



In-Tuned®

Occupational Performance Evaluation

Student: [REDACTED] **DOB:** [REDACTED] **Age:** 9 years
Grade: 3rd Grade
School: PATH Academy
Parent(s)/Caregiver(s): [REDACTED]
Evaluator: Julia Grover-Barrey, OTR/L AZ License #1050

Student History and Present Narrative:

[REDACTED] has been receiving intensive tutoring for suspected dyslexia and dysgraphia. Although early milestones were on time, except for speech, his parent's felt development was not typical when child was 3-4 years old as he did not respond appropriately to auditory input.

[REDACTED] is reported to have motor skills delay interfering with age-appropriate activities, such as tying shoes, as well as difficulty completing basic activities of daily living (ADL) without cues. Parent and child both report he is ambidextrous. [REDACTED] is able to ride a two wheeled bicycle.

Diet is reported to be narrow, secondary to [REDACTED] being vegetarian, but also due to a sensitive gag reflex and textural issues. He is sensitive to clothing tags and textures, although no auditory hypersensitivity.

Child was born vaginally. He's reported to be healthy, with no sleep issues and on no medications. There is a + family history of bipolar disorder and anxiety, but no learning differences.

[REDACTED] is reported to have a good disposition. He gets on well with peers and adults. He is reported to have emotional regulation, although he likes to "negotiate".

Family composition: mother and father living in same household, older brother who is 11 y.o..

Family Objectives:

Parents would like [REDACTED] to be more independent with ADL and to improve his motor coordination. They would like to see some of his sensory challenges improve so he is able to enjoy food and his meals. They would like to improve the ease of academic skills for him, especially writing and math.

Occupational Performance Systems Review

Social Engagement/Communication: The social engagement system performance evaluation refers to how well a student can participate in a back-and-forth exchange of information with another person. How the student uses words and their body to communicate, establish personal boundaries, actively listen and actively filter are important aspects of navigating social encounters.

[REDACTED] is very engaging and engaged during reciprocal communication. He gave a sustained eye contact throughout the evaluation. He was observed doing self-talk during some activities he found difficult. He demonstrated some difficulty following instructions.

Motor Skills: Motor performance criteria will be based on what is age typical and developmental in nature. Does the student present with archetypal movement patterns and abilities, with integrated primitive reflexes and developed protective reflexes? Is the student able to isolate and coordinate their body parts and senses, as well as sustain effort for successful completion of age-appropriate motor tasks. Command of the physical body is essential for mental focus, optimal learning, and the ability to self-regulate.

Dominance —

(Brain hemisphere dominance is determined by hand dominance. Hemispheric dominance is the opposite side of the dominant hand. For instance, if someone is R hand dominant, they are L hemisphere dominant. It is preferable to have senses processed in the dominant hemisphere for ease of processing and ease of skill production. If senses are processed in the nondominant hemisphere there is lag time to process and act on information, thus we want to see a solid hand and hemisphere dominance emerging. Ideally dominance of hand, foot, eye and ear should be on the same side, otherwise the student may have mixed dominance pattern putting them at a disadvantage for optimal learning.)

[REDACTED] reported he can use either hand for handwriting. He was asked to remain using only his R hand for writing and drawing tasks during the evaluation. He attempted to

switch from R to L during drawing of repetitive circles on a linear trajectory, because he reported his R was “tired”. [REDACTED] was noted to draw circles mostly in a clockwise direction as a L handed person would. This evaluation demonstrated Simeon does not have solid hand dominance.

[REDACTED] demonstrated an extreme R eye dominance. He postured his head in a position to keep his R eye on a target instead of approaching dominance tasks in a typical binocular pattern.

R foot dominance observed. Ear dominance was not tested during this evaluation.

Reflexes –

(Retained primitive reflexes get in the way of progression towards command of the physical body and production of age-appropriate skills. Retained primitive reflexes and undeveloped protective reflexes block readiness for higher cognitive demand, especially academics and self-regulation. Reflex development and integration are objective signs of overall neurological maturity of the student.)

Common retained reflexes that interfere with motor control, attention and academic skills were tested during this evaluation. [REDACTED] demonstrated a + Asymmetrical Tonic Neck Reflex (ATNR) and + Babinski. He reported pain in his neck with passive range of motion (PROM), secondary to his adaptive shortening and habituation during head righting. He demonstrated a – Symmetrical Tonic Neck Reflex, - Spinal Gallant and - Spinal Perez. Developmental protective hand reflexes were all observed to be very weak, including hands grasping, hands pulling and hands supporting.

Gross Motor Skills –

(Muscle tone and activation, posture, stability in standing and sitting impact the student’s ability to sustain and successfully complete tasks.)

[REDACTED] demonstrated weakness in both postural extensor and flexor muscles, with 70% activation respectively. He was observed to be in postural balance, despite weakness and his center of gravity (COG) was in anatomical alignment. [REDACTED] did not demonstrate any significant tonal abnormalities during this evaluation. Head righting responses were atypical, and his postural stabilizers were noted to be tight with restrictions in PROM of his cervical spine during ATNR testing.

Motor Coordination and Balance –

(The ability to move in 3D patterns, crossing from one side of the body to the other and moving in an automated fashion are important for skills production, fluidity of movement and mental flexibility.)

R-L discrimination was inconsistent. [REDACTED] demonstrated difficulties with both finger to nose and fingertip approximation tasks. He was able to easily cross the midlines with his feet, but not his hands and eyes. Performance of homologous activities were superior to homolateral tasks, in which he had great difficulty. Static balance required modification of standing posture for success.

Fine Motor Skills –

(Handedness is the biggest determinant of hemispheric dominance and hand use plays a significant role in how we express ourselves. Skilled use of our hands leads to successful and accurate completion of tasks which positively fuel our motivations, but if age-appropriate manual skills are lacking frustration and avoidance patterns ensue.)

██████ lacks solid hand dominance. Motor planning difficulties evident for all fine motor tasks, greatest difficulty was handwriting. Bottom to top letter formation observed with reduced fluidity and consistency of space and size. Difficulties producing basic geometric shapes with a model and difficulty with automation producing upper case alphabet. During production of repetitive circles ██████ demonstrated increased self-talk, attempted switching hands at midline, poor consistency of size and difficulty keeping circles in a linear trajectory across the page.

Ocular Motor Skills –

(Movement and focus of the eyes support the work of the hands, as well the student's ability to sustain attention to task. The eyes need to work together, tracking across all midlines and to all quadrants smoothly, as well as move independently from the head.)

Atypical head righting and posturing during assessment observed. Reduced eye teaming evident. Poor crossing of vertical midline and horizontal midlines in smooth fashion. Lacked smooth saccades during eye tracking, poor efficiency, and accuracy of eye tracking to all visual fields observed. Difficulty isolating eye and head movement.

Visual Perceptual Skills: These skills reflect the brain's ability to make sense of and process visual input from the environment. Poor visual perception hinders independence in self-care activities, proficiency in reading and writing, and limits creative abilities.

Difficulty with L to R trajectory of eyes and hand observed. Difficulty reproducing basic geometric models.

Sensory Processing Skills: These skills are related to how the brain organizes and acts upon sensory information coming in from the environment. If sensory processing is happening in typical fashion student will have typical responses, but if the brain is unable to make sense of incoming sensory input and organize them output will be atypical. These atypical outputs are observable, repeatable, and predictable.

██████ did not demonstrate any profound sensory processing challenges during this evaluation, except for some suspected auditory processing difficulties.

Premotor planning difficulties were observed during many tasks, ie. delayed response, self-talk in prep and self-talk during, requesting do overs, false starts.

Executive Functions: Are a collection of cortical skills requiring top-down control. These skills consist of working memory, mental flexibility, problem solving, meeting the demands of the environment, sustaining focus, and resisting peripheral interference.

██████ was able to sustain visual and mental focus during the evaluation but needed some cues for following instructions as stated. No profound executive dysfunction was observed during this evaluation.

Summary of Findings:

██████ is a very engaging and social child presenting without any overt behavioral issues interfering with engagement, motivation, and cooperation interfering with overall function. ██████ is presenting with signs of auditory processing differences, which is the underlying factor in poor premotor planning and successful completion of motor tasks. ██████ demonstrates the most difficulty with more complex motor tasks, such as handwriting where there is more premotor planning required. He also has retained primitive reflexes, poorly developed protective hand reflexes, as well as ocular motor skills delay which contributes to his presentation of motor dyspraxia, dyslexia, and dysgraphia.

This evaluation is highly structured, without any significant interference challenging his attention. ADHD and learning differences often coexist. The difficulties ██████ has with ADL at home may also be in part due to attentional issues when his attention is stressed by other stimuli so ADHD as part of overall picture cannot be ruled out.

Recommendation(s):

1. **Auditory-temporal training is recommended to synchronize temporal lobes as the foundation of ██████'s presentation. The In-Tuned® Sound Project will be provided for use at home 5 days a week for a minimum of 20 minutes or 1 soundscape per day, although 2 soundscapes per day would be optimal. Listening using bone conduction, closed headphones is also recommended for best outcomes. Starting with this free program is recommended before purchasing an expensive listening system, like Advanced Brain Technologies:**
https://advancedbrain.com/?utm_source=google&utm_medium=pc&utm_campaign=US-SEM-BOF-Brand~Company&utm_term=advanced%20brain%20technologies&utm_content=494532597480&gad=1&gclid=Cj0KCQjw4NujB

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2. **1:1 In-Tuned® lessons are recommended to improve premotor planning, all motor skills, sensory processing, reflex development, and body awareness. These skills are the foundation of improvements in academic skills and improving independence in ADLs.**
 3. **██████ should engage in 1 community-based activity requiring him to use his body in a novel and challenging way to improve motor skills. Jiu Jitsu is recommended for its ballistic nature, training in multiple novel reciprocal motor patterns and intense proprioceptive input/processing.**
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05.25.2023_____

Date

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