



Thomas Dunstan

DOB: 1/25/2004

Testing Date(s): 1/14/2016

School Cole Middle School

Grade: 5

Examiner: I. Randy Kulman, Ph.D.

TESTS ADMINISTERED:

Automated Working Memory Assessment (AWMA)

Behavior Assessment System for Children - 2 - Parent Report Form (BASC-2 PRF)

Behavior Assessment System for Children - 2 - Teacher Report Form (BASC-2 TRF)

Brief Academic Skills Survey (BASS) - Parent Form (BASS)

Bender 2

Behavior Rating Inventory of Executive Function - Parent Form (BRIEF - Parent)

Brown ADD Scales -Parent Form (Brown ADD Scales -Parent)

Brown ADD Scales - Teacher Form (Brown ADD Scales - Teacher)

Conners' Continuous Performance Test II (CPT II)

Denckla Cancellation Test

Disruptive Behavior Rating Scale - Parent Form

Executive Skills Questionnaire - Parent Form (ESQ Parent)

Executive Skills Questionnaire - Teacher Form (ESQ Teacher)

Expressive Vocabulary Test 2 (EVT 2)

Incomplete Sentences Form

Multidimensional Anxiety Scale for Children 2 - Teacher (MASC 2 -Parent)

Multiple Intelligence Questionnaire - Parent Form

NEPSY-II

Peabody Picture Vocabulary Test 4 (PPVT 4)

The Processing Speed Questionnaire - Parent Form

Trail Making Test

Wechsler Intelligence Scale for Children - I (WISC-V)

Woodcock-Johnson III Tests of Achievement

Wide Range Assessment of Memory and Learning (WRAML-2)

REASON FOR REFERRAL

Thomas Dunstan, a 12-year-old sixth grade student at the Cole Middle School, was referred for a psychological evaluation by his family and pediatrician. Thomas is experiencing attention issues in the classroom. He is also having problems completing his schoolwork in a timely fashion. Concerns regarding organizational skills and a number of other executive-functioning issues have recently been identified by his teachers.

Thomas was previously diagnosed with an Attention-Deficit/Hyperactivity Disorder. He has been on medication in the past to address these concerns. However, there were concerns regarding the side effects of the medication, including increased signs of anxiety and ruminative thinking.

Most recently, there have been additional concerns related to anxiety. These include social anxiety where he can be reluctant to engage with groups of children and anticipatory anxiety, particularly around starting new things such as the beginning of the school year, joining a new sports team, or staying overnight with a friend.

Questions for the present evaluation include:

- 1 What is Thomas's current level of cognitive functioning?
- 2 Do the current data raise concerns regarding an Attention-Deficit/Hyperactivity Disorder?
- 3 To what degree are executive-functioning or processing issues contributing to Thomas's recent struggles?
- 4 To what degree are anxiety and stress-based concerns contributing to Thomas's struggles?
- 5 To what extent are psychosocial stressors having an impact on Thomas?
- 6 What types of interventions would be helpful for Thomas and his family?

BACKGROUND INFORMATION

Thomas was accompanied to the initial evaluation by his mother and his father. He lives at home with his mother, father, and two younger sisters. For the most part he is described as getting along well with family members. His parents do report occasional signs of oppositionalism, particularly as it relates to completion of homework. However for the most part Thomas can be very helpful with his younger sisters and generally is agreeable to parental requests.

There have been some recent stressors that may have impacted Thomas. His family moved two years ago, but he has remained in the same school district. His paternal grandmother, to whom Thomas was described as being really close, died in December 2014. His parents also question whether transitioning from elementary school to middle school has had an impact on his capacity to complete his schoolwork and keep up with the demands of many classrooms.

Thomas has displayed longstanding signs of Attention-Deficit/Hyperactivity Disorder. He was originally diagnosed with Attention-Deficit/Hyperactivity Disorder at the age of 6. Since that time he was on a variety of medications, including Adderall, Methylphenidate, and Concerta. These medications have been helpful at times. However, there have also been concerns regarding side effects of the medication, particularly as it relates to higher levels of anxiety and stress. Some concerns regarding obsessive-compulsive like behavior and rumination have been reported when taking stimulant medication. At the time of the evaluation he was no longer taking any type of medication.

Thomas has been having difficulties sustaining his attention to tasks. He is described as squirmy, fidgety, and overly active. At times he can display impulsive behavior. His parents are concerned that he occasionally picks at himself and has at times displayed a modest tic-like behavior, although this has not been an issue over the past two months. His parents also report concerns regarding focus and inattention. He seems to forget daily routines such as what he needs to do in the morning before school. They also note that he struggles to follow multi-step directions and needs frequent reminders in order to stay on task while doing homework or completing simple chores.

The concerns regarding anxiety are also significant. Thomas likes to participate in sports but often struggles when starting a season with new teammates. He will become very upset to the point of becoming physically ill prior to a first practice. He does not like performing in front of others, and sometimes this prevents him from even joining with his peers at recess. He tends to avoid going to new situations at birthday parties, Cub Scouts, and even going to a relative's house can be a source of mild anxiety. Some obsessive-compulsive like behavior is also noted. Thomas likes things just so and can become easily upset when things do not go according to plan.

A school history indicates that Thomas had some early academic difficulties. He struggled with early handwriting skills and did not like to color. While he did not receive special education services initially, he did receive additional one-on-one help in kindergarten and first grade. His teachers observed some improvement in his focus and academic performance when he began taking stimulant medication in first grade. However, he was still struggling with writing tasks and also with completing his work in a timely fashion.

In second and third grades Thomas made modest academic improvements. He became a good reader who developed a number of strong verbal skills. However, written production continued to be a problem.

His teachers have always observed that he tends to focus much better in classroom discussions and in tasks involving reading. Math and writing assignments tend to be more problematic for him to sustain his attention. Occasional letter reversals are noted, and his handwriting is labored. Interestingly, there is a great contrast in his reading capacities, as he was reading series such as Harry Potter and the Percy Jackson series at the age of 9.

Thomas is described as having numerous strengths and interests. He is a very athletic young man who likes sports. He excels at soccer, lacrosse, baseball, and basketball. Once he becomes comfortable with his team he seems to overcome much of his anxiety around his performance. He also likes being outdoors. He likes skiing, camping, mountain climbing, hiking, and anything involving nature. He likes animals and enjoys spending time with his pet dog Murray. He can be very helpful at home, and his parents note that he is cooperative, particularly when asked to help with outdoor chores.

In addition, Thomas is described as honest, thoughtful, genuine, polite, respectful, and caring. He cares about his friends, and while he has some anxiety in some social situations, appears to have many friends whom he sees regularly.

A medical history indicates that Thomas has displayed a longstanding history of Attention-Deficit/Hyperactivity Disorder. He is followed by a team of pediatricians at Hasbro Children's Hospital.

A developmental history indicates that Thomas was the product of a normal pregnancy, birth, and delivery. He was described as a good baby who had some mild separation issues. Modest concerns regarding sleeping were noted. He achieved developmental milestones at appropriate ages. He displayed good language skills. There were some early concerns regarding fine-motor skills, and he did not appear to be very interested in coloring or art projects when he was younger. He did not like playing with blocks or LEGOS but preferred more gross-motor activities.

As a preschooler he did well except in the area of writing. Some modest concerns regarding separation issues from his mother were noted, but he overcame these quickly. He was generally able to work at appropriate academic levels. No significant concerns regarding hyperactivity were noted, although occasionally he would be distracted in circle time and other activities that were not of particular interest to him.

A reported family history indicates concerns regarding attention issues with Thomas's father and maternal uncle. There is a history of Attention-Deficit/Hyperactivity Disorder with a maternal first cousin. There are also significant concerns regarding anxiety on the maternal and paternal sides of the family. Thomas's mother is described as having Anxiety Disorder, as are his maternal grandmother and maternal great-aunt. His paternal grandmother is also reported as having signs of anxiety and depression. Concerns regarding substance abuse have been seen with his paternal and maternal grandfathers. Learning issues are also reported with a paternal cousin, and some mild concerns regarding learning are seen in a paternal uncle. There are no reports of any conduct problems, trauma, or abuse.

UNDERSTANDING YOUR CHILD'S NEUROPSYCHOLOGICAL REPORT

A neuropsychological evaluation is a data-driven, individualized assessment of your child's cognitive, behavioral, and social/emotional functioning. It includes a review of previous records; interviews with you and your child to gather current concerns and history; behavioral rating forms from parents, teachers, and children; and standardized neuropsychological tests (with a variety of statistics) that compare your child to other children his age.

Click on the following link(s) to learn more about UNDERSTANDING YOUR CHILD'S NEUROPSYCHOLOGICAL REPORT:

[What do T-scores mean in a test report?](#)

[What do scale scores mean in a test report?](#)

[What do standard test scores mean?](#)

[What do percentiles mean in a test report?](#)

[What does an average test score mean?](#)

[How to understand a neuropsychological evaluation](#)

BEHAVIORAL OBSERVATIONS

Thomas was accompanied to the initial evaluation by his mother and father. He was somewhat quiet and reserved during the initial evaluation and appeared to be mildly anxious. However, he was able easily to answer questions about himself, family, and school. He became somewhat animated when talking about his interest in sports and being outdoors. He sat through the entire evaluation, although he fidgeted somewhat in his seat.

During the cognitive testing he related easily to the evaluator. He was friendly and engaged. Language skills were strong. He responded well to challenge and persisted on difficult tasks. Occasionally he would use some self-instructional strategies to assist him.

His activity level was noteworthy. Some modest signs of fidgeting were noted during the evaluation. Motor skills for the most part appear to be adequate. He occasionally made some negative comments and expressed concerns about the difficulty of tasks.

Perhaps the most significant observation was Thomas's slow processing speed. This was very evident on both timed and un-timed tasks. He did not appear to be frustrated with this issue.

During neuropsychological testing he was attentive throughout the evaluation. Again, some very mild concerns regarding being fidgety and movement in the chair were noted. He did not require any breaks during the testing. On occasion he seemed to space out or lose track of items. For example, he struggled in following directions on the Verbal Working Memory Subtest of the WRAML 2 and on the AWMA Digit Recall Test. He also needed directions repeated on the Symbolic Working Memory Test three times

before he was able to follow these complex directions.

While Thomas was generally able to maintain his focus and attention, he did appear to tire over the course of the testing. However, he worked hard, so his attention span did not appear to be impacted by becoming tired.

Some mild concerns regarding anxiety were noted. While Thomas was extremely thoughtful, he generally responded only when questions were asked of him.

Thomas was oriented to time, place, and person. The results of the present evaluation appear to be an accurate reflection of Thomas's current functioning.

Cognitive Skills

Cognitive skills are defined as capacities such as verbal comprehension, visual-spatial skills, fluid-reasoning, memory, processing speed, and nonverbal reasoning, and measured by intelligence or IQ tests. It is important to note that IQ tests essentially measure only three (verbal, spatial, and logical/mathematical) of the eight dimensions of intelligence. Cognitive skills are often an excellent predictor of academic ability, although actual grades and learning are heavily influenced by skills such as memory, processing, and executive functions.

Click on the following link(s) to learn more about Cognitive Skills:

[Processing Speed Index](#)

[Working Memory Index](#)

[Fluid Reasoning Index](#)

[Visual Spatial Index](#)

[Verbal Comprehension Index](#)

		Type	Score	%	Interpretation
WISC-V	Fluid Reasoning	Standard	88	21	Low Average
WISC-V	Full Scale	Standard	95	37	Average
WISC-V	Processing Speed	Standard	83	13	Low Average
WISC-V	Verbal Comprehension	Standard	111	77	High Average
WISC-V	Visual spatial	Standard	97	42	Average
WISC-V	Working Memory	Standard	82	12	Low Average
WISC-V	Block Design	Scale	10	50	Average
WISC-V	Coding	Scale	6	9	Low Average
WISC-V	Digit Span	Scale	9	37	Average
WISC-V	Figure Weights	Scale	6	9	Low Average
WISC-V	Matrix Reasoning	Scale	10	50	Average
WISC-V	Picture Span	Scale	5	5	At Risk
WISC-V	Similarities	Scale	10	50	Average
WISC-V	Symbol Search	Scale	8	25	Average

Cognitive testing describes a capable young man who displays a significant amount of variability in his test scores. This variability is consistent with what is described regarding his performance in school and may reflect some of the concerns regarding attention issues, as well. It may also help to explain some of the frustration that he and his family have had with his overall academic performance.

For example, Thomas displays particular strength in his verbal skills. A strong score on the Verbal Comprehension Index reflects capacities for reasoning with crystallized knowledge in novel ways. It suggests that he has a great deal of factual knowledge that has been learned and can recall readily. It also suggests an access to strong vocabulary, his capacity to express himself in a meaningful fashion, and to apply these reasoning skills to verbal information.

He also displays relative strength on the Visual-Spatial Index. This suggests that he is able to analyze and assess visual information and details as well as recognize part/whole relationships. He is able to attend to spatial details.

A modest weakness is seen in his performance on the Fluid Reasoning Index. This suggests difficulty in applying logic and reasoning when he is solving problems or placed into new situations. He may struggle to make inferences and attempt underlying conceptual relationships between objects. He may at times struggle in understanding the relationships among patterns.

There are also significant concerns in the area of working memory. The Working Memory Index suggests difficulty in maintaining information in mind and sustaining mental control. This is true more so in visual working memory, where he needs to keep visual information in mental storage for a brief amount of time and then be able to manipulate or adapt it. It may be more difficult for him to maintain visual information in mind. As he moves forward in school, this could have an impact on his performance in higher level mathematics.

The concerns regarding processing speed seen in the cognitive testing are very consistent with what is being reported by Thomas's parents and classroom teacher. He has particular concerns in keeping up in the classroom. The difficulty he has in processing speed is most notable in clerical motor speed. He tends to write very slowly. He may be able to process visual information at average to low-average rates, but his general speed of information processing is low. This may have an impact on his performance in school, where he may tire quickly due to the additional cognitive effort required to sustain a faster pace than may be comfortable for him.

Language and Communication Skills

Language and communication skills facilitate the capacity to use words to organize one's thoughts and to communicate and understand others. Children with strong expressive-language skills use a variety of words and complex phrases in their speech and age-appropriately understand verbal explanations and the meaning of words. Expressive- and receptive-language skills are often the first impression of a child's capacity for learning.

Click on the following link(s) to learn more about Language and Communication Skills:

[Receptive Language](#)

[Expressive Language](#)

Type	Score	%	Interpretation
<u>Standard</u>	<u>100</u>	<u>50</u>	

EVT-II

EVT 2

PPVT 4	PPVT-4	<u>Standard</u>	<u>119</u>	<u>90</u>	<u>High Average</u>
WISC-V	Verbal Comprehension	<u>Standard</u>	<u>111</u>	<u>77</u>	<u>High Average</u>
WISC-V	Similarities	<u>Scale</u>	<u>10</u>	<u>50</u>	<u>Average</u>
WISC-V	Vocabulary	<u>Scale</u>	<u>14</u>	<u>91</u>	<u>High Average</u>

Thomas's performance on measures of language and communication skills reflects numerous strengths. He is able to use words in a conceptual and meaningful fashion and has an excellent vocabulary that he is readily able to retrieve. Data from the EVT 2 suggest average scores on a scale that addresses the ability to label and find synonyms. It reflects fluency with language skills.

Receptive language also appears to be an area of strength. In particular, his performance on the PPVT 4, with a Standard Score of 119 placing him at the 90 percentile. This reflects the knowledge, breadth, and precision of his vocabulary acquisition. It also indicates excellent receptive and hearing vocabulary.

Strong scores on measures of language may at times be confusing to parents and teachers. Thomas's capacity to understand and express himself effectively may create expectations for high levels of academic performance. It appears that difficulty with other skills may hinder his production and efficiency with academic demands.

Attention, Concentration, Persistence

Attention, concentration, persistence, and response-inhibition skills are core capacities for learning, sustained effort, focus, and self-control. Children who experience difficulty with these skills often show signs of Attention-Deficit/Hyperactivity Disorders (ADHD), disruptive behavioral difficulties, and negative attitudes towards school. These skills are best assessed through a combination of neuropsychological tests along with parent, teacher, and self-report measures

Click on the following link(s) to learn more about Attention, Concentration, Persistence:

[Response Inhibition](#)

[Persistence](#)

[Concentration](#)

[Sustained Attention](#)

		Type	Score	%	Interpretation
BASC-2 PRF	Attention Problems	<u>T-Score</u>	<u>72</u>	<u>98</u>	<u>At Risk</u>
BASC-2 PRF	Hyperactivity	<u>T-Score</u>	<u>54</u>	<u>72</u>	<u>Average</u>
BASC-2 TRF	Attention Problems	<u>T-Score</u>	<u>66</u>	<u>92</u>	<u>Low Average</u>
BRIEF-Parent	Behavioral Regulation Index (BRI)	<u>T-Score</u>	<u>65</u>	<u>91</u>	<u>Low Average</u>
BRIEF-Parent	Initiate	<u>T-Score</u>	<u>59</u>	<u>83</u>	<u>Average</u>
Brown ADD (P)	Action	<u>T-Score</u>	<u>55</u>		<u>Average</u>
Brown ADD (P)	Activation	<u>T-Score</u>	<u>72</u>		<u>At Risk</u>
Brown ADD (P)	ADD Inattention Total	<u>T-Score</u>	<u>65</u>		<u>Low Average</u>
Brown ADD (P)	Combined Total Score	<u>T-Score</u>	<u>64</u>		<u>Low Average</u>

Brown ADD (P)	Effort	<u>T-Score</u>	<u>67</u>		<u>Low Average</u>
Brown ADD (P)	Focus	<u>T-Score</u>	<u>61</u>		<u>Low Average</u>
Brown ADD (T)	Action	<u>T-Score</u>	<u>44</u>		<u>Average</u>
Brown ADD (T)	Activation	<u>T-Score</u>	<u>65</u>		<u>Low Average</u>
Brown ADD (T)	ADD Inattention Total	<u>T-Score</u>	<u>67</u>		<u>Low Average</u>
Brown ADD (T)	Combined Total Score	<u>T-Score</u>	<u>62</u>		<u>Low Average</u>
Brown ADD (T)	Effort	<u>T-Score</u>	<u>69</u>		<u>Low Average</u>
Brown ADD (T)	Focus	<u>T-Score</u>	<u>70</u>		<u>At Risk</u>
CPT II	Commissions	<u>T-Score</u>	<u>60</u>	<u>88</u>	<u>Low Average</u>
CPT II	Omissions	<u>T-Score</u>	<u>50</u>	<u>51</u>	<u>Average</u>
CPT II	Variability	<u>T-Score</u>	<u>58</u>	<u>83</u>	<u>Average</u>
NEPSY-II	Auditory Attention Total Correct	<u>Scale</u>	<u>9</u>	<u>37</u>	<u>Average</u>
Denckla	Denckla Diamond Errors	<u>Raw</u>	<u>2</u>		
Disruptive Beh-P	Hyperactivity/Impulsivity	<u>Raw</u>	<u>7</u>		
Disruptive Beh-P	Inattention	<u>Raw</u>	<u>15</u>		

Many concerns related to attention issues are noted by Thomas's parents and teachers. Data from the Brown ADD Scales - Parent Form suggest particular concerns regarding his capacity to activate himself on tasks. This includes problems in organizing and initiating work activities and often is accompanied by problems in getting going in the morning. Difficulty with sustaining his effort on tasks often reflected in inconsistent schoolwork is also noted. Teacher reports describe similar concerns on the Brown ADD Scales - Teacher Form, with a particular concern regarding focus in the classroom. His teacher suggests that he may have chronic problems in sustaining his attention to tasks that are not self-selected. Neither his parents or his teachers see any particular concerns regarding hyperactivity or impulsivity.

His profile on neuropsychological test measures is suggestive of milder attention concerns. His overall profile on the CPT II is only modestly similar to those of other young men with attention concerns. His response time was consistent over the course of the administration, suggesting some concerns in his capacity to maintain attention. In addition, his performance on the Denckla Cancellation Test is noteworthy. He performed with very few omission errors but took an extremely long amount of time to complete the Numbers and Diamonds portions of the Denckla Cancellation Test, suggesting that in order to be accurate, he needed to move very slowly and carefully. He also worked slowly on the Trail Making Test without making errors.

His performance on the NEPSY-II suggests his capacity to sustain his attention to a short-term auditory task. His scores on the Auditory Attention Test suggest that he is able to sustain his attention to this type of auditory task, and his Response Set Scaled Score also suggests his capacity not only to sustain his attention but to restrain tendencies towards impulsivity.

Memory and Learning

Memory has many different meanings in a neuropsychological report. These include verbal memory, verbal working memory, visual memory, visual-spatial working memory, and long-term memory. Memory impacts learning, attention, and academic skills. Different regions of the brain are used for memory skills so a child with strong long-term memory may have poor working memory. Neuropsychological measures of memory assess a child's ability to acquire, store, retrieve, and recall information from memory.

Click on the following link(s) to learn more about Memory and Learning:

[Visual Spatial Working Memory](#)

[Visual Memory](#)

[Verbal Working Memory](#)

[Verbal Memory](#)

[Long Term Memory](#)

		Type	Score	%	Interpretation
BRIEF-Parent	Working Memory	<u>T-Score</u>	<u>71</u>	<u>95</u>	<u>At Risk</u>
Brown ADD (P)	Memory	<u>T-Score</u>	<u>64</u>		<u>Low Average</u>
Brown ADD (T)	Memory	<u>T-Score</u>	<u>72</u>		<u>At Risk</u>
AWMA	Digit Recall	<u>Standard</u>	<u>94</u>	<u>40</u>	<u>Average</u>
AWMA	Dot Matrix	<u>Standard</u>	<u>81</u>	<u>11</u>	<u>Low Average</u>
AWMA	Listening recall	<u>Standard</u>	<u>99</u>	<u>49</u>	<u>Average</u>
AWMA	Listening recall processing	<u>Standard</u>	<u>95</u>	<u>39</u>	<u>Average</u>
AWMA	Spatial recall	<u>Standard</u>	<u>71</u>	<u>5</u>	<u>At Risk</u>
AWMA	Spatial recall processing	<u>Standard</u>	<u>72</u>	<u>4</u>	<u>At Risk</u>
Bender 2	Recall	<u>Standard</u>	<u>113</u>	<u>78</u>	<u>High Average</u>
WISC-V	Working Memory	<u>Standard</u>	<u>82</u>	<u>12</u>	<u>Low Average</u>
WRAML-2	Symbolic Working Memory	<u>Scaled</u>	<u>7</u>		<u>Strength</u>
WRAML-2	Verbal Working Memory	<u>Scaled</u>	<u>7</u>		<u>Strength</u>
NEPSY-II	Narrative Memory Free & Cued Recall T	<u>Scale</u>	<u>19</u>	<u>99</u>	<u>Strength</u>
NEPSY-II	Narrative Memory Free Recall	<u>Scale</u>	<u>19</u>	<u>99</u>	<u>Strength</u>
WISC-V	Digit Span	<u>Scale</u>	<u>9</u>	<u>37</u>	<u>Average</u>
WISC-V	Picture Span	<u>Scale</u>	<u>5</u>	<u>5</u>	<u>At Risk</u>

Previous data from the cognitive testing suggest concerns regarding working-memory skills. Further analysis of these data suggest difficulty in verbal and visual-spatial working memory, with a particular concern in the area of visual-spatial working memory.

There are some indications of modest strength in short-term verbal memory. When given memory cues he is able to perform well. His performance on the Narrative Memory Subtest of the NEPSY-II suggests average skills on Recall and Cued Recall subtests. This suggests that with support, Thomas is able to recall what he has heard. Measures of verbal working memory suggest some modest concerns. A Word List Interference - Recall Scaled score of 8 reflects some modest concerns in the area of verbal working

memory. His Scaled Score of 7 on the Verbal Working Memory Subtest of the WRAML 2 as well as his Scaled Score of 7 on the Symbolic Working Memory Subtest of the WRAML 2 also suggest clinical concerns in the area of verbal working memory. Even with a visual cue such as on the Symbolic Working Memory Subtest, Thomas struggles in this area.

Visual memory appears to be somewhat more problematic. His performance on the Dot Matrix Subtest of the AWMA places him at the 11 percentile and suggests difficulty with his capacity to hold in mind pictures, images, and information about locations. Even more problematic are scores on the Spatial Recall Subtest of the AWMA that measure visual-spatial working memory. This test measures storage and processing of information and suggests that Thomas has some difficulty in manipulating visual information that is stored in his brain, a task that can be very important in complex mathematics.

Visual and Motor Skills

Neuropsychological measures of visual and motor skills assess abilities such as motor planning and visual-motor integration skills, along with fine-motor skills, visual memory, and capacities for processing and organizing visual information. These skills often play a role in a child's handwriting skills, fluency of written language, and capacities for construction and visualization.

Click on the following link(s) to learn more about Visual and Motor Skills:

[Visual and Motor Skills](#)

[Fine Motor Skills](#)

		Type	Score	%	Interpretation
Bender 2	Copy	<u>Standard</u>	<u>115</u>	<u>82</u>	<u>High Average</u>
WISC-V	Visual spatial	<u>Standard</u>	<u>97</u>	<u>42</u>	<u>Average</u>
NEPSY-II	Fingertip Tapping-Dominant Hand Repet	<u>Scale</u>	<u>7</u>		<u>Low Average</u>
NEPSY-II	Fingertip Tapping-Dominant Hand Sequ	<u>Scale</u>	<u>15</u>		<u>Strength</u>
WISC-V	Block Design	<u>Scale</u>	<u>10</u>	<u>50</u>	<u>Average</u>
WISC-V	Coding	<u>Scale</u>	<u>6</u>	<u>9</u>	<u>Low Average</u>
WISC-V	Symbol Search	<u>Scale</u>	<u>8</u>	<u>25</u>	<u>Average</u>

For the most part Thomas's performance on measures of visuomotor skills generally appear to be intact. He was able to copy designs effectively on the Bender-Gestalt II, with a Standard Score of 115 placing him at the 82nd percentile. This suggests good visuomotor-integration skills and motor-planning skills. He does write very slowly, and it was noteworthy that on drawing tasks such as the Bender-Gestalt II or in writing tasks such as the Incomplete Sentences Form Thomas worked very slowly and carefully. Fine-motor skills appear to be intact, as his performance on the Fingertip Tapping Subtest is all within average ranges.

Processing Speed/Time Management

Processing-speed and time-management skills are crucial for classroom efficiency. Neuropsychological tests of processing speed measure fluency with verbal, nonverbal, and academic tasks, speed of written language, and visual scanning efficiency. Slow processing speed is often associated with difficulties in timely completion of tasks at home and school, but may also be observed when children make excessive errors rushing through tasks or in their frustration with school.

Click on the following link(s) to learn more about Processing Speed/Time Management:

[Time Management](#)

[Processing Speed](#)

		Type	Score	%	Interpretation
WISC-V	Processing Speed	<u>Standard</u>	<u>83</u>	<u>13</u>	<u>Low Average</u>
W-J III	Academic Fluency	<u>Standard</u>	<u>86</u>	<u>19</u>	<u>Low Average</u>
NEPSY-II	Speeded Naming Total Completion Time	<u>Scale</u>	<u>7</u>	<u>16</u>	<u>Low Average</u>
NEPSY-II	Word Generation-Initial Letter Total Sco	<u>Scale</u>	<u>6</u>	<u>9</u>	<u>Low Average</u>
NEPSY-II	Word Generation-Semantic Total Score	<u>Scale</u>	<u>10</u>	<u>50</u>	<u>Average</u>
WISC-V	Coding	<u>Scale</u>	<u>6</u>	<u>9</u>	<u>Low Average</u>
WISC-V	Symbol Search	<u>Scale</u>	<u>8</u>	<u>25</u>	<u>Average</u>

Concerns regarding processing-speed issues are noteworthy and seen across test data. Most notably, these are seen in tasks involving graphomotor speed. In addition to low scores on the Coding Subtest of the WISC-V, Thomas also worked very slowly on the Denckla Cancellation Test, where visual scanning was necessary. His performance on the Writing Fluency Subtest of the Woodcock-Johnson III Tests of Achievement also reflects some difficulty with clerical motor speed.

Thomas tends to process other information somewhat more slowly than would be expected, as well. This is evident in his Scaled Score of 7 on the Speeded Naming Subtest of the NEPSY-II, where he was required to read a set of numbers and letters as quickly as possible. He displayed some difficulty with fluency issues on other academic tasks and on tasks involving words. A Word Generation - Initial Letter Scaled Score of 6 reflects difficulty in his capacity to generate words that begin with specific letters quickly. An Academic Fluency Standard Score of 86 places him at the 90 percentile on the Woodcock-Johnson III Tests of Achievement. This is consistent with his difficulty in completing schoolwork in a timely and efficient fashion.

His parents also report a number of modest concerns regarding processing-speed issues on The Processing Speed Questionnaire - Parent Form. These include concerns related to writing issues such as difficulty in completing written assignments and tiring easily, as well as in academic tasks where Thomas is reported to have difficulty completing tasks in a timely fashion and has taken home unfinished schoolwork in order to complete it.

Executive Functions

Executive functions are self-management skills that help with problem solving, decision making, and behavioral and emotional regulation. Specific skills measured in the executive-functioning section of this evaluation include task initiation, cognitive flexibility, planning, and organization.

Click on the following link(s) to learn more about Executive Functions:

[Executive Functions](#)

[Organization](#)

[Planning](#)

[Cognitive Flexibility](#)

[Task Initiation](#)

		Type	Score	%	Interpretation
BASC-2 PRF	Adaptability	<u>T-Score</u>	<u>39</u>	<u>15</u>	<u>Low Average</u>
BASC-2 PRF	Executive Functioning	<u>T-Score</u>	<u>58</u>	<u>81</u>	<u>Average</u>
BASC-2 PRF	Hyperactivity	<u>T-Score</u>	<u>54</u>	<u>72</u>	<u>Average</u>
BASC-2 TRF	Adaptability	<u>T-Score</u>	<u>52</u>	<u>56</u>	<u>Average</u>
BASC-2 TRF	Executive Functioning	<u>T-Score</u>	<u>50</u>	<u>60</u>	<u>Average</u>
BRIEF-Parent	Organization of Materials	<u>T-Score</u>	<u>49</u>	<u>52</u>	<u>Average</u>
BRIEF-Parent	Plan/Organize	<u>T-Score</u>	<u>67</u>	<u>92</u>	<u>Low Average</u>
BRIEF-Parent	Shift	<u>T-Score</u>	<u>70</u>	<u>96</u>	<u>At Risk</u>

Some modest concerns regarding executive-functioning issues are noted. Most notable are concerns in the area of adaptability as described by his parents. A low score on the Adaptability Scale on the BASC-2 PRF suggests some concerns that Thomas may be inflexible in problem solving. Similar concerns are also noted on the BRIEF - Parent, where an elevated score on the Shift Scale is noted. There are also some modest concerns regarding planning and organizational skills, as reported by his parents on the BRIEF - Parent. His parents also describe a number of concerns regarding executive functioning on the ESQ Parent, with particular difficulty in the area of task persistence, flexibility, and time management.

His teachers describe issues related to executive functioning, as well. Particular concerns in the area of task initiation are seen on the ESQ Teacher. His teacher describes Thomas as having difficulty starting classwork without being prompted, needing frequent prompts to continue working, and difficult to motivate. Teacher reports also report concerns with difficulty in planning, including issues such as being unable to understand the sequence or steps in a task, displaying problems in following multi-step directions, and not anticipating, planning, or preparing for future classroom assignments. Organizational skills are also noted by his teacher, where Thomas is described as having a messy desk, losing his homework, and having difficulty organizing ideas and retelling a story.

Thomas's parents describe some modest concerns regarding planning skills on the BRIEF - Parent. Teacher reports suggest similar concerns on the ESQ Teacher. These difficulties may be related to some of Thomas's difficulty with attention.

Social Perception/Metacognition

Neuropsychological measures of social perception and metacognition are used primarily to assess a child's capacity to understand himself and others. Skills such as empathy, social skills, and interpersonal communication are assessed in these measures. Parent and teacher report measures evaluate atypicality, Autism Spectrum Disorder, and interpersonal and metacognitive skills

Click on the following link(s) to learn more about Social Perception/Metacognition:

[Metacognition](#)

[Social Perception](#)

		Type	Score	%	Interpretation
BASC-2 PRF	Activities of Daily Living	<u>T-Score</u>	<u>39</u>	<u>15</u>	<u>Low Average</u>
BASC-2 PRF	Adaptive Skills	<u>T-Score</u>	<u>35</u>	<u>7</u>	<u>Low Average</u>
BASC-2 PRF	Atypicality	<u>T-Score</u>	<u>65</u>	<u>92</u>	<u>Low Average</u>
BASC-2 PRF	Social Skills	<u>T-Score</u>	<u>37</u>	<u>12</u>	<u>Low Average</u>
BASC-2 TRF	Adaptive Skills	<u>T-Score</u>	<u>38</u>	<u>11</u>	<u>Low Average</u>
BASC-2 TRF	Atypicality	<u>T-Score</u>	<u>59</u>	<u>87</u>	<u>Average</u>
BASC-2 TRF	Social Skills	<u>T-Score</u>	<u>42</u>	<u>22</u>	<u>Average</u>
BRIEF-Parent	Metacognition Index (MI)	<u>T-Score</u>	<u>64</u>	<u>89</u>	<u>Low Average</u>
BRIEF-Parent	Monitor	<u>T-Score</u>	<u>60</u>	<u>84</u>	<u>Low Average</u>

For the most part these are not concerns that were expressed by Thomas's parents during the clinical interview. However, some modest concerns are seen in the area of social skills, and a mildly elevated score on the Atypicality Scale of the BASC-2 PRF is noted. This may reflect some of Thomas's social anxiety more so than of any particular difficulty in social skills or his capacity for metacognition. There are some modest concerns regarding communication skills that are reported by his parents on the BASC-2 PRF.

Data from the BRIEF - Parent suggest some modest concerns also in Thomas's capacity to self-evaluate and to utilize metacognitive skills. He may struggle at times to recognize the impact of his behavior on others. For the most part teacher report data are not suggestive of significant concerns regarding social perception and metacognitive skills.

Emotional, Behavioral, and Adaptive Functioning

Psychological assessment of emotional, behavioral, and adaptive functioning derives primarily from clinical and projective testing. These tests provide information about relationships, depression, anxiety, and oppositional and conduct-based disorders.. Measures of adaptive functioning assess developmental concerns as well as issues of maturity and decision making.

Click on the following link(s) to learn more about Emotional, Behavioral, and Adaptive Functioning:

[Regulation of Feeling](#)

[Clinical and Projective Testing](#)

Type	Score	%	Interpretation
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BASC-2 PRF	Anger Control	<u>T-Score</u>	<u>53</u>	<u>69</u>	<u>Average</u>
BASC-2 PRF	Anxiety	<u>T-Score</u>	<u>67</u>	<u>94</u>	<u>Low Average</u>
BASC-2 PRF	Conduct Problems	<u>T-Score</u>	<u>46</u>	<u>39</u>	<u>Average</u>
BASC-2 PRF	Depression	<u>T-Score</u>	<u>51</u>	<u>64</u>	<u>Average</u>
BASC-2 PRF	Externalizing Problems	<u>T-Score</u>	<u>50</u>	<u>60</u>	<u>Average</u>
BASC-2 PRF	Internalizing Problems	<u>T-Score</u>	<u>53</u>	<u>66</u>	<u>Average</u>
BASC-2 PRF	Resiliency	<u>T-Score</u>	<u>39</u>	<u>13</u>	<u>Low Average</u>
BASC-2 PRF	Withdrawal	<u>T-Score</u>	<u>53</u>	<u>70</u>	<u>Average</u>
BASC-2 TRF	Aggression	<u>T-Score</u>	<u>43</u>	<u>24</u>	<u>Average</u>
BASC-2 TRF	Anger Control	<u>T-Score</u>	<u>50</u>	<u>56</u>	<u>Average</u>
BASC-2 TRF	Anxiety	<u>T-Score</u>	<u>52</u>	<u>65</u>	<u>Average</u>
BASC-2 TRF	Behavioral Symptoms Index	<u>T-Score</u>	<u>53</u>	<u>67</u>	
BRIEF-Parent	Emotional Control	<u>T-Score</u>	<u>59</u>	<u>84</u>	<u>Average</u>
Brown ADD (P)	Emotion	<u>T-Score</u>	<u>58</u>		<u>Average</u>
Brown ADD (T)	Emotion	<u>T-Score</u>	<u>51</u>		<u>Average</u>
MASC 2-Parent	GAD Index	<u>T-Score</u>	<u>76</u>		<u>At Risk</u>
MASC 2-Parent	Humiliation/Rejection	<u>T-Score</u>	<u>69</u>		<u>Low Average</u>
MASC 2-Parent	Obsessions & Compulsions	<u>T-Score</u>	<u>53</u>		<u>Average</u>
MASC 2-Parent	Performance Fears	<u>T-Score</u>	<u>71</u>		<u>At Risk</u>
MASC 2-Parent	Physical Symptoms Total	<u>T-Score</u>	<u>63</u>		<u>Low Average</u>
MASC 2-Parent	Social Anxiety: Total	<u>T-Score</u>	<u>72</u>		<u>At Risk</u>
MASC 2-Parent	Tense/Restless	<u>T-Score</u>	<u>74</u>		<u>At Risk</u>
MASC 2-Parent	Total Score	<u>T-Score</u>	<u>66</u>		<u>Low Average</u>

For the most part projective data, self-reports, along with parent and teacher report data, are not strongly suggestive of serious emotional and behavioral concerns except in the area of anxiety. The issues of anxiety is consistently seen across all test data. For example, on the BASC-2 PRF an elevated score on the Anxiety Subscale is noted. Similar concerns are reported on data from the MASC 2 - Parent, with clinical elevations seen on the Generalized Anxiety, Social Anxiety, Humiliation Rejection, Performance Fears, and Tension and Restlessness subscales. These scores reflect difficulties for Thomas where at times he may feel restless and worry about doing something embarrassing, may display signs of indecisiveness in his actions with others, and also tend to reflect concerns about how others think about him. He may worry about doing something stupid as well as experience physiological signs of tension and anxiety where he is jumpy and jittery. Interestingly, teacher report data do not reflect these concerns regarding anxiety or other social/emotional issues.

Projective data are generally not reflective of significant concerns regarding anxiety or other emotional difficulties. Thomas's responses to the Roberts Apperception Test were limited in nature and do not reflect any difficulty in reality testing. His responses to the Incomplete Sentences Form are generally

positive and upbeat in nature. He does acknowledge some mild concerns about his school performance. For example, he states, "When I try hard I do well"; "When I'm afraid I get upset"; "My mother thinks I am nice"; "My father thinks I am fun"; "When I don't do well I get mad"; and "At school I sometimes take too long to do my work."

Thomas's parents describe him as displaying numerous strengths on the Multiple Intelligence Scale. Most notable are strengths in the areas of verbal intelligence, kinesthetic intelligence, and spatial intelligence.

Educational

Educational skills are measured on a variety of standardized educational tests. Tests such as the WIAT-III are broad-based measures of reading, writing, mathematical, and language skills. Other educational tests measure specific skills such as phonological awareness, reading fluency, and written-language skills.

Click on the following link(s) to learn more about Educational:

[Educational Testing](#)

		Type	Score	%	Interpretation
W-J III	Academic Fluency	<u>Standard</u>	<u>86</u>	<u>19</u>	<u>Low Average</u>
W-J III	Math Fluency	<u>Standard</u>	<u>79</u>	<u>8</u>	<u>At Risk</u>
W-J III	Reading Fluency	<u>Standard</u>	<u>94</u>	<u>37</u>	<u>Average</u>
W-J III	Writing Fluency	<u>Standard</u>	<u>80</u>	<u>10</u>	<u>Low Average</u>

An educational testing screen does reflect concerns seen in Thomas's fluency and processing speed. These data are insufficient to determine specific learning issues but warrant further examination.

SUMMARY and RECOMMENDATIONS

Overall the current data describe a capable young man whose cognitive profile reflects a number of inconsistencies. Strengths in spatial skills are noteworthy. Difficulty with working-memory skills and processing-speed issues is clearly evident. There are also a number of modest concerns regarding his capacity to use his knowledge and skill set in novel situations. These inconsistencies are consistent with what is being described in the classroom, where the expectations set for Thomas are somewhat higher than the levels he is able to perform at. At times Thomas does quite well with his academic performance, yet at other times he falls behind his peers and struggles to keep up with the pace of work in the classroom.

There do appear to be some very clear concerns regarding clerical motor speed. Thomas tends to process information slowly, particularly when he needs to write it. He tends to do somewhat better with visual scanning and with measures of verbal fluency where he is able to use some of his verbal strengths to compensate for other weaknesses.

Thomas's verbal strengths are an important asset for him to be successful in school and in the classroom. He has an excellent vocabulary and is able to use words in a meaningful and systematic fashion. He is

able to access knowledge and information about his world and appears to be able to use some of his verbal skills to compensate for modest weakness in the area of working memory. However, difficulty with visual-spatial working memory and the concerns that he has had in school in math are noteworthy. This may suggest more serious concerns in the future.

Increasing levels of frustration are being seen in the classroom, as well. Much of this may be related to his struggles in keeping up with class work due to the demands of handwriting and slow processing. This is a concern for the future, when note taking becomes a more prominent feature of Thomas's academic work. It will be very important for Thomas to be able to develop typing skills and apply these in the classroom setting to learn effectively and keep up with his classmates.

Concerns regarding attention issues are noteworthy. These attention issues are longstanding, and his history is fairly consistent with a young man who is diagnosed with Attention-Deficit/Hyperactivity Disorder. While his profile on neuropsychological measures suggests mild to modest attention concerns, these attention issues appear to be more prominently reported by parents and teachers. Thomas acknowledges these concerns. Previous efforts to use medication have been unsuccessful and resulted in a number of clinical side effects.

The concerns regarding anxiety are noteworthy. These issues have also been ongoing concerns, particularly in the area of social anxiety, and many of the symptoms are seen in youngsters with symptoms of Generalized Anxiety Disorder. While the symptoms of anxiety are not preventing Thomas from engaging in activities with his peers or outside of his home, they are at times mildly problematic for him in new situations. His parents are actively considering strategies to address these concerns.

Recommendations:

1 A number of strategies to address attention concerns are noted. Thomas has struggled with the use of medication in the past. Numerous side effects have been noted, and it may be useful to consider a consultation with a child psychiatrist to explore alternative types of medication that are not the first-line approach to treating attention issues. However, beyond medication, there are a number of other strategies that would be very helpful for Thomas. These include:

Encourage Thomas to exercise on a daily basis. A vigorous exercise program prior to school can help to improve children's attention, learning, and reading skills. Thomas could benefit from spending 20 to 30 minutes on an exercise bike or a treadmill or taking a walk around the neighborhood prior to attending school. Studies have demonstrated (<http://www.medicalnewstoday.com/articles/251573.php>) that even a short exercise routine can improve focus and academic performance, so gym class and recess at school will need to be part of his routine. Single bouts of exercise can also lead to improvement in immediate self-regulation. The more vigorous the exercise the more likely it is to help:

(http://education.msu.edu/kin/hbcl/_articles/Pontifex_2012_ExerciseImprovesBehavioralNeurocognitive.pdf)

Engage in complex physical activities to improve attention. Engage Thomas in physical activities that involve complicated body movements. Research described by John Ratey in the book *Spark* (http://www.amazon.com/Spark-Revolutionary-Science-Exercise-Brain/dp/0316113506/ref=sr_1_1?ie=UTF8&qid=1349290986&sr=8-1&keywords=spark+ratey) indicates that children with attention problems can benefit greatly from high levels of physical activity where they function at 80% or more of their maximum heart rate. Involvement in complex physical activity such as gymnastics, tennis, or karate in which individuals move many parts of the body at the same time can be particularly helpful for focus and concentration.

Assist Thomas in developing and effectively applying organization skills. Many children benefit from visual reminders. Place a big clock in Thomas's bedroom to remind him to stay on time. Post a schedule of activities for home and school and insist that he check his schedule on a daily basis. Make a chart listing chores and other expectations and have a place for him to check off completed tasks. Help Thomas to organize school materials by monitoring the use of an assignment pad to record homework and having him use a designated folder for completed work.

Explore the best videos to learn more about ADHD. One of the best ways to expand your understanding of the impact of ADHD is to watch some of these well-made and engaging videos. Click on the following link to find the best videos to help a child with ADHD, updated regularly by the team at South County Child and Family Consultants:

<http://southcountychildandfamily.com/2015/12/11/videos-to-teach-parents-and-kids-about-adhd/>

2 Thomas's parents are strongly encouraged to consult with his school around the development of a 504 plan. Concerns regarding Attention-Deficit/Hyperactivity Disorder and Generalized Anxiety Disorder are consistent with a need for a 504 plan. In particular, Thomas's difficulties in the area of processing speed are causing him to fall behind his peers, and accommodations will be important in this area. Initial strategies will include substituting typing or dictation for handwriting, help in keeping up with note taking in the classroom, and extra time for testing when necessary. His parents may wish to talk with the school about other accommodations in the 504 plan around issues such as task initiation, organization, and visual working-memory skills.

Some strategies for his parents to use and working with the school to develop a 504 plan are indicated. These include:

Make sure the 504 plan fits Thomas by understanding what it can do. It is important to use the current assessment as well as previous examples of schoolwork and difficulties in the classroom to document your concerns. If possible, obtain written information from previous teachers who can articulate the specific troubles in the classroom. Bring previous report cards if they are available. The more you understand about the 504 plan, the better you will be able to help your child obtain a plan that is helpful to him. Here are some excellent articles to help you in understanding the nature of 504 plans.

Understanding 504 Plans An article describing what a 504 Plan entails and who qualifies for it.

ADHD School Accommodation Plans An article describing the difference between IEPs and 504 Plans.

Parents' Guide to a 504 Plan An article for parents describing the different pieces to a 504 plan.

Prepare for a 504 meeting with Thomas's school with these handouts. Typically it is best to contact the teacher or school principal when you want to request a meeting for a 504 plan. It is imperative that parents have a clear understanding of their child's strengths and weaknesses in the classroom and in other school settings. Be certain to have all documentation ready for this meeting including the present evaluation, previous testing, as well as comments and report cards from previous teachers. Here are some excellent handouts, downloads, and tools to help you in your preparation:

Creating an IEP or 504 Plan for Your Child An article for parents presenting 11 action steps and 40 great accommodations for creating an IEP or 504 Plan.

40 Accommodations for Your Child An article for parents about what to include in a 504 Plan to ensure children receive proper school accommodations.

Accommodations and Interventions in a 504 Plan A list of example accommodations and prioritizing them for your child.

3 A number of concerns regarding processing-speed issues are also evident. It appears that processing-speed issues have been longstanding concerns for Thomas, some of which may be related to early handwriting difficulties. Dating as far back as first grade he struggled in completing tasks in an efficient fashion. Writing speed is problematic, and transitioning to typing and dictation skills is warranted. Many of these recommended strategies will require that Thomas become involved in implementing these. These include:

Alert Thomas's teachers to his difficulty with processing speed. Children with slow processing may respond to a question in an unusual fashion because they do not fully understand what is being asked of them. Thomas may appear to be spacey, disoriented, or atypical at times due to his slow processing. He may also have problems keeping up with the pace of information that is presented. Thomas may be anxious about his difficulties in this area and not willing to ask a teacher to repeat information. Notifying his teachers of her processing-speed difficulties could help to eliminate confusion or embarrassment in the classroom for Thomas.

Discuss classroom strategies to help with work completion with Thomas's teachers. These could include providing a longer amount of time for Thomas to respond to oral questions in class and complete written assignments or to make decisions when offered a choice of activities. Additional time for testing taking such as one-and-a-half times the amount of time may also be helpful. In addition, it may be useful to shorten assignments so they can be accomplished within time allotted in the classroom.

Encourage Thomas to join a sports team or learn to play an instrument. This could encourage him to practice and improve hand/eye coordination, as they involve processing of visual information. For instance, Thomas would need to read the music while using the correct fingers to play each note when playing an instrument. Many sports require practice and quick decision-making and can help to improve reaction time.

Improve processing speed through puzzles and game play. Playing games such as online brain games and doing crossword puzzles or Sudoku can assist with quick processing of information and help to keep the brain sharp. Basic memorization exercises and logic puzzles, as well as video games such as Cut the Rope (<http://learningworksforkids.com/playbooks/cut-the-rope/>) and apps such as Wordsworth (<http://learningworksforkids.com/playbooks/wordsworth/>) have been demonstrated to improve processing speed. The board game Boggle has been found to stimulate the mind and is great for improving speed of processing information with a time limit.

Reduce demands for note taking and copying. Thomas's parents might find it beneficial to ask his teachers to provide alternatives to these tasks in the classroom that he may find to be tedious. He might be allowed to use other students' notes, receive hand-out materials, or be able to access materials online.

Teach Thomas scanning and skimming strategies. He could learn to use these techniques to look at materials quickly or in stages to increase the rate of reading. Doing a quick first scan, then a careful reading of materials followed by a quick review could enhance his processing-speed efficiencies. Use fingers or pointers for guiding eye movement while reading to help with faster reading. Reading programs such as Spreeder (<http://www.spreeder.com/>) show the words to be read at varying speeds. Reading speed can increase as the pace of the words appearing and disappearing increases.

Teaching Thomas to type will require more than just sitting him in front of a keyboard. Look for the best

tools to teach typing skills. In addition, it will be important to implement strategies that stimulate motivation and practice. This article (<http://learningworksforkids.com/2013/07/teach-kids-how-to-type/>) could help you with ideas on how to motivate Thomas to become a competent typist. Links to recommended typing programs and apps include:

Typing Instructor for Kids Platinum: (<http://learningworksforkids.com/apps/typing-instructor-for-kids-platinum/>)

Drop: (<http://learningworksforkids.com/playbooks/drop/>)

TapTyping: (<http://learningworksforkids.com/apps/taptyping/>)

Burning Fingers: (<http://learningworksforkids.com/playbooks/burning-fingers/>)

Visit these websites for more information on processing speed and how to help Thomas improve this skill. Each of the following websites has been selected to include practical and up-to-date information on processing speed and how to help children practice and improve this skill.

LearningWorks for Kids: The premier resource for executive-function information, offering a detailed explanation of organization and time management and activities to improve these skills. (<http://learningworksforkids.com/executive-functions/>)

Boys and Girls Clubs of America: Site offers tips to help children learn to manage their time more efficiently. (<http://www.bgca.org/Documents/impact2012-TMTips.pdf>)

FamilyEducation: Site offers various ways to help you teach Thomas to become more organized. (<http://life.familyeducation.com/parenting/organization/36373.html>)

LDinfo Web Site: Site explains six main types of processing and what aspects of academic- functioning deficits are affected by each. (http://www.ldinfo.com/process_areas.htm)

ETFO: Site defines processing speed and provides methods to reduce distractions for children and enable them to work more efficiently. (<http://www.etfo.ca/MULTIMEDIA/WEBCASTS/SPECIAL EDUCATION/Pages/Processing%20Speed.aspx>)

4 A number of strategies to address working-memory skills are also important. Visual-spatial working-memory skills, in particular, appear to be problematic for Thomas. Strategies include:

Connect working memory to long-term memory. Repeated training and review of material can build up a large knowledge store of this information in long-term memory. Because long-term memory is consistent and what is called "crystallized" it does not go away. Thomas could be encouraged to find a way to connect something he is learning with something he already knows. Connecting new information to his existing knowledge by way of working memory could help him to remember what he is working on in the present moment.

Exercise on a regular basis to improve working memory. New data from a study by Kamijo et al. (2011) strongly indicate that physical activity that improves cardiovascular functioning also improves working memory. Thomas's parents are encouraged to have him be physically active for an hour to the point

where he is sweating and working out vigorously in order to receive these benefits.

Learn yoga and mindfulness to improve working memory. Yoga training has been demonstrated to improve executive functioning and working memory in younger children, particularly the kind that focuses on breathing and mindfulness. The jury is still out on whether simple stretching or physically-based yoga can directly improve working memory.

Play card games to help develop and practice memory skills. Game play can help children develop better working memory when they practice skills such as maintaining information in their minds from earlier in-game experiences to guide them in making a decision in the present. Simple games such as Go Fish require players to remember what cards someone asked for earlier in the game so that players know what might be in their opponents' hands. More complex card games such as Bridge and Pinochle require working-memory skills and strategies to be successful. Teaching the strategy to remember what others are playing in card games can be transferred as a memory skill in other areas of a child's life. However, many children with poor working-memory skills will need help and instruction about how to apply these strategies.

Play hiddenfigure games to help with visual recall. Many of these types of video games require very careful systematic searches in order to be successful, which uses sustained attention and effort. Thomas may also wish to engage in games that require the use of visualscanning and searching abilities such as are found in some board games.

Study over time rather than in a single session. Distributed learning is generally better for memorization than cramming. Studies have shown that cramming is not an effective tool for learning, although being tested may help in the acquiring of knowledge. Thomas might benefit from conducting a short review of what he has studied or read after completing it in order to consolidate his memories of the material.

Use low-tech strategies such as a pen and paper to support memory difficulties. Help Thomas to recognize and understand his memory problems to encourage his use of hands-on tools to assist him on a regular basis. One of the simplest strategies would be to carry a small notebook and pen in which he could write down anything he needs to remember, cross things off when completed, and remove pages when they are filled. This would need to become an integrated part of Thomas's daily routine to be most effective. He could also benefit from using "sticky notes" that are refreshed on a daily basis and kept in a highly-visible location.

Develop Thomas's dictation skills to improve working memory. Children who struggle with working memory may often have something on their mind but very quickly forget it. By immediately dictating what they are thinking about, they can store the idea electronically and not rely upon working-memory capacities. Dictation skills can be particularly helpful to support working memory when one is engaged in a writing task, generating ideas for a project, or doing creative tasks such as planning a party or working on a science project.

Develop Thomas's typing skills to help him improve his working-memory capacity. While typing does not directly improve working memory, it can support poor working-memory capacity. While taking handwritten notes can require good working-memory skills to keep information in mind as a child is attempting to record what a teacher is saying, typing notes can be much quicker and require less reliance on working memory. Becoming fluent as a typist could enable Thomas to keep up more quickly with classroom lectures and rely less on working-memory skills. Here are some apps and games to improve typing speed.

5 A number of concerns regarding anxiety-based issues are also contributing to Thomas' struggles.

Anxiety seems to interfere with his concentration, as well as in preventing him from engaging in activities that might help him grow and develop across a number of other settings. Strategies to address his anxiety include:

Cognitive behavior therapy is very effective for children whose worries (cognition) underlie their anxiety. Consult with a psychologist if you notice Thomas displaying several of the previously-mentioned symptoms. He could learn to block out negative thoughts and replace them with happier, more optimistic ones, effectively reducing anxiety, with the help of a psychologist and cognitive-behavioral techniques. Some children with disabilities in this area qualify for counseling and/or behavioral consultations within the school setting.

Help Thomas to identify and connect how his body physically responds to stress and tension. Understanding physical responses to different feelings such as a clenched stomach or tightness in the jaw or neck can be useful for children to identify early warning signs. They may then more effectively choose safe and effective responses to those feelings. Physically demonstrate the sense of being "uptight," contrasted with the feeling of being relaxed. Ask Thomas what happens inside and outside his body with feelings such as nervous, happy, or excited.

Schedule regular exercise for Thomas by joining a gym, team, or class. Developing a regular routine where exercise is simply one of Thomas's daily activities could go a long way in reducing symptoms of anxiety. His parents will need to make the time to get him to his exercise and maybe make time to do some themselves so that it is not an occasional activity but a routine. Regular aerobic exercise raises the heart rate, causes fast breathing, and has been proven to be successful in treating and preventing anxiety. A recommended amount of exercise is approximately 45 minutes at least 5 times a week. Exercise can range from simple walking that includes some uphill walking to more intensive forms of exercise such as weight lifting, running, bicycling, or a team sport. Highly intense exercise in brief bursts has been proven to reduce signs of anxiety.

Teach breathing techniques for relaxation. Teach Thomas techniques that are immediately useful in stressful situation as well as breathing techniques that may offer more long-term anxiety reduction. In addition to reducing the physiological experience of anxiety many breathing techniques help in improving focusing and mindfulness. Examples of breathing-technique videos include <http://www.youtube.com/watch?v=OiaUV-OiBGE> and http://www.youtube.com/watch?v=Kb5QVxVR_F4.

Teach progressive muscle relaxation. Thomas may benefit from learning muscle-relaxation techniques to help alleviate tension. Encourage him to learn simple techniques such as fist squeezing or biceps stretching that can be used anywhere and anytime. Also have him practice more full-body techniques that can result in sustained relaxation. Progressive muscle relaxation can provide a direct experience of the difference between tension and relaxation so that one can recognize the signs of tension right away and provide the corresponding relaxation. Helpful videos include Complete Muscle Relaxation (great video for younger kids with some basic animation and imagery) and 6 Minute Mindful Muscle Relaxation (Helpful, directed video for older children and teens with good imagery to tighten and loosen muscles).

6 There are also a number of concerns regarding flexibility. Thomas sometimes struggles to understand new situations and how to apply his knowledge in these new situations. He can become somewhat stuck in his previous strategies of addressing issues. Strategies to improve flexibility include:

Apply different strategies. Invent new games by taking the rules from one game and adding them to another. For example, play a memory game in which players must match three pieces rather than two or

play a basketball “shooting” game in which players get two, three, four, or five points depending upon the type of shot that is taken. Thomas’s parents could try different versions of his favorite game, for example, using a timed version of the game instead of the skilled version that he usually plays. They could discuss how he needed to apply different strategies and creativity as the rules changed.

Encourage changing ineffective problem solving strategies through insight and discussion. Help your child to recognize when a problem-solving strategy that they are using is not working. Because inflexible children tend to get stuck, you may have to approach these situations carefully, by asking questions and listening to their frustration. Then, you may be able to talk to them about other strategies that they think might be able to help them solve the problem. Encourage him/her to shift gears and try a different strategy.

Learning by trial and error is a key component of video gaming and a necessary skill for all of your child’s academic pursuits. In real-world situations, children are often more reluctant to learn the directions and expectations of a task by making mistakes and trying out something new than they would be in playing a game. Learning how to cook a favorite meal, learning a musical instrument or taking a new route to school are all valuable examples of ways to practice applying trial and error learning in appropriate situations. Make sure to talk about these efforts and experiences in light of the positive and negative aspects of the process.

Engage in activities and technologies where the rules change. Adapting one’s thinking and behavior are crucial in the success of much video-game play. Both the challenges and the solutions change from level to level in many games, including The Green Mission (<http://learningworksforkids.com/playbooks/the-green-mission/>) and Level Editor 4 (<http://learningworksforkids.com/playbooks/level-editor-4/>). Parents and teachers need to help children transfer these game-based skills to the real world in order to make the most of this opportunity to learn to shift thinking and behavior.

7 A number of modest concerns regarding organizational issues are also observed in the current evaluation. These appear to be having some impact on Thomas in the classroom. He may need help from both parents and teachers in order to develop these organizational skills, as he appears to be struggling to do so on his own. Strategies include:

Check and reorganize Thomas’s backpack at least once a week. Help him to clear out excess material and reorganize what he has. Discuss how organization is an ongoing process and requires regular effort. Eventually Thomas should be able to do this on his own, but initially he may require your supervision. Do not throw out old papers and tests but keep them in a completed folder as evidence for completed assignments that were never turned in.

Develop age-appropriate organization and planning skills. One sign of maturity for youngsters is the capacity to plan, think about, and get materials together for their activities. Thomas could be encouraged to organize what he needs for a day trip with the family or an overnight with his grandparents or cousins. This might include being responsible for his athletic bags for sports such as soccer, tennis, or hockey, which require a fair amount of equipment. He might also be more independently responsible for packing for a sleepover at a peer's house.

Maintain routines for organization of materials and time. Use a predictable schedule and routines and prepare in advance for any changes that might occur. Place a big clock in Thomas’s bedroom as a reminder to keep to a time schedule. Provide a designated place to put his backpack at the end of the school day and schedule regular times to clean and organize the backpack. Consistency about the time of day for doing homework and going to bed could help to reduce difficulties in accomplishing these tasks. It will also be important to give Thomas advanced notice of changes to the routine and the reasons for

them.

Visit this eBook to learn more about executive functions. This eBook can help you to understand the basics of executive functions and provides activities and strategies to improve these skills. Link to eBook: (<http://learningworksforkids.com/executive-functions/>)

DIAGNOSIS

Attention-Deficit/Hyperactivity Disorder, Inattentive Type
Generalized Anxiety Disorder, mild
Rule out Neurocognitive Disorder

I Randy Kulman, Ph.D.