	2.63		>25%
Matrix Reasoning	16	10.3	5.70	2.68	S	<1%
Comprehension	8	10.3	-2.30	3.44		25%
Symbol Search	11	10.3	0.70	3.56		>25%

Overall: Mean = 10.3, Scatter = 13, Base Rate = 1.4%

Statistical Significance (Critical Values) at the .05 level

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### Process Summary and Discrepancy Analysis

Process Score	Raw Score	Scaled Score
Digit Span Forward	4	5
Digit Span Backward	0	3
Cancellation Random	30	12
Cancellation Structured	31	12

Process Score	Raw Score	Base Rate
Longest Digit Span Forward (LDSF)	3	98.5%
Longest Digit Span Backward (LDSB)	0	100%

### Process Discrepancy Comparisons

Process Score	Raw Score 1	Raw Score 2	Difference	Base Rate
LDSF - LDSB	3	0	3	31.4%

Base Rate by All Ages

Subtest/Process Score	Scaled Score 1	Scaled Score 2	Diff.	Critical Value	Sig. Diff. Y/N	Base Rate
Digit Span Forward - Digit Span Backward	5	3	2.00	3.62	N	30.4%
Cancellation Random - Structured	12	12	0.00	4.40	N	

Statistical Significance (Critical Values) at the .05 level



## **Interpretation of WISC-IV Results**

John's unique set of thinking and reasoning abilities make his overall intellectual functioning difficult to summarize by a single score on the Wechsler Intelligence Scale for Children – Fourth Edition (WISC-IV). His nonverbal reasoning abilities are much better developed than his verbal reasoning abilities. Processing complex visual information by forming spatial images of part-whole relationships and/or by manipulating the parts to solve novel problems without using words is a strength. Making sense of complex verbal information and using verbal abilities to solve novel problems is a less well-developed ability for John.

John's verbal reasoning abilities as measured by the Verbal Comprehension Index are in the Average range and above those of approximately 27% of his peers (VCI = 91; 95% confidence interval = 85-98). The Verbal Comprehension Index is designed to measure verbal reasoning and concept formation. John's performance on the verbal subtests presents a diverse set of verbal abilities, performing much better on some verbal skills than others. The degree of variability is unusual for a child his age and may be noticeable to adults who know him well.

John's nonverbal reasoning abilities as measured by the Perceptual Reasoning Index are in the Superior range and above those of approximately 96% of his peers (PRI = 127; 95% confidence interval = 117-132). The Perceptual Reasoning Index is designed to measure fluid reasoning in the perceptual domain with tasks that assess nonverbal concept formation, visual perception and organization, simultaneous processing, visual-motor coordination, learning, and the ability to separate figure and ground in visual stimuli. John performed comparably on the perceptual reasoning subtests contributing to the PRI, suggesting that his visual-spatial reasoning and perceptual-organizational skills are similarly developed.

John's ability to sustain attention, concentrate, and exert mental control is in the Borderline range. He performed better than approximately 6% of his age-mates in this area (Working Memory Index = 77; 95% confidence interval 71-86).

John performed much better on the Letter-Number Sequencing subtest (Scaled Score = 9) than on the Digit Span subtest (Scaled Score = 3). A direct assessment of John's short-term auditory memory, performance on the Digit Span subtest requires attention, concentration, and mental control and can be influenced by the ability to correctly sequence information. Mental control is the ability to attend to and hold information in short-term memory while performing some operation or manipulation with it and then to correctly produce the transformed information. John's difficulty in recalling long spans of digits backward is evidence of weak mental control. This weakness may impede the processing of complex information for him and slow new learning. Solving mathematical problems without pencil and paper also requires mental control.

John's ability in processing simple or routine visual material without making errors is in the Average range when compared to his peers. He performed better than approximately 73% of his peers on the processing speed tasks (Processing Speed Index = 109; 95% confidence interval 99-117). Processing visual material quickly is an ability that John performs less well than his nonverbal reasoning ability. Processing speed is an indication of the rapidity with which John can mentally process simple or routine information without making errors.

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Students with superior reasoning ability often tend to perform less well, although still adequately, on processing speed tasks.

### **Personal Strengths and Weakness**

John achieved his weakest performance among the verbal reasoning tasks on the Vocabulary subtest. His weak performance on the Vocabulary subtest was below those of most of his peers. The Vocabulary subtest required John to explain the meaning of words presented in isolation. As a direct assessment of word knowledge, the subtest is one indication of his overall verbal comprehension. Performance on this subtest also requires abilities to verbalize meaningful concepts as well as to retrieve information from long-term memory; (Vocabulary scaled score = 6).

John's performance was significantly better on the Picture Concepts and Matrix Reasoning subtests than his own mean score. Further, he performed much better than most of his age-mates, thus demonstrating very strong abilities on the Picture Concepts and Matrix Reasoning subtests. On the Picture Concepts subtest, John was presented with two or three rows of easily identifiable pictures and asked to choose one picture from each row to form a group with a common characteristic. This subtest is designed to measure fluid reasoning and abstract categorical reasoning ability. The task invokes verbal concepts, but does not require verbal responses; (Picture Concepts scaled score = 14). The Matrix Reasoning subtest required John to look at an incomplete matrix and select the missing portion from five response options. This subtest assesses fluid visual information processing and abstract reasoning skills; (Matrix Reasoning scaled score = 16).

### **Summary**

John is a 6-year-old child who completed the WISC-IV. He was referred by his mother due to academic difficulties, attention difficulties, and suspected hyperactivity. His overall cognitive ability, as evaluated by the WISC-IV, cannot easily be summarized because his nonverbal reasoning abilities are much better developed than his verbal reasoning abilities. John's reasoning abilities on verbal tasks are generally in the Average range (VCI = 91), while his nonverbal reasoning abilities are significantly higher and in the Superior range (PRI = 127). This pattern of scores is consistent with the academic difficulties noted by John's mother.

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### **Diagnosis:**

According to results obtained from this assessment, which included the Wechsler Intelligence Scale for Children Fourth Edition, behavioral/clinical observations, background information, and interview with John's parents, the following diagnosis can be drawn:

#### **Axis I: Clinical Disorder**

- ✓ **314.01 Attention- Deficit/Hyperactivity Disorder, predominantly Hyperactive-Impulsive Type**

**Comments:** Obtained a Working Memory Index of 77 (Borderline). Characterized by extremely hyperactive/Impulsive behavior during the testing process.

#### **Axis II: Personality Disorders and Mental Retardation**

- ✓ **NO mental retardation**

#### **Axis III: General Medical Condition**

- ✓ **None currently present.**

#### **Axis IV: Psychosocial and Environmental Problems**

- ✓ **One of parents travels 50% of time.**
- ✓ **Both parents work long hours, frequently away from home.**

**Comments:** Needs psychological assessment to explore current stressors affecting his functioning.

#### **Axis V: Global Assessment of Functioning**

- 55: Moderate difficulty in social, occupational, or school functioning**

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**Michelle C. Rexach**, Licensed School Psychologist Lic.# SS905

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## **RECOMMENDATIONS**

### **Recommendations for family, school, further evaluation and counseling:**

#### **High Priority:**

- ✓ **\*Further evaluation to confirm ADHD Predominantly Hyperactive Impulsive Type diagnosis (see below).**
- ✓ **\*Behavior therapy program in conjunction with any pharmaceutical treatment (see below).**
- ✓ **Participation in special reading programs is recommended as part of his individualized educational plan (IEP).**

\*Because John has numerous characteristics of attention-deficit hyperactivity disorder (predominantly hyperactive impulsive type) that may be impeding his potential for academic success, further evaluation by a developmental pediatrician, pediatric psychiatrist, neurologist or neuropsychiatrist is recommended. Medication, combined with behavior modification strategies for home and school is suggested.

John's teachers are encouraged to reinforce his appropriate behaviors by rewarding him with free-time tokens or time to do his favorite activity. Immediate verbal feedback may also be used to reinforce appropriate behavior. 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."

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

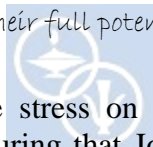
Teachers are encouraged to ensure John's understanding of behavioral limits and expectations. Consequences for inappropriate behavior are most likely to be effective when they are developmentally appropriate, well defined, and consistently applied.

John may benefit from sitting in close proximity to students who model appropriate classroom behaviors.

John's appropriate behaviors can be reinforced with tokens that he can redeem for desired activities and/or possessions.

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Parents and teachers are encouraged to reduce stress on John by using positive reinforcement strategies, avoiding physical punishment and restraint, ensuring that John understands behavioral expectations, ignoring inappropriate behaviors when possible, redirecting John's unsuccessful efforts to comply with expectations, and recognizing John's efforts to comply.

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

John could be assisted by others who model socially appropriate behaviors, such as initiating a conversation, maintaining appropriate eye contact, and body distancing during conversations.

Teachers, other adults, and family are encouraged to engage John in social interactions. If direct communication is inappropriate for the situation, frequent eye contact with John is recommended.

Teachers are encouraged to address John by name and to maintain eye contact when working with him.

Teachers may have a (private) gesture or hand signal to alert Alex when he is not paying attention or being disruptive or too impulsive. Avoid punitive signals at all costs.

John's family may encourage him to participate in activities that foster interaction with other children his age, such as scouting, sports, band, etc.

A peer buddy could be assigned to John to help him relate to the school environment.

### **Attention/Concentration**

John's teachers may implement verbal or nonverbal interruption of self-stimulating behavior. For example, for nonverbal interruption, the teacher can tape five short strips of paper to the side of John's desk. If John rocks during a lesson, a strip is removed. If he 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.

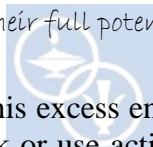
John's tasks should be short, well within his attention span, varied, and gradually increased in length. For example, John could be instructed to write an alphabetic letter ten times on paper, make the same letter by rolling ropes of clay, and draw the letter ten times on an individual chalkboard.

John's teachers are encouraged to provide immediate reinforcement for demonstrations of increased self-control or longer periods of maintaining attention. For example, the teacher could verbally acknowledge or award a token to John when he maintains eye contact with his teacher during classroom instruction.

Longer tasks may be divided into smaller parts that can be completed at different times. For example, a page of 30 arithmetic problems could be cut into three sections so John completes only 10 problems at a time.

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John may benefit from assistance in channeling his excess energy into more acceptable activities. For example, teachers may allow him to stand during seatwork or use activity (e.g., running an errand, arranging classroom materials, cleaning the chalkboard) as a reinforcement for task completion.

Teachers could assist John in maintaining attention by altering the volume, tone, and rate of verbal presentations.

Teachers and therapists can repeat and simplify directions, using cues, prompts, or models to elicit correct responses.

Teachers are encouraged to use one modality for introduction of new concepts and other modalities for practice and reinforcement, as John will have significant difficulty in attending to more than one modality at a time.

Teachers are encouraged to limit instruction primarily to one-to-one or small-group settings, reserving large-group settings for maintenance activities of learned skills, games, songs, and stories.

Children with John's learning difficulties usually 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 behaviors.

John may need encouragement to seek special classroom accommodations, such as using a tape recorder, requesting additional time for scheduled tests, and separating himself from sources of distraction.

### **Expressive/Receptive Language**

John's language development may be enhanced through rhyming activities. For example, John could create new songs or rhymes by substituting rhyming words for existing words.

John's teacher and family can assist with John'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. John's task is to identify and describe the part of the story that has changed. John could also be asked to complete an incomplete story or to participate in dramatization of a story.

Teachers and therapists are encouraged to use concrete language and materials geared to John's level of language processing.

Visual cues may be presented with verbal material to assist John's acquisition of verbal concepts.

Teachers are encouraged to paraphrase or rephrase directions and demonstrate directions and instructions during oral presentations.

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

Teachers may need to ask John, in a routine, non-critical manner, to repeat questions or directions. Such external verbalization often facilitates a child's understanding of what is being requested.

Family and teachers should encourage him to ask the meaning of any unfamiliar words.

### **Emerging Literacy**

If possible, John could benefit from the use of computer-aided learning of letters, numbers, and/or vocabulary words. Numerous commercial educational software packages exist to meet John's needs.

Computer programs that focus on the development of letter identification, phonemic awareness, spelling, and grammar may be sources of help for John.

### **Academic : General**

John is encouraged to regularly and frequently review information that must be remembered. Family and teachers could review this information with him and provide positive reinforcement for improvement.

Concrete visual cues can help John establish meaningful associations in learning new material, especially when the material is abstract.

If possible, a mentor could be assigned to provide support for John in the school environment.

It is recommended that assigned tasks and activities be appropriate for John's ability level. Ample and genuine positive reinforcement can be given at home and school before, during, and after John successfully completes a task.

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

John may need to be encouraged to use rhymes, alliterations, and other devices to remember rules and other new information (e.g., "I before E except after C and when sounded as A as in neighbor and weigh).

When learning new information, John could be encouraged to form visual representations of the material.

Learning to use the keyboard rather than the mouse might help John use the computer more extensively and efficiently.

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John may benefit from “chunking” information, a strategy in which pieces of information are grouped together into larger chunks so that fewer “bits” 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.

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

John is encouraged to record assignments in a pocket notebook and to check off the tasks as they are completed. Teachers could assist with this recommendation by recording assignments on the board.

### **Academic : Reading**

John's family may help him learn spelling words by having him use magnetic letters on the refrigerator door to spell the new words.

John could develop a list of his problem words, that is, words that he commonly misspells. He could then concentrate on learning these words and could add and remove words from the list as appropriate.

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

John could be asked to read aloud on a regular basis. Materials read should be at a level that he can understand, but that also challenges him. These books could be obtained at the public library as part of regular weekend outings.

Teachers are encouraged to use words at his level of verbal development and to encourage pleasure reading at a level consistent with his abilities and interests.

John is encouraged to learn a new vocabulary word each day and to record this word in a log.

Family and teachers can assist in building John's vocabulary by encouraging him to ask for definitions of unfamiliar words during reading activities.

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 John completes.

Lessons should incorporate visual presentation rather than class discussion, especially during reading-group time.

It is recommended that he receive additional time to complete assignments requiring this skill.

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He may require additional assistance from teachers in reading instructions and test questions. Tape recordings of written information can also be helpful.

John may benefit from a tutoring program that emphasizes a context- and meaning-based approach to reading.

Because children with visual-motor problems often experience difficulty with spelling, teachers are encouraged to not penalize John for misspelled words in subjects other than spelling.

John may need encouragement to take an active approach to reading for learning. This approach may include 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.

Open communication with John regarding his reading and spelling difficulties is encouraged to assist him in gaining acceptance and understanding of his problems, as well as the ways in which he can compensate for his difficulties.

Computer programs that focus on vocabulary development, word attack, and phonics may be helpful in strengthening John's reading skills. Programs that identify deficit skill areas and offer a means of monitoring progress are of particular value. Programs that emphasize verbal reasoning and comprehension would also be helpful.

John's teacher, parents, or guardians are encouraged to contact the National Dyslexia Research Foundation, which may be able to provide the names of local teachers with experience helping young children with reading difficulties.

Teachers and therapists are encouraged to assess homework assignments in terms of the reading demands and degree of learning enhancement.

John is encouraged to read aloud to teachers, family, and other supportive individuals as a means of improving his reading skills.

Reading teachers are encouraged to focus on developing John'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, echo reading, and neurological impress with basic sight word recognition, vocabulary development, and comprehension lessons.

Reading and spelling remediation techniques could incorporate a more simultaneous processing approach to capitalize on John's strengths. For example, to improve decoding of syllables and whole words, he could be asked to construct the whole word or syllable from a partial stimulus. Several educational workbooks for reading utilize versions of this approach.

Teachers and family could assist John with remembering important information by showing him how to imbed important points and activities within a story that is meaningful to him.

## **Psychoeducational Solutions of Tampa Bay**

*"Helping children achieve their full potential through early detection."*



Reading can be combined with other sensory experiences such as writing. For example, John can read stories that he has written.

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

In place of traditional oral or written spelling tests, teachers may wish to consider offering John an alternative form of the test. For example, John could be provided a worksheet with mixed spelling words that require him to recognize and circle the correctly spelled word. He could then construct sentences using the correctly spelled words.

John may benefit from extra time to complete classroom and standardized exams.

Strategies by which John can expand both his sight-word vocabulary and his spelling ability can be developed. For example, when John reads an interesting story, he can identify the words that he has difficulty recognizing quickly and write these words on flash cards. Flash cards can then be reviewed until the word becomes a part of his sight vocabulary.

Given John's difficulty with automatically reading familiar words, the teacher may wish to administer tests that measure fluency and rapid naming.

Parents and guardians are encouraged to structure John's television watching in such a way that it enriches John's language, vocabulary, and learning skills. Viewing time could be limited with selected programs including educational, social, or informational value. To make the experience interactive, John could be asked to explain words used, what is happening, or why it is happening.

John's parents are encouraged to be involved in a home-based plan to complement the reading program at school.