Woodcock Johnson IV

Comprehensive Report

Name: Sample, Adam
Date of Birth: 07/23/2005
Age: 9 years, 3 months
Sex: Male
Dates of Testing:
10/09/2014 (COG)
10/10/2014 (OL)
10/08/2014 (ACH)

Grade: 4.1
Examiner: Miriam Smart

REASON FOR REFERRAL

Miss Miriam Smart, Adam's teacher, referred him for an evaluation of a suspected learning disability. This evaluation is intended to address the following questions: What cognitive, language, and/or academic strengths and weaknesses exist? What are Adam's cognitive, language, and academic developmental levels?

TESTS ADMINISTERED

Woodcock-Johnson IV Tests of Cognitive Abilities
Woodcock-Johnson IV Tests of Oral Language
Woodcock-Johnson IV Tests of Achievement Form B
Woodcock-Johnson Online Scoring and Reporting Program, Release 1.0

TEACHER'S REPORT

Miss Miriam Smart, Adam's teacher, responded to a checklist on 09/23/2014 to provide information based on recent direct observations of, and typical experience with, Adam.

Miss Smart described Adam as motivated and intelligent, but also insecure. At school, his mood is typical of others of his age. He needs more one-to-one attention but completes about as much schoolwork as other boys his age.

Adam generally persists with difficult tasks. He always, or almost always, listens when spoken to directly. His oral responses to questions are slow but careful. Adam usually organizes his tasks and activities, follows instructions, and finishes his schoolwork. He usually keeps assignments and school supplies in order and remembers what he is supposed to do. He reacts normally to distractions and adapts to them. Some reported behaviors may be inhibiting classroom performance. Adam frequently fails to give close attention to details or makes careless mistakes. He seems to have difficulty sustaining attention in tasks or play activities.

Adam usually remains seated when expected to. His activity level and style of motor activity are similar to other boys his age. He can play quietly when required. He generally talks much less than other boys his age. Adam's social interaction skills are typical for boys his age. For example, he takes turns appropriately. Miss Smart is most concerned about the amount of one-to-one attention he requires in the classroom. This behavior interferes with his classroom performance from time to time.

Miss Smart provided the following observations about Adam's behavior in the classroom. He demonstrates slightly serious anxiousness and withdrawal in the classroom. However, these behaviors are not disruptive.

Miss Smart rated Adam's levels of oral language ability and academic achievement based on observations of him in the classroom. His levels of oral expression and listening comprehension were rated as average. Adam's levels of basic reading skills, reading comprehension, and reading fluency were rated as very limited. His levels of math calculation skills and math reasoning were rated as advanced. His level of written expression was rated as limited; however, his level of basic writing skills was rated as very limited.

Adam is being instructed at the grade 5 level in mathematics. His instruction is at the grade 4 level in oral language. He is being instructed in reading and writing at the grade 3 level.

TEST SESSION OBSERVATIONS

Observation of Adam's behavior were made during the *Tests of Cognitive Abilities* and the *Tests of Oral Language*. His conversational proficiency seemed typical for his age level. He was cooperative throughout the examinations but he appeared fidgety or restless at times. He appeared tense or worried, and often distracted, during the examinations. He sometimes responded too quickly to test questions, and he gave up easily after attempting difficult tasks.

Further observations of Adam's behavior were made during the *Tests of Achievement*. His conversational proficiency seemed typical for his age level. He was cooperative throughout the examination but he appeared fidgety or restless at times. He appeared tense or worried, and often distracted, during the examination. He responded very slowly and hesitantly to test questions. He generally persisted with difficult tasks.

On word identification tasks, he required increased time and greater attention to phoneme-grapheme relationships to determine the correct response. On a passage comprehension test, Adam appeared to read passages very slowly. On a word attack (phonics) test, Adam appeared to have limited ability to apply phoneme-grapheme relationships. On a sentence reading fluency test, Adam appeared to read sentences slowly for his age.

The examiner listened to Adam read aloud from a story with sentences of increasing difficulty. When the sentences were at an easy to moderate reading level for him, a few errors were observed: hesitation(2), repetition(1), transposition(1), and ignoring punctuation(1). When the reading material was at his frustration level a few errors were observed: mispronunciation(4) and hesitation(2).

Adam's performance on Applied Problems tasks appeared to be typical for his age. On math calculation tasks, Adam solved many problems quickly with no observed difficulties. Adam solved problems quickly on a test of fluency with basic math facts.

Adam appeared to spell words in a laborious manner. On a writing samples test, Adam's sentences were observed to be inadequate. On a test of sentence writing fluency, Adam appeared to have difficulty formulating or writing sentences quickly.

INTERPRETIVE OVERVIEW OF SCORES

The scores derived from this administration can be interpreted at different levels. Interpretation of Adam's performance can be based upon single tests and/or upon logical-empirical combinations of tests called clusters. Variations within groups of scores are evaluated to determine if any relative strengths and weaknesses exist.

Adam's overall intellectual ability, as measured by the WJ IV General Intellectual Ability (GIA) standard score (90), is in the average range of others his age. There is a 68% probability that his true GIA score would be included in the range of standard scores from 86 to 95. A composite index of Adam's fluid reasoning and comprehension-knowledge intellectual abilities (109) is also in the average range of standard scores (106 to 112).

Among the WJ IV cognitive measures, Adam's standard scores are within the high average range for one test (Number Series). His scores are within the average range for three clusters (Comprehension-Knowledge, Fluid Reasoning, and Visual Processing) and eight tests (Oral Vocabulary, Visualization, General Information, Concept Formation, Numbers Reversed, Nonword Repetition, Visual-Auditory Learning, and Picture Recognition). His scores are within the low average range for four clusters (Short-Term Working Memory, Auditory Processing, Long-Term Retrieval, and Number Facility) and three tests (Verbal Attention, Phonological Processing, and Number-Pattern Matching); and within the low range for two clusters (Perceptual Speed and Cognitive Efficiency) and two tests (Letter-Pattern Matching and Story Recall).

An analysis of variations among Adam's cognitive scores (including some cognitive-linguistic scores) suggests that Number Series, Number Matrices, and Fluid Reasoning are relative strengths for him. He demonstrated relative weaknesses in Letter-Pattern Matching, Story Recall, and Perceptual Speed.

Among the WJ IV oral language measures, Adam's standard scores are within the average range for six clusters (Oral Language, Broad Oral Language, Oral Expression, Listening Comprehension, Phonetic Coding, and Vocabulary) and five tests (Picture Vocabulary, Oral Comprehension, Sentence Repetition, Understanding Directions, and Sound Blending). His scores are within the low average range for one cluster (Speed of Lexical Access) and three tests (Segmentation, Rapid Picture Naming, and Retrieval Fluency).

An analysis of variations among Adam's oral language scores (including some cognitive-linguistic scores) revealed no relative strengths and weaknesses.

Adam's overall academic achievement, as measured by the WJ IV Brief Achievement standard score, is in the low average range of others his age.

Among the WJ IV achievement measures, Adam's standard scores are within the high average range for three clusters (Mathematics, Broad Mathematics, and Math Calculation Skills) and three tests (Calculation, Math Facts Fluency, and Number Matrices). His scores are within the average range for three clusters (Math Problem Solving, Academic Fluency, and Academic Knowledge) and four tests (Applied Problems, Science, Social Studies, and Humanities). His scores are within the low average range for 13 clusters (Reading, Broad Reading, Basic Reading Skills, Reading Comprehension, Reading Fluency, Reading Rate, Written Language, Broad Written Language, Basic Writing Skills, Written Expression, Academic Skills, Academic Applications, and Phoneme-Grapheme Knowledge) and 11 tests (Letter-Word Identification, Passage Comprehension, Writing Samples, Word Attack, Oral Reading, Sentence Reading Fluency, Sentence Writing Fluency, Reading

Recall, Editing, Word Reading Fluency, and Spelling of Sounds); and within the low range for one test (Spelling).

An analysis of variations among Adam's achievement scores in broad curricular areas suggests that Calculation, Number Matrices, Math Problem Solving, Math Facts Fluency, and Math Calculation Skills are relative strengths for him. He demonstrated relative weaknesses in Spelling and Reading Fluency.

An analysis of variations among Adam's achievement cluster scores (and including some cognitive cluster scores) revealed no relative strengths and weaknesses.

When compared to a measure of intellectual ability comprised solely of fluid reasoning and comprehension-knowledge abilities, Short-Term Working Memory, Auditory Processing, Long-Term Retrieval, Number Facility, Perceptual Speed, Cognitive Efficiency, Brief Achievement, Reading, Broad Reading, Basic Reading Skills, Reading Comprehension, Reading Fluency, Reading Rate, Written Language, Broad Written Language, Basic Writing Skills, Written Expression, Academic Skills, Academic Applications, and Phoneme-Grapheme Knowledge were relative weaknesses (significantly lower than predicted) for Adam.

Comparisons were made between Adam's overall intellectual ability and his performance on several achievement and oral language clusters. When compared to his overall intellectual ability, Adam's performance was significantly higher than predicted in the areas of Mathematics, Broad Mathematics, Math Calculation Skills, and Math Problem Solving.

Comparisons were also made between a measure of Adam's English oral language ability and his performance on several achievement and cognitive-linguistic clusters. When compared to his English oral language ability, Adam's performance was significantly lower than predicted in the areas of Reading, Reading Comprehension, Reading Fluency, and Basic Writing Skills.

Comparisons were made between Adam's academic knowledge and his performance on several achievement and oral language clusters. When compared to his academic knowledge, Adam's performance was significantly lower than predicted in the areas of Reading, Broad Reading, Reading Comprehension, Reading Fluency, Written Language, Broad Written Language, and Basic Writing Skills.

INSTRUCTIONAL RECOMMENDATIONS AND INTERVENTIONS

Adam may gain the most from reading instruction presented within the late first grade to early second grade range. In addition, Adam may benefit from a program of supplemental reading interventions. The interventions should be explicit (skills should be taught directly), intensive (a concentrated number of related learning opportunities should be provided), delivered in small groups of 2-7 students when possible, and should employ scaffold learning principles with emotional support.

The most effective program for Adam may be a multicomponent reading intervention program that simultaneously addresses phonology, orthography, morphology, syntax, and semantics.

The direct instruction approach taken by the Corrective Reading program may help Adam further develop efficient word-decoding skills. In this program, teachers provide lessons targeting word attack, where students practice sounding out words of varying sound combinations (10 minutes). Next, students engage in group reading and orally respond to questions posed by the teacher (15 minutes). Finally, students engage in

workbook exercises, some of which are teacher directed, that require students to answer questions after reading passages and completing word activities (15 minutes). The effectiveness of this intervention is further enhanced by adding repeated reading to the Corrective Reading program. Specifically, the repeated-reading intervention would require two students to chorally read an unfamiliar passage to each other a total of four times. For the first round, the learner would read aloud to the tutor, and the tutor would provide an unknown word after 3 seconds. Next, the two students would switch roles and follow the same procedure. Both students should have the opportunity to act as tutor and learner two times on each passage. After this has occurred, the pair may move on to another passage.

Improving Adam's ability to decode text may be a very important opportunity for intervention. DISSECT is a mnemonic for a word-decoding strategy that promotes the development of word-decoding and reading-comprehension skills. Significant improvement may be expected in about 6 weeks after daily 20-minute sessions. The seven steps of DISSECT require students to **D**iscover the context by skipping a difficult word and using the meaning of the remaining words in the sentence to decode the unknown word; **I**solate the prefix from a known list of prefixes if the previous strategy was unsuccessful; **S**eparate the suffix if further problem solving is necessary; **S**ay the stem after excluding any prefix or suffix; **E**xamine the stem if the word is still unknown; **C**heck with someone, such as another student, parent, or teacher; and then **T**ry the dictionary and use the pronunciation guide if the previous steps are unsuccessful.

Generating questions about expository texts will help Adam improve Adam's understanding of concepts. Teach Adam to generate questions about material he is about to read. Model how to think of questions, if needed. Encourage both literal and inferential questions. As Adam reads, he should look for answers to the questions initially posed.

Adam's reading comprehension may improve with an individualized program of instruction focusing on fluent oral reading of sentences and passages. In this simple but effective intervention, Adam would read sentences and passages aloud to an accomplished reader. If Adam makes an error, the more accomplished reader would immediately offer corrective feedback. In addition to correcting word reading inaccuracy, effective feedback would include attention to the prosodic features of the sentences and passages, such as tonal emphasis, pause placement and duration, and phrasing consistent with the syntactic structure of the text. Sentences and passages at Adam's instructional level should be read aloud with the same tonal and rhythmic characteristics of his everyday speech.

Teaching Adam the elements of story grammar and story mapping may result in improved reading comprehension of literature. This intervention makes use of direct instruction of story grammar components, story maps prompting strategy use, guided practice, and independent practice. Teach Adam to identify the major elements of a story-characters, setting, conflict, and resolution-and use those elements to determine the theme of the story. Teach Adam to create a statement addressing the author's intended message and what the story meant to Adam. Guided practice is undertaken prior to independent use of these strategies. In the guided-practice phase, students take turns reading, and a teacher asks story grammar questions. If the student's response is incorrect or incomplete, the teacher then demonstrates how the answer could be reached using information within the text. As time goes by, the teacher provides less specific guidance in favor of general questions that prompt strategy use.

Question-Answer Relationship (QAR) is a technique that can help Adam improve Adam's reading comprehension. There are three types of question-answer relationships. The first type of question has an answer explicitly stated in the text and is called Right There. The second type, Think and Search, requires

making inferences. The third type draws on prior knowledge and is called On My Own. Help Adam generate these three different types of questions to improve his comprehension. Provide demonstrations and guided practice.

Adam may improve Adam's word identification skills through a highly structured and intensive program of direct and fully guided instruction. Carefully scripted lesson plans of approximately 20 minutes presented each day may help Adam improve his mastery level, if implemented consistently. The lessons can be implemented as a program of interventions specifically for Adam or as part of a small group instructional program with other children at the same ability level.

Translating written words into speech (i.e., orally reading words in isolation) may help Adam activate and output the sound representations of printed words.

Word recognition strategies may help Adam build automatic sight-word recognition. These strategies include word walls, flow lists, word banks, flash cards, and games. Use high-frequency words when implementing these strategies, because this may enhance Adam’s ability to read independently. For example, a word wall might present five high-frequency words that Adam needs to learn. Engage Adam in activities, both planned and unplanned, that use the words on the wall. Word walls help build word recognition, analysis skills, and vocabulary, and they serve as a spelling reference.

Speed drills may help develop Adam’s automatic sight recognition of words. Using lists of words (e.g., high-frequency words), allow Adam to read the list for 1 minute. Record the number of errors Adam makes during the timed reading. Have Adam chart Adam's progress on each timing.

Select a short passage at Adam’s instructional level and set an oral reading rate criterion. Determine the criterion by timing Adam for 1 minute and then counting how many correct words Adam reads. Next, have Adam read and reread the passage over time until the rate criterion is reached. Ask Adam to chart his rate to keep a record and to maintain motivation.

Repeated reading may help increase Adam’s reading fluency. Adam should read a short passage several times until Adam can read the passage with ease. Select material that is at Adam’s instructional level. Have Adam read through the passage aloud. Record the number of errors and the time it took Adam to read the passage. When Adam completes the passage, review the misread words and then have him read it again. Continue this approach until Adam has read the passage three to five times or has read the passage fluently and accurately.

The phrase-drill error-correction procedure may be helpful for developing Adam’s reading fluency. In this procedure, combine immediate corrective feedback with rehearsal of the corrected error. When Adam makes an error on a word, model the correct word immediately. Then ask Adam to reread the phrase (where the error occurred) three times.

Select an appropriate text for reading practice, and pair Adam with a proficient reader. Teach both students the procedures you want them to follow for practicing their reading. Tell them that they will each have a turn to read a paragraph aloud while the other student follows along. Have the proficient reader go first to model fluent reading. After both students have read the same paragraph aloud, the students should discuss what they have read and retell or identify the main points during the discussion. Then they should repeat this procedure for each of the remaining paragraphs in the passage.

Explain to Adam that a question may contain clue words that Adam can watch for to locate the answer in the text. For example, if the question uses words like *in the chapter*, *according to the author*, or *in the author's words*, this signals the answer is in the text, so Adam should reread or look back at the text to find the answer. However, if the question uses words like *in your opinion* or *what do you think*, then the answer cannot be found in the text, and Adam will have to think about the answer.

To build Adam's reading comprehension, engage Adam in a Directed Reading-Thinking Activity (DR-TA). This method uses activities before, during, and after reading to enhance comprehension. Before reading, activate prior knowledge on the topic to be read. Then ask Adam to make predictions about what he thinks will happen. Have him read the text to a predetermined point and then check Adam's predictions. After reading the first section, discuss Adam's predictions and have him revise his predictions before reading the next section. Repeat this process until Adam has read the entire selection.

Readers who construct mental pictures while reading increase their comprehension. Teach Adam to make pictures in Adam's mind while reading. Demonstrate how to do this using sample passages and a think-aloud approach. Point out that it is important to study any pictures or illustrations in the passage to help create images and find clues about the meaning of the passage. Read aloud a short passage, stopping at various points, and ask Adam to describe his mental pictures. Share the pictures you saw in your mind related to the passage and offer insights into what triggered those images. Provide additional guidance and practice for Adam as needed. When Adam is reading independently, remind him to create pictures in Adam's mind while reading.

Shared reading can be especially useful for helping Adam's comprehension of important stories or books. In shared reading, Adam and other students have a unique opportunity to become familiar with, and enjoy, a story or book. First, read a story or book to the group. After the initial reading, draw the students into reading the story or book with you. Pause for students to contribute, repeat a particular refrain in a predictable book, and eventually read the book or story chorally. This can occur over several days. After the students become familiar with the story or book, they should read it to each other in pairs or small groups. To increase active involvement, the students also may act out the story, draw parts of it, write a new title, or recreate the ending.

Reciprocal teaching engages small groups in learning specific research-based reading comprehension strategies while using a text written at the reader's instructional level. The four comprehension strategies are: predict, question, summarize, and clarify. Adam may learn to employ these strategies flexibly and interchangeably, as needed, for good comprehension, including setting a purpose for reading, reading for meaning, and self-monitoring Adam's comprehension. A teacher models the steps of a selected strategy for the group at key points in the text, and then the learners practice using the strategy cooperatively. Students first learn to use the strategies one at a time and then gradually build to the point where they can model any of them for one another, as needed, to maximize their comprehension.

Have Adam practice reading words that end in *-ful*. Make sure Adam knows that the *-ful* ending is a suffix that is added to many words such as *care/careful*, *play/playful*, and *help/helpful*. Ask Adam to name other words that end in *-ful*. Write the words on the board. Then ask Adam to read each of the words. Words that can be used include *plentiful* and *beautiful*.

Say the word *age* aloud and ask Adam what sound is at the end of the word (i.e., /j/). Explain to Adam that no word in English ends with the letter *j*, so if Adam hears a /j/ sound at the end of a word, it is spelled with the

letters *ge*. Write the following words on the board or a paper: *age*, *huge*, *strange*, *fudge*, *bridge*, and *pledge*. See if Adam can discover why some of the words end with *ge* and others end with *dge*. Help him see that one-syllable words with a long vowel sound end in the letters *ge*, and one-syllable words with a short vowel sound end in the letters *dge*.

Understanding the rules of hard and soft *g* will help Adam decode words more accurately. Explain that when *g* is followed by *a*, *o*, or *u*, it makes a hard sound. This means that the *g* makes a /g/ sound. Write several examples of words containing the hard *g* sound on the board, such as *gas*, *got*, and *gum*. Ask Adam to read each of the words and focus on the sound the *g* is making. Remind Adam that the /g/ sound is called **hard *g***. Next, tell Adam that when *g* is followed by *e*, *i*, or *y*, it makes a soft /j/ sound. Write several examples of words containing the soft *g* sound on the board, such as *gem*, *gin*, and *gym*. Ask Adam to read each of the words and focus on the sound the *g* is making. Remind him that the /j/ sound is called **soft *g***. Finally, provide a set of words for Adam to sort into hard *g* and soft *g* groups. Include words such as *gentle*, *garden*, *guess*, *change*, *regular*, *giraffe*, *gallop*, *cage*, *goat*, *giant*, and *guard*.

Teach Adam that the letter *x* sounds like a *k* and *s* together. It makes two sounds, but it is spelled with one letter, *x*. Write the word *fox* on the board and ask Adam to read it aloud. Have Adam tell you how many sounds he hears in the word. If needed, indicate there are four sounds and pronounce each sound: /f/ /o/ /k/ /s/). Ask Adam to write these words on the board: *box*, *fix*, *tax*, *mix*, *wax,* and *ox*.

Math instruction presented within the late fourth grade to late fifth grade range may produce the greatest gains for Adam.

Writing instruction that is presented within the middle first grade to early second grade level may be appropriate for Adam.

Look-Spell-See-Write is a strategy for learning to spell sight words independently. In this method, a teacher identifies words Adam needs to master, makes sure Adam knows what each word means, writes the words on cue cards, and gives the cards to Adam. Adam is instructed to use the following steps to study the words independently:

1. Adam looks at each word and says it aloud.
2. Then he says each letter in the word.
3. Next, Adam looks carefully at the word, forms a mental picture of it, and tries to visualize the word with his eyes closed. Adam turns the cue card over and tries to write the word from memory.
4. Adam checks the spelling and, if correct, writes the word once again.
5. If Adam writes the word incorrectly, he goes back to the first step.

This process continues until he writes the word three consecutive times with no mistakes.

Teach Adam the spellings of common irregular words, such as *of*, *what*, and *were*. Also teach Adam important grade-appropriate words, especially those that cannot be spelled solely by using rules or phonics knowledge.

The five-step spelling strategy is an effective, multisensory approach to improving spelling performance. Explicitly teach the strategy to insure that Adam understands the strategy and can implement it independently. Provide Adam with a cue card containing the following five steps of the strategy: (1) say the word, (2) write and say the word, (3) check the spelling of the word, (4) trace and say the word, and (5) write the word from memory and check the spelling of the word.

Confirm that Adam can spell most short vowel, single syllable words. Then help Adam expand his knowledge of within-word patterns by teaching long vowel patterns such as the consonant-vowel-vowel-consonant pattern (CVVC) in *tail*, the CVC*e* pattern in *came*, and the CVV pattern in *pie*. Keep this instruction relevant and engaging by using word-building tiles, word sorts that compare and contrast spelling patterns, word hunts, and word lists that share common spelling patterns.

Daily writing practice at school and at home helps Adam learn to write for different purposes and for different audiences. Devoting more time to writing will help Adam make the connection between writing and real-world applications and is an important motivator in developing Adam's writing skills.

Explicit instruction in the mechanics of writing may improve Adam’s fluency with writing tasks. Adam's writing fluency may improve if he can spell words phonetically, can spell high-frequency sight words correctly, and has legible writing. In addition, when Adam’s focus is on the ideas being expressed rather than on the underlying basic skills, the quantity of his writing may increase.

Provide explicit instruction in proofreading so that Adam will begin to recognize the areas of Adam's writing that need attention, and so that he also will have a method for finding new errors. As Adam practices proofreading strategies, he will learn which ones work best for Adam and may become more efficient with the process.

Make a list of the types of errors that Adam is making when writing and then provide practice in detecting and correcting the specific mistakes (e.g., starting sentences with capital letters or ending sentences with periods).

Teach Adam how to analyze the syllables in words to increase Adam's ability to spell words. For example, instruct Adam to divide a word’s pronunciation into syllables by raising a finger with each beat and then announcing the number of beats (e.g., *ta-ble* has two beats). If Adam responds incorrectly, model correct responses and allow him to practice them.

He should be able to understand classroom vocabulary that falls within the early third grade to early fifth grade range.

Use the following sequence to teach Adam segmentation. Begin with tasks that require Adam to break apart compound words (e.g., *raincoat*). Then progress to syllables. Have Adam clap the number of words or use markers to represent each word part. When Adam has learned to break words into syllables, teach Adam how to segment short words into onsets and rimes (the first part of a syllable and the ending part of a syllable) and then into individual phonemes.

Accommodations that may help compensate for Adam’s limitations in perceptual speed might include providing extended time, reducing the quantity of work required (breaking large assignments into two or more component assignments), eliminating or limiting copying activities, and increasing wait times after questions are asked as well as after responses are given.

Repetition is an important factor in building speed. Repeated and extensive practice may enable Adam to perform some tasks in a more automatic fashion to increase performance speed. Activities can be teacher directed or student directed. Related computer programs or games can provide opportunities to practice responding quickly. Select computer programs or games that provide Adam with immediate feedback and maintain a record of Adam's performance over time.

Overlearning improves storage and recall. Overlearning occurs when Adam continues to review and rehearse information Adam already knows. Even one additional review can increase recall significantly.

Elaboration is a method to improve Adam's encoding ability which, in turn, facilitates later recall. When presenting new information, it is important to associate the key points to Adam's prior knowledge or personal experiences. When rehearsal is combined with elaboration, it is more likely that the information will be successfully encoded, stored, and available for recall. Elaborative rehearsal goes beyond simple recitation of information by focusing on meaning and association of the new information with other knowledge. As Adam interacts with the material by thinking about it, associating it with prior knowledge, or reflecting on it, deeper processing of the information occurs.

Visual representation is a means of improving the long-term retrieval process. For example, have Adam create illustrations of or visualize the content being studied. Help Adam think in pictures to improve learning and recall of information.

TABLE OF SCORES

Woodcock-Johnson IV Tests of Cognitive Abilities (Norms based on age 9-3)

CLUSTER/Test	W	AE	GE	RPI	WDiff	Proficiency	SS (68% Band)
GEN INTELLECTUAL ABIL	487	8-4	2.9	81/90	-7	limited to avg	90 (86-95)
Gf-Gc COMPOSITE	499	10-4	4.9	95/90	6	average	109 (106-112)
COMP-KNOWLEDGE (*Gc*)	498	10-0	4.6	93/90	4	average	104 (100-108)
FLUID REASONING (*Gf*)	500	10-7	5.2	96/90	9	avg to advanced	110 (106-114)
S-TERM WORK MEM (*Gwm*)	481	7-7	2.2	70/90	-12	limited to avg	87 (82-92)
AUDITORY PROCESS (*Ga*)	487	7-3	1.8	74/90	-10	limited to avg	86 (81-90)
L-TERM RETRIEVAL (*Glr*)	487	7-2	1.7	79/90	-8	limited to avg	86 (82-90)
VISUAL PROCESSING (*Gv*)	500	11-2	5.8	94/90	5	average	108 (103-114)
NUMBER FACILITY	462	7-3	1.8	34/90	-26	limited	80 (73-88)
PERCEPTUAL SPEED	452	7-0	1.6	11/90	-39	very limited	76 (69-84)
VOCABULARY¤	497	9-8	4.3	92/90	2	average	103 (98-108)
COGNITIVE EFFICIENCY	471	7-0	1.6	36/90	-25	limited	79 (72-86)

¤*Cluster obtained, in part, from the WJ IV Tests of Oral Language.*

Oral Vocabulary	496	9-5	4.0	91/90	1	average	101 (95-108)
Number Series	505	11-5	6.0	98/90	17	advanced	116 (110-121)
Verbal Attention	480	7-7	2.1	68/90	-13	limited to avg	88 (82-93)
Letter-Pattern Matching	461	6-9	1.4	12/90	-38	very limited	77 (67-86)
Phonological Processing	485	7-1	1.7	70/90	-12	limited to avg	84 (78-89)
Story Recall	476	6-0	K.6	60/90	-16	limited	74 (68-80)
Visualization	498	10-6	5.1	93/90	4	average	106 (100-111)
General Information	500	10-7	5.2	95/90	7	avg to advanced	107 (101-112)
Concept Formation	496	9-7	4.1	92/90	2	average	102 (97-106)
Numbers Reversed	481	7-7	2.2	71/90	-12	limited to avg	90 (83-96)
Number-Pattern Matching	442	7-1	1.7	10/90	-40	very limited	81 (72-89)
Nonword Repetition	488	7-5	2.0	78/90	-8	limited to avg	92 (87-96)
Visual-Auditory Learning	497	9-6	4.1	90/90	0	average	101 (97-105)
Picture Recognition	503	12-8	7.2	94/90	6	average	108 (100-115)

Woodcock-Johnson IV Tests of Oral Language (Norms based on age 9-3)

CLUSTER/Test	W	AE	GE	RPI	WDiff	Proficiency	SS (68% Band)
ORAL LANGUAGE	499	10-1	4.7	93/90	4	average	105 (100-111)
BROAD ORAL LANGUAGE	495	9-4	3.9	90/90	0	average	100 (96-105)
ORAL EXPRESSION	498	9-8	4.2	92/90	2	average	103 (98-107)
LISTENING COMP	494	9-0	3.6	89/90	-1	average	98 (93-103)
PHONETIC CODING	487	7-6	2.1	78/90	-8	limited to avg	92 (87-96)
SPEED of LEXICAL ACCESS	484	7-1	1.6	66/90	-14	limited	84 (79-89)
VOCABULARY	497	9-8	4.3	92/90	2	average	103 (98-108)

CLUSTER/Test	W	AE	GE	RPI	WDiff	Proficiency	SS (68% Band)
Picture Vocabulary	499	10-0	4.6	93/90	4	average	104 (98-110)
Oral Comprehension	500	10-2	4.7	94/90	4	average	105 (99-112)
Segmentation	477	7-1	1.6	61/90	-16	limited	88 (83-92)
Rapid Picture Naming	481	7-1	1.7	56/90	-18	limited	87 (81-92)
Sentence Repetition	497	9-5	4.0	91/90	1	average	101 (96-106)
Understanding Directions	488	7-11	2.5	80/90	-7	limited to avg	91 (84-97)
Sound Blending	498	9-0	3.6	89/90	-1	average	99 (94-105)
Retrieval Fluency	488	7-0	1.6	75/90	-10	limited to avg	84 (77-92)

Woodcock-Johnson IV Tests of Achievement (Norms based on age 9-2)

CLUSTER/Test	W	AE	GE	RPI	WDiff	Proficiency	SS (68% Band)
READING	461	7-4	1.9	27/90	-29	limited	80 (77-82)
BROAD READING	452	7-4	1.9	15/90	-36	very limited	82 (79-85)
BASIC READING SKILLS	466	7-4	1.9	37/90	-25	limited	83 (81-86)
READING COMPREHENSION	473	7-4	1.9	51/90	-20	limited	81 (78-84)
READING FLUENCY	450	7-2	1.8	14/90	-36	very limited	80 (76-84)
READING RATE	427	7-3	1.9	4/90	-49	very limited	81 (78-85)
MATHEMATICS	499	10-3	4.8	97/90	11	avg to advanced	111 (107-115)
BROAD MATHEMATICS	503	10-7	5.2	98/90	16	advanced	113 (110-116)
MATH CALCULATION SKILLS	509	11-2	5.8	99/90	22	advanced	116 (113-120)
MATH PROBLEM SOLVING	497	10-1	4.7	96/90	8	avg to advanced	108 (104-112)
WRITTEN LANGUAGE	465	7-3	1.8	36/90	-25	limited	82 (79-85)
BROAD WRITTEN LANGUAGE	468	7-3	1.8	42/90	-23	limited	81 (78-84)
BASIC WRITING SKILLS	462	7-3	1.8	33/90	-26	limited	82 (79-85)
WRITTEN EXPRESSION	474	7-4	2.0	55/90	-18	limited	84 (80-88)
ACADEMIC SKILLS	472	8-1	2.7	63/90	-15	limited	89 (87-91)
ACADEMIC APPLICATIONS	478	7-11	2.5	67/90	-13	limited to avg	88 (85-91)
ACADEMIC FLUENCY	473	8-3	2.8	65/90	-14	limited	91 (88-95)
ACADEMIC KNOWLEDGE	498	9-8	4.2	93/90	3	average	104 (100-107)
PHONEME-GRAPHEME KNOW	477	7-4	1.9	61/90	-16	limited	84 (80-88)
BRIEF ACHIEVEMENT	467	7-8	2.3	45/90	-22	limited	85 (83-87)
Letter-Word Identification	455	7-4	1.9	18/90	-34	very limited	81 (79-84)
Applied Problems	491	9-4	3.9	92/90	2	average	102 (97-107)
Spelling	455	7-1	1.7	20/90	-33	very limited	77 (73-81)
Passage Comprehension	468	7-4	1.9	39/90	-24	limited	82 (78-86)
Calculation	506	11-2	5.7	99/90	21	advanced	117 (112-121)
Writing Samples	474	7-5	2.0	55/90	-18	limited	89 (85-93)
Word Attack	477	7-6	2.1	63/90	-15	limited	86 (82-91)
Oral Reading	468	7-0	1.6	40/90	-24	limited	82 (78-85)
Sentence Reading Fluency	432	7-3	1.9	4/90	-49	very limited	82 (76-87)
Math Facts Fluency	512	11-3	5.8	99/90	24	advanced	114 (110-118)
Sentence Writing Fluency	474	7-4	1.9	55/90	-18	limited	82 (75-88)
Reading Recall	478	7-3	1.8	63/90	-15	limited	84 (79-88)
Number Matrices	503	11-2	5.8	98/90	14	advanced	113 (108-118)
Editing	469	7-5	2.0	50/90	-20	limited	84 (80-89)

CLUSTER/Test	W	AE	GE	RPI	WDiff	Proficiency	SS (68% Band)
Word Reading Fluency	422	7-3	1.8	4/90	-48	very limited	82 (77-87)
Spelling of Sounds	477	7-2	1.7	59/90	-17	limited	82 (77-88)
Science	497	9-10	4.4	94/90	4	average	104 (98-110)
Social Studies	499	9-6	4.1	92/90	2	average	102 (96-108)
Humanities	497	9-7	4.2	92/90	3	average	103 (97-108)

	STANDARD SCORES			DISCREPANCY		Interpretation at
VARIATIONS	Actual	Predicted	Difference	PR	SD	+ or – 1.50 SD (SEE)
Intra-Cognitive [Extended] Variations						
COMP-KNOWLEDGE (*Gc*)	104	91	13	86	+1.09	--
FLUID REASONING (*Gf*)	110	87	23	99	+2.20	Strength
S-TERM WORK MEM (*Gwm*)	87	93	-6	29	-0.57	--
AUDITORY PROCESS (*Ga*)	86	94	-8	25	-0.67	--
L-TERM RETRIEVAL (*Glr*)	86	96	-10	20	-0.82	--
VISUAL PROCESSING (*Gv*)	108	93	15	88	+1.17	--
PERCEPTUAL SPEED	76	96	-20	6	-1.56	Weakness
VOCABULARY¤	103	91	12	86	+1.07	--
ORAL LANGUAGE+	105	91	14	88	+1.16	--
PHONETIC CODING+	92	94	-2	41	-0.22	--
SPEED of LEXICAL ACCESS+	84	97	-13	17	-0.96	--
Oral Vocabulary^	101	90	11	83	+0.96	--
Number Series^	116	88	28	99	+2.34	Strength
Verbal Attention^	88	94	-6	30	-0.52	--
Letter-Pattern Matching^	77	97	-20	6	-1.52	Weakness
Phonological Processing^	84	94	-10	19	-0.87	--
Story Recall^	74	97	-23	4	-1.80	Weakness
Visualization^	106	92	14	85	+1.04	--
General Information	107	93	14	85	+1.02	--
Concept Formation	102	90	12	83	+0.94	--
Numbers Reversed	90	94	-4	37	-0.34	--
Number-Pattern Matching	81	96	-15	12	-1.17	--
Nonword Repetition	92	95	-3	40	-0.27	--
Visual-Auditory Learning	101	97	4	62	+0.30	--
Picture Recognition	108	95	13	82	+0.93	--
Picture Vocabulary¤	104	92	12	81	+0.89	--
Oral Comprehension+	105	92	13	87	+1.11	--
Segmentation+	88	95	-7	29	-0.54	--
Rapid Picture Naming+	87	98	-11	22	-0.78	--
Sentence Repetition+	101	95	6	67	+0.45	--
Understanding Directions+	91	94	-3	40	-0.26	--
Sound Blending+	99	96	3	61	+0.28	--
Retrieval Fluency+	84	96	-12	18	-0.91	--
Number Matrices~	113	89	24	97	+1.89	Strength

^*Core test for calculation of intra-cognitive variations.*
¤*Cluster obtained, in part, from the WJ IV Tests of Oral Language.*
+*Test or cluster obtained from the WJ IV Tests of Oral Language.*
~*Test obtained from the WJ IV Tests of Achievement.*

VARIATIONS	STANDARD SCORES Actual	Predicted	Difference	DISCREPANCY PR	SD	Interpretation at + or – 1.50 SD (SEE)
Intra-Oral Language [Extended] Variations						
ORAL EXPRESSION	103	94	9	77	+0.74	--
LISTENING COMP	98	93	5	69	+0.49	--
PHONETIC CODING	92	99	-7	29	-0.55	--
SPEED of LEXICAL ACCESS	84	99	-15	12	-1.19	--
VOCABULARY[¤]	103	94	9	80	+0.83	--
AUDITORY PROCESS (*Ga*)[+]	86	99	-13	16	-1.01	--
Picture Vocabulary[^]	104	94	10	79	+0.82	--
Oral Comprehension[^]	105	93	12	86	+1.06	--
Segmentation[^]	88	100	-12	20	-0.84	--
Rapid Picture Naming[^]	87	100	-13	17	-0.95	--
Sentence Repetition	101	95	6	67	+0.45	--
Understanding Directions	91	94	-3	38	-0.29	--
Sound Blending	99	99	0	50	0.00	--
Retrieval Fluency	84	99	-15	13	-1.13	--
Oral Vocabulary[+]	101	94	7	73	+0.61	--
Phonological Processing[+]	84	99	-15	12	-1.19	--
Nonword Repetition[+]	92	99	-7	29	-0.55	--

[^]Core test for calculation of intra-oral language variations.
[¤]Cluster obtained, in part, from the WJ IV Tests of Cognitive Abilities.
[+]Test or cluster obtained from the WJ IV Tests of Cognitive Abilities.

VARIATIONS	STANDARD SCORES Actual	Predicted	Difference	DISCREPANCY PR	SD	Interpretation at + or – 1.50 SD (SEE)
Intra-Achievement [Extended] Variations						
BASIC READING SKILLS	83	93	-10	11	-1.25	--
READING COMPREHENSION	81	93	-12	9	-1.31	--
READING FLUENCY	80	94	-14	6	-1.58	Weakness
READING RATE	81	95	-14	10	-1.28	--
MATH CALCULATION SKILLS	116	88	28	99.8	+2.85	Strength
MATH PROBLEM SOLVING	108	91	17	94	+1.58	Strength
BASIC WRITING SKILLS	82	94	-12	7	-1.49	--
WRITTEN EXPRESSION	84	93	-9	19	-0.88	--
Letter-Word Identification[^]	81	93	-12	7	-1.46	--
Applied Problems[^]	102	90	12	85	+1.05	--
Spelling[^]	77	95	-18	3	-1.83	Weakness
Passage Comprehension[^]	82	93	-11	12	-1.20	--
Calculation[^]	117	87	30	99.8	+2.91	Strength
Writing Samples[^]	89	94	-5	32	-0.47	--
Word Attack	86	94	-8	24	-0.71	--
Oral Reading	82	94	-12	14	-1.10	--
Sentence Reading Fluency	82	94	-12	12	-1.20	--
Math Facts Fluency	114	90	24	98	+2.07	Strength
Sentence Writing Fluency	82	94	-12	13	-1.14	--
Reading Recall	84	95	-11	16	-1.00	--
Number Matrices	113	93	20	94	+1.54	Strength
Editing	84	95	-11	14	-1.08	--
Word Reading Fluency	82	96	-14	11	-1.25	--

VARIATIONS	STANDARD SCORES Actual	Predicted	Difference	DISCREPANCY PR	SD	Interpretation at + or – 1.50 SD (SEE)
Intra-Achievement [Extended] Variations (continued)						
Spelling of Sounds	82	95	-13	12	-1.16	--

^*Core test for calculation of intra-achievement variations.*

VARIATIONS	STANDARD SCORES Actual	Predicted	Difference	DISCREPANCY PR	SD	Interpretation at + or – 1.50 SD (SEE)
Academic Skills/Academic Fluency/Academic Applications [Extended] Variations						
ACADEMIC SKILLS^	89	90	-1	43	-0.18	--
ACADEMIC FLUENCY^	91	90	1	55	+0.12	--
ACADEMIC APPLICATIONS^	88	91	-3	38	-0.31	--
PERCEPTUAL SPEED+	76	92	-16	9	-1.31	--
READING RATE	81	91	-10	16	-1.01	--

^*Core cluster for calculation of academic skills/fluency/applications variations.*
+*Cluster obtained from the WJ IV Tests of Cognitive Abilities.*

COMPARISONS	STANDARD SCORES Actual	Predicted	Difference	DISCREPANCY PR	SD	Interpretation at + or – 1.50 SD (SEE)
*Gf-Gc Composite/Other Ability Comparisons**						
S-TERM WORK MEM (*Gwm*)	87	105	-18	7	-1.51	Weakness
PERCEPTUAL SPEED	76	104	-28	2	-2.05	Weakness
SPEED of LEXICAL ACCESS	84	103	-19	8	-1.43	--
AUDITORY PROCESS (*Ga*)	86	105	-19	6	-1.58	Weakness
PHONETIC CODING	92	105	-13	16	-0.99	--
L-TERM RETRIEVAL (*Glr*)	86	105	-19	7	-1.50	Weakness
VISUAL PROCESSING (*Gv*)	108	104	4	62	+0.29	--
NUMBER FACILITY	80	105	-25	3	-1.90	Weakness
COGNITIVE EFFICIENCY	79	105	-26	2	-1.99	Weakness
BRIEF ACHIEVEMENT	85	107	-22	1	-2.23	Weakness
READING	80	107	-27	1	-2.52	Weakness
BROAD READING	82	106	-24	1	-2.29	Weakness
BASIC READING SKILLS	83	106	-23	2	-2.00	Weakness
READING COMPREHENSION	81	106	-25	1	-2.32	Weakness
READING FLUENCY	80	105	-25	2	-2.13	Weakness
READING RATE	81	104	-23	3	-1.89	Weakness
MATHEMATICS	111	107	4	67	+0.43	--
BROAD MATHEMATICS	113	106	7	74	+0.65	--
MATH CALCULATION SKILLS	116	106	10	82	+0.93	--
MATH PROBLEM SOLVING	108	107	1	57	+0.17	--
WRITTEN LANGUAGE	82	106	-24	2	-2.11	Weakness
BROAD WRITTEN LANGUAGE	81	105	-24	2	-2.08	Weakness
BASIC WRITING SKILLS	82	105	-23	1	-2.19	Weakness
WRITTEN EXPRESSION	84	104	-20	6	-1.59	Weakness
ACADEMIC SKILLS	89	106	-17	5	-1.64	Weakness
ACADEMIC FLUENCY	91	105	-14	13	-1.14	--
ACADEMIC APPLICATIONS	88	107	-19	3	-1.90	Weakness
PHONEME-GRAPHEME KNOW	84	105	-21	4	-1.80	Weakness

**This procedure compares the WJ IV Gf-Gc Composite cluster score to other selected clusters.*

COMPARISONS	STANDARD SCORES Actual	Predicted	Difference	DISCREPANCY PR	SD	Significant at + or – 1.50 SD (SEE)
*GIA/Achievement Discrepancy Procedure**						
BRIEF ACHIEVEMENT	85	92	-7	25	-0.69	No
READING	80	92	-12	13	-1.14	No
BROAD READING	82	93	-11	14	-1.08	No
BASIC READING SKILLS	83	92	-9	19	-0.89	No
READING COMPREHENSION	81	92	-11	14	-1.07	No
READING FLUENCY	80	93	-13	12	-1.16	No
READING RATE	81	94	-13	13	-1.15	No
MATHEMATICS	111	92	19	98	+1.99	Yes (+)
BROAD MATHEMATICS	113	92	21	99	+2.25	Yes (+)
MATH CALCULATION SKILLS	116	93	23	99	+2.29	Yes (+)
MATH PROBLEM SOLVING	108	92	16	95	+1.69	Yes (+)
WRITTEN LANGUAGE	82	92	-10	15	-1.05	No
BROAD WRITTEN LANGUAGE	81	92	-11	13	-1.12	No
BASIC WRITING SKILLS	82	92	-10	14	-1.07	No
WRITTEN EXPRESSION	84	93	-9	21	-0.81	No
ACADEMIC SKILLS	89	92	-3	37	-0.32	No
ACADEMIC FLUENCY	91	94	-3	42	-0.21	No
ACADEMIC APPLICATIONS	88	91	-3	37	-0.34	No
ACADEMIC KNOWLEDGE	104	93	11	82	+0.90	No
PHONEME-GRAPHEME KNOW	84	93	-9	20	-0.83	No
ORAL LANGUAGE	105	94	11	84	+0.99	No
BROAD ORAL LANGUAGE	100	93	7	75	+0.68	No
ORAL EXPRESSION	103	94	9	76	+0.71	No
LISTENING COMP	98	93	5	68	+0.46	No

**This procedure compares the WJ IV GIA score to selected oral language and achievement clusters.*

COMPARISONS	STANDARD SCORES Actual	Predicted	Difference	DISCREPANCY PR	SD	Significant at + or – 1.50 SD (SEE)
*Oral Language/Achievement Comparisons**						
READING	80	100	-20	5	-1.68	Yes (-)
BROAD READING	82	100	-18	7	-1.44	No
BASIC READING SKILLS	83	100	-17	8	-1.43	No
READING COMPREHENSION	81	100	-19	6	-1.56	Yes (-)
READING FLUENCY	80	100	-20	7	-1.50	Yes (-)
READING RATE	81	100	-19	8	-1.38	No
MATHEMATICS	111	100	11	80	+0.83	No
BROAD MATHEMATICS	113	100	13	84	+0.99	No
MATH CALCULATION SKILLS	116	100	16	87	+1.15	No
MATH PROBLEM SOLVING	108	100	8	74	+0.65	No
WRITTEN LANGUAGE	82	100	-18	7	-1.44	No
BROAD WRITTEN LANGUAGE	81	100	-19	8	-1.42	No
BASIC WRITING SKILLS	82	100	-18	6	-1.56	Yes (-)
WRITTEN EXPRESSION	84	100	-16	13	-1.13	No
ACADEMIC SKILLS	89	100	-11	19	-0.88	No
ACADEMIC FLUENCY	91	100	-9	26	-0.65	No
ACADEMIC APPLICATIONS	88	100	-12	16	-0.99	No
ACADEMIC KNOWLEDGE	104	100	4	63	+0.32	No
PHONEME-GRAPHEME KNOW	84	100	-16	10	-1.28	No

COMPARISONS	STANDARD SCORES Actual	Predicted	Difference	DISCREPANCY PR	SD	Significant at + or – 1.50 SD (SEE)
Oral Language/Achievement Comparisons (continued)*						
PHONETIC CODING	92	100	-8	26	-0.63	No
SPEED of LEXICAL ACCESS	84	100	-16	10	-1.30	No

**This procedure compares the WJ IV Broad Oral Language cluster score to selected achievement and cognitive-linguistic clusters.*

COMPARISONS	STANDARD SCORES Actual	Predicted	Difference	DISCREPANCY PR	SD	Significant at + or – 1.50 SD (SEE)
*Academic Knowledge/Achievement Comparisons**						
BRIEF ACHIEVEMENT	85	102	-17	8	-1.42	No
READING	80	102	-22	5	-1.67	Yes (-)
BROAD READING	82	102	-20	6	-1.55	Yes (-)
BASIC READING SKILLS	83	102	-19	7	-1.49	No
READING COMPREHENSION	81	102	-21	6	-1.54	Yes (-)
READING FLUENCY	80	102	-22	6	-1.54	Yes (-)
READING RATE	81	101	-20	8	-1.42	No
MATHEMATICS	111	102	9	76	+0.71	No
BROAD MATHEMATICS	113	102	11	81	+0.87	No
MATH CALCULATION SKILLS	116	102	14	86	+1.06	No
MATH PROBLEM SOLVING	108	102	6	69	+0.50	No
WRITTEN LANGUAGE	82	102	-20	5	-1.60	Yes (-)
BROAD WRITTEN LANGUAGE	81	102	-21	6	-1.54	Yes (-)
BASIC WRITING SKILLS	82	102	-20	5	-1.63	Yes (-)
WRITTEN EXPRESSION	84	102	-18	10	-1.29	No
ACADEMIC SKILLS	89	102	-13	15	-1.02	No
ACADEMIC FLUENCY	91	102	-11	23	-0.74	No
ACADEMIC APPLICATIONS	88	103	-15	13	-1.11	No
PHONETIC CODING	92	101	-9	24	-0.71	No
SPEED of LEXICAL ACCESS	84	101	-17	10	-1.29	No

**This procedure compares the WJ IV Academic Knowledge cluster score to selected achievement and cognitive-linguistic clusters.*

Appendix A: Detailed Interpretation of Clusters and Tests

This appendix provides information about each ability measure, including a description of Adam's developmental level, a comparison to age peers using a standard score range classification, and a description of his proficiency level.

WJ IV Tests of Cognitive Abilities

Intellectual Ability

General Intellectual Ability represents a measure of Adam's overall intelligence. Adam's performance on General Intellectual Ability is comparable to that of the average individual at age 8-4. His general intellectual ability standard score is near the lower end of the average range (percentile rank of 26; standard score of 90). His overall intellectual ability is average (RPI of 81/90).

The *Gf-Gc* Composite is a combined measure of Adam's lexical (word) knowledge; general cultural knowledge; and quantitative, deductive, and inductive reasoning. Adam's fluid and crystallized intellectual ability composite is comparable to that of the average individual at age 10-4. His composite standard score is in the average range (percentile rank of 73; standard score of 109). His combined fluid reasoning and comprehension-knowledge abilities are average (RPI of 95/90).

Cognitive Clusters

Comprehension-Knowledge (*Gc*) is a language-based measure of Adam's declarative knowledge. It includes semantic memory and the ability to communicate his knowledge and understanding verbally. Adam's verbal knowledge and comprehension is comparable to that of the average individual at age 10-0. His comprehension-knowledge standard score is in the average range (percentile rank of 62; standard score of 104). His verbal ability is average (RPI of 93/90).

Fluid Reasoning (*Gf*) is a measure of Adam's ability to use inductive, deductive, and quantitative reasoning to form concepts and solve problems. Adam's fluid reasoning ability is comparable to that of the average individual at age 10-7. His fluid reasoning standard score is near the higher end of the average range (percentile rank of 75; standard score of 110). His inductive and deductive reasoning abilities are average to advanced (RPI of 96/90); he will probably find it easy to succeed on age-level tasks requiring reasoning and concept formation.

Short-Term Working Memory (*Gwm*) measured Adam's ability to attend to, hold, and manipulate information in working memory. Adam's working memory capacity is comparable to that of the average individual at age 7-7. His short-term working memory standard score is in the low average range (percentile rank of 19; standard score of 87). His short-term working memory capacity is limited to average (RPI of 70/90); he will probably find it difficult to succeed on age-level tasks such as attending to and manipulating information in working memory.

Auditory Processing (*Ga*) includes the ability to encode, synthesize, and discriminate auditory stimuli, including the ability to employ phonological processes in task performance. Adam's auditory processing ability is comparable to that of the average individual at age 7-3. His auditory processing standard score is in the low average range (percentile rank of 17; standard score of 86). His ability to effectively employ phonological processes is limited to average (RPI of 74/90); he will probably find it difficult to succeed on age-level tasks requiring auditory processing.

Long-Term Retrieval (*Glr*) is the ability to encode and retrieve (reconstruct) information. Although Adam's long-term retrieval standard score is within the low average range, his performance varied on two different types of storage and retrieval tasks. Adam's performance is average on visual-auditory associative memory tasks. His performance is limited on story recall tasks.

Visual Processing (*Gv*) is an index of Adam's ability to perceive, analyze, synthesize, and reason with visual patterns, including his ability to store and recall visual representations. Adam's visual processing ability is comparable to that of the average individual at age 11-2. His visual processing standard score is in the average range (percentile rank of 71; standard score of 108). His ability to visually manipulate objects or patterns is average (RPI of 94/90).

Number Facility represents fluency with numbers, including number-pattern comparisons and the ability to manipulate numbers in working memory. Adam's number facility is comparable to that of the average individual at age 7-3. His number facility standard score is in the low average range (percentile rank of 9; standard score of 80). His number fluency is limited (RPI of 34/90); he will probably find it very difficult to succeed on age-level tasks such as comparing and manipulating numbers in working memory.

Perceptual Speed measured Adam's ability to recognize and match orthographic and numeric patterns quickly and accurately under time constraints. Adam's perceptual speed is comparable to that of the average individual at age 7-0. His perceptual speed standard score is in the low range (percentile rank of 6; standard score of 76). His ability to rapidly compare visual patterns that use alpha or numeric symbols is very limited (RPI of 11/90); he will probably find it extremely difficult to succeed on age-level tasks requiring visual perceptual speed.

Cognitive Efficiency is a combined index of Adam's ability to perform visual-perceptual matching tasks rapidly and accurately and his level of working memory capacity, both of which are foundational for complex cognitive functioning. Adam's perceptual speed and working memory efficiency cluster comparable to that of the average individual at age 7-0. His cognitive efficiency standard score is in the low range (percentile rank of 8; standard score of 79). His perceptual speed and working memory efficiency are limited (RPI of 36/90); he will probably find it very difficult to succeed on age-level tasks requiring cognitive efficiency.

Cognitive Tests

Oral Vocabulary is a measure of Adam's comprehension of words. This test had two parts, requiring him to listen to a word and provide an accurate antonym and then listen to a word and provide an accurate synonym. Adam's oral vocabulary ability is comparable to that of the average individual at age 9-5. His Oral Vocabulary standard score is in the average range (percentile rank of 53; standard score of 101). His knowledge of words and their meanings is average (RPI of 91/90).

Number Series is a test of quantitative, deductive, and inductive reasoning. This test required Adam to supply the missing number from a sequence of numbers following a mathematical pattern. Adam's performance on Number Series is comparable to that of the average individual at age 11-5. His Number Series standard score is in the high average range (percentile rank of 85; standard score of 116). His ability to reason with number patterns is advanced (RPI of 98/90); he will probably find it very easy to succeed on age-level number sequencing and pattern recognition tasks.

Verbal Attention is a test of short term working memory that required Adam to listen to a list of animals and numbers and then answer a question based on the sequence of information. Adam's verbal working memory is comparable to that of the average individual at age 7-7. His Verbal Attention standard score is in the low average range (percentile rank of 20; standard score of 88). His ability to retain information in working memory

and then answer questions based on the information is limited to average (RPI of 68/90); he will probably find it difficult to succeed on age-level verbal working memory tasks.

Letter-Pattern Matching measured the speed at which Adam was able to make visual symbol discriminations among a series of letter patterns. Adam's speed of orthographic processing is comparable to that of the average individual at age 6-9. His Letter-Pattern Matching standard score is in the low range (percentile rank of 6; standard score of 77). His speed of orthographic processing is very limited (RPI of 12/90); he will probably find it extremely difficult to succeed on age-level tasks requiring discrimination among letter patterns.

Phonological Processing assessed Adam’s word retrieval abilities using phonological cues. Adam's ability to access words based on phonology is comparable to that of the average individual at age 7-1. His Phonological Processing standard score is in the low average range (percentile rank of 14; standard score of 84). His ability to access words based on phonology is limited to average (RPI of 70/90); he will probably find it difficult to succeed on age-level phonologically-mediated word access tasks.

Story Recall measured Adam’s listening ability and reconstructive memory. The task required him to recall details of increasingly complex stories. Adam's performance on Story Recall is comparable to that of the average individual at age 6-0. His Story Recall standard score is in the low range (percentile rank of 4; standard score of 74). His ability to recall details of complex stories is limited (RPI of 60/90); he will probably find it very difficult to succeed on age-level story listening and retelling tasks.

Visualization measured two aspects of visual-spatial processing involving visual feature detection and mental rotation of objects. One part of the test required Adam to identify the two or three pieces that form a completed target shape. The other part required him to identify rotated block configurations that correspond to a target configuration. Adam's ability to visualize is comparable to that of the average individual at age 10-6. His Visualization standard score is in the average range (percentile rank of 65; standard score of 106). His ability to employ visual-spatial manipulation in working memory is average (RPI of 93/90).

General Information measured Adam’s general verbal knowledge. This test required Adam to tell where specific objects might be found, and to tell what might be the purpose of other specific objects. Adam's performance on General Information is comparable to that of the average individual at age 10-7. His General Information standard score is near the higher end of the average range (percentile rank of 67; standard score of 107). His general verbal knowledge is average to advanced (RPI of 95/90); he will probably find it easy to succeed on age-level tasks requiring verbal expression of general knowledge.

Concept Formation is a test of fluid reasoning. This test required Adam to use inductive reasoning in categorical thinking. Adam's performance on Concept Formation is comparable to that of the average individual at age 9-7. His Concept Formation standard score is in the average range (percentile rank of 54; standard score of 102). His inductive reasoning is average (RPI of 92/90).

Numbers Reversed is a test of working memory capacity. This test required Adam to hold a sequence of numbers in immediate awareness and then reverse the sequence. Adam's performance on Numbers Reversed is comparable to that of the average individual at age 7-7. His Numbers Reversed standard score is near the lower end of the average range (percentile rank of 25; standard score of 90). His span of apprehension and recoding in working memory is limited to average (RPI of 71/90); he will probably find it difficult to succeed on age-level working memory capacity tasks.

Number-Pattern Matching is a test of perceptual speed. This test measured the speed at which Adam was able to make visual discriminations among groups of numbers. Adam's performance on Number-Pattern Matching is comparable to that of the average individual at age 7-1. His Number-Pattern Matching standard score is in

the low average range (percentile rank of 10; standard score of 81). His perceptual speed with number patterns is very limited (RPI of 10/90); he will probably find it extremely difficult to succeed on age-level tasks requiring discrimination among number patterns.

Nonword Repetition measured Adam's phonological short-term memory. Adam's performance on Nonword Repetition is comparable to that of the average individual at age 7-5. His Nonword Repetition standard score is near the lower end of the average range (percentile rank of 29; standard score of 92). His ability to remember and repeat increasingly complex nonwords is limited to average (RPI of 78/90); he will probably find it difficult to succeed on age-level phonological short-term storage tasks.

Visual-Auditory Learning is a measure of the ability to learn, store, and retrieve a series of visual-auditory associations. In this test, Adam was required to learn and recall the names of rebuses (pictographic representations of words). Adam's performance on Visual-Auditory Learning is comparable to that of the average individual at age 9-6. His Visual-Auditory Learning standard score is in the average range (percentile rank of 52; standard score of 101). His visual-auditory learning and retrieval ability are average (RPI of 90/90).

Picture Recognition is a test of visual memory. This test required Adam to recognize a subset of previously presented pictures within a field of distracting pictures. Adam's performance on Picture Recognition is comparable to that of the average individual at age 12-8. His Picture Recognition standard score is in the average range (percentile rank of 70; standard score of 108). His visual memory is average (RPI of 94/90).

WJ IV Tests of Oral Language

Oral Language Clusters

Oral Language is a measure of Adam's English language development and comprehension, including lexical (word knowledge) and listening ability. Adam's oral language skills are comparable to those of the average individual at age 10-1. His oral language standard score is in the average range (percentile rank of 64; standard score of 105). His verbal ability is average (RPI of 93/90).

Broad Oral Language is a measure of Adam's receptive and expressive oral language abilities in English, including listening ability, verbal comprehension, verbal working memory capacity, and lexical (word) knowledge. Adam's oral language and verbal working memory skills are comparable to those of the average individual at age 9-4. His oral language standard score is in the average range (percentile rank of 51; standard score of 100). His broad verbal ability is average (RPI of 90/90).

Oral Expression measured Adam's expressive English language competency, including lexical (word) knowledge and sentence repetition ability. Adam's ability to express himself orally is comparable to that of the average individual at age 9-8. His oral expression standard score is in the average range (percentile rank of 57; standard score of 103). His ability to express verbal information is average (RPI of 92/90).

Listening Comprehension is a measure of Adam's receptive language competency in English, including listening ability, verbal comprehension, and verbal working memory capacity. Adam's listening and oral comprehension abilities are comparable to those of the average individual at age 9-0. His listening comprehension standard score is in the average range (percentile rank of 45; standard score of 98). His listening and oral comprehension abilities are average (RPI of 89/90).

Phonetic Coding is a measure of phonology, including the ability to blend speech sounds into words and break words into component segments. Adam's word segmentation and sound blending cluster is comparable to that of the average individual at age 7-6. His phonetic coding standard score is near the lower end of the average

range (percentile rank of 29; standard score of 92). His ability to blend and segment sounds in words is limited to average (RPI of 78/90); he will probably find it difficult to succeed on age-level phonological coding tasks.

Speed of Lexical Access is a measure of Adam's speed and fluency in retrieving words and names from semantic memory. Adam's speed of word access is comparable to that of the average individual at age 7-1. His speed of lexical access standard score is in the low average range (percentile rank of 14; standard score of 84). His efficiency and quickness of word retrieval are limited (RPI of 66/90); he will probably find it very difficult to succeed on age-level speeded word retrieval tasks.

Vocabulary is a measure of Adam's lexical (word) knowledge, including picture naming vocabulary and knowledge of words and their meanings. Adam's vocabulary knowledge is comparable to that of the average individual at age 9-8. His vocabulary standard score is in the average range (percentile rank of 58; standard score of 103). His lexical knowledge is average (RPI of 92/90).

Oral Langauge Tests

Picture Vocabulary is a test of Adam's expressive vocabulary that required him to provide names of objects. Adam's performance on Picture Vocabulary is comparable to that of the average individual at age 10-0. His Picture Vocabulary standard score is in the average range (percentile rank of 61; standard score of 104). His ability to demonstrate lexical knowledge by identifying pictured objects is average (RPI of 93/90).

Oral Comprehension measured Adam's ability to comprehend a short passage and then supply the missing word using syntactic and semantic cues. Adam's performance on Oral Comprehension is comparable to that of the average individual at age 10-2. His Oral Comprehension standard score is in the average range (percentile rank of 64; standard score of 105). His ability to comprehend orally presented passages is average (RPI of 94/90).

Segmentation measured Adam's skill in breaking apart the speech sounds in words. Adam's word segmentation skills are comparable to those of the average individual at age 7-1. His Segmentation standard score is in the low average range (percentile rank of 21; standard score of 88). His skill in segmenting words into parts or sounds is limited (RPI of 61/90); he will probably find it very difficult to succeed on age-level tasks involving breaking words into parts.

Rapid Picture Naming measured Adam's fluency of word access or speed of direct recall of object names from acquired knowledge. Adam's performance on Rapid Picture Naming is comparable to that of the average individual at age 7-1. His Rapid Picture Naming standard score is in the low average range (percentile rank of 19; standard score of 87). His speed of direct recall of simple vocabulary is limited (RPI of 56/90); he will probably find it very difficult to succeed on age-level tasks involving rapid naming of objects.

Sentence Repetition is a test of short-term memory span. This test required Adam to remember and repeat sentences presented orally. Adam's performance on Sentence Repetition is comparable to that of the average individual at age 9-5. His Sentence Repetition standard score is in the average range (percentile rank of 52; standard score of 101). His ability to listen to, remember, and repeat words, phrases, and sentences is average (RPI of 91/90).

Understanding Directions is a measure of verbal working memory. This test required Adam to listen to a sequence of instructions and then follow the directions by pointing to various objects in a picture. Adam's performance on Understanding Directions is comparable to that of the average individual at age 7-11. His Understanding Directions standard score is near the lower end of the average range (percentile rank of 26;

standard score of 91). His ability to listen to and follow instructions is limited to average (RPI of 80/90); he will probably find it difficult to succeed on age-level verbal working memory tasks.

Sound Blending is a test of phonological processing. This test measured Adam's skill in blending phonemes or syllables into words. Adam's performance on Sound Blending is comparable to that of the average individual at age 9-0. His Sound Blending standard score is in the average range (percentile rank of 48; standard score of 99). His skill in synthesizing language sounds into words is average (RPI of 89/90).

Retrieval Fluency is a word access test that required Adam to name as many examples as possible from a given category within a short time limit. Adam's performance on Retrieval Fluency is comparable to that of the average individual at age 7-0. His Retrieval Fluency standard score is in the low average range (percentile rank of 15; standard score of 84). His fluency of word retrieval is limited to average (RPI of 75/90); he will probably find it difficult to succeed on age-level tasks involving fluent production of words or names.

WJ IV Tests of Achievement

Overall Achievement

Brief Achievement is sample of Adam's academic skills in reading, writing, and math. Although Adam's brief achievement standard score is within the low average range, his performance varied on two different types of academic tasks. Adam's performance is average on tasks requiring the ability to analyze and solve applied mathematics problems. His performance is very limited on spelling tasks.

Achievement Clusters

Reading measured Adam's reading decoding skills and his ability to comprehend text while reading. Adam's reading ability is comparable to that of the average individual at age 7-4. His reading standard score is in the low average range (percentile rank of 9; standard score of 80). His sight word reading and passage comprehension abilities are limited (RPI of 27/90); reading tasks above the 7-9 level will be quite difficult for him.

Broad Reading is a combined measure of reading decoding, reading speed, and the ability to comprehend connected text while reading. Adam's overall reading ability is comparable to that of the average individual at age 7-4. His reading standard score is in the low average range (percentile rank of 11; standard score of 82). His sight word reading, sentence reading fluency, and passage comprehension abilities are very limited (RPI of 15/90); reading tasks above the 7-8 level will be quite difficult for him.

Basic Reading Skills measured Adam's word reading and phonics skills. Adam's basic reading skills are comparable to those of the average individual at age 7-4. His basic reading skills standard score is in the low average range (percentile rank of 13; standard score of 83). His sight word reading ability and skill in applying phonic and structural analysis skills in reading are limited (RPI of 37/90); tasks requiring reading skills above the 7-11 level will be quite difficult for him.

Reading Comprehension is a measure of the ability to comprehend connected text while reading and the ability to retell story details from memory immediately after reading. Adam's reading comprehension is comparable to that of the average individual at age 7-4. His reading comprehension standard score is in the low average range (percentile rank of 10; standard score of 81). His reading comprehension and recall are limited (RPI of 51/90); reading comprehension tasks above the 8-0 level will be quite difficult for him.

Reading Fluency assessed how quickly, accurately, and expressively Adam reads. Adam's oral and silent reading fluency cluster is comparable to that of the average individual at age 7-2. His reading fluency standard score is in the low average range (percentile rank of 9; standard score of 80). His oral and silent sentence reading fluency are very limited (RPI of 14/90); reading fluency above the 7-7 level will be quite difficult for him.

Reading Rate is a measure of Adam’s reading automaticity and comprehension at the single word and sentence levels. Adam's reading rate is comparable to that of the average individual at age 7-3. His reading rate standard score is in the low average range (percentile rank of 11; standard score of 81). His reading automaticity and comprehension at the word and sentence levels are very limited (RPI of 4/90); speeded reading tasks above the 7-7 level will be quite difficult for him.

Mathematics is a measure of calculation skills and math problem solving ability. Adam's mathematics ability is comparable to that of the average individual at age 10-3. His mathematics standard score is in the high average range (percentile rank of 76; standard score of 111). His calculation skills and ability to solve practical problems in mathematics are average to advanced (RPI of 97/90); math tasks below the 9-3 level will be quite easy for him.

Broad Mathematics is a measure of calculation skills, mathematics problem solving ability, number facility, and fluency with math facts. Adam's overall mathematics ability is comparable to that of the average individual at age 10-7. His mathematics standard score is in the high average range (percentile rank of 81; standard score of 113). His calculation skills, math facts fluency, and ability to solve practical problems in mathematics are advanced (RPI of 98/90); math tasks below the 9-7 level will be quite easy for him.

Math Calculation Skills measured Adam’s computational skills and automaticity with basic math facts. Adam's mathematics calculation skills are comparable to those of the average individual at age 11-2. His mathematics calculation skills standard score is in the high average range (percentile rank of 86; standard score of 116). His computational skills and automaticity with basic math facts are advanced (RPI of 99/90); math calculation tasks below the 10-2 level will be quite easy for him.

Math Problem Solving measured Adam’s ability to recognize number patterns, reason with numbers, and solve practical problems in mathematics. Adam's math problem solving ability is comparable to that of the average individual at age 10-1. His mathematics problem solving standard score is near the higher end of the average range (percentile rank of 71; standard score of 108). His mathematical knowledge and reasoning are average to advanced (RPI of 96/90); he will probably find it easy to succeed on age-level tasks requiring the application of mathematical relationships and knowledge to solve problems.

Written Language measured Adam’s spelling and quality of written expression. Adam's ability to spell words and express himself in writing is comparable to that of the average individual at age 7-3. His written language standard score is in the low average range (percentile rank of 11; standard score of 82). His spelling ability and quality of expression in written sentence construction are limited (RPI of 36/90); writing tasks above the 7-10 level will be quite difficult for him.

Broad Written Language assessed Adam’s production of written text, including his spelling ability, writing fluency, and quality of written expression. Adam's overall written language ability is comparable to that of the average individual at age 7-3. His written language standard score is in the low average range (percentile rank of 10; standard score of 81). His spelling ability, quality of written sentences, and fluency in writing sentences are limited (RPI of 42/90); writing tasks above the 7-11 level will be quite difficult for him.

Basic Writing Skills includes spelling skills and knowledge of English language usage. Adam's basic writing skills are comparable to those of the average individual at age 7-3. His basic writing skills standard score is in

the low average range (percentile rank of 11; standard score of 82). His spelling and editing skills are limited (RPI of 33/90); tasks requiring writing skills above the 7-10 level will be quite difficult for him.

Written Expression measured Adam's fluency of production and quality of expression in writing. Adam's ability to express himself in writing is comparable to that of the average individual at age 7-4. His written expression standard score is in the low average range (percentile rank of 14; standard score of 84). His quality of written sentences and fluency in writing sentences are limited (RPI of 55/90); tasks requiring the effective and fluent production of written sentences above the 8-2 level will be quite difficult for him.

Academic Skills is an aggregate measure of basic achievement skills in sight-word reading, math calculation, and spelling. Although Adam's academic skills standard score is within the low average range, his performance varied on two different types of tasks requiring academic skills. Adam's performance is advanced on tasks requiring knowledge of how to perform mathematical computations (when there are no time limits). His performance is very limited on spelling tasks.

Academic Applications is an aggregate measure of reading, writing, and math tasks that requires application of academic skills to typical academic problems. Although Adam's academic applications standard score is within the low average range, his performance varied on two different types of tasks requiring academic applications. Adam's performance is average on tasks requiring the ability to analyze and solve applied mathematics problems. His performance is limited on tasks requiring the ability to use syntactic and semantic cues in comprehending written discourse.

Academic Fluency is an overall index of academic fluency with reading, math, and writing tasks. Although Adam's academic fluency standard score is within the average range, his performance varied on two different types of tasks requiring academic fluency. Adam's performance is advanced on tasks requiring speed and accuracy when performing basic arithmetic operations. His performance is limited on tasks requiring the ability to rapidly create and write short sentences.

Academic Knowledge is a sample of Adam's knowledge in the sciences, history, geography, government, economics, art, music, and literature. Adam's academic knowledge is comparable to that of the average individual at age 9-8. His academic knowledge standard score is in the average range (percentile rank of 59; standard score of 104). His acquired knowledge in the sciences, social studies, and humanities is average (RPI of 93/90).

Phoneme-Grapheme Knowledge is a measure of Adam's proficiency with phonic generalizations and his knowledge of common orthographic patterns. Adam's phoneme/grapheme knowledge is comparable to that of the average individual at age 7-4. His phoneme-grapheme knowledge standard score is in the low average range (percentile rank of 14; standard score of 84). His ability to apply both phonic and orthographic knowledge is average (RPI of 61/90).

Achievement Tests

Letter-Word Identification measured Adam's ability to read isolated words aloud. Adam's performance on Letter-Word Identification is comparable to that of the average individual at age 7-4. His Letter-Word Identification standard score is in the low average range (percentile rank of 11; standard score of 81). His ability to recognize or decode words in isolation is very limited (RPI of 18/90); word identification skills above the 7-8 level will be quite difficult for him.

Applied Problems is a test of mathematics achievement that required Adam to analyze and solve practical problems in mathematics. Adam's performance on Applied Problems is comparable to that of the average

individual at age 9-4. His Applied Problems standard score is in the average range (percentile rank of 54; standard score of 102). His ability to solve applied mathematics problems is average (RPI of 92/90).

Spelling measured Adam's ability to write orally-presented words correctly. Adam's performance on Spelling is comparable to that of the average individual at age 7-1. His Spelling standard score is in the low range (percentile rank of 7; standard score of 77). His spelling ability is very limited (RPI of 20/90); spelling tasks above the 7-7 level will be quite difficult for him.

Passage Comprehension measured Adam's ability to understand written discourse. The items required Adam to read a short passage and identify a missing key word that made sense in the context of the passage. Adam's performance on Passage Comprehension is comparable to that of the average individual at age 7-4. His Passage Comprehension standard score is in the low average range (percentile rank of 11; standard score of 82). His ability to understand written discourse is limited (RPI of 39/90); tasks requiring comprehension when reading above the 7-10 level will be quite difficult for him.

Calculation measured Adam's ability to perform mathematical computations. Adam's performance on Calculation is comparable to that of the average individual at age 11-2. His Calculation standard score is in the high average range (percentile rank of 87; standard score of 117). His computational skill is advanced (RPI of 99/90); math calculation tasks below the 10-1 level will be quite easy for him.

Writing Samples provided a rating of Adam's quality of written expression in sentence construction. Adam's performance on Writing Samples is comparable to that of the average individual at age 7-5. His Writing Samples standard score is in the low average range (percentile rank of 22; standard score of 89). His ability to write meaningful sentences is limited (RPI of 55/90); tasks requiring putting his ideas into writing above the 8-2 level will be quite difficult for him.

Word Attack measured Adam's skill in applying phonic and structural analysis skills to the pronunciation of unfamiliar nonwords. Adam's performance on Word Attack is comparable to that of the average individual at age 7-6. His Word Attack standard score is in the low average range (percentile rank of 18; standard score of 86). His ability to read phonically regular nonwords is limited (RPI of 63/90); tasks requiring accurate pronunciation of unknown words above the 8-5 level will be quite difficult for him.

Oral Reading is a measure of oral sentence reading fluency. Adam's oral reading skills are comparable to those of the average individual at age 7-0. His Oral Reading standard score is in the low average range (percentile rank of 11; standard score of 82). His ability to read connected text orally is limited (RPI of 40/90); tasks requiring reading connected text aloud above the 7-7 level will be quite difficult for him.

Sentence Reading Fluency measured Adam's ability to quickly read and comprehend sentences. In this timed test, Adam was required to indicate whether each sentence was true or false. Adam's performance on Sentence Reading Fluency is comparable to that of the average individual at age 7-3. His Sentence Reading Fluency standard score is in the low average range (percentile rank of 11; standard score of 82). His ability to quickly read and comprehend sentences is very limited (RPI of 4/90); tasks requiring sentence reading speed and comprehension above the 7-7 level will be quite difficult for him.

Math Facts Fluency measured Adam's ability to quickly solve simple addition, subtraction, and multiplication problems. Adam's performance on Math Facts Fluency is comparable to that of the average individual at age 11-3. His Math Facts Fluency standard score is in the high average range (percentile rank of 82; standard score of 114). His ability to quickly solve basic math facts is advanced (RPI of 99/90); speeded math facts tasks below the 10-3 level will be quite easy for him.

Sentence Writing Fluency measured Adam’s fluency for quickly formulating and writing simple sentences. Adam's performance on Sentence Writing Fluency is comparable to that of the average individual at age 7-4. His Sentence Writing Fluency standard score is in the low average range (percentile rank of 11; standard score of 82). His sentence construction fluency is limited (RPI of 55/90); speeded writing tasks above the 8-2 level will be quite difficult for him.

Reading Recall measured Adam’s ability to read a short story silently and then reconstruct the story from memory. Adam's performance on Reading Recall is comparable to that of the average individual at age 7-3. His Reading Recall standard score is in the low average range (percentile rank of 14; standard score of 84). His ability to read a passage, form a mental representation of the story, and reconstruct the story elements is limited (RPI of 63/90); tasks requiring reading comprehension and retelling above the 8-3 level will be quite difficult for him.

Number Matrices is a test of mathematics problem solving. This test required Adam to supply the missing number that simultaneously completed two or more sequences of numbers. Adam's performance on Number Matrices is comparable to that of the average individual at age 11-2. His Number Matrices standard score is in the high average range (percentile rank of 81; standard score of 113). His ability to analyze complex relationships among numbers is advanced (RPI of 98/90); number matrix and pattern recognition tasks below the 9-8 level will be quite easy for him.

Editing measured Adam’s skill in identifying and correcting errors in written passages, such as incorrect punctuation or capitalization, inappropriate word usage, or misspellings. Adam's performance on Editing is comparable to that of the average individual at age 7-5. His Editing standard score is in the low average range (percentile rank of 15; standard score of 84). His skill in identifying and correcting errors in written passages is limited (RPI of 50/90); editing tasks above the 8-2 level will be quite difficult for him.

Word Reading Fluency measured Adam’s reading vocabulary knowledge and fluency with word comparisons. Adam's performance on Word Reading Fluency is comparable to that of the average individual at age 7-3. His Word Reading Fluency standard score is in the low average range (percentile rank of 11; standard score of 82). His ability to quickly identify words that belong to the same semantic category is very limited (RPI of 4/90); tasks requiring rapid comparisons among words above the 7-7 level will be quite difficult for him.

Spelling of Sounds is a measure of Adam’s spelling ability, particularly phonological and orthographical coding skills. This test required him to spell letter combinations that are regularly used in English. Adam's performance on Spelling of Sounds is comparable to that of the average individual at age 7-2. His Spelling of Sounds standard score is in the low average range (percentile rank of 12; standard score of 82). His ability to spell nonwords is limited (RPI of 59/90); tasks requiring the ability to spell unknown words above the 8-2 level will be quite difficult for him.

Science measured Adam’s knowledge of a broad array of the natural sciences, such as human anatomy, biology, chemistry, geology, medicine, and physics. Adam's science knowledge is comparable to that of the average individual at age 9-10. His Science standard score is in the average range (percentile rank of 61; standard score of 104). His basic science knowledge is average (RPI of 94/90).

Social Studies measured Adam’s knowledge of the social sciences, such as history, economics, geography, government, and psychology. Adam's social studies knowledge is comparable to that of the average individual at age 9-6. His Social Studies standard score is in the average range (percentile rank of 56; standard score of 102). His fundamental social science knowledge is average (RPI of 92/90).

Humanities measured Adam’s knowledge of art, music, and literature. Adam's knowledge of art, music, and literature is comparable to that of the average individual at age 9-7. His Humanities standard score is in the average range (percentile rank of 57; standard score of 103). His knowledge of art, music, and literature is average (RPI of 92/90).

