# Individualized Educational Psychology, Inc.

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# **Independent Educational Evaluation**

for

Coco Hepturn Class of 2022



attending

# Terrier High School Canine Unified School District

Compiled by: Dr. Jerry Turner Licensed Educational Psychologist (#2966) Consulting Psychologist (American Psychological Association) www.DrJerryTurner.com

This brief work aims to bring together the facets of Coco and to state them, as it were, dogmatically – in the most concise form and the most unequivocal terms. Its intention is naturally not to compel belief nor to arouse conviction, but to provide insight.

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# **Independent Educational Evaluation**

Name <sup>:</sup>	Coco Hepturn
School:	Terrier High School
Date:	11/2/2019

**DOB**: 12/4/2004 **Grade**: 10 Age: 14-yr 11-mo. Gender: Male

#### **REASON FOR EVALUATION**

#### Initial

Coco is a 14-year 11-month old student enrolled at Terrier High School. Coco was referred for an Independent Education Evaluation (IEE) after the district's assessment of 12/13/2019. Parents disagreed with district's findings. Concerns include academic progress (especially in math) and impact of ADHD on educational progress. This IEE intends to assist the IEP team's determination of qualification for individualized educational services.

#### Records Review

The district's 12/13/2018 IEP indicates "Student does not meet the criteria as a student with a disability requiring services and supports unavailable under general education."

#### **CONTRIBUTORS**

Licensed Educational Psychologist	Dr. Turner
General Education Teachers	E. Bulldog,
School Psychologist	I. Wolfhoun
Parents	L. Hepturn
Student	Coco Heptu
Records Review	All availabl

Dr. Turner (#2966) E. Bulldog, S. Spaniel, G. Retriever I. Wolfhound L. Hepturn Coco Hepturn All available school records

# **BACKGROUND INFORMATION REVIEW**

Coco's primary language, racial, and ethnic background are considered before interpretation of evaluation procedures and measures. Assessments measure a limited sample of a person's entire repertoire. Information in this section was obtained from school records, prior assessments, student, and parent interviews.

Primary Language: English Learner Ethnicity: Canine Source: School Records



# HEALTH/DEVELOPMENTAL/MEDICAL HISTORY

School records and parental input are primary sources for data on early childhood development and current medical condition. Information in this area addresses developmental milestones; any significant childhood ailments; significant injuries, especially to the head; recent diagnosis; and significant diagnosis of close family members.

# Parent Input (Woodcock-Johnson Parent Checklist)

Lalo Hepturn, Coco's father, provided the following information. Coco lives with his mother and father, along with one other dog, aged 17. English is not the only language spoken in his home. There have been no significant changes in Coco's family life recently.

According to his father, Coco is generally in good health. Mr. Hepturn reported Coco's vision is normal, but Coco has not had a recent vision test. Mr. Hepturn reported Coco's hearing is normal, but Coco has not had a recent hearing test. At night, Coco typically sleeps soundly for 8 or 9 hours. He often complains about not feeling well (headache and wants to vomit). Another member of Coco's family has recently experienced a problem that may be relevant (father).

During pregnancy, Coco's mother had no significant health problems. Coco's delivery was normal. Immediately after birth, Coco was healthy.

Coco's father remembers Coco as an active, playful, and calm infant and toddler. His early motor skills, such as sitting up, crawling, and learning to walk, developed normally. His early language development, such as first words, asking simple questions, and talking in sentences seemed to be typical.

Coco attended preschool, beginning at age 4. His preschool cognitive development and social skills progressed normally. No atypical behavior management problems were recalled.

Mr. Hepturn believes Coco has learning problems (especially understanding) and has been concerned about this for about three (3) years.

At the time of this assessment, Mr. Hepturn described Coco as unmotivated, argumentative, and stubborn. (These descriptions are based on Mr. Hepturn's observations of Coco over the previous year.) Coco's mood is typical of others his age. He often fidgets with his hands or feet, or squirms. He often has difficulty playing quietly. Coco's social interaction skills are typical for boys his age. Mr. Hepturn said Coco likes some things about school but dislikes other things; his level of effort toward schoolwork varies.

Some things Mr. Hepturn reported may be significant. Coco seems to have difficulty organizing and sustaining attention during his tasks. He often does not seem to listen when spoken to directly. He often avoids, dislikes, or is reluctant to engage in tasks that are difficult for him. Coco is often easily distracted; he forgets chores he is supposed to do and loses his personal belongings.



Mr. Hepturn reported Coco demonstrates serious problem behaviors at home; these include inattentiveness (very easily distracted) and uncooperative behavior (when to do things). He demonstrates slightly serious impulsiveness (taking things not his) and anxiousness (claims he is not feeling well due to stomachaches).

#### Record Review

The district's 12/13/2018 IEP indicated, "Health: Coco appears to be in adequate health, however he wears glasses. Nursing Services as needed to monitor student's health"

# EDUCATIONAL RECORDS REVIEW

The following is a review of Coco's cumulative school record and special education records (if any). Specific information addressed includes: prior interventions and qualifications for special education, if any; school attendance; report card grades and teacher comments; discipline information; and schools attended.

# Individualized Educational Plan

Coco was found not to qualify for an IEP on 12/13/2018. However, he has a 504 plan due to ADHD.

### Parent Input (BRIEF-2)

Coco's parent reported the following academic characteristics on the Behavior Rating Inventory of Executive Function (BRIEF-2):

Resists or has trouble accepting a different way to	
solve a problem with schoolwork,	often
Does not plan for school assignments,	often
Makes careless errors,	often
Has trouble concentrating on tasks, schoolwork,	often
Struggles to get good ideas on paper.	sometimes
Makes careless errors, Has trouble concentrating on tasks, schoolwork, Struggles to get good ideas on paper.	often often sometimes

# Student Interview

Coco was interviewed on 10/4/2019 by Dr. Jerry Turner and provided the following information:

Coco is frustrated with his math teacher. "She does not do my 504 interventions," he complained. He further elaborated he struggles in math class, it is his least favorite subject. He feels the teacher is teaching too fast. Coco took no ownership of his math difficulty instead he blamed the teacher and the failure of the 504 plan. His latest progress reports shows a "D" in math (his lowest grade).

Coco does not play a sport reporting, "It's too competitive." He reports getting along good with his family which includes one sister age 17. Unprompted he added information about his mother's recent surgery and his sister's illness which required him to do all the chores.

He is currently not dating but is open to dating. He has a clear career plan which include attending Cal Poly and becoming a cattle farmer.

# Current Grades

The district emailed the following progress report on 11/1/2019:

Class Summary							
	Per	Course		Room	Gradebook	Mark	Missing Assignment
	1	Biology		306	Period 1-Ag <u>Academy Biology</u> <u>- Fall</u>	C (76.1%)	3
	2	Modern Wld His		120	<u>Modern Wld His -</u> <u>Fall</u>	C (73.7%)	0
	3	PE 2		701	<u>PE 2 - Fall</u>	A- (90.7%)	0
	4	English 2		905	<u>Period 4-English 2</u> - Year	C (74.2%)	0
	5	INT Math 2/ICT		904	<u>INT Math 2/ICT -</u> Fall	D- (60.0%)	2
	б	Stu Skls 10		613	<u>Stu Skis - Year</u>	P (80.0%)	0

# VISION AND HEARING

*This section reports the student's latest vision and hearing screening conducted by the school or information provided by the parent.* 

# Findings

# Parent Input

Coco's vision is normal, but Coco has not had a recent vision test. Mr. Hepturn reported that Coco's hearing is normal, but Coco has not had a recent hearing test.



## Record Review

The district's 12/13/2018 IEP indicated Coco passed his vision and hearing screening on 10/23/2018. "He wears glasses at home."

# LANGUAGE

This section is a general language observation made during assessments combined with input from teachers and parent(s). This observation looks for: appropriate volume, tone, and cadence; use of sentences; give and take communication ability; and essential intelligibility. Language is used to describe concepts, understand information, and communicate ideas.

### Findings

### **Observations**

According to school records, English is Coco's primary language. Coco enrolled in a dual language program during first grade and continued this program through sixth grade. During ninth and tenth grade Coco enrolled in Dogish language classes and obtained average grades. English is the only language spoken in the home. Coco stated that he prefers communicating in English.

### Records Review

The district's 12/13/2018 IEP indicated,

Communication Development: Coco is an English Language Learner exposed to both English and Dogish. A current speech and language assessment revealed Coco to have age appropriate speech and language skills. Coco is able to comprehend age appropriate messages spoken to him and he is able to communicate his thoughts and ideas in grammatically correct spoken sentences at the conversation level. Semantic skills are within normal limits. Pragmatic language/social language use is age appropriate. Speech articulation, speech fluency, and voice are all within normal limits.

# Ortiz Picture Vocabulary Acquisition Test (PVAT)

The test assesses the ability of a student (aged 2 years 6 months to 22 years 11 months) to comprehend the meaning of spoken English words (i.e., receptive vocabulary).

Coco obtained a standard score of **98**, which is in the **average** range.

Primary Language: Dogish Dominant Language: English

# **ORIENTATION/MOBILITY**

This section is an informational observation and assessment of the student's ability to move about his environment. Occupational Therapists and Adaptive Physical Education Coaches conduct assessments in the area of orientation and mobility. This section provides a general overview of the student's ability to move about the classroom and other spaces appropriately (i.e., without hitting objects); his ability to hold a pencil; his gait; and some fundamental hand-to-eye coordination (i.e., ability to throw or catch a ball).



Coco's neuromotor functions were demonstrated through effective controlling of the muscles of the body including larger muscles for playing games, smaller muscles for fine motor control in writing and coordinated muscular movement.

# Findings

# **Observations**

Coco was able to run and walk without assistance or difficulty. He participates in general physical education without modification or accommodations.

Coco uses an improper pencil grip he is supporting the pencil with his third finger in a fisting grip. This will increase writing fatigue and should be corrected immediately.

# Handwriting

Good penmanship has the following characteristics:

- *Letter forms* are recognizable out of context, with good proportion, consistent size, and appropriately capitalized;
- *Slant* is generally consistent;
- *Pattern* is easy, flowing, and even pressured (not too heavy or light);
- *Space* is characterized by lines that are reasonably straight; uncrowded letters, words, and lines; and relatively balanced margins;
- *General appearance* of the page is free of excessive strikeovers.



Coco's handwriting is less legible than expected. His sentences start with capital letters and end with punctuation. Many of his letters are not recognizable outside the context of the word/sentence.

# Records Review

The district's 12/13/2018 IEP indicated, "Gross/Fine Motor Development: Coco has adequate fine and gross motor skills as writing is legible and he is athletically capable."





# **TEACHER INPUT**

**E. Bulldog**, Coco's world history teacher, described Coco as happy, sociable, and caring. (This information, provided by Mr. Bulldog, represents his observations of Coco over the previous month). He said Coco needs less one-to-one attention and completes about as much schoolwork as other boys his age.

Mr. Bulldog reported certain characteristics that likely facilitate Coco's classroom performance. He usually attends to details in schoolwork and concentrates while working. He generally persists with difficult tasks. Coco always, or almost always, listens when spoken to directly.

Some reported behaviors may be inhibiting performance. At times, Coco responds too quickly to questions. He is easily distracted. When seated, Coco often fidgets with his hands or feet, or squirms in his seat. His social interaction skills are typical for boys his age.

Mr. Bulldog reported Coco demonstrates slightly serious uncooperative and withdrawn behaviors in the classroom (when wears headphones and only when he wears headphones). However, these behaviors are not disruptive. He demonstrates inattentive, overactive, impulsive, and anxious behaviors (notices other moments not to the point of distracting class; notices outside of movements; very rarely happens; and tap feet), but these were rated as neither serious nor disruptive.

Mr. Bulldog rated Coco's levels of oral expression, basic writing skill, and written expression as average.

Coco is being instructed at the grade 10 level in basic reading skills, reading comprehension, basic writing skills, and written expression.

**S. Spaniel**, Coco's math teacher, described Coco as obedient, sociable, and independent. (This information, provided by Ms. Spaniel, represents her observations of Coco over the previous month.) At school, Coco's mood is typical of others his age. She said that Coco needs about as much one-to-one attention, and completes about as much schoolwork, as other boys his age.

Ms. Spaniel reported a characteristic that likely facilitates Coco's classroom performance: Coco generally persists with difficult tasks.

One reported behavior may be inhibiting Coco's performance. Specifically, he frequently fails to give close attention to details or makes careless mistakes.

Coco's social interaction skills are typical for boys his age.

Ms. Spaniel rated Coco's levels of oral expression, listening comprehension, mathematics calculation, and mathematics reasoning as average.

Coco is being instructed at the grade 10 level in math calculation and math reasoning.

**G. Retriever**, Coco's biology teacher, described Coco as sociable and active, but also distractible. (This information, provided by Ms. Retriever, represents her observations of Coco over the previous month.) Coco is usually happy. She said Coco needs about as much one-to-one attention as other boys his age, but he completes less schoolwork.

Ms. Retriever reported a characteristic that likely facilitates Coco's classroom performance: Coco generally persists with difficult tasks.

In contrast, some reported behaviors may be inhibiting performance. Coco frequently fails to give close attention to details or makes careless mistakes. He seems to have difficulty organizing and sustaining attention during his tasks. At times, he responds too quickly to questions. Coco is easily distracted.

When seated, Coco often fidgets with his hands or feet, or squirms in his seat. He often talks excessively. His social interaction skills are typical for boys his age. Ms. Retriever's primary concern is the average amount of schoolwork that Coco completes; she believes this generally impairs Coco's classroom performance.

Ms. Retriever reported Coco demonstrates slightly serious impulsive behaviors in the classroom (sometimes will answer before question is finished). These behaviors are moderately disruptive. He demonstrates slightly serious inattentive behaviors in the classroom (will talk to others when directions are being given); these behaviors are slightly disruptive.

Ms. Retriever rated Coco's levels of oral expression, listening comprehension, basic writing skill, and written expression as average.

#### **CLASSROOM OBSERVATIONS**

During the classroom observation, a second observer (not the classroom teacher) observes the student's behavior and his interaction with peers and the teacher. This observation should be sufficient to reasonably address classroom behavior; the student's ability to relate to peers; and the student's ability to stay on task.

#### CLASSROOM OBSERVATION

The following was generated by the Woodcock-Johnson Classroom Observation software: Coco was observed in his Math class (Spaniel) on 10/30/2019. Irish Wolfhound was the observer. A small-group activity, one-to-one instruction, and individual activity (seatwork) were observed.

When compared to another male student who was identified as typical, Coco was observed as having the same number of off-task behaviors. During the 15-minute observation, Coco and the comparison student were each off-task 30 times.



According to Ms. Spaniel, his behavior during this observation was not typical for him because Coco used to sit in the back of class, but likes to daydream and not participate so she moved him to the front row.

# Math (Spaniel)

12:26 According to Ms. Spaniel, he is a very bright student and could probably do the work if he was in class every day. She reported Coco is in Fetching Things Club and it takes him away from the math class. He has missed eighty (8) math classes to date. Sometimes he is at school, but does not come to math class and does not make up the work. Ms. Spaniel reported Coco is missing three (3) weeks of work packets. When she asks for them, he tells her he will get them finished, but has not turned them in yet. Ms. Spaniel also reports, "Coco does not ask any questions when he is here." Ms. Spaniel feels Coco can do the work if he wanted to do it. Ms. Spaniel believes Coco chooses not to do math work.

Ms. Spaniel reports Coco daydreams sometimes and loses focus. She had to move him to the front of the classroom. She stated, "He can definitely do the math, he just chooses not to because he does not like it."

The class is reviewing work with partners. Ms. Spaniel asked students to see her if they have any questions and to bring the assignment to her after every two (2) problems are completed to be sure they are doing them correctly.

12:34 – The class is seated in theater style. Coco is in the front row. There are 22 students in class. Her class is calm, has soft music playing, and a diffuser. The school is smoky due to the fires.

 $12 \vdots 38$  – The students come one-by-one to show Ms. Spaniel the problems they completed. Coco has yet to go to Ms. Spaniel.

 $12{:}39$  - Coco is sitting at his desk, he appears to be working on math, consulting with students next to him.

 $12{:}41-{\rm Coco}$  took his math sheet to Ms. Spaniel to work on a problem. His process was correct, but he had minor errors.

12:43 – Coco goes to his desk and appears to be working. He is not working with a partner.

12:45 - Coco went to another student, asking him questions about the math. They are working on problems together.

12:48 - Coco walked to another student to work a math problem.

12:50 – Coco is still working on the problem with the other student, when another student comes and playfully bumps him, Coco smiles then goes back to working on the math problem. Coco is explaining to the other student why the answer is correct.

12:52 - Coco takes the sheet to Ms. Spaniel to see if it is correct. He takes it to the other student and shows him it is correct. The other student starts to copy the work, but Ms. Spaniel asked Coco to take it away from the student. She reminds the other student she can help him, but he needs to do the work himself.

12:54 - Coco goes to his table and continues to work.

12:56 - Coco works with students around the classroom.

12:58 - Coco takes his sheet again to Ms. Spaniel to check it and is doing well.

1:00 - Coco appears to be working on a problem with two female students.

 $1{:}03$  - A student goes over to Coco for help on a problem, Coco appears to be working with him figure out the math problem.

 $1{:}07{-}1{:}26$  - The class and Coco continue to work and review the math problems. He stays on task.

# ASSESSMENTS AND OBSERVATIONS

This section focuses on the results of new and prior assessments (if any). These assessments are standardized and nationally normed with strong validity and reliability. These assessments along with observation, teacher, and parent input will provide a description of Coco's cognitive and academic strengths and weaknesses. This information may also be used in consideration of Special Education qualification and development of individualized recommendations.

Under State and Federal guidelines, no single test or score will determine a student's eligibility. Test results are examined in conjunction with all available sources of information by the IEP team, including teachers, parents, specialists, and others. Assessments utilize formal and informal tools, observation, interviews, and file reviews.

Assessment procedures are selected so as not to discriminate by gender, culture, language, ethnicity or disability. Test results accurately reflect Coco's skills and abilities unless otherwise specified in the body of the report. Coco was assessed in all areas of suspected disability, and administered tests have demonstrated validity for the purposes in which they were utilized unless otherwise described in the body of the report.

The assessment results are derived from norm-referenced tests unless otherwise noted. Norm-referenced tests compare Coco's performance to that of his peers the same age and grade and indicate a ranking relative to the group. Typical scores used are percentiles, scale scores, standard scores, and age or grade equivalents. A percentile is a score that indicates Coco's rank compared to others using a hypothetical group of 100 students. A standard score indicates how far above or below the average a score falls using a standard distribution of scores. Standard scores also take into account the degree to which scores typically deviate from the average. The most common scale for standard scores uses 100 as the average and a standard deviation of 15 points. Scaled scores are measured on a



continuous scale with one scale point equating to 5 standard score points. A scale score provides greater precision in evaluating a student's proficiency when compared to others at the same level of proficiency. Age or grade equivalent scores indicate the student has attained the same score (not skills) as an average student of that age or grade.

Performance levels for all tests administered will be reported according to the following scale:

STANDARD SCORE	SCALED SCORE	PERCENTILE RANK	PERFORMANCE LEVEL
≥ 130	≥ 16	98-100	Upper Extreme
120-129	14-15	91-97	Well Above Average
110-119	12-13	76-90	Above Average
90-109	8-11	25-75	Average
80-89	6-7	10-24	Below Average
70-79	4-5	2-9	Well Below Average
< 70	< 1-3	< 2	Lower Extreme

# Findings

### Assessment Behavior

Coco was observed during individual testing with the school psychologist. He presented as a healthy individual. He is right-handed and was not wearing glasses. He was well groomed and neatly dressed. The evaluation was conducted in english. There was no apparent difficulty in Coco's understanding and responding to verbal communication. Speech was clear and understandable, and normal in rate and rhythm. Coco was immediately interactive and verbal with the examiner.

Coco was a friendly and cooperative student who willingly participated in the evaluation. Rapport was easily established during the assessment, as he maintained appropriate eye contact.

It appeared Coco put forth great effort and attempted all tasks to the best of his ability. Coco demonstrated persistent problem solving behaviors. He took his time, tried all options before giving an answer, and persevered through difficult tasks. Attention to the task at hand remained high throughout the assessment process. Overall, Coco appeared to work hard and try his best and it is believed the following results are a valid sample of his current functional levels.

# ACADEMICS

The following scores are based on a test, which was nationally normed. These scores compare Coco's academic abilities to those of other students his age across the nation. These scores reflect knowledge learned. They may or may not correlate to classroom grades because grades are based on more than the acquisition of knowledge. School grades incorporate, to one-degree or another, behavior, homework, class work, citizenship, etc. Therefore, grades are a better indication of a student's ability to function in the "real" world. They may represent social skills and level of social maturity. A failing grade may not be

*the result of low cognitive ability, a processing deficit, or ability to focus, but rather the result of learned behavior, low expectations, or a negative attitude toward school.* 

# Findings

# Academic Profile

The Woodcock-Johnson - IV administered by I. Wolfhound on 11/1/2019.



# Passage Comprehension

This section assessed Coco's cognitive processes of construction of propositional representations; integration of syntactic and semantic properties of printed words and sentences into a representation of the whole passage; inferential bridging. Coco obtained a score in the **average** range. Interventions to improve this skill include vocabulary enrichment, activating prior knowledge, use of graphic organizers, self-monitoring strategies, and memory and imagery strategies.

# Sentence Writing Fluency

This section assessed Coco's cognitive processes of automatic formation of constituent sentence structures requiring fluent access to semantic and syntactic knowledge. Coco obtained a score in the **average** range. Interventions to improve these skills include explicit instruction in the mechanics of writing, word, phrase, and sentence fluency-building activities, and frequent practice.

# Reading Fluency

This section assessed Coco's cognitive processes of speeded (automatic) semantic decision making requiring reading ability and generic knowledge. Coco obtained a score in the **average** range. Interventions to improve this skill include repeated reading, passage previewing, assisted reading, and practicing words in isolation.

# Letter Word Identification

This section assessed Coco's cognitive processes of feature detection and analysis (for letters) and recognition of visual word forms and/or phonological access to pronunciations associated with visual word forms (i.e., words may or may not be familiar). Coco obtained a score in the **average** range. Interventions to improve this skill include explicit, systematic, synthetic phonics instruction, word-recognition strategies (word walls, flow lists, word banks, and flashcards), repeated readings, teaching high-frequency words, and spelling-based decoding strategies.

# Applied Problems

This section assessed Coco's cognitive processes of construction of mental mathematics models via language comprehension, application of math knowledge, calculation skills, and/or quantitative reasoning, and the formation of insight. Coco obtained a score in the **average** range. Interventions to improve these skills include the use of pictures and diagrams, direct instruction, use of data-tables, and strategy instruction.

#### Spelling

This section assessed Coco's cognitive processes of access to and application of knowledge of orthography of word forms by mapping whole-word phonology onto whole-word orthography, by translating phonological segments into graphemic units, or by activating spellings of words from the semantic lexicon. Coco obtained a score in the **average** range. Interventions to improve these skills include use of multisensory techniques, explicit, systematic phonics instruction, direct instruction in spelling rules, providing frequent practice, teaching common irregular words, and encouraging independent reading to increase exposure to words in print.

#### Calculations

This section assessed Coco's knowledge of numbers and calculation procedures; verbal associations between numbers represented as strings of words. Coco obtained a score in the **well below average** range. Interventions to improve this skill include the use of manipulatives, sequential direct instruction, development of number sense, cover-copy-compare method, demonstration with verbalization, mnemonic strategies, peer-assisted tutoring, and concrete-representational-abstract teaching techniques.

#### Math Facts Fluency

This section assessed Coco's cognitive processes of automatic access to and application of digit-symbol arithmetic procedures (verbal associations between numbers represented).

Coco obtained a score in the **lower extreme** range. Interventions to improve these skills include development of number sense, math facts charts, and explicit timings.

# Record Review

The district's 12/13/2018 IEP reported similar math struggles noting,

According to results from the Kaufman Test of Educational Achievement-Ill (KTEA-III), Coco's math computation skills are equivalent to a student at the **4.9 grade level** (S.S.=81), 10:2 age equivalent(S.S 83) and math application skills are equivalent to a student at the 6.10 grade level (S.S.=93), 12:6 age equivalent(S.S 95).

According to results from the WIAT-111), Coco's numerical operations are equivalent to a student at the **7.8 grade level** (S.S.=91), 12:8 age equivalent math problem solving is equivalent to a student at the **6.4 grade level** (S.S. 88), 11:4:10 age equivalent

According to results from Woodcock Johnson, Coco's mathematics are equivalent to a student at the **5.7 grade level** (S.S. 86), age equivalent 11.1 (S.S. 87)

The district's IEP noted math performance several years behind his grade level. Coco was in the 9<sup>th</sup> grade when the above was recorded in the district's IEP which determined he did not qualify for an individualized education plan.

# HIGHER ORDER COGNITION

Assigning one value to Coco's intellectual ability is misleading at best and may ignore Coco's strengths and weaknesses. Cognition is the ability to understand abstract concepts and apply logical solutions to problems; to evaluate ideas and opinions; and generate original ideas. There are three basic learning styles: visual; verbal; and kinesthetic. Most people have one primary mode and learn best when material is processed in that mode. In addition, multi-mode presentation seems to aid the learning process for everyone regardless of learning style as long as one mode of presentation is in the person's primary style. In the recommendation section of this report there is a more descriptive explanation of learning styles; how they are manifested; and teaching techniques for each style.

#### Findings

Performance during formal testing did not appear to be adversely affected by failure or frustration. No adaptations or modifications to the standardized procedures were required. An excessive amount of reinforcement or praise was not required. Overall, the results of the present testing and evaluation procedures appear to be valid for the purpose of this referral. Eye contact appeared appropriate throughout the assessment session and overall task performance was satisfactory.

#### Cognitive Assessment System – Second Edition (CAS-2)

Administered by I. Wolfhound on 10/4/2019. The CAS-2 is a neuro-psychological assessment of cognitive processing, providing indications of strengths and weaknesses in the domains of Planning, Simultaneous, Attention, and Successive processing.

# Cognitive Profile



# Visual Motor Integration (VMI)

According to the Beery-Buktenica Developmental VMI manual, the VMI score is a strong indication of non-verbal intelligence. This is the ability to analyze information and solve problems using visual or hands-on reasoning. In other words, it is the ability to make sense of and act on the world without necessarily using words. Coco obtained a score of 109 on the VMI. This indicates Coco has **average** ability to reason out problems visually.

# Successive

Coco's performance indicates **average** ability in Successive processing. Successive processing, a mental process students use to put information in a specific order. In this process, incoming information is organized in order so the only connections are the links of one part to the next. This allows students to see how parts are sequenced. This process is important when it is necessary to keep information in its correct order. For instance, students who are good successive processors are usually able to follow verbal instructions well. Successive processing involves remembering information in order as well as the formation of sounds and movements in order. For this reason, Successive processing is highly involved with blending of sounds to form words as well as the syntax of language.

# Simultaneous Processing

Coco's performance on the Simultaneous Processing assessment was in the **average** range. Simultaneous Processing, the mental process a child uses to relate separate pieces of information into a group or see how parts are related to a whole. Usually Simultaneous Processing is seen in tasks that involve spatial skills like using blocks to build a design, doing geometry, seeing patterns in numbers, seeing a group of letters as a word, words as a whole, a sentence as part of a paragraph, and reading comprehension. The spatial aspect of Simultaneous processing includes perception of things as a whole and seeing patterns



among things. Simultaneous processing is involved in comprehension in that it requires the integration and understanding of word relationships, prepositions and inflections so a person can derive meaning based on the whole idea. Students good at Simultaneous processing easily get the "big picture" and the hidden meaning in information, in other words, "What does all of this information tell us about?"

### Planning

Coco's performance on the Planning assessment was in the **average** range. Planning, a mental process by which the individual determines, selects, applies, and evaluates solutions to problems. This includes: 1) selection of relevant information in the task, 2) selection of relevant prior knowledge, 3) initiation of a "way" or strategy to approach a task, 4) monitoring progress, and 5) developing new strategies when necessary.

#### Attention

Coco's performance on the Attention section of the assessment was in the **below average** range. Attention, the mental process by which a person focuses thinking on a particular stimulus and ignores others. Attention allows a child to selectively focus on things heard or seen and resist being distracted by irrelevant sights and sounds. Focused attention is direct concentration on something. Selective attention involves the resistance to distraction, and sustained attention is continued focus over time. These dimensions work together to allow a child to attend.

# **INFORMATION PROCESSING**

Processing information is an act of changing any detectable information into relevant information; integrating this new information with knowledge previously gained; and producing an action, thought, or memory. The following processing assessments attempt to compare Coco's ability to process information to that of his peers. A score between 90 and 110 is average for Coco's age group. Processing speeds can be affected by practice, strategies, rest, and attention/focus.

#### Attention Processing

"It is the taking possession of the mind, in clear and vivid form, of one out of what seems several simultaneously possible objects or trains of thought. Focalisation, concentration, of consciousness are of its essence. It implies a withdrawal from some things in order to deal effectively with others." (William James, Principles of Psychology). Attention is the capacity to selectively focus senses and awareness on particular stimuli or aspects of the environment.



#### **Findings** Attention Profile:





# Attention Processing - (CAS-2)

The ability to attend is critical to comprehension of spoken word (i.e. lecture) and written word (i.e. reading). The Cognitive Assessment System contains an excellent assessment of attention processing – the ability to attend under normal circumstances. Note – this is not an assessment of attention deficit hyper-activity disorder (ADHD). This assessment contains two subtests which required Coco to resist impulsive answers; to change rules in mid-stream; to adjust quickly to novel instructions; and to remember and apply new instructions. On these two assessments, Coco had a combined standard score of 85 in the **below average** range.

# Expressive Attention – (CAS-2)

This subtest assessed Coco's ability to resist well-formed impulses. This ability required intense concentration, visual and auditory processing, and inhibitory ability. The score is improved with faster processing speed but is mostly improved with accuracy. On this subtest Coco obtained a standard score of 85, which is in the **below average** range.

#### Number Detection – (CAS-2)

This subtest assessed Coco's flexibility in problem solving. This test requires the student to apply new rules mid-stream; adjust quickly to novel instructions; and remember and apply different instructions. This assessment requires good visual processing, quick processing speed, normal hand-to-eye coordination, and concentration. Coco obtained a standard score of 90, which is in the **average** range.

# Conners' Continuous Performance Test – Third Edition (CPT-3)

The Conners' Continuous Performance Test III (CPT 3) is a valuable assessment tool that can reveal important information about an individual's functioning. The instrument is helpful when a diagnosis of ADHD is being considered.

The following is from the CPT-3 scoring software,

Summary: Relative to the normative sample, Coco responded more slowly.

Overall, because there is only one atypical score, the results do not suggest that Coco has a disorder characterized by attention deficits, such as ADHD.

Although there is no pervasive pattern of atypical T-scores, Coco's response pattern indicate a possible issue with one or more specific dimensions of attention:

- Inattentiveness (Some Indication)
- Sustained Attention (Some Indication)

**CPT-3 Detectability** is a measure of how well Coco discriminated non-targets (i.e., the letter X) from targets (i.e., all other letters). This variable is also a signal detection statistic that measures the difference between the signal (targets) and noise (non-targets). In general, the greater the difference between the signal and noise distributions, the better the ability to distinguish non-targets and targets. On this scale, Coco obtained a standard score of 102, which is in the **average** range.

**CPT-3 Omissions** are missed targets. High omission error rates indicate Coco was not responding to the target stimuli due to a specific reason (e.g., difficulty focusing). Omission errors are generally an indicator of inattentiveness. On this scale, Coco obtained a standard score of 105, which is in the **average** range.

**CPT-3 Commissions** are incorrect responses to non-targets. Depending on Coco's Hit Rate Time score, high commission error rates may indicate either inattentiveness or impulsivity. If high commission error rates are coupled with slow reaction times, then the student was likely inattentive to the stimulus type being presented and thus responded to a high rate of non-targets. If high commission error rates are combined with fast reaction times, the student was likely rushing to respond and failed to control his impulses when responding to the non-targets. In the latter case, high commission error rates would reflect impulsivity rather than inattentiveness. Coco obtained a standard score of 103 for commissions and a standard score of 79 on the hit rate time scale. His performance on the Commission scale was in the **average** range.

**CPT-3 Perseverations** are responses that are made in less than 100 milliseconds following the presentation of a stimulus. Normal expectations of physiological ability to respond make it virtually impossible for Coco to perceive and react to a stimulus so quickly. Perseverations are usually either slow responses to a preceding stimulus, a random response, an anticipatory response, or a repeated response without consideration of the task requirements. Perseverations may be related to impulsivity or an extremely liberal response style. Perseverations are, therefore, likely the result of anticipatory, repetitive, or impulsive responding. Coco obtained a standard score of 99, which is in the **average** range.

**CPT-3 Hit Reaction Time** (HRT) is the mean response speed, measured in milliseconds, for all non-perseverative responses made during the entire administration. An atypically slow HRT may indicate inattentiveness (especially when error rates are high), but it may also be the results of a very conservative response style. Alternatively, a very fast HRT, when combined with high commission error rates, may indicate impulsivity. Coco obtained a standard score of 79, which is in the **well below average** range.

**CPT-3 Hit Reaction Time Standard Deviation** (HRT SD) measures the consistency of response speed to targets for the entire administration. A high HRT SD indicates greater inconsistency in response speed. Response speed inconsistency is sometimes indicative of inattentiveness, suggesting that Coco was less engaged and processed stimuli less efficiently during some parts of the administration. Coco obtained a standard score of 96, which is in the **average** range.

**CPT-3 Variability** is a measure of response speed consistency; however, Variability is a "within respondent" measure (i.e., the amount of variability the respondent showed in 18 separate sub-blocks of the administration in relation to his overall HRT SD score). Although Variability is a different measure than HRT SD, the two measures typically produce comparable results and are both related to inattentiveness. High response speed variability indicates that Coco's attention and processing efficiency varied throughout the administration. Coco obtained a standard score of 91, which is in the **average** range.

### Teacher

Bulldog reported "At times, Coco responds too quickly to questions. He is easily distracted... When seated, Coco often fidgets with his hands or feet, or squirms in his seat... He demonstrates inattentive, overactive, impulsive, and anxious behaviors (notices other moments not to the point of distracting class; notices outside of movements; very rarely happens; and tap feet), but these were rated as neither serious nor disruptive. Spaniel reported, Coco "frequently fails to give close attention to details or makes careless mistakes."

Retriever reported, "Coco frequently fails to give close attention to details or makes careless mistakes. He seems to have difficulty organizing and sustaining attention during his tasks. At times, he responds too quickly to questions. Coco is easily distracted. When seated, Coco often fidgets with his hands or feet, or squirms in his seat. He often talks excessively... Coco demonstrates slightly serious impulsive behaviors in the classroom (sometimes will answer before question is finished. He demonstrates slightly serious inattentive behaviors in the classroom (will talk to others when directions are being given); these behaviors are slightly disruptive."

#### Parent Input

His parent reported,

He often fidgets with his hands or feet, or squirms. He often has difficulty playing quietly... Coco seems to have difficulty organizing and sustaining attention during his tasks. He often does not seem to listen when spoken to directly...Coco is often easily distracted; he forgets chores he is supposed to do and loses his personal belongings.

Mr. Hepturn reported Coco demonstrates serious problem behaviors at home; these include inattentiveness (very easily distracted) and uncooperative behavior (when to do things). He demonstrates slightly serious impulsiveness (taking things not his) and anxiousness (claims he is not feeling well due to stomachaches).





# Behavior Rating Inventory of Executive Functioning – Second Edition (BRIEF-2)

The following was generated by the BRIEF-2 scoring software:

The BRIEF-2 Inhibit and Working Memory scales, in the context of a comprehensive assessment, may be helpful in identifying students with suspected attentiondeficit/hyperactivity disorder (ADHD). Theoretically, inhibitory control enables selfregulation, and working memory enables sustained attention. It is important at the outset, however, to appreciate the distinction between executive functions and the diagnosis of ADHD: Executive functions are neuropsychological constructs, whereas ADHD is a neuropsychiatric diagnosis based on a cluster of observed symptoms. Although it is well-established that different aspects of executive dysfunction contribute to the symptoms that characterize ADHD, executive dysfunction is not synonymous with a diagnosis of ADHD. Further, problems with inhibitory control and, in particular, working memory are not unique to the diagnosis of ADHD but may be seen in many developmental and acquired conditions. Therefore, the following analysis may be useful when there is a question about the presence or absence of an attention disorder but should not be used in isolation or as the sole basis of diagnosis. Information from the BRIEF-2 may be helpful when combined with other information such as parent and teacher ratings on broad-band scales, ADHD specific scales, clinical interviews, observations and performance assessment.

Profile analyses have shown that students diagnosed with different disorders often have recognizable and logical scale profiles on the BRIEF-2. Students with ADHD, inattentive presentation (ADHD-I) tend to have greater elevations on Working Memory, Plan/Organize, and Task-Monitor scales than their typically developing peers but lower scores on the Behavior Regulation Index (BRI) and Emotional Regulation Index (ERI) than students diagnosed with ADHD, combined presentation (ADHD-C).

The BRIEF-2 Parent Form Working Memory scale exhibits good sensitivity and specificity for detecting a likely diagnosis of ADHD regardless of whether inattentive or combined presentation. In research and clinical samples, T scores of 65 or greater on the Working Memory scale discriminated between healthy controls and students with either ADHD-I or ADHD-C with over 80% classification accuracy. The likelihood that a child with a T score of 65 or higher is a true case of ADHD was .90 (positive predictive value), whereas the likelihood that a child with a score below 65 would not have ADHD was .80 (negative predictive value). The likelihood of a child being correctly identified as meeting criteria for a diagnosis of ADHD was 7 times greater with a Working Memory T score of 65 or greater.

The Inhibit scale can help further distinguish between students with ADHD-I versus those with ADHD-C. Using a T score of 65 or greater, approximately 75% of students were correctly classified as being diagnosed with ADHD-C versus ADHD-I in separate research and clinical samples. Students with T scores at or above 65 on the Inhibit scale are 1.5 to 3 times more likely to be diagnosed with ADHD-C than ADHD-I. If the cutoff is increased to a T score of 70 or greater on the Inhibit scale, sensitivity is reduced but specificity is increased. Students with T scores of 70 or



more are 2.3 to more than 5 times more likely to have a diagnosis of ADHD-C than ADHD-I.

**Parent's** ratings of Coco's working memory (T = 77, %ile = 99) are clinically elevated. T scores of 70 or greater on the Parent Form of the BRIEF2 were seen in more than 60% of children clinically diagnosed with either presentation of ADHD but were seen in only less than 2% of typically developing children and 4% of children with learning disabilities. Scores at this level are more than 7 times more likely to be seen in students diagnosed with ADHD and one-third as likely to be seen in typically developing students, raising the possibility of the presence of ADHD. In considering ADHD presentations, the Inhibit scale may be useful in the context of a significantly elevated Working Memory scale. Coco's ratings of his inhibitory control were also clinically elevated (T = 79, %ile = 99). Students with significantly elevated Working Memory and Inhibit T scores in a clinical sample were correctly classified as being diagnosed with ADHD-C approximately 80% of the time.

**Bulldog's** ratings of Coco's working memory (T = 59, %ile = 86) and inhibitory control (T = 58, %ile = 87) are within normal limits. This suggests Coco does not exhibit significant characteristics of executive dysfunction that are often seen in children diagnosed with ADHD.

**Spaniel's** ratings of Coco's working memory (T = 53, %ile = 77) and inhibitory control (T = 44, %ile = 48) are within normal limits. **This suggests Coco does not exhibit significant characteristics of executive dysfunction that are often seen in children diagnosed with ADHD**.

**Retriever's** ratings of Coco's working memory (T = 68, %ile = 94) are potentially clinically elevated. T scores of 65 or greater on the BRIEF2 Teacher Form were seen in approximately 55% of children clinically diagnosed with either type of ADHD but were seen in only 10% of typically developing children and 6% of children with learning disabilities. Scores at this level are more than 6 times more likely to be seen in students diagnosed with ADHD and half as likely to be seen in typically developing students, raising the possibility of the presence of ADHD. In considering ADHD presentations, the Inhibit scale may be useful in the context of a significantly elevated Working Memory scale. Although Coco's Working Memory scale is potentially clinically elevated, ratings of his inhibitory control were not significantly elevated (T = 60, %ile = 88). Students with potentially clinically elevated Working Memory scores in a combined clinical and research sample were correctly classified as being diagnosed with ADHD-I approximately 70% of the time.

# Memory Processing

Memory is the ability to encode, store, and retrieve information. Further, the student must have the ability to integrate, store and retrieve information. Problems with any of these steps will hinder academic growth and possibly limited post-school opportunities. Appropriate working memory is necessary to sustaining performance and attention. Students with difficulties in this domain report that they cannot stick to an activity for an amount of time and that they frequently switch or fail to complete tasks. Although working



memory and the ability to sustain it have been conceptualized as distinct entities, behavioral outcomes of these two domains are often difficult to distinguish.

# Findings



# Phonological Memory (CTOPP-2)

Phonological memory refers to coding information phonologically for temporary storage in working and short-term memory. On the Phonological Memory Test Coco obtained a standard score of 119. Coco's performance on Phonological Memory falls in the **above average** range.

# Word Series

This subtest required Coco to listen to a list of words and immediately repeat them in the same order he heard them. This is a low cognitive demand tasks which assesses short-term memory. Coco obtained a standard score of 110, which is in the **average** range.

# Sentence Repetition/Questions

This subtest required Coco to hold in working memory a nonsense sentence, comprehend its meaning, and arrive at the correct answer to a question about the sentence. This is task places a medium cognitive demand on the working memory. Coco obtained a standard score of 95, which is in the **average** range.

# Verbal-Spatial Relations

This subtest places a high cognitive demand on working memory. It required Coco to comprehend how shapes, words, and verbal concepts interrelate. He had to develop and use good strategies, control of behavior, self-monitoring, self-correction, and appropriate working memory when completing these tasks. Coco obtained a standard score of 90, which is in the **average** range.





# Cognitive Assessment System – Second Edition (CAS-2)

Coco's working memory score on the CAS-2 was 91, which is in the **average** range. Working Memory is a basic mental skill important for learning and doing many everyday tasks. It allows the brain to briefly hold new information while it is needed in the short-term. It helps with the transfer of information to long-term memory. Working memory has the greatest effect on tests and assignments which require evaluating and working with information that has to be remembered and manipulated. Working memory is greatly impacted by attention. Attention and Working Memory often perform similarly therefore student with poor attention or attention deficit will usually assess with low working memory scores.

### BRIEF-2 Working Memory

The BRIEF-2 is a behavior observation survey completed by the parent, student, and/or teacher.

Parent:

The Working Memory scale measures online representational memory—that is, the capacity to hold information in mind for the purpose of completing a task; encoding information; or generating goals, plans, and sequential steps to achieve goals. Working memory is essential to carrying out multistep activities, completing mental manipulations such as mental arithmetic, and following complex instructions. Coco's standard score on the Working Memory scale is 60.0, which is in the **lower extreme** range.

Bulldog, Coco's standard score on the Working Memory scale is 87, which is in the **below** average range.

Retriever, Coco's standard score on the Working Memory scale is 73, which is in the **well-below average** range.

Spaniel, Coco's standard score on the Working Memory scale is 96, which is in the **average** range.

# Visual Processing

The ability to recognize and interpret what the eyes see (visual stimuli). This includes initial recognition, differentiation, and retention of visual input. Visual processing is involved in all learning areas relying on symbols and pictures, as well as communicative gestures.

#### Findings





Average = 103



# Visual Motor Integration (VMI)

The Beery-Buktenica Developmental Test of Visual-Motor Integration (VMI) assesses the degree to which visual perception and finger-hand movements are well coordinated. Poor performance on the VMI can result from a deficiency in visual or motor abilities or a deficit in or unlearned integration of visual and motor abilities. Coco demonstrated no difficulty in the ability to integrate visual and motor abilities. His score is in the **average** range and better than approximately 72.5% of peers.

#### Non-Verbal Matrices (CAS-2)

The non-verbal matrices of the CAS-2 is heavily reliant on visual pattern recognition free from motor integration or verbal difficulties. A pattern recognition subtest increases the cognitive demand on the visual processing higher than the VMI and lower than the verbal-spatial subtest. On this subtest Coco obtained a standard score of 110, which is in the **average** range.

### Verbal-Spatial Relations (CAS-2)

The verbal-spatial relations assess multi-step visual instructions. This skill requires concentration; the ability to process auditory information in a linear and multi-step fashion; and recognizes the correct answer from six visual possibilities. This is a high cognitive demand which requires processing increasingly complex instruction, eliminating choice which meet some of the requirements, and visualizing possible outcomes. On this sub-test Coco obtained a standard score of 90, which is in the **average** range.

#### Parent Input (BRIEF-2)

Coco's parent reported Coco **sometimes** has poor handwriting and **often** produces written work that is poorly organized.

# Auditory Processing

It is what a student does with what is heard. In a broad sense it measures the ability of the brain to understand and interpret what the ears hear; and based on the understanding and interpretation, the ability to express the meaning verbally.

# Findings



Average = 105



# Phonological Memory

Phonological memory, the coding of information phonologically for temporary storage in working or short-term memory. Phonological memory impairments do not inevitably lead to poor reading of familiar material, but it can constrain the ability to learn new written and spoken vocabulary. Moreover, a deficit in phonological memory may not impair listening or reading comprehension for simple sentences, but it is likely to impair both listening and reading comprehension for more complex sentences. On Phonological Memory, Coco obtained a standard score of 119. Coco's performance on Phonological Memory is in the **above average** range.

# Rapid Naming

Rapid Naming, the efficient retrieval of phonological information from long-term memory. Measures of Rapid Naming require speed and processing of visual as well as phonological information. The efficiency with which students are able to retrieve phonological codes associated with individual phonemes, word segments, or entire words should influence the degree to which phonological information is useful in decoding printed words. Poor scores indicate problems with reading fluency. On Rapid Naming, Coco earned a standard score of 119. Coco's performance on the Rapid Naming test is in the **above average** range.

# Comprehensive Test of Phonological Processing – Second Edition (CTOPP-2)

The Comprehensive Test of Phonological Processing – Second Edition (CTOPP-2) assesses the phonological awareness, phonological memory, and rapid naming. His overall auditory processing ability is in the **above average** range.

# Phonological Awareness

Phonological awareness, an individual's awareness of and access to the sound structure of his oral language. Phonological awareness provides a beginning reader with an important tool for understanding relations between written and spoken language. Poor phonological awareness is viewed as the hallmark of reading disability. On Phonological Awareness, Coco obtained a standard score of 116. Coco's performance on phonological awareness is in the **above average** range.

# CAS-2 Word Series

This assessment simply required Coco to listen to a list of words and repeat them. As the subtest progressed, the lists grow longer. Coco obtained a standard score of 110 on the Word Series subtest, which is in the **average** range.

# Test of Auditory Processing – Third Edition

Auditory Cohesion is an higher-order linguistic processing ability. It relates to skills such as complicated conversation as well as jokes, riddles, inferences, and abstractions. Auditory Cohesion requires attention, language processing, and reasoning skills. The Auditory Comprehension subtest of the TAPS-3 requires individuals to listen to short stories and demonstrate understanding of those stories by answering brief questions. The answers to the questions are found directly in the content of the stories. This task requires attention, short-term memory, and comprehension skills in order to correctly answer questions. Coco obtained a standard score of 95, which is in the **average** range.



# CAS-2 Sentence Repetition/Question

This assessment required Coco to listen to a sentence, comprehend its meaning, and answer a related question. He had to use information provided in the sentence. This was made more difficult and thereby increased the cognitive demand because the sentences were nonsensical. Coco obtained a standard score of 95 which is in the **average** range.

# Phonological Processing

A Phonological Processing issue is an unexpected difficulty in learning to read despite intelligence, motivation, and education. It reflects a problem within the language system of the brain (Shaywitz, 2008). Phonological processing deficit represents a specific difficulty with reading, not with thinking skills. Comprehending spoken language is often unaffected and remains at an average or better level. Therefore, it is not an overall defect in language, but a localized weakness within a specific component of the language system: the phonologic module.



#### Phonological Processing Profile:

Phonological processing is often first assessed by examining basic reading skills, reading fluency, and spelling.

Reading and spelling difficulties associated with phonological processing deficits often stem from weaknesses in cognitive and linguistic abilities.

*Phonological awareness.* Learning to read and spell depends on the ability to perceive and order the individual phonemes in the words. The CTOPP-2 examined Coco's ability to detect and process speech sounds in several ways. He obtained a score in the **above average** range for overall auditory processing and in the **above average** range specifically for phonological awareness skills.

Orthographic awareness. This is the understanding of the writing system, including all of the printed symbols used to represent a spoken language. These were assessed on the WJ-IV-ACH during the following subtests: Letter-Word Identification **average** Spelling **average**  Reading Fluency average

*Memory*. The ability to store and retrieve information is often a weakness for students with phonological processing deficits. Coco obtained a phonological memory score in the **above average** range.

*Rapid naming*. Rapid naming is related to the development of reading fluency. Coco obtained a score in the **above average** range on the rapid naming subtests.

Comprehension is the goal of all reading. Perhaps the most significant impact of phonological processing deficit is the struggle to understand what is read. Coco's ability to comprehend reading materials was assessed on the Woodcock-Johnson Tests of Academic Achievement – fourth edition (WJ-IV-ACH) Passage Comprehension subtest. On this assessment, he obtained a score of , which is in the **average** range.

Additional scores relevant to the determination of phonological processing deficits include:

General Cognitive Ability Visual Processing (VMI) Phonological Awareness average average above average

# SOCIAL EMOTIONAL

This area assessed some indication of Coco's ability to make and keep friends. Students often have the added dimension of self-discovery. "Even the worst kids don't walk into school thinking, 'I'm going to be the biggest jerk ever this year, and I hope everybody hates me.' Somewhere along the way, they get frustrated or hurt. Those things outweigh their ability to cope and they fall apart." (p. 41, Schools of Fish). Behavior is multi-dimensional and affected by the student's entire environment and genetic makeup. Most behavior patterns in normal individuals are learned and can be re-learned or replaced with more acceptable or efficient behaviors. Never underestimate the power role modeling has on a student's future behavior and choices.

Rating Scales are tools that allow professionals to examine student behavior from the perspective of those in various setting in their lives (i.e. school and home). Rating scales provide comparison data with sameaged peers. That said, it is important to note that this subjective data may be limited and is not diagnostic in and of itself. Therefore, rating scale data must be examined in conjunction with other standardized assessment data in order to make eligibility recommendations to the IEP team.

# Records Review

The district's 12/13/2018 IEP indicated, "Social/Emotional/Behavioral: Socially he has many friends. Emotionally he appears to enjoy school."

# Executive Functioning

This broad category of abilities also includes Coco's ability to use flexible strategies and planning in problem solving; to maintain and shift cognitive focus; to monitor performance, self-correct, and regulate behavior in accordance with social and environmental feedback;



and to inhibit the impulse to respond to irrelevant, but salient interfering stimuli. These skills are taught and are essential to self-efficacy and the ability to control and/or delay impulses without fear of them (Maslow, 1968).

### Cognitive Assessment System – 2<sup>nd</sup> Edition (CAS-2)

Coco's Executive Functioning standard score was 82, which is in the **below average** range. When his executive function abilities were considered with his working memory abilities his performance was in the **below average** range. Executive functioning skills are a set of processes used to manage oneself and one's resources in order to achieve a goal. It is an umbrella term for the neurologically-based skills involving mental control and selfregulation. It affects a student's control of thinking, behavior, and focus especially noticed when working with information which must be evaluated and remembered. Studies find a direct correlation between good executive functioning scores and academic success.

# Behavior Rating Inventory of Executive Functioning – Second Edition (BRIEF-2)

The BRIEF-2 is a questionnaire completed by parents and teachers of school-aged students. It is designed to provide a better understanding of a student's self-control and problem-solving skills by measuring eight aspects of executive functioning. The executive functions are mental processes that direct a student's thought, action, and emotion, particularly during active problem solving. Specific skills include (a) selecting appropriate goals for a particular task, (b) planning and organizing an approach to problem solving, (c) initiating a plan, (d) inhibiting (blocking out) distractions, (e) holding a goal and plan in mind, (f) flexibly trying a new approach when necessary, and (g) checking to see that the goal is achieved. The executive functions are also responsible for controlling a child's emotional responses, thereby allowing for more effective problem solving.





#### Coco obtained the following scores on the BRIEF-2:

The Global Executive Composite (GEC) is an overarching summary score that incorporates all of the BRIEF-2 clinical scales. Although review of the BRI, ERI, CRI, and individual scale scores is strongly recommended for all BRIEF-2 profiles, the GEC can sometimes be useful as a summary measure. Coco obtained an average GEC score of 81, which is in the **below average** range.

The *Behavior Regulation Index (BRI)* captures the student's ability to regulate and monitor behavior effectively. It is composed of the Inhibit and Self-Monitor scales. Appropriate BRI enables the cognitive regulatory processes to successfully guide active, systematic problem solving and more generally supports appropriate self-regulation. Coco obtained an average standard score of 86, which is in the **below average** range.

The *Emotion Regulation Index (ERI)* represents the student's ability to regulate emotional responses and to shift set or adjust to changes in environment, people, plans, or demands. It is composed of the Shift and Emotional Control scales. Appropriate emotion regulation and flexibility are precursors to effective cognitive regulation. Coco obtained an average standard score of 88, which is in the **below average** range.

The *Cognitive Regulation Index (CRI)* reflects the student's ability to control and manage cognitive processes and to problem solve effectively. It is composed of the Initiate, Working Memory, Plan/Organize, Task-Monitor, and Organization of Materials scales and relates directly to the ability to actively problem solve in a variety of contexts and to complete tasks such as schoolwork. Coco obtained an average standard score of 79.5, which is in the **well-below average** range.

# *The following was generated by the BRIEF-2 scoring software based on behaviors reported by his parent on the BRIEF-2 parent form:*

Ratings of Coco's executive function, as exhibited in his everyday behaviors, revealed one or more areas of concern. Ratings of Coco's behavior across the nine specific domains of executive functioning generated the following results:

# Emotional Control

Emotional control reflects the influence of the executive functions on the expression and regulation of one's emotions. Coco obtained a standard score of 76.0, which is in the **well below average** range.

Students with low scores in this area may overreact to events and may demonstrate sudden emotional outbursts or emotional explosiveness. They may also experience sudden or frequent mood changes and excessive periods of feeling upset. Students with emotional control difficulties often have overblown emotional reactions to seemingly minor events. For example, such students may cry easily or become overly silly with little provocation. They may also have temper tantrums with a frequency or a severity that is inappropriate for their age.



# Task Monitoring

Task-Monitoring reflects a child's ability to check his own performance during or shortly after finishing a task to ensure that he has accurately or appropriately attained the desired goal. Coco obtained a standard score of 72.0, which is in the **well below average** range.

Caregivers often describe students with task-monitoring difficulties as rushing through their work, making careless mistakes, and failing to check their work for mistakes.

# Organization

Another aspect of organization is the ability to order and organize things in one's environment, including the maintenance of orderly work, play, and storage spaces (e.g., school desks, lockers, backpacks, and bedrooms). This type of organization involves organizing, keeping track of, and cleaning up one's belongings, as well as making sure beforehand that the materials needed for a task are available. Coco obtained a standard score of 66.0, which is in the **lower extreme** range.

Students who have difficulties in this area often do not function efficiently in school or at home because they do not have their belongings readily available for use. Pragmatically, teaching them to organize their belongings can be a useful, concrete tool for teaching greater task organization.

### Initiation

Initiation is the ability to begin a task or activity without being prompted to do so. Key aspects of initiation include the ability to independently generate ideas, responses, or problem-solving strategies. Coco obtained a standard score of 63.0, which is in the **lower extreme** range.

Initiation difficulties typically do not reflect noncompliance or disinterest in a specific task. Students with initiation problems typically want to succeed at and complete a task, but they have trouble getting started. They may need extensive prompting or cuing to begin a task or activity. Students with initiation difficulties are at risk for being viewed as unmotivated.

#### Working Memory

Working memory is described as the capacity to hold information in mind to complete a task, to encode and store information, or to generate goals. Working memory is essential for carrying out multistep activities, for completing mental manipulations such as mental arithmetic, and for following complex instructions. Coco obtained a standard score of 60.0, which is in the **lower extreme** range.

Students with difficulty in this area may have difficulty sustaining working memory, which may make it difficult for his to remain attentive and focused for appropriate lengths of time. They may have trouble remembering things (e.g., instructions, phone numbers) even for a few seconds. They may lose track of what they is doing as they work or forget what they are supposed to do when they are sent on an errand. They often miss important information such as complex instructions for an assignment because it exceeds their working memory capacity.



Working memory is also needed to sustain attention. Students with working memory difficulties may not stick to an activity for an age-appropriate amount of time and may fail to complete tasks.

# Planning

Planning and organization are important components of problem solving. Planning involves setting a goal and determining the best way to reach that goal, often through a series of steps. Organization involves the ability to bring order to information and to appreciate main ideas or key concepts when learning or communicating information, either orally or in writing. Coco obtained a standard score of 60.0, which is in the **lower extreme** range.

Students with planning difficulties often feel overwhelmed by large amounts of information. They may approach tasks in a haphazard fashion and often get caught up in the details while missing the big picture. Parents often report that such students typically wait until the last minute to begin a long-term project or assignment for school.

# Self-Monitoring

Self-Monitoring is the ability to exhibit interpersonal awareness. Self-monitoring reflects a student's awareness of the effect that his behavior has on others. Coco obtained a score of 58.0, which is in the **lower extreme** range.

Students with low scores in this area tend to be less aware of their own behavior and the impact this behavior has on their social interactions with others.

#### Inhibit

Inhibit is the ability to resist impulses and to stop one's behavior at the appropriate time. Coco obtained a standard score of 57.0, which is in the **lower extreme** range.

Students with low scores in this area often have trouble resisting impulses and considering the potential consequences of their actions before they act. They may display high levels of physical activity, inappropriate physical responses to others, a tendency to interrupt and disrupt group activities, and a general failure to look before leaping.

# Shifting

Shifting is the ability to make transitions, tolerate change, problem solve flexibly, and switch or alternate one's attention from one focus or topic to another. Coco obtained a standard score of 48.0, which is in the **lower extreme** range.

Students with poor ability to shift attention may have difficulty moving from one activity to another or shifting his attention or focus from one thing to another. Problems with shifting can compromise problem-solving efficiency. Parents often describe students who have difficulty with shifting as being somewhat rigid or inflexible and as preferring consistent routines. In some cases, students are described as being unable to drop certain topics of interest or unable to move beyond a specific disappointment or unmet need.



# Accommodations for students with executive functioning issues:

Instructional:

- Give step-by-step instructions and ask Coco to repeat them back.
- Give Coco an outline of the lesson.
- Say, "This is important to know because..."
- Have a daily class routine.
- Give short breaks/reviews before teaching new skills.
- Check in frequently.

Environmental:

- Post schedules and directions where Coco can see them.
- Make written directions simple and concrete.
- Highlight key words and ideas.

# Social Skills Observations

This observation is made during the one-to-one assessment and the classroom observation. During assessment and observation, the student is presented with various questions and scenarios to elicit the following responses: insight, social overtures, social responses, reciprocal communication, conversation, empathy, asking for help/information, agitation, and anxiety. If one area was not assessed, it will not be included in the results. Observations made were by Dr. Jerry Turner during assessments.

#### Findings

*Insight* – The focus of this item is the student's ability to provide spontaneous examples of insight into the nature of social relationships (i.e., friendships, marriage, getting along with others, etc. . .). Coco demonstrated several examples of insight into the nature of typical social relationships, including his own role in at least one example.

*Social Overtures* – This item summarizes the quality of Coco's attempts to initiate social interaction with the examiner, not on the frequency of such attempts. Special attention was given to the form of the overture and its appropriateness to the social context. Sources of this item include interview with Coco; observation during assessment; and may include interviews with teacher, principal, and counselor. The majority of social overtures were effective use of nonverbal and verbal means to make clear social overtures. Coco's overtures were appropriate to immediate context.

*Social Response* – This item focuses on Coco's social responses throughout observations, interviews, and formal assessments. Overall Coco demonstrated a range of appropriate responses that were varied according to immediate social situations.

*Reciprocal Social Communication* – This item focuses on the frequency with which reciprocal interchanges occurred, using any mode of communication. Frequency includes both absolute number and distribution across a range of contexts. Coco demonstrated extensive use of verbal and para-verbal behaviors appropriate for social interchange (i.e., chat, comments, small talk, etc. . ). All were appropriate to the setting for his age group.



*Conversation* – This item focused on the to-and-fro use of words and phrases in social conversation. Coco's conversation flowed, building on the examiner's dialogue.

*Empathy and Comments on Others' Emotions* – This item focuses on Coco's communication of his understanding and empathy for the feelings of others, either real or conveyed in stories. Coco demonstrated a clear understanding and shared emotion with others for several different emotions.

*Asking for Information* – The focus of this item was on Coco's spontaneous request for further information or clarification of instructions. Coco asked appropriately for further information and clarification of instructions at an age appropriate level.

*Over Activity/Agitation* – This item assesses the movement or physical agitation. Coco sat still appropriately throughout the assessment.

*Anxiety* – This item assessed initial wariness or self-consciousness, as well as obvious signs of worry, upset, or concern. Coco demonstrated no obvious anxiety.

### VOCATIONAL

The Transition to Work Inventory (TWI) assist in making career transition more effective and rewarding. The TWI guides students toward more informed decisions by identifying careers that are related to their interests. The TWI will help Coco transition from school to work.

On 10/4/2019, Coco completed the Transition to Work Inventory, Third Edition. With this assessment, students with little or no work experience identify job options and make career transitions effective and rewarding. Students review 96 non-work activities and rate how much they like each. These preferences are connected to 16 career clusters, which lead to a list of jobs, self-employment options, and paths for education and training. This scale shows Coco's score on each of 16 career clusters. It is ranked from most to least preferred.



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Coco demonstrated highest interests in the areas of:

# Agriculture and Natural Resources

An interest in working with plants, animals, or mineral resources for agriculture, horticulture, conservation, extraction, and other purposes. For example, Coco indicated he enjoys or would enjoy camping or hiking; growing houseplants; boarding and caring for pets; working to save the environment; caring for lawns and gardens; breading or raising animals.

Such jobs include: animal breeder, commercial driver, dog groomer, farm worker, fisher, game warden, greens keeper, livestock manager, nursery worker, pest control worker, rancher, tree trimmer/pruner, animal boarder, animal sitter, animal supply store employee or owner, beekeeper, exterminator, farmer, gardener, herb farmer, pet sitter/walker, tack shop owner, tree maintenance service.

Related education and training may focus on agribusiness, agriculture, animal grooming, nutrition, animal science, earth science, ecology, environmental science, food science, forestry, life science, pest management, zoology.

### Scientific Research, Engineering, and Mathematics

An interest in discovering, collecting, and analyzing information about the natural world, life sciences, and human behavior. For example, Coco indicated he enjoys or would enjoy studying and looking at stars or the moon; watching the weather; studying rocks and minerals; visiting science and history museums; experimenting with a chemistry set; watching shows about history.

Such jobs include: actuary, aerospace engineer, archeologist, astronomer, biologist, cartographer, chemical engineer, chemist, civil engineer, civil engineering technician, conservation scientist, economist, electrical engineer, energy engineer, engineering manager, environmental scientist, geographer, geologist, historian, hydrologist, materials scientist, mathematician, mechanical drafter, mechanical engineer, mechanical engineering technician, microbiologist, physicist, zoologist.

Related education and training may focus on aerospace science, archeology, astronomy, biochemistry, biology, chemistry, civil engineering, computer science, earth science, engineering, environmental science, genetics, geography, geology, laboratory science, mathematics, meteorology, microbiology, mining/ minerals engineering, nursing, oceanography, physical science, physics, statistics, surveying.

# Architecture and Construction

An interest in designing, assembling, and maintaining components of buildings and other structures. For example, Coco indicated he enjoys or would enjoy operating heavy equipment; repair plumbing fixtures; using hand tools; remodeling homes; fixing things around the house; building things from wood. Such jobs include: architect, brick mason, carpet installer, civil drafter, construction, carpenter, crane/tower operator, drywall installer, earth driller, electrician, floor finisher, glazier, heating and air conditioning installer, paving and surfacing equipment operator, roofer, surveyor, handyman, home inspector, landscape architect, mason, plumber, restoration specialist.

Related education and training may focus on architecture, art, bricklaying, building maintenance, carpentry, computerized drafting, construction equipment operation, construction management, drafting, industrial arts, landscaping, masonry, operations management, plumbing, sheet metal trades, surveying, woodworking.

# TEST ERROR, CULTURAL, ENVIRONMENTAL, AND ECONOMIC FACTORS

Testing, evaluation materials, and procedures used for the purpose of this evaluation were selected and administered so as not to be racially, culturally, or gender discriminatory. Tests and other evaluation materials were administered by trained personnel in conformance with the instructions provided by their producers. Tests and other evaluation materials have been validated for the specific purpose for which they were used. A child will not be determined to be a child with a disability if the determinant factor is lack of instruction in reading or math or limited English proficiency. If an assessment was not conducted under standard conditions, a description of the extent to which it varied from standard conditions was included in the evaluation report. Visual, hearing, or motor disabilities, intellectual disability, emotional disturbance, environmental cultural/linguistic, or economic disadvantage have been ruled out as the primary cause of a severe discrepancy.

# SUMMARY AND RECOMMENDATIONS

This report was developed to assist the IEP Team in determining eligibility and need for special education and related services according to the code of Federal Regulations, Sections 300.304 to 300.306. The IEP team shall take into account all relevant information regarding Coco prior to making recommendations regarding eligibility. No single score or product of scores shall be used as the sole criterion for the decision of the IEP team as to Coco's eligibility for special education. (From CCR 5 Sec. 3030)

# Findings

The purpose of this evaluation is to assemble psycho-educational data on Coco and present it in a manner which supports the IEP team's decision of qualification, determines eligibility, and informs interventions, accommodations, and modifications.

# Academics & Cognition

Coco demonstrated academic ability in the **lower extreme** to **above average** range. His strengths are in the area of language arts, while all **lower extreme** to **well below average** scores are in the areas of mathematics. The assessor obtained a math facts fluency score of 64, which is in the **lower extreme** range. However, Coco did not do his best on this one subtest given his body position. He rested his head on his arm and appeared lethargic. This reluctance to fully engage with a math assessment is consistent with an emotional state of "learned helplessness" or frustration due to ongoing struggles. The district's 12/13/2018 IEP noted math performance several grade levels behind his peers.



He demonstrated cognitive ability in the **average** range.

#### Attention Processing

Coco attention capacity assessments examined his ability to attend one-on-one and independently. Coco's ability to quickly focus and maintain attention for a short period of time (3 minutes) is in the **below average** range. His long-term attention span shows some indications of inattentiveness and difficulty sustaining attention. On the BRIEF-2 his parent reported behaviors consistent with ADHD. One of his teachers also reported behaviors on the BRIEF-2 consistent with ADHD, two other teachers did not report behaviors consistent with ADHD.

His teachers did report concerning classroom behaviors such as fidgeting, failure to pay attention to details, impulsiveness, and being easily distracted. His parents reported similar attention difficulties in the home.

#### Memory

Coco's short-term auditory memory is assessed to be in the **above average** range. The CAS-2 assessed his overall performance consistent with a working memory in the **average** range. His parent reported behaviors on the BRIEF-2 consistent with a working memory in the **lower extreme** range.

#### Visual Processing

His visual processing ability is in the **average** range. Coco demonstrated no difficully in the ability to integrate visual and motor abilities. His score is better than approximately 72.5% of peers.

#### Auditory Processing

Overall Coco's auditory processing ability is in the **above average** range. His phonological awareness ability is in the **above average** (116), phonological memory is in the **above average** (119) range, and rapid naming ability is in the **above average** (119) range. However, his auditory cohesion score was in the **well below average** range.

#### Phonological Processing

Coco obtained a score in the **above average** range for overall auditory processing and in the **above average** range specifically for phonological awareness skills. His Orthographic awareness was assessed as:

Letter-Word Identification	average
Spelling	average
Reading Fluency	average

He obtained an overall reading comprehension score in the **average** range. Overall, his performance is **not consistent** with a phonological processing deficit.



# Social Skills & Executive Functioning

Coco demonstrated social skills, as assessed through surveys and direct observations, in the **average** range. His executive functioning skills were assessed using the BRIEF survey and CAS-2 assessment. On the CAS-2 his performance indicated executive functioning abilities (when combined with overall working memory) in the **below average** range. His behaviors as reported on the BRIEF-2 survey yielded a global executive composite score in the **below** average range.

Continued on next page.









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# NORMAL DISTRIBUTION CURVE



# SUMMARY AND CONSIDERATION OF ELIGIBILITY

# Specific Learning Disability (SLD)

#### Findings

Coco currently does meet the eligibility criteria for Special Education (E.C. 56337) services as defined in the federal and state regulations under the category of Specific Learning Disability.

Specific learning disability means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may have manifested itself in the imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia.

In determining whether Coco has a specific learning disability, the assessor found Coco had a severe discrepancy between intellectual ability and achievement in:

Mathematics Calculation Mathematics Problem Solving

Coco has demonstrated a history of mathematical struggles. He also demonstrated a disorder in the basic psychological processes of:

Attention Processing Auditory Processing Cognitive Ability of Conceptualization

Specific learning disabilities do not include learning problems that are primarily the result of visual, hearing, or motor disabilities, of intellectual disability, of emotional disturbance, or of environmental, cultural, or economic disadvantage.

The following exclusionary factors are ruled out as the determinant factor in this student's ability to progress in the general education curriculum if marked "No".

Area	Yes	No
Limited School Experience or Attendance		Х
Lack of Instruction		Х
Intellectual Disability or Emotional Disturbance		Х
Visual, Hearing, or Motor Disability		Х
Limited English Proficiency		Х
Environmental, Cultural or Economic Disadvantage		Х

# Other Health Impaired (OHI)

#### Findings

Coco currently does meet the eligibility criteria for Special Education (E.C. 56337) services as defined in the federal and state regulations under the category of Other Health Impaired.

Coco demonstrated limited alertness, due to a prior diagnosis of ADHD, behaviors consistent with ADHD, and significantly delayed executive functioning skills. The following two criteria are also met:

- (A) Is due to chronic or acute health problems; and
- (B) Adversely affects a child's educational performance.

Emotional Disturbance (ED)

#### Findings

Coco currently does not meet the eligibility criteria for Special Education services as defined in the federal and state regulations under the category of Emotional Disturbance.

Intellectual Disability (ID)

#### Findings

Coco currently does not meet the eligibility criteria for Special Education services as defined in the federal and state regulations under the category of Intellectual Disability.

#### AREA(S) OF DISABILITY

Coco appears to be eligible for special education services under the category of **Specific Learning Disaiblity and Other Health Impaired.** The IEP team must make final qualification and service determination.

Note: The use of classification and labels should not cloud the ability to recognize and respect Coco's resiliency. Even when labels accurately characterize Coco's symptoms, problems, or disabilities, they do not provide information about how he processes, store, and retrieves information; how different environments affect learning; how Coco's motivation to succeed is developed; and how intellectual growth is best nurtured. In other words, one should not expect all students who receive the same label to perform in the same ways. Although labels are important in the diagnostic process and in communication with professionals, parents, and teachers, labels should not regiment and restrict how one observes and works with Coco.

The educational difficulties do not appear to be the primary result of environmental, cultural, or economic factors. Coco's impairment requires instruction, services, or both which cannot be provided with modifications and accommodations to the general education program.

#### Impact of Disability

Coco demonstrates a significant struggle in mathematics. His performance on standardized assessments shows an extreme inability to complete math problems of any sort at an age and grade appropriate level. He avoids math work (currently missing three weeks of math homework). His behavior is consistent with a severe difficulty in making arithmetical calculations. He demonstrated a significant weakness in processing inferences of spoken language. He requires more concrete explanations than most of his peers. His performance is further hindered by ADHD and significantly poor executive functioning skills.

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Dr. Jerry L. Turner Licensed Educational Psychologist (#2966) Consulting Psychologist (American Psychological Association)



# **GENERAL RECOMMENDATIONS**

The following recommendations are suggestive and should not be included in IEP interventions unless agreed to by IEP team. Parents and teachers are encouraged to modify interventions according to Coco's unique needs and response and to discontinue any recommendations not resulting in positive progress.



**Teach new skills**: When Coco is calm and engaged

To express familiar content In familiar routines and activities



Accept previously established skills: When Coco is upset, frustrated, or beginning to escalate When teaching new content In new or less familiar routines and activities

# Attending Math Class

According to his math teacher, Coco has missed eight (8) math classes so far this year due to Fetching Things Club meetings. That is approximately 25% of his math classes. It is recommended he never be out of math class for clubs, interventions, school co-curricular/extra curricular events, etc.

# Mathematics

Intensive intervention and remediation in the area of mathematics is recommended. The following are some suggested interventions:

- Math-based learning games
- Practice math skills more often than other students
- Use of calculators
- Use of graph paper to keep columns and numbers straight and neat
- Experienced math tutor
- Draw pictures of math work problems
- Computer based math games
- A quiet work area for math
- Extra time on math assignments

Further researched based interventions are contain in Appendix A.

#### Auditory Processing Deficit

Students with auditory deficits exhibit poor auditory sequential memory span, sound blending and discrimination difficulties, sound confusion, spelling problems, and sequential problems. Coco struggles to understand inferences – what is inferred instead of directly stated.

Attention Deficit

Attention is a mental process by which a person focuses thinking on a particular stimulus and ignores others. Attention allows a child to selectively focus on things heard or seen and resist being distracted by irrelevant sights and sounds. Focused attention is direct concentration on something. Selective attention involves the resistance to distraction, and sustained attention is continued focus over time. These dimensions work together to allow a child to attend.

#### **Classroom Problems Related to Attention**

- Limited ability to work for more than a few minutes on one thing.
- Failure to focus on relevant aspects of assignments.
- Difficulty in resisting distractions in the classroom.
- Incomplete work because the child did not sustain effort.
- Tendency to answer questions based on incomplete information.
- Tendency to answer the wrong question.
- Failure to start a task because the instructions were missed.

#### To Improve Attention

 $\cdot$  Model and teach strategies to improve attention and concentration:

1. Teach the use of verbal self-commands (e.g., "OK, be calm and think about the question.").

- 2. Teach focusing strategies (e.g., checking for critical features and careful listening).
- 3. Teach Coco to use only required materials.
- · Teach strategies to increase inhibition and organization:
  - 1. Encourage use of date books and special notebooks for organizing papers.
  - 2. Teach Coco to stop and think before responding.
  - 3. Teach Coco to count to 10 before answering.
- · Teach strategies to increase alertness:
  - 1. Teach Coco to be aware of his level of alertness.
  - 2. Teach Coco to use calming self-statements.
  - 3. Encourage planned breaks so effort does not have to take too long.
- · Teach a few strategies, but teach them well.

# Working Memory

Working memory is the capacity to hold information in mind, typically enabling one to think about problems, to focus on a goal, to carry out multistep activities, to complete multistep problems, or to follow complex instructions. Students with working memory difficulties may have problems remembering things even for a few seconds. They may lose track of what they are doing, forget what they went to get, or struggle with mental problem solving. Many students with problems sustaining working memory are viewed as inattentive and as having poor concentration.

#### External Structuring, Accommodations, and Modifications

**Preteach the Big Picture to Provide Meaningful Context**: Preteaching the general framework of new information and guiding attention to listen for important points can be an essential tool for circumventing working memory difficulties when they interfere with the ability to capture new material. Coco might meet with a resource teacher or aide at the outset of each day and preview the gist of what will be learned that day. Information may



need to be preorganized for Coco to reduce demands for working memory and to make encoding more efficient at the outset.

**Manage Quantity of Information Flow**: A child with working memory difficulties often needs tasks or information broken down into smaller steps or chunks. New information or instructions may need to be kept brief and to the point or repeated in concise fashion for Coco. Lengthy tasks, particularly those that Coco experiences as tedious or monotonous, should be avoided or interspersed with more frequent breaks or other, more engaging tasks. Cocomight be rewarded with a more stimulating activity, such as computer instruction time for completing the more tedious task.

Write it Down: One way to reduce the burden on working memory is to provide Coco with a hard copy of essential information such as facts, main ideas, or a list of steps for problem solving or an assignment. Providing an outline or set of notes at the start of class can alleviate working memory demands and allow Coco to listen actively rather than trying to listen, hold information, and write it down in real time.

**Reduce Distractions**: Given the negative impact of competing information on working memory, it is important to reduce distractions in the environment that can tax or disrupt sustained working memory.

### Student-Focused Interventions

**Provide External Memory Supports**: Children with working memory deficits often demonstrate difficulties keeping track of more than one or two steps at a time. Providing a written checklist of steps required to complete a task can serve as an external memory support and can alleviate some of the burden on working memory.

**Teach Strategies for New Learning and Memory Processing**: Coco can learn how to actively listen, such as stopping what he is doing at the time, focus his attention, ask questions, restate the information or question, or take notes.

**Mnemonic Devices** (i.e., memory strategies) are important tools to help children such as this learn, and later recall, basic skills and facts. Teaching Coco to chunk information may be useful in helping his increase the amount that he can learn or capture at one time. It may be necessary for Coco's teachers or his parents to help his learn how to approach new information as sets or groups of details rather than as a single series to facilitate chunking.

# Shifting

The ability to shift flexibly between situations, activities, or aspects of a problem is an essential component of self-regulation. Some students with mild difficulties shifting set may be described as inflexible, rigid in their thinking, or unable to change topics. More severe difficulties can be seen in resistance to change, perseverative or repetitive language and behavior, or sometimes emotional outbursts when confronted with change.

#### External Structuring, Accommodations, and Modifications

**Use External Guides to Assist Change**: A student with difficulties shifting can often adjust to changes in schedule or routine with the use of visual organizers such as pictures, schedules, planners, and calendar boards. This will let Coco know the order of activities for



the day and can alert him to variations in the usual sequence of events before they occur. Displaying a daily schedule and reviewing it at the outset of the day can help a student like Coco anticipate the sequence of events and can serve as a useful reminder of any changes in his daily routine.

#### Student-Focused Interventions

**Develop Positive, Alternative Routines**: For students who benefit from routines or who rigidly adhere to routines, developing positive and alternative routines can be functional. Essentially, Coco's day can be viewed as a sequence of routines—for example, morning, school, and evening. These can be further broken down into several subroutines: for example, the morning routine can be subdivided into brushing teeth, washing up, getting dressed, and packing a backpack for school. Coco may then be able to learn alternative subroutines, such as different ways to get to school, that can be practiced and swapped in and out of the larger routines. This can build in the appearance of flexibility.

**Present One Task at a Time**: Students with difficulties shifting attention and cognitive set often need to focus on only one task at a time. Presenting one task at a time and limiting choices to only one or two may be helpful.

**Practice Flexible Shifting**: Coco might benefit from practice with shifting attention and cognitive set. Working with two or three familiar tasks and rotating them at regular intervals can build in the appearance of greater flexibility and help Coco become more accustomed to shifting. Some students can benefit from external prompting to shift attention, behavior, or cognitive set from one activity or focus to the next.

# POINT OF CONTACT

For more information on these recommendations, contact Dr. Jerry Turner at (951) 453-8721.





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# APPENDIX A

Helping Handout: School Math Computation

