

**NAME:** Adam W.  
**BIRTHDATE:** 12/14/2008  
**AGE:** 4 yr, 5 mo, 28 d  
**GENDER:** male  
**DATE OF EXAMINATION:** 6/11/2013

**EXAMINER:** Lark West  
**PRIMARY LANGUAGE:** English  
**OTHER LANGUAGE SPOKEN IN THE HOME:** none  
**SCHOOL:** Marigold PreSchool  
**GRADE:** preschool

## **REASON FOR REFERRAL**

Adam, a 4-year, 5-month, old boy, was evaluated to complete a course requirement so that the examiner could gain experience in test administration, scoring, and interpretation.

## **BACKGROUND INTERVIEW & CURRENT FUNCTIONING**

### **PARENT INTERVIEW**

Adam's initial background information and developmental history were obtained in an informal interview with Adam's mother and father prior to Adam's evaluation.

Adam, a four-year-old boy, attends Matigian PreSchool five mornings a week, from 9:00 to 11:30. Wednesdays and Thursdays he enjoys Lunch Bunch there from 11:30 to 12:30. He is also in, or has been in the past: Gymnastics, Music, and Dance classes. He loves Sunday School, books, bowling and golfing with his father (Daddy got Adam his own set of clubs and bowling ball), traveling (by plane, train, and automobile), bugs, and "a whole lot more".

Adam lives with his mother and father. Mr. and Mrs. W. report that Adam has always gotten lots of positive attention and love from them, family members in the area, neighbors, and friends. Adam enjoys going to school and outside activities. He likes playing outdoors and has been riding a two-wheeler since early spring this year. He is "off the charts", taller than boys his own age. While he is highly social and cannot seem to grasp the notion of someone being "a stranger" as his parents have attempted to teach him, he has liked girls in particular from the time he could talk and walk. He does enjoy all people, likes to engage with them in many ways – from playing to talking or singing to speaking with 'strangers' he comes across. Adam's mother is a full-time mother/homemaker and his father has a home repair and construction business. Adam likes to go with his Daddy to work when he is invited because he likes to "be a worker". Both sets of Adam's grandparents, a great grandmother, two aunts, and an uncle live in the same village as Adam. Adam has a great deal of family time in his life as well. These family members and some of his parent's closest friends were at Adam's birth. (His parents, the doctor, a doula, and both grandmother's were the only ones present during the actual 20 minutes of delivery; the others were down the hall and then immediately afterward.)

According to his parents, Adam's early developmental history is unremarkable – except for his size and that he reached progressive milestones "quicker than his peers". He has stayed in bed, not getting up, for bed- and naptimes since he was tiny. If he needs something, he will call out, but he usually simply entertains himself until he drifts to sleep. He does well in school, but

wishes he could read now. He thinks he can speak Spanish and rattles off conversations sometimes that are fluid nonsense with words like “casa, uno, gracias, ola” in the mix.

Adam’s health history is unremarkable, and he is currently reported to be in good health. He does not wear glasses or have hearing difficulties.

## **ASSESSMENT INSTRUMENTS**

The psycho educational evaluation consisted of:

- An informal interview with Adam’s parents
- An informal interview with Adam
- Administration of Transdisciplinary Play-Based Assessment (TPBA)
- Administration of the *Kaufman Assessment Battery for Children, Second Edition* (KABC-II)

*In a Real World situation, it would also include things like Review of Records, Academic History, Teacher Interview, and Classroom Observation.*

*Text in italics is notes to Dr. Renee only, for the purposes of this class.*

## **BEHAVIORAL OBSERATIONS DURING TESTING**

A while after interviewing Adam’s parents, the remainder of the evaluation took one session, several days later. During testing, Adam was appropriately groomed and healthy. His attention was always on the task at hand. He responded quickly, with few exceptions, to questions asked of him and spoke only now and then with the examiner in a more spontaneous manner. The few times this occurred, were at the end of a couple of the tests (Rebus in particular and also Atlantis) when he expressed that he “wanted more”. When he was told there wasn’t any more, he wanted to do it again, *which was not done during the testing*. Given this, test results appear to be an accurate representation of his ability.

## **INFORMAL INTERVIEW**

Adam was joyfully anxious to begin; he was very excited about “*helping Ms. Lark do her homework.*” He answered questions presented to him. Some of his favorite things were going to the beach, riding his scooter and bike, playing with neighbor friend Brady, going to school, and golfing and bowling with Daddy. He said he is going to marry Mommy when he grows up and that Daddy is the best worker, golfer, and bowler in the whole wide world. When he grows up, he wants to be “everything.” He says he knows magic. His Daddy is a magician. Adam made a nickel disappear and end up in my ear. He was not bad, but he needs more work on his magic.

## **Sensorimotor, Emotional & Social, Communication, and Cognitive Development Assessment**

Linder’s Transdisciplinary Play-Based Assessment (TPBA) was conducted. TPBA creates a dynamic and accurate snapshot of a child. It uses collaborative observation of a child genuinely playing to assess cognitive development, language and communication development and hearing,

emotional and social development, and sensorimotor development and vision. It is positive and authentic, in that the Adam can be observed in natural surroundings doing things he likes to do. TPBA is a collaborative effort because it involves teamwork - parents and professionals in partnership. The assessment was conducted in his grandmother’s living room, with the exception of snacks in his kitchen, and motor play outside.

*[Dr. Renee, while this team would typically include the parent and at least three people (another child and professionals such as a teacher, speech-language pathologist, physical or occupational therapist), in this case only this student and the child’s Aunt Mae were available; therefore we were not able to have other observers or someone to video. Mae interacted with Adam while I watched and jotted observations. This was not the ideal but all right under the circumstances.]*

<b>Phase</b>	<b>Duration</b>	<b>Toys &amp; Materials Used</b>
1 <sup>st</sup> Unstructured Facilitation	20 min	Books, a doll, a teddy bear, a stuffed lamb, coloring book, spiral notebook, and crayons
2 <sup>nd</sup> Structured Facilitation	15 min	Jack-in-the-box, blocks, and digital blood pressure gauge
3 <sup>rd</sup> Child-Child Interaction	n/a	n/a
4 <sup>th</sup> Child-Parent Interaction	n/a	n/a
5 <sup>th</sup> Motor Play Unstructured & Structured	15 min...	Rocks and a huge boulder; kick scooters
Snack	15 min	Orange juice and chips and hummus

**Unstructured Facilitation**

A child’s toy box filled with toys and a tub of children’s books from the library were in the living room. The collection in the box included sensory materials, construction toys, manipulatives, art supplies, a variety of dramatic play items, and fine and gross motor toys. Adam was allowed to freely play, while his Aunt Mae and this examiner sat nearby observing and noting things on Cognitive/Language, Social-Emotional, Self-Help, Fine and Gross Motor grids sheets. Mae had been informed about how to behave during the structured facilitation portion - saying and doing nothing except to possibly imitate, taking turns or modeling where appropriate, to use open-ended questions when necessary, and to be positive and enthusiastic – following his lead. Rapport was not an issue; Adam and Mae are close.

*[Dr. Renee, the TPBA section is quite detailed. Would you recommend I simplify, reduce words, or leave as is? I chose to include details because the exercise is for my training purposes.]*

The TPBA process began by telling Adam that for 20 minutes he was going to have a “play time”, doing whatever he chose to do – although he must stay in the living room while he played and that Mae and I would just sit and watch. The first thing he did was open the toy box and take out a doll, exclaiming “Linda! What are you doing in my toy box! You’re not supposed to be in a box. Why aren’t you in your seat? Ms. Lark, can I go get Linda’s seat? Wait, never mind. Linda, you sit here.” He sat Linda on the loveseat, turned back to the box and took out a stuffed toy tiger and a lamb. “Ditto and Lambie, you stay here,” and sat them on either side of Linda. “Ms. Lark, where’d you get these books? Mae, are these your books?”

Adam next proceeded to take out a tub containing colors, a coloring book and spiral notebook. “Okay guys,” he said turning to the three on the love seat, “I’ve got work to do. You can read,” and set an open storybook in front of them. He then sat himself down on the floor, opened the spiral notebook, and wrote his name on the page. He then drew a picture of a spider, complete with eight legs – four on each side – and antenna on its head. “I know *this* book,” he said, taking *Love You Forever* from the box of books, “MaMa reads this to me.” He then sat himself on the loveseat and read *Love You Forever* to Diddo, Linda, and Lambie.

### **Structured Facilitation**

In this component of TPBA, Adam’s Aunt Mae interacted with Adam in a play situation. This phase complements first part of the observation and gives us a bigger picture of Adam. Mae was equally and directly was involved in the play.

Mae then got up, approached Adam, and began naturally and informally interact with him. The timing was perfect; Adam finished the last of *Love You Forever*. He got up, looked at Mae, and said something along the lines of, “You can play with me now, right?” He leaned into the toy box and took out his big doctor bag. He opened it, took out the tiny white ‘doctor/lab’ coat and put it on. He then took out his stethoscope (a genuine operational one) and said, “Mae, put these in your ears. I wanna show you something really, really cool.” Mae put the ends into her ears; Adam placed the sensor on his chest, “Hear? That’s my heart! Hear it thu thump thump thumping! Isn’t that *so* cool?” He then listened to her heart and my heart. He put the stethoscope on his neck, the way doctors do, and looked at Mae who was sitting on the floor, “Mae, let me take your temperature,” and he took out his big play thermometer, took her temperature, and then had her open her mouth and say “ahhhh” while he looked down her throat with a flashlight. “It looks icky but it is suppose to look like that. You’re fine. Now I’m gonna check something else.” He looked over at my reading area where I also happen to keep my digital blood pressure kit. [I take my BP every morning after I do morning readings; he has witnessed this in the past and has asked to be shown what I was doing and told why.] “Mee Mee, I need to use your blood thing, okay? I need to check Mae.” I said, “All right,” and he proceeded to strap the cuff on her upper arm as he told her she must relax and breathe and said, “This will feel really, really cool, Mae. Hold on.” He then pushed a button, inflated the cuff and watched the digital display. “One, one, seven. Seventy-two. Ms. Lark is that okay?” I told him it was just right, and he told Mae, “Yes, you are good.”

He then turned, leaned into the toy box, taking out his jack-in-the box. Next, he reached in and took out his bag of wooden blocks. “Mae, watch this,” he said and then sat down on the floor. He built a structure on top of the jack-in-the-box with the blocks and then cranked the crank. The music played, the crescendo built, and jack jumped up – scattering the blocks. Adam laughed.

“Okay guys, want to go outside and play?” I asked.

### **Motor Play, Unstructured**

The motor play sections were conducted outside, an enthusiastic choice of all involved. Adam was told before going outside that he could do whatever he wanted without leaving the yard. He responded with, “Yay! Let’s go!” He put on his shoes and led the way outside. As soon as he was out the front door, he looked at Mae and said, “Mae, watch this!” He ran around the corner, looking back to make sure we were following him before making the turn. He reached up and punched in the code to the garage door opener on the keypad next to the large garage door. (He had been told *once* before the four-digit code.)

The door opened and he stood there for a moment. He then got a medium-sized rubber ball, went back out to the driveway, and said, “Ms. Lark, remember when I loved when you did this when I was a baby?” He smiled and bounced the ball on the blacktop, punching it to the ground with his fist on its return bounce up so that it flew high in the sky. He did this only once, trying to catch it and missing. He chased the ball and returned it to where he found it in the garage.

He then looked at us and said, “Can Mae and I ride scooters?” This examiner replied, “that is possible but not yet. You have a couple of more minutes to play on your own first.” He said, “Okay,” and walked to a bed of rocks he’d collected earlier from a Lake Michigan beach, sat down and started making a cairn (stack of rocks, one on top of the other). He built it six high; it fell over when he added a seventh rock. He then climbed on a nearby huge boulder, said, “Watch, Mae!” and jumped off into the grass, turned around, and asked, “Can Mae and I ride scooters now?”

### **Motor Play, Structured**

Mae had not ridden a kick scooter before but wanted to ride this examiner’s adult kick scooter; Adam has one at his grandmother’s house and one at home. Adam and his grandmother have been riding kick scooters together with the “big kids gang” in the neighborhood since spring of last year.

Adam demonstrated to Mae how to kick, change sides kicking, and use the rear fender brake with her foot. He put on his helmet by himself, strapping it, as well as hand/wrist guards, and then asked Mae to help him put on his safety knee- and elbow-pads, which she did.

Adam grabbed his scooter and told Mae to follow him but to be very careful because she did not have on safety gear and that she must follow him exactly, and they would both have to always watch for cars. They took off, Adam in the lead, to go around the condominium complex circle.

**Snack**

When Adam and Mae concluded two loops around the circle, we all came inside to enjoy snacks – orange juice, hummus, and pita chips. It was a jovial time for all.

**Interpretation**

Given the information gathered during the TPBA, the following shows Adam’s estimated developmental age ranges. This was determined by comparing the perceptions collected with the Linder’s detailed age table depicting typical development for growth, month by month. The table goes up to only age five; therefore, Adam’s age range is give as over five. How high it actually is, further testing will be needed to determine.

<b>Area</b>	<b>Estimated Age Range</b>
Cognitive .....	over 5 years old
Fine Motor .....	over 5 years old
Gross Motor.....	over 5 years old
Language: Expressive .....	over 5 years old
Language: Receptive .....	over 5 years old
Self-Help.....	over 5 years old
Sensorimotor .....	over 5 years old
Social-Emotional .....	over 5 years old

**COGNITIVE FUNCTIONING AND PROCESSING SKILLS**

The *Kaufman Assessment Battery for Children, Second Edition* (KABC-II) measures global intellectual functioning which considers a range of abilities including simultaneous and sequential processing, reasoning, learning, and crystallized ability.

**Definitions of the Scales & What is Measured**

**Sequential/Gsm:** Short Term Memory (*Gsm*) is the broad ability needed to respond appropriately, an ability that requires apprehending and holding information in immediate awareness briefly and then using that information within a few seconds, before it is forgotten.

**Simultaneous/Gv:** Visual Processing (*Gv*) is the broad ability that allows one to perceive, manipulate, and think with visual patterns and stimuli, and to mentally rotate objects in space. To measure *Gv*, the student is presented with a problem that includes often-complex visual stimuli and requires some type of spatial manipulation and nonverbal reasoning to solve correctly.

**Learning/Glr:** Long-term Storage and Retrieval (*Glr*) is the broad ability both to store information in long-term memory and to retrieve that information fluently and efficiently.

**Knowledge/Gc:** Crystallized Ability (*Gc*) reflects the amount of specific knowledge that a person has acquired within a culture, as well as the person’s ability to apply this knowledge effectively. *Gc* accesses the breadth and depth of the specific information that has been stored. To measure *Gc*, the student is asked a variety of questions that assess knowledge of words and facts using a variety of verbal and pictorial stimuli.

**Global Scale**

**Fluid-Crystallized Index (FCI):** The FCI measures the general cognitive ability of the student and is derived from the scales discussed above.

**Kaufman Assessment Battery for Children, Second Edition (KABC-II)**

The KABC-II is comprised of subtests that measure a variety of cognitive abilities. Although the subtests measure some discrete domains of cognitive functioning, a variety of cognitive abilities are required to complete each task. The results of the KABC-II provide a FCI score that is considered to be the score most representative of general intellectual functioning. Average standard scores range from 85-115 and Average subscale scores (Scale Scores) range from 7-13.

Subtests	Scales Scores	Subtests	Scales Scores
<b>Long-Term Storage &amp; Retrieval (Learning/Glr)</b>			
Atlantis	19	<b>Crystallized Ability (Knowledge/Gc)</b>	
Rebus	19	Expressive Vocabulary	16
		Riddles	16
<b>Short-Term Memory (Sequential/Gv)</b>			
Number Recall	14	<b>Visual Processing (Simultaneous/Gv)</b>	
Word Order	17	Conceptual Thinking	18
Hand Movements	18	Triangles	17
		Gestalt Closure	12
		Face Recognition	12

Indexes	IQ/Index Score	Percentile Rank	95% Confidence	
			Interval	Descriptive Category
Sequential (Gsm)	134	99	124-140	Upper Extreme
Simultaneous (Gv)	138	99	126-146	Upper Extreme
Learning (Glr)	160	100	148-166	Upper Extreme
Knowledge (Gc)	135	99	125-143	Upper Extreme
Fluid-Crystallized Intelligence (FCI)	142	100	146-158	Upper Extreme

The FCI is comparable to a Full Scale IQ score. On the KABC-II, Adam achieved a FCI of **153**, which classifies his overall performance in the upper extreme range of intellectual abilities. The scores are returned with a 95% level of confidence, which indicates that 95 times out of 100 his "true" score will be between 146 and 158. His overall performance was ranked at the 100th

percentile, which indicated that out of 100 peers of the same age, Adam scored as well as or better than all his age.

In this examination of scores between individual indexes on the KABC-II, it was shown that Adam has these outstanding strengths:

- Crystallized Ability: the breadth and depth of knowledge acquired from his culture
- Visual Processing: perceiving, storage, manipulating, and thinking with visual patterns
- Long-Term Storage and Retrieval: storing and efficiently retrieving newly learned or previously learned information
- Short-Term memory: taking in and holding information, and then using it within a few seconds

Because the variability of performance across index scores is too great to be summarized in a single score, the analysis for each sub-test follows.

### **SEQUENTIAL INDEX**

Within the **Sequential Index**, which measures short-term memory and sequential processing, are three sub-tests primarily assessing the broad ability needed to respond appropriately, an ability that requires apprehending and holding information in immediate awareness briefly and then using that information within a few seconds, before it is forgotten. Adam's **Sequential Index** score was 134, which places him in the Upper Extreme range of ability. Adam's subtest scores ranged from 14 to 17 with a mean of 15.5.

Within this Index, Adam was asked to repeat a series of numbers in the same sequence in which they were spoken to him (**Number Recall**), point to pictures of words in the same sequence in which they were spoken to him (**Word Order**) and repeat a series of hand movements demonstrated to him (**Hand Movements**). Adam scored in the Upper Extreme range on **Number Recall** task (14), which measures his sequential processing and short-term memory within the auditory-vocal modality. He scored in the Upper Extreme range on the **Word Order** task (17), which measures his sequential processing and short-term memory within the auditory-motor modality. Adam also scored Upper Extreme on the **Hand Movements** task (18), which measures his sequential processing and short-term memory within the visual/motor modality. He seemed to put good effort into these subtests. The results from the **Sequential Index** suggested that Adam's short-term memory and sequential processing skills are a personal strength.

### **SIMULTANEOUS INDEX**

The **Simultaneous Index** measures visual processing, primarily assessing the broad ability that allows one to perceive, manipulate, and think with visual patterns and stimuli, and to mentally rotate objects in space. To measure visual processing, the student is presented with a problem that includes often-complex visual stimuli and requires some type of spatial manipulation and nonverbal reasoning to solve correctly. The subtests within this Index principally assess visual perception, attentiveness to visual detail, spatial processing, and visual-motor skills. Adam's



**Simultaneous Index** score was 138, which places his in the Upper Extreme range of ability. Adam's subtest scores ranged from 12-18 with a mean of 15.

Each subtest measures simultaneous or visual processing from a different angle. Adam was instructed to arrange flat shapes of various sizes and colors to match a model or picture (**Triangles**), which measures visual construction ability and understanding of spatial relationships. Adam was to determine an underlying theme among pictures (**Conceptual Thinking**), which is a non-verbal indicator of reasoning in which the child demonstrates classification ability. He was shown partially completed "inkblot" drawings and was to name or identify the object pictured (**Gestalt Closure**), an indicator of simultaneous or visual processing in which the child synthesizes disconnected visual stimuli into a single meaningful image. Adam was also shown picture of one or two faces and when next shown a picture of a group of people, he was to point to the face(s) that were shown (**Face Recognition**), which measures short-term visual memory and visual processing. Adam scored in the Upper Extreme range on all four tasks: **Triangles** (17), **Conceptual Thinking** (18), **Gestalt Closure** (12), and **Face Recognition** (12). He seemed to put good effort into these subtests. The results from the **Simultaneous Index** suggested that Adam's **Visual Processing** skills are in the Upper Extreme range, another personal strength.

## **LEARNING INDEX**

The **Learning Index** measures long-term storage and retrieval, and primarily assessing the broad ability both to store information in long-term memory and to retrieve that information fluently and efficiently. Adam's **Learning Index** score was 160, which places his in the Upper Extreme range of ability. His subtest scores ranged from 19 to 19 with a mean of 19.

Within this Index, are four subtests, each measuring the ability to learn new information in specific ways. Adam was taught the nonsense names of pictures of imaginary fish, plants, and hells. He was then to point to the correct picture when the examiner said a name (**Atlantis**). This measured the ability to learn new information, specifically associations between pictures and nonsense names. Adam was taught the names of simple figures, called rebuses. He the "read" sequences of rebuses that form meaningful phrases or sentences, measuring the ability to learn new information, specifically symbols and words (**Rebus**). Adam scored in the Upper Extreme range on all both tasks: **Atlantis** (19), **Rebus** (19). Again, he seemed to put good effort into these subtests. The results from the **Learning Index** suggested that Adam's visual processing skills are a personal strength. Overall, he is performing far above his peers in **Long-Term Storage and Retrieval** tasks.

## **KNOWLEDGE INDEX**

The **Knowledge Index**, a measure of **Crystallized Ability**, reflects the amount of specific knowledge that a person has acquired within a culture, as well as the person's ability to apply this knowledge effectively. **Crystallized Ability** accesses the breadth and depth of the specific information that has been stored. To measure **Crystallized Ability**, the student is asked a variety of questions that assess knowledge of words and facts using a variety of verbal and pictorial stimuli. Adam's **Knowledge Index** score was 135, which places his in the Upper Extreme range of ability. His subtest scores ranged from 16 to 16 with a mean of 16.

Within this Index, Adam was asked to look at an illustration of an object and say its name (**Expressive Vocabulary**), listen to a verbal riddle and then point to the picture or say the word that answers the riddle (**Riddles**), and after the examiner says a vocabulary or general information prompt, the child points to the picture that illustrates the answer (**Verbal Knowledge**). Adam scored in the Upper Extreme range on **Expressive Vocabulary** task (16), which draws on the child's expressive skills to measure knowledge or crystallized ability. He scored in the Upper Extreme range on the **Riddles** task (16), which is a measure of verbal comprehension, verbal reasoning, and word retrieval. He seemed to put good effort into these subtests. The results from the **Knowledge Index** suggested that Adam's Crystallized abilities are a personal strength. Overall, he is performing in the Upper Extreme range, far beyond his peers in **Crystallized Ability**.

### **SUMMARY**

Adam was referred for testing in order to answer the following question:

Adam was referred for continued assessment practice.

Data obtained from the administration of the KABC-II suggests that Adam demonstrates functioning across the various cognitive domains that were evaluated in the Upper Extreme range. This was demonstrated solidly across the board. His sensorimotor, emotional and social, communication, and cognitive development is beyond that of his chronological age, five-plus years, at least.

### **EDUCATIONAL IMPLICATIONS**

Based on the results from the administration of the TPBA and KABC-II for Adam, it appears that he is on solid ground. As long as Adam's opportunities for learning are available, his crystallized intelligence can increase indefinitely during his life.

Adam is psychologically, socially, academically, and developmentally doing extremely well.