

# Neurocognitive Evaluation Form

The *Neurocognitive Evaluation Form (NEF)* is an evaluation tool created in Colorado by two school psychologists with brain injury expertise, Peter Thompson, Ph.D. and Nicole Crawford, Ph.D. The NEF is not a stand-alone tool and is intended to augment other assessments and resources that are employed during a student evaluation. Unlike standardized assessments, the NEF provides necessary qualitative data that utilizes structured and verifiable observations by staff who work with the student.

The NEF may be used in a variety of ways by school staff that know the student of concern. The following points are common uses for the NEF:

1. Information from the NEF can be shared with school staff to increase their knowledge of cognitive areas that are highly sensitive to brain injury and may manifest in the classroom setting.
2. To detect specific areas of weakness or dysfunction that may form the basis for further targeted assessment.
3. To gather evaluation data and add to the body of evidence on a particular student.
4. To provide a way to gauge severity of deficits and therefore prioritize and determine areas for intervention.

## Usage and Considerations

There are many external variables, or antecedents, that need to be considered carefully when gathering information about students and their behavior at school. Several factors can influence student cognition, emotions and behaviors within a school day. Due to the myriad of external and situational factors, we must look at multiple data points, across time and settings to have an accurate picture of student functioning. The qualitative data gathered across times and settings are critical because it informs staff about when interventions are most likely to be effective. It is also recommended that staff consider situational and learning environmental factors when assessing student behavior to assist in a more accurate and appropriate evaluation approach.

### Situational Examples:

- o is hungry/missed breakfast
- o is upset about a fight between mom and dad that happened recently
- o is anxious about a test that day or getting back a score from a quiz taken earlier
- o is excited about an outing that is planned for that evening or weekend
- o was smiled at by someone he likes

### Learning Environment Considerations:

- o are consistent routines in place
- o are student desks appropriately spaced
- o is the lighting too bright/dim
- o are distractions minimized (noise from outside, a window overlooking the playground, etc.)
- o are interactions respectful and supportive
- o are age appropriate behavioral expectations posted and followed
- o is the environment organized and orderly (floor space, wall space, etc.)
- o is the environment engaging and motivating

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**Instructions:** The rater is asked to rank the student on several areas of functioning as compared to the student's **same aged** peers and/or classmates. A ranking of **Green** is considered an ability commonly observed in most (70%) students of similar age to the student and is not an area of primary concern for the student. A ranking of **Yellow** is an observed ability area that the student struggles, but the student can perform the task intermittently. A ranking of **Red** is a rarely observed or never observed ability area and signals a major area of concern. **Areas ranked Red or Yellow are domains that may be targeted for further assessment.**

Date \_\_\_\_\_ Rater's Name/Title: \_\_\_\_\_

Student's Name: \_\_\_\_\_ Student's Age and Grade: \_\_\_\_\_

Class Observed: \_\_\_\_\_ Time of Day and Day of Week: \_\_\_\_\_

Less positive

More Positive

| <b>ATTENTION<br/>3 SUBTYPES</b>                        |                                |                           |         |                           |                                |
|--|--------------------------------|---------------------------|---------|---------------------------|--------------------------------|
| SELECTIVE/FOCUSED                                      | Significantly<br>Below Average | Slightly Below<br>Average | Average | Slightly Above<br>Average | Significantly<br>Above Average |
| Focuses on teacher                                     |                                |                           |         |                           |                                |
| Attends to detail of task                              |                                |                           |         |                           |                                |
| Orients to speaker/staff                               |                                |                           |         |                           |                                |
| Focuses without<br>daydreaming                         |                                |                           |         |                           |                                |
| Looks at board   |                                |                           |         |                           |                                |
| Responds to questions<br>with on-topic answers         |                                |                           |         |                           |                                |
| Resists subtle classroom<br>distractions-noise, lights |                                |                           |         |                           |                                |
| SUSTAINED  |                                |                           |         |                           |                                |
| Focuses for age<br>appropriate periods of time         |                                |                           |         |                           |                                |
| Completes in-class<br>assignments                      |                                |                           |         |                           |                                |
| Loses train of thought<br>when talking or writing      |                                |                           |         |                           |                                |
| Loses place when working<br>on tasks or when reading   |                                |                           |         |                           |                                |

| SHIFTING/DIVIDED   |  |  |  |  |  |
|--|--|--|--|--|--|
| Can appropriately attend to more than one task at a time |  |  |  |  |  |
| Switches from activity to activity appropriately         |  |  |  |  |  |
| OTHER  |  |  |  |  |  |
| Overall attention capacity                               |  |  |  |  |  |
| Energy level when performing long academic tasks/tests   |  |  |  |  |  |
| Organized thoughts- (analyze writing samples)            |  |  |  |  |  |
| Controls impulses  |  |  |  |  |  |
| Avoids verbal interruptions                              |  |  |  |  |  |

**Other relevant observational notes for Attention:**

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# Neurocognitive Evaluation Form (NEF)

Less positive

More Positive

| MEMORY   |                             |                        |         |                        |                             |
|--|-----------------------------|------------------------|---------|------------------------|-----------------------------|
| <b>SHORT TERM MEMORY</b><br>(When student appears to be paying attention rank the following) | Significantly Below Average | Slightly Below Average | Average | Slightly Above Average | Significantly Above Average |
| Can repeat back simple information that was just presented                                   |                             |                        |         |                        |                             |
| Can copy from board without frequently looking up  |                             |                        |         |                        |                             |
| Asks for statements to be repeated   |                             |                        |         |                        |                             |
| Can complete simple 2-step requests or problems  |                             |                        |         |                        |                             |
| Follows directions correctly   |                             |                        |         |                        |                             |
| Can repeat/explain simple activities previously learned on same day                          |                             |                        |         |                        |                             |
| <b>WORKING MEMORY</b>  |                             |                        |         |                        |                             |
| Completes thought process in writing assignments   |                             |                        |         |                        |                             |
| Summarizes story/text (names characters, setting, details)                                   |                             |                        |         |                        |                             |
| Multi-tasks with accuracy  |                             |                        |         |                        |                             |
| Completes multistep problems- especially in math/science                                     |                             |                        |         |                        |                             |
| Picks up where left off  |                             |                        |         |                        |                             |
| Takes notes while listening to teacher   |                             |                        |         |                        |                             |
| Can write down assignments while being told the assignment                                   |                             |                        |         |                        |                             |
| Writes notes from the board while listening to instruction                                   |                             |                        |         |                        |                             |

| LONG TERM MEMORY  |  |  |  |  |  |
|---|--|--|--|--|--|
| Explains previously learned material/facts 30 minutes or more after instruction                 |  |  |  |  |  |
| Recalls school events from previous week  |  |  |  |  |  |
| Remembers where classroom materials are stored  |  |  |  |  |  |
| Remembers school routines   |  |  |  |  |  |
| Remembers most vocabulary words learned a week earlier  |  |  |  |  |  |
| Draws / recognizes previously learned pictures or diagrams                                      |  |  |  |  |  |
| OTHER   |  |  |  |  |  |
| Auditory Sequential Memory: Short term memory-repeats back 4 words in order (>8 years old)      |  |  |  |  |  |
| Working Memory: repeats back 3 given numbers and words in reverse order (>8 years old)          |  |  |  |  |  |
| Visual: student can name 3 pictures / objects that are exposed for a 5-6 seconds (>8 years old) |  |  |  |  |  |

**Other relevant observational notes for Memory:**

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# Neurocognitive Evaluation Form (NEF)

Less positive

More Positive

| PROCESSING SPEED   |                                |                           |         |                              |                                |
|--|--------------------------------|---------------------------|---------|------------------------------|--------------------------------|
| PROCESSING SPEED   | Significantly<br>Below Average | Slightly Below<br>Average | Average | Slightly<br>Above<br>Average | Significantly<br>Above Average |
| Responds to verbal directions/questions quickly  |                                |                           |         |                              |                                |
| Keeps pace with most of class  |                                |                           |         |                              |                                |
| Slow reading (control for comprehension)   |                                |                           |         |                              |                                |
| Completes tests/tasks on time  |                                |                           |         |                              |                                |
| Quickly finishes timed tasks accurately  |                                |                           |         |                              |                                |
| Recalls simple information quickly   |                                |                           |         |                              |                                |
| Writing or drawing speed   |                                |                           |         |                              |                                |
| Speech rate  |                                |                           |         |                              |                                |
| Speed of physical movement   |                                |                           |         |                              |                                |
| Sometimes seems confused after simple information is provided-not due to attention or memory |                                |                           |         |                              |                                |

**Other relevant observational notes for Processing Speed:**

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# Neurocognitive Evaluation Form (NEF)

Less positive

More Positive

| <b>EXECUTIVE FUNCTIONS<br/>(EF)</b>  |                                |                              |         |                              |                                   |
|--|--------------------------------|------------------------------|---------|------------------------------|-----------------------------------|
| PLANNING, ORGANIZATION,<br>COMPREHENSION, FLEXIBILITY  | Significantly<br>Below Average | Slightly<br>Below<br>Average | Average | Slightly<br>Above<br>Average | Significantly<br>Above<br>Average |
| Organization of materials  |                                |                              |         |                              |                                   |
| Organization of thoughts in writing/speech   |                                |                              |         |                              |                                   |
| Shifts appropriately from subject to subject   |                                |                              |         |                              |                                   |
| Is able to keep and utilize planner or schedule  |                                |                              |         |                              |                                   |
| Transitions well to different activities   |                                |                              |         |                              |                                   |
| Breaks down steps into smaller tasks   |                                |                              |         |                              |                                   |
| Ease at which learns new concepts (Comprehension)  |                                |                              |         |                              |                                   |
| Ease at which understands simple stories or concepts (Comprehension)                             |                                |                              |         |                              |                                   |
| Explains plans to meet an assignment, task, deadline, or activity                                |                                |                              |         |                              |                                   |
| After a short assigned problem, can explain logic used in problem solving                        |                                |                              |         |                              |                                   |
| When engaged in a problem solving task, uses feedback to help in the process (monitors progress) |                                |                              |         |                              |                                   |
| Can quickly adjust to changes in routine (Degree of Flexibility)                                 |                                |                              |         |                              |                                   |
| Keeps track of place when working on task or when reading  |                                |                              |         |                              |                                   |
| Moves beyond concrete or rigid approach to task  |                                |                              |         |                              |                                   |

| EF RELATED BEHAVIOR  |  |  |  |  |  |
|--|--|--|--|--|--|
| Motivation   |  |  |  |  |  |
| Controls Impulsivity   |  |  |  |  |  |
| Common sense/judgment  |  |  |  |  |  |
| Perspective taking/empathy<br>(consider age appropriateness) |  |  |  |  |  |
| Follows rules  |  |  |  |  |  |
| Overall attention  |  |  |  |  |  |
| Emotional/behavioral regulation                              |  |  |  |  |  |
| Concept formation/ idea<br>generation                        |  |  |  |  |  |
| On-topic reciprocal dialog                                   |  |  |  |  |  |
| Able to predict consequences of<br>behaviors                 |  |  |  |  |  |
| Can self-monitor and self-correct                            |  |  |  |  |  |
| Initiates tasks without prompts                              |  |  |  |  |  |
| Time management (e.g. keeps<br>schedules /dates)             |  |  |  |  |  |

**Other relevant observational notes for *Executive Function*:**

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# Neurocognitive Evaluation Form (NEF)

Less positive

More Positive

| Sensory/Tactile/Visual/Motor                                    |                                |                              |         |                              |                                |
|---|--------------------------------|------------------------------|---------|------------------------------|--------------------------------|
| SENSORIMOTOR  | Significantly<br>Below Average | Slightly<br>Below<br>Average | Average | Slightly<br>Above<br>Average | Significantly<br>Above Average |
| Posture   |                                |                              |         |                              |                                |
| Walking / running   |                                |                              |         |                              |                                |
| Fine motor (pencil grip/writing)<br>Picking up small pieces     |                                |                              |         |                              |                                |
| Gross motor   |                                |                              |         |                              |                                |
| Balance / muscle tone   |                                |                              |         |                              |                                |
| Touches each finger separately                                  |                                |                              |         |                              |                                |
| Mimics simple body movements<br>(hand gestures, knock and taps) |                                |                              |         |                              |                                |
| Traces or copies figures  |                                |                              |         |                              |                                |
| Identifies simple objects placed in<br>hand with eyes closed    |                                |                              |         |                              |                                |
| Clumsy, awkward, unusual<br>movements                           |                                |                              |         |                              |                                |
| VISUAL-SPATIAL / PERCEPTUAL                                     |                                |                              |         |                              |                                |
| Skills puzzles/blocks   |                                |                              |         |                              |                                |
| Understands right vs. left and Up<br>vs. Down                   |                                |                              |         |                              |                                |
| Ignores one side of paper while<br>writing or drawing/coloring  |                                |                              |         |                              |                                |
| Grossly distorted drawings that are<br>directly copied          |                                |                              |         |                              |                                |
| Difficulty using graphs, maps,<br>charts and illustrations      |                                |                              |         |                              |                                |
| Lots of scratch outs/white outs                                 |                                |                              |         |                              |                                |

| TACTILE/AUDITORY/VISUAL                         |  |  |  |  |  |
|---|--|--|--|--|--|
| Light Sensitivity                               |  |  |  |  |  |
| Noise Sensitivity                               |  |  |  |  |  |
| Touch Sensitivity                               |  |  |  |  |  |
| Color Blindness                                 |  |  |  |  |  |
| Hearing (ex. Responds to name)                  |  |  |  |  |  |
| Sees details/writing on board from back of room |  |  |  |  |  |
| Sensitive to temperature                        |  |  |  |  |  |
| Complains of numbness or odd sensations         |  |  |  |  |  |

**Other relevant observational notes for Sensory:**

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# Neurocognitive Evaluation Form (NEF)

Less positive

More Positive

| Cognitive Fatigue   |                             |                                |                           |               |                             |
|---|-----------------------------|--------------------------------|---------------------------|---------------|-----------------------------|
| COGNITIVE FATIGUE   | Significantly Below Average | Slightly Below Average         | Average Compared To Peers | Above Average | Significantly Above Average |
| Can complete all tasks throughout the school day                    |                             |                                |                           |               |                             |
| Word retrieval and speech consistent throughout day                 |                             |                                |                           |               |                             |
| Controls attention capacity throughout day                          |                             |                                |                           |               |                             |
| Controls energy level throughout day                                |                             |                                |                           |               |                             |
| Controls behavior and emotions after moderately difficult test/task |                             |                                |                           |               |                             |
| Physical stamina after long tasks                                   |                             |                                |                           |               |                             |
| Mark the following areas YES or NO                                  | <b>Yes (Problem area)</b>   | <b>No (not a problem area)</b> |                           |               |                             |
| States feeling in a "fog" or feeling "sluggish"                     |                             |                                |                           |               |                             |
| Sensitive to lights / noise after moderate exposure                 |                             |                                |                           |               |                             |
| Stares blankly at times   |                             |                                |                           |               |                             |
| Consistently states feeling tired/sleepy                            |                             |                                |                           |               |                             |
| Energy level is consistent throughout day as compared to peers      |                             |                                |                           |               |                             |

**Other relevant observational notes for Cognitive Fatigue**

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