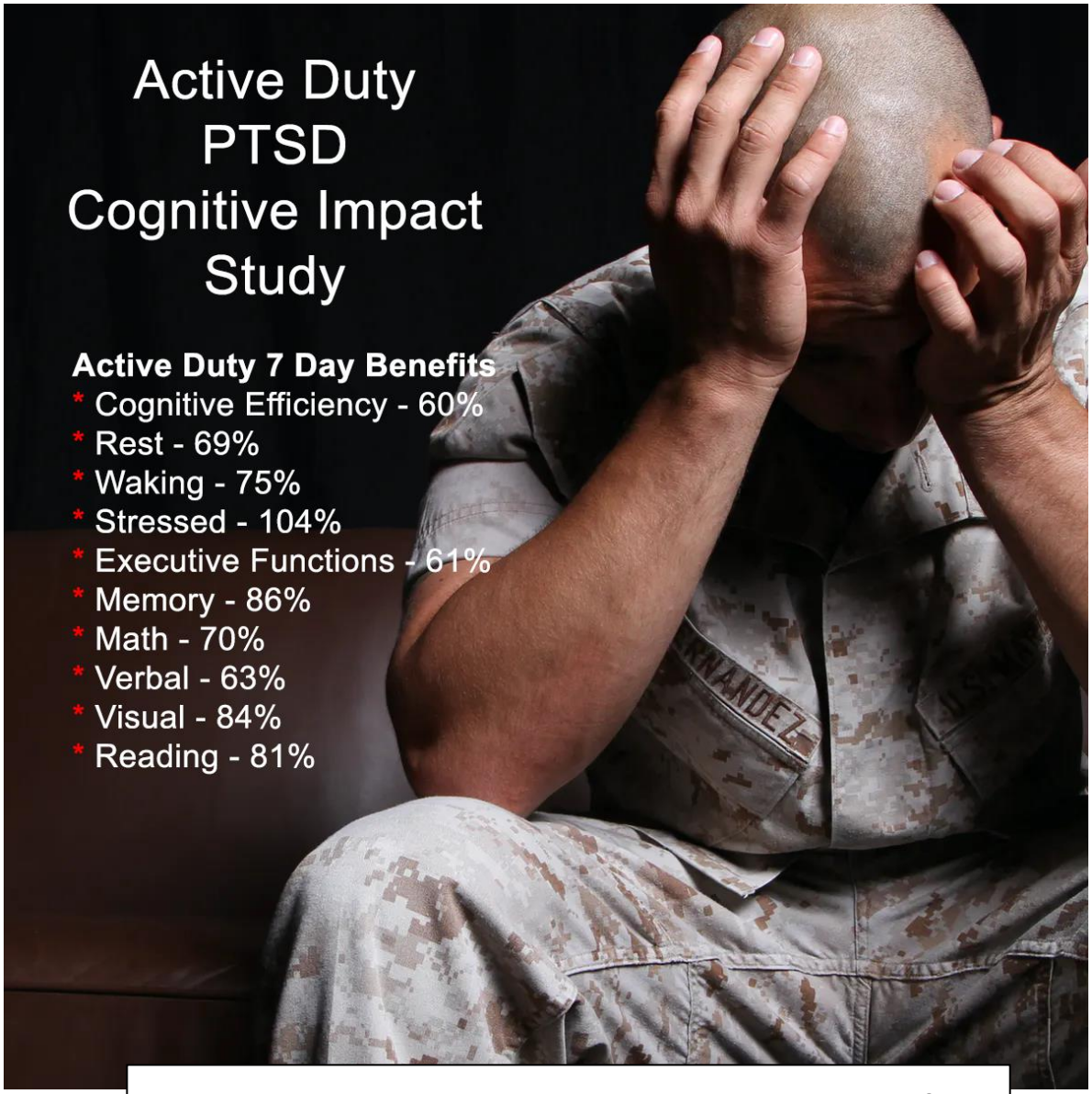
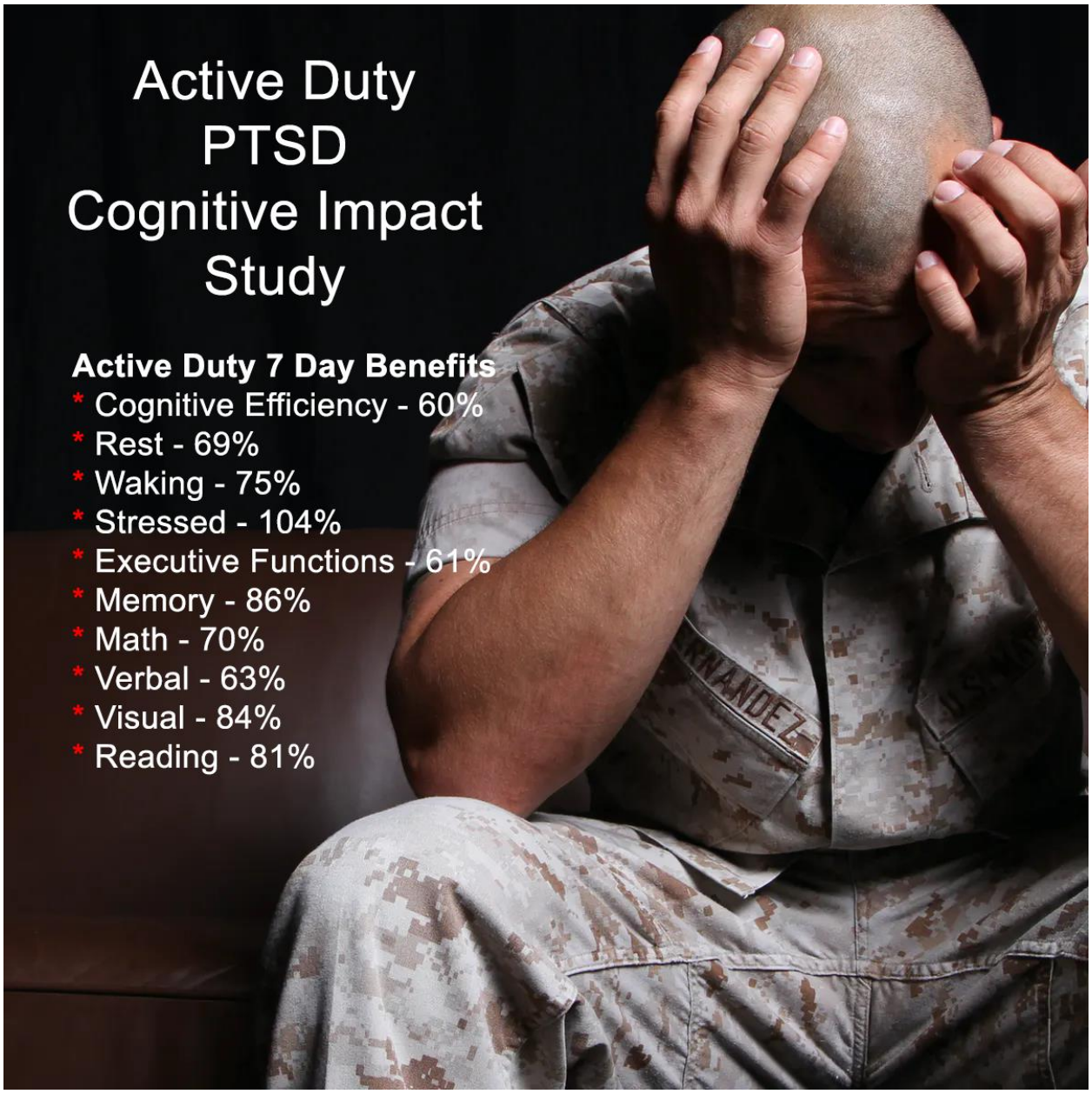
ACTIVE DUTY Rx



PTSD Cognitive Impact Study



QEEG PTSD Study Results

for Active Duty Rx Supplement

Study and Report Prepared by Dr. Twyla Wilson, ND PhD in 2020

Active Duty Rx commissioned a 5 person QEEG study to evaluate the potential benefits of using their product over a 7 day period.

A baseline QEEG test was performed on each of the 5 participants. Seven (7) days later a follow-up QEEG was performed on each participant.

The outcomes and an evaluation of the test results are the subject of this report.

QEEG stands for Quantitative Electroencephalogram aka EEG. The test results are commonly referred to as Brain Maps. Brain Map indices help us understand fundamental cognitive issues.

- Baseline QEEG Brain Maps are referenced in this report as M1
- 7 Days Later Follow-up QEEG Brain Maps are referenced in this report as M2

QEEG Brain Mapping is based upon well established and vetted data gathering techniques, which adhere to international locus standards and protocols. These standards correlate to cognitive functions. The data acquired is transmitted to a major western university for evaluation. The University evaluator returns the data in a visual representation known as a "Brain Map".

Methodology

A standardized Neuro-Map QEEG Electrode Cap is fitted on the head of each participant; readings are taken after testing to ensure that all electrodes are reading properly. The cap is a component of a Clear Mind Neurofeedback system which was used to gather and transmit the data.

Both left and right hemispheres are evaluated. Five (5) areas per hemisphere are evaluated for function. The five areas are:

1. O1/O2 = Occipitals – representing visual processing, procedural memory and dreaming
2. P3/P4 – Parietal lobes – visual processing, spatial, personality, context, rumination…
3. T3/T4 – Temporal lobes – emotions, categorization, organization, visualization, auditory
4. C3/C4 – Central – sensory and motor functions
5. F3/F4 – short term memory, vigilance, attention, working memory, problem solving

Certain foods, drugs, and lifestyles impact brain wave states. To normalize the study results participants were asked to come in for testing with no change to medication, diet or life style.

This request was made to eliminate those factors from the testing data.

The participants were all given a 7 day supply of Active Duty Rx and asked to take the product as directed during the 7 day trial period. The results of this phase are represented as M2.

Participants varied in age, gender, social status – all have in common PTSD symptoms.

Participation was voluntary and no compensation was offered for participation.

The study findings are both encouraging and impressive, as is illustrated by the summary table below.

Summary Results Active Duty Rx - Study Averages

	M1	M2	Delta	% Improvement
Cognitive Efficiency	132	221	89	60%
Rest	131	190	59	69%
Waking	188	250	62	75%
Stressed	271	260	-11*	104%
Executive Functions	121	197	76	61%
Memory	153	177	24	86%
Math	35	50	15	70%
Verbal	52	83	31	63%
Visual	89	106	17	84%
Reading	61	75	14	81%

this negative number represents a reduction in stress, evaluated as a positive response.

Table 1 – Average Overall Study Results

As you can see the overall outcomes were very positive.

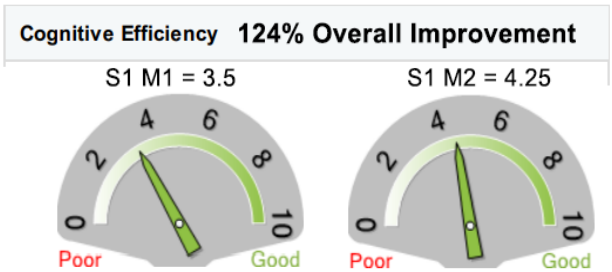
Cognitive Traits – 10 Categories

Cognitive Efficiency is a measure of overall information processing – including processing speed, comprehension, retention and recall. CE helps us get a quick snap shot of the overall capabilities and challenges faced by the subject.

Cognitive Efficiency evaluates the following:

1. Attention
2. Verbal Processing
3. Decision Making
4. Visual Processing
5. Motivation
6. Reading Comprehension
7. Problem Solving
8. Math Comprehension
9. Memory

Example of Gauge Evaluation



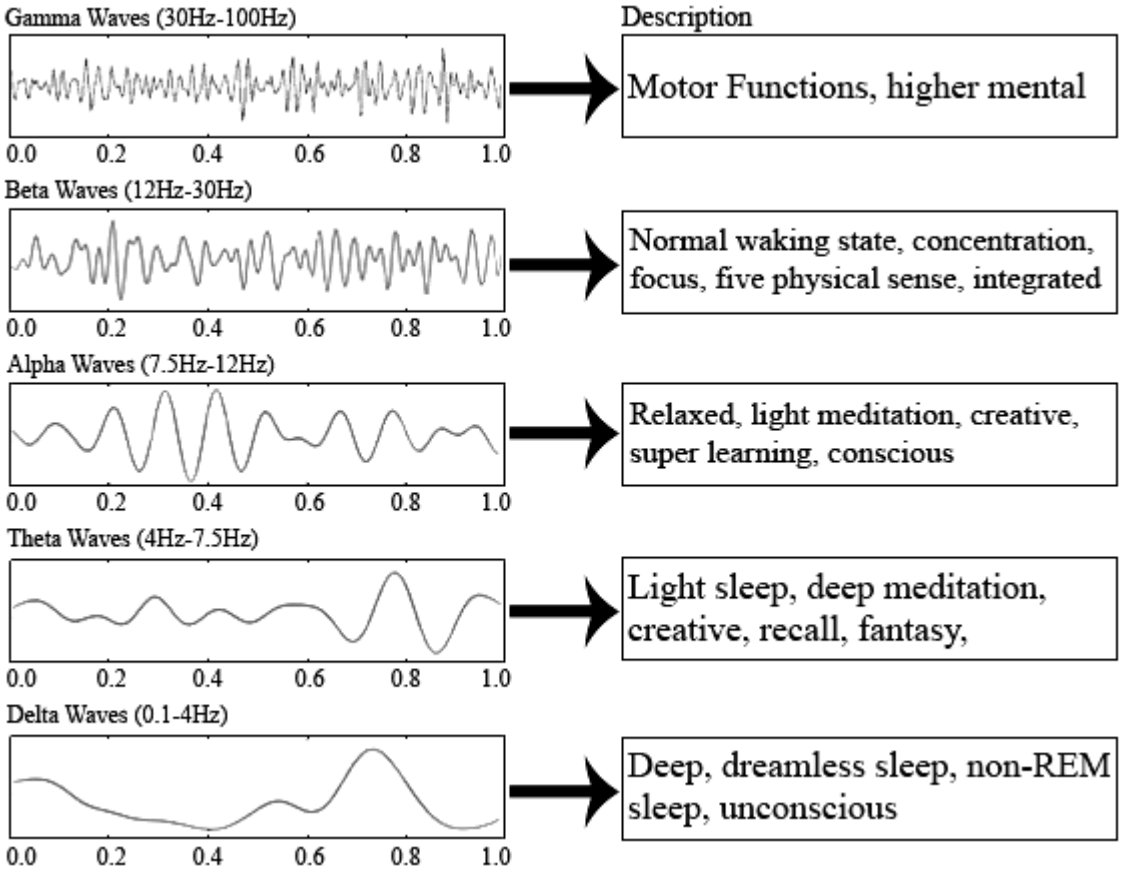
Overall numbers include point evaluations

Each of these broad categories is further weighted and detailed in the analysis.

Scoring was based on 2 parts:

1) Gauge Evaluation
    a. Cognitive Efficiency Gauge reads from left (Poor) to right (Good)
    b. All other Gauges read left (Good) to right (Poor)
    c. As a result the data has been normalized
2) Point Evaluation
    a. Point assignments:
        i. Red = 1
        ii. Yellow = 5
        iii. Green = 10
    b. A total of 570 points per QEEG are possible

Brain Waves are measured as Global Variables



- Please note that this QEEG Mapping tool does not evaluate Gamma waves.

Global Underactive designated by QEEG represents the combination of Delta and Theta brain waves. Delta is deep sleep and Theta is twilight – between full consciousness and deep sleep.

- Referenced as **Rest** in this report

Global Inhibited is the **Alpha** band – it is normal consciousness, relaxed and is considered to be a creative state where learning is enhanced.

- Referenced as **Waking** in this report

Global Overactive is the Beta band – it is an interactive state of consciousness, and covers everything from interacting with others, talking, presenting to higher states of stress.

- Referenced as **Stressed** in this report

Delta / Theta Traits – total of 70 possible points

1) Impulsive
2) Socially Inappropriate
3) Hyper Active
4) Easily Distracted
5) Excessive Speech
6) Disorganized
7) Hyper Emotional

Often those with PTSD, Anxiety, Depression… have difficulty getting into or sustaining Delta and Theta states. Difficulties here are often mirrored in Beta state issues. Amelioration of Delta and Theta impairments maybe reflected in improvements in handling stress and overall improvements in health and general well-being.

This is an area where Active Duty Rx can prove to be most beneficial to users.

Alpha Traits – total of 80 possible points

1) Victim Mentality
2) Excessive Self Concern
3) Rumination
4) Anger
5) Self Depreciation
6) Agitation
7) Irritability
8) Passive Aggressive

Beta Traits – total of 70 possible points

1) Worry
2) Hyper Vigilant
3) Obsessive Thinking
4) Dislikes Change
5) Excessive Rationalization
6) Restlessness
7) Poor Emotional Self Awareness

Helping the Patient / Client achieve better Delta and Theta can have a very positive impact on their ability to cope with stress as measured by Beta states.

Beta or Stress is a universal issue for those with PTSD and similar related conditions. Improvements here can yield profound and wide ranging benefits.

Executive Functions – total of 70 possible points

1) Attention
2) Categorization
3) Decision Making
4) Filtering
5) Motivation
6) Problem Solving
7) Socio-Emotional Decision Making

Memory Processing Traits – total of 70 possible points

1) Declarative
2) Episodic
3) Procedural
4) Sequential
5) Short Term
6) Short Term Digits
7) Working

Math Processing Abilities – total of 10 possible points

1) Math Comprehension

Verbal Processing Traits – total of 40 possible points

1) Dialogue Organization
2) Short Term Verbal
3) Tone Sequencing
4) Verbal Sequencing

Visual Processing Traits – total of 50 possible points

1) Event Sequencing
2) Face Decoding & Recognition
3) Figure Memory
4) Short Term Visual Memory
5) Spatial Sequence

Reading Processing Traits – total of 20 possible points

1) Speed

2) Comprehension

Active Duty - Cognitive Evaluation PTSD Study

		M1	Points 1	M2	Points	Pt Delta	% Delta
S1	Overall Change	175%	274	83%	367	93	155%
S2	Overall Change	58%	243	94%	322	79	177%
S3	Overall Change	50%	238	81%	339	101	168%
S4	Overall Change	80%	179	87%	186	7	306%
S5	Overall Change	46%	211	85%	293	82	195%
Average		82%	229	86%	301.4	72.4	**200%**
Median		58%	238	85%	322	82	**177%**

M1	baseline QEEG Overall Impact %
Points 1	cumulative points score N/570, N= their overall score 570 is the total possible score
M2	QEEG 7 Day follow-up Overall Impact %
Points 2	Points accumulated on 2nd QEEG
Pt Delta	the point difference between M1 and M2
% Delta	the percentage difference between M1 and M2
S1 – S5	indicate Study Subjects 1 through 5

The overall 7 day benefit average is 200%

The overall 7 day benefit median is 177%

Reference the individual study results for more detail.

Detail provided by Category Analysis and by Gauge and Point Analysis, method assigned and described above.

Please direct your questions to:

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Individual Study Details to Follow

Overall Change	**175%**	**274**	**83%**	**367**	**93**	**155%**

Subject 1	**M1**	**Pt Score**	**M3**	**Pt Score**	**Delta**	**Pt Improv**
Cognitive Efficiency = 42/90	**35%**	**34**	**43%**	**42**	**82%**	**124%**
Attention	y	5	r	1		
Verbal Processing	r	1	y	5		
Decision Making	y	5	y	5		
Visual Processing	r	1	y	5		
Motivation	y	5	y	5		
Reading Comprehension	r	1	y	5		
Problem Solving	y	5	y	5		
Math Comprehension	g	10	g	10		
Memory	r	1	r	1		
Delta Theta = 47/70	**4.1%**	**33**	**6.5%**	**47**	**159%**	**142%**
Impulsive	r	1	r	1		
Socially Inappropriate	y	5	y	5		
Hyper Active	r	1	g	10		
Easily Distracted	y	5	g	10		
Excessive Speech	g	10	g	10		
Disorganized	g	10	g	10		
Hyper Emotional	r	1	r	1		
Alpha =61/80	**5.9%**	**39**	**2.8%**	**61**	**47%**	**156%**
Victim Mentality	r	1	g	10		
Excessive Self Concern	r	1	y	5		
Rumination	r	1	r	1		
Anger	g	10	g	10		
Self Depreciation	r	1	g	10		
Agitation	g	10	g	10		
Irritability	g	10	g	10		
Passive Aggressive	y	5	y	5		
Beta = 65/70	**9.9%**	**56**	**1.5%**	**65**	**151.5%**	**116%**
Worry	r	1	y	5		
Hyper Vigilant	g	10	g	10		
Obsessive Thinking	g	10	g	10		
Dislikes Change	g	10	g	10		
Excessive Rationalization	r	5	g	10		
Restless	g	10	g	10		
Poor Emotional Self Awareness	g	10	g	10		

Executive Functions = 36/70	**5.0%**	**35**	**5.0%**	**36**	**1%**	**103%**
Attention	y	5	r	1		
Categorization	y	5	g	10		
Decision Making	y	5	y	5		
Filtering	y	5	y	5		
Motivation	y	5	y	5		
Problem Solving	y	5	y	5		
Socio-Emotional Decision Making	y	5	y	5		

Memory Processing = 41/70	**4.1%**	**27**	**5.8%**	**41**	**140%**	**152%**
Declarative	y	5	y	5		
Episodic	g	10	y	5		
Procedural	y	5	g	10		
Sequential	y	5	y	5		
Short Term	r	1	r	1		
Short Term Digits	r	1	y	5		
Working	y	5	g	10		

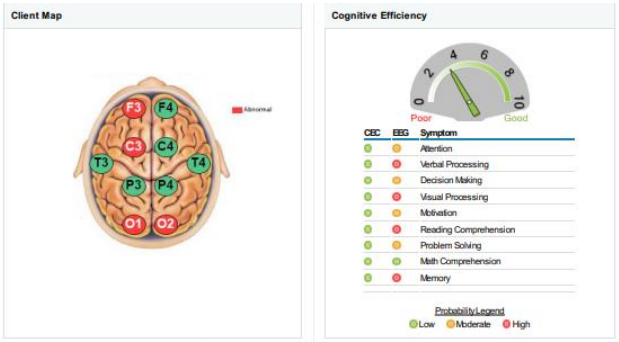
Math = 10/10	**100%**	**10**		**10**		
Math Comprehension	g	0.0%	g	0.0%	perfect score	

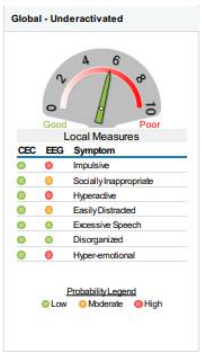
Verbal = 20/40	**3.9%**	**16**	**5.0%**	**20**	**128%**	**125%**
Dialogue Organization	y	5	y	5		
Short Term Verbal	y	5	y	5		
Tone Sequencing	y	5	y	5		
Verbal Sequencing	r	1	y	5		

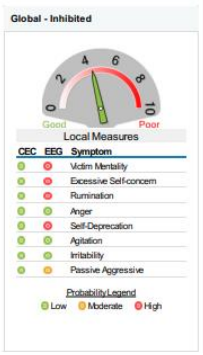
Visual = 30/50	**2.0%**	**13**	**6.0%**	**30**	**300%**	**231%**
Event Sequencing	r	1	y	5		
Face Decoding & Recognition	r	1	y	5		
Figure Memory	r	1	y	5		
Short Term Visual Memory	y	5	y	5		
Spatial Sequence	y	5	g	10		

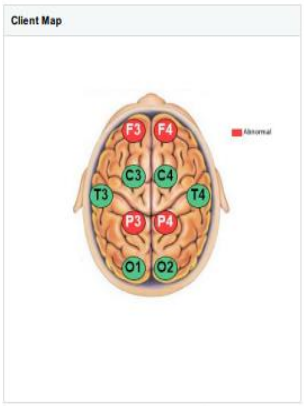
Reading = 15/20	**5.0%**	**11**	**7.5%**	**15**	**150%**	**136%**
Speed	g	10	g	10		
Comprehension	r	1	y	5		

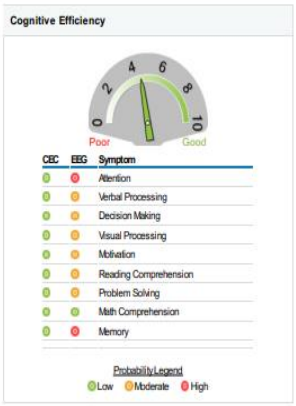
Subject 1 Baseline











Subject 1 – 7 Day

Cognitive Efficiency

- M1 – CE = 3.5
- M2 – CE = 4.25

Improvement 124%

Global Inhibited

- M1 – Alpha = 4.1
- M2 – Alpha = 7.25

Improvement 162%

Global Overactive

- M1 – Beta = 10
- M2 – Beta = 8.5

Improvement 116%

Global Underactive

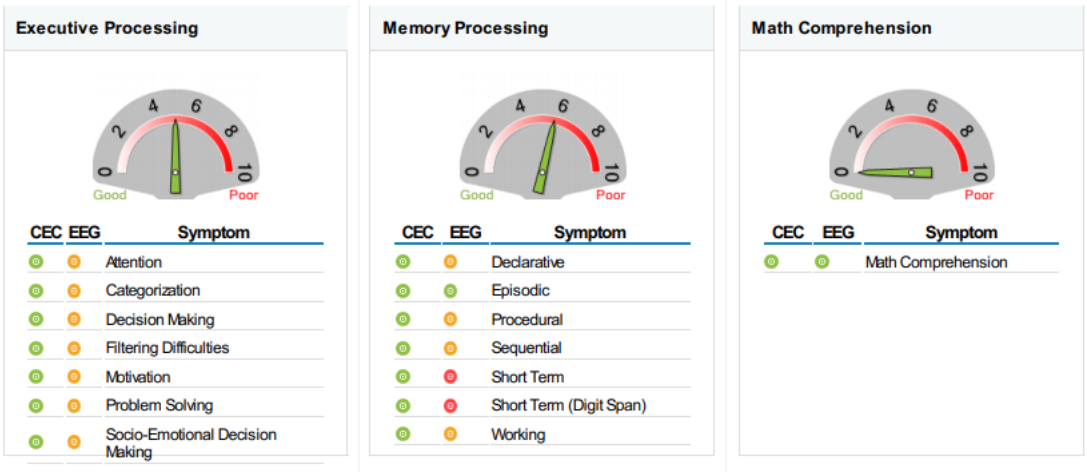
- M1 – Delta = 5.9
- M2 – Delta = 3.5

Improvement 142%

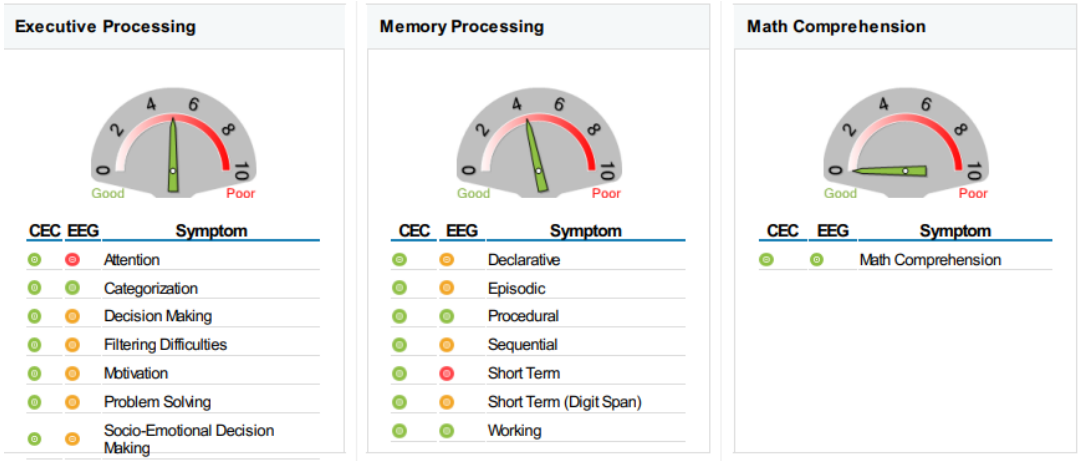
Cognitive efficiency is the brain's ability to process information. It is used to estimate the Overall Cognitive Efficiency of the Subject. It covers 9 primary functions.

Brain Wave States: **Delta & Theta** are Global Underactive represents sleep and twilight states, Global Inhibited is the **Alpha** state representing normal waking, Global Overactive are **Beta** states which indicate interactive through stressed states.

Subject 1 Baseline



Subject 1 - 7 Days



Executive Processing

- M1 – Exec = 5
- M2 – Exec = 4.9

Improvement 103%

Memory Processing

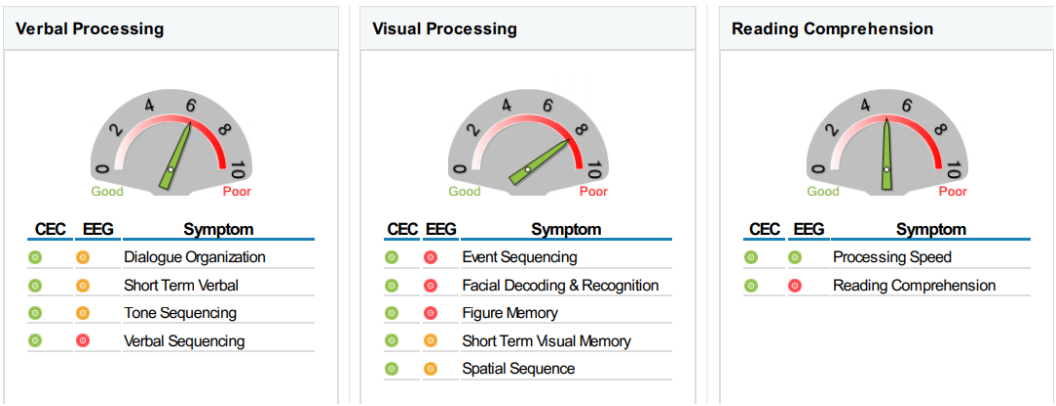
- M1 – Mem = 5.9
- M2 – Mem = 4.25

Improvement 152%

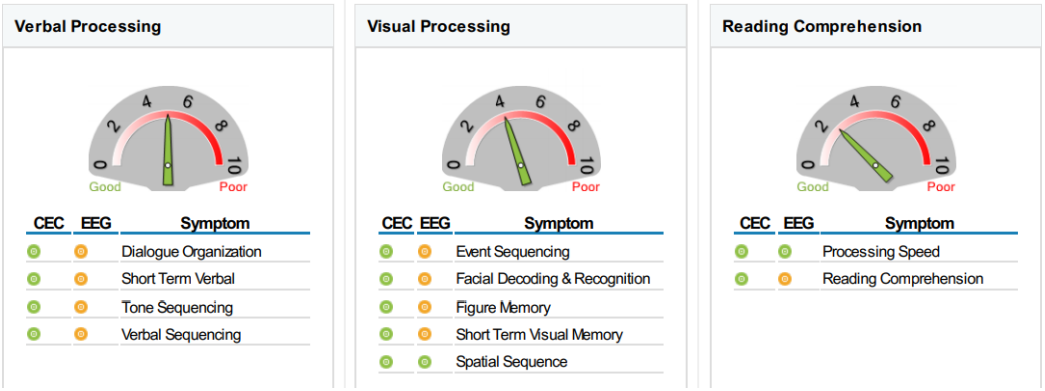
Math Comprehension

- M1 – Math = 0
- M2 – Math = 50

100% Functioning



Subject 1 – 7 Day



Verbal Processing

- M1 = 6.1
- M2 = 5

Improvement 103%

Visual Processing

- M1 = 8
- M2 = 4

Improvement 231%

Reading Comprehension

- M1 = 5
- M2 = 2.5

Improvement 136%

Overall Change	**58%**	**243**	**94%**	**322**	**79**	**177%**

Subject 2	M1		M3		Delta	
Cognitive Efficiency 48/90	**15%**	**17**	**50%**	**48**	**333%**	**282%**
Attention	r	1	y	5		
Verbal Processing	r	1	r	1		
Decision Making	r	1	g	10		
Visual Processing	r	1	r	1		
Motivation	r	1	g	10		
Reading Comprehension	y	5	y	5		
Problem Solving	r	1	g	10		
Math Comprehension	y	5	y	5		
Memory	r	1	r	1		
Delta Theta 34/70	**2.9%**	**25**	**4.1%**	**34**	**141%**	**136%**
Impulsive	r	1	r	1		
Socially Inappropriate	r	1	r	1		
Hyper Active	r	1	g	10		
Easily Distracted	r	1	g	10		
Excessive Speech	g	10	g	10		
Disorganized	g	10	r	1		
Hyper Emotional	r	1	r	1		
Alpha 39/80	**5.9%**	**57**	**4.1%**	**39**	**69%**	**68%**
Victim Mentality	y	5	y	5		
Excessive Self Concern	g	10	g	10		
Rumination	g	10	g	10		
Anger	g	10	r	1		
Self Depreciation	r	1	r	1		
Agitation	g	10	g	10		
Irritability	g	10	r	1		
Passive Aggressive	r	1	r	1		
Beta 60/70	**4.1%**	**65**	**2.8%**	**60**	**67%**	**92%**
Worry	g	10	g	10		
Hyper Vigilant	g	10	y	5		
Obsessive Thinking	g	10	g	10		
Dislikes Change	g	10	g	10		
Excessive Rationalization	y	5	y	5		
Restless	g	10	g	10		
Poor Emotional Self-Awareness	g	10	g	10		

Executive Functions 46/70	**1.5%**	**15**	**6.2%**	**46**	**416%**	**307%**
Attention	r	1	y	5		
Categorization	y	5	y	5		
Decision Making	r	1	g	10		
Filtering	y	5	y	5		
Motivation	r	1	g	10		
Problem Solving	r	1	g	10		
Socio-Emotional Decision Making	r	1	r	1		

Memory Processing 36/70	**3.8%**	**27**	**5.0%**	**36**	**133%**	**133%**
Declarative	y	5	y	5		
Episodic	y	5	y	5		
Procedural	r	1	r	1		
Sequential	y	5	y	5		
Short Term	y	5	y	5		
Short Term Digits	y	5	y	5		
Working	r	1	g	10		

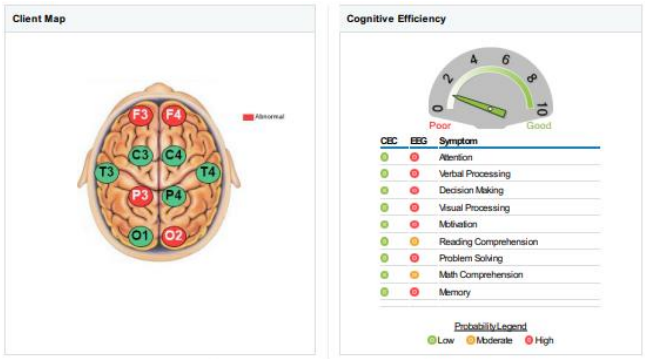
Math 10/10	**5%**	**5**	**7.8%**	**10**	**155%**	**200%**
Math Comprehension	y	5	g	10		

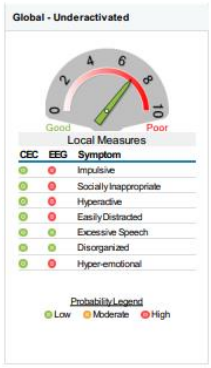
Verbal 17/40	**10.0%**	**4**	**3.9%**	**17**	**39%**	**425%**
Dialogue Organiztion	r	1	y	5		
Short Term Verbal	r	1	g	10		
Tone Sequencing	r	1	r	1		
Verbal Sequencing	r	1	r	1		

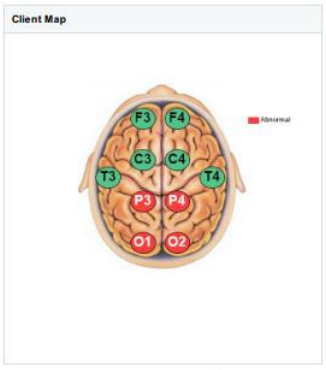
Visual 17/50	**2.0%**	**13**	**3.0%**	**17**	**150%**	**131%**
Event Sequencing	r	1	r	1		
Face Decoding & Recognition	y	5	y	5		
Figure Memory	y	5	y	5		
Short Term Visual Memory	r	1	y	5		
Spatial Sequence	r	1	r	1		

Reading 15/20	**7.5%**	**15**	**7.5%**	**15**	**1%**	**1%**
Speed	g	10	y	10		
Comprehension	y	5	g	5		

Subject 2 Baseline







Subject 2 – 7 Day

Cognitive Efficiency

- M1 – CE = 1.5
- M2 – CE 5

Improvement 282%

Global Underactive

- M1 – Delta = 7
- M2 – Delta = 5.9

Improvement 136%

Global Inhibited

- M1 – Alpha = 4.1
- M2 – Alpha = 5.9

Improvement 68%

Global Overactive

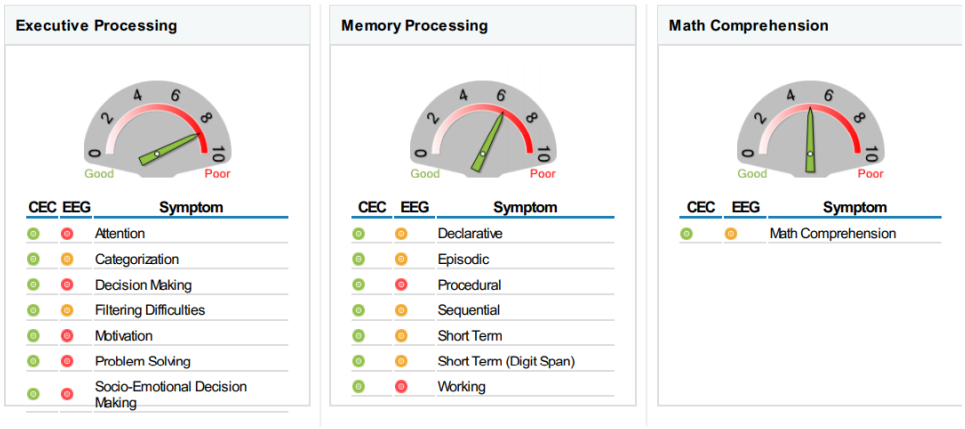
- M1 – Beta = 5.9
- M2 – Beta = 7.25

Improvement 92%

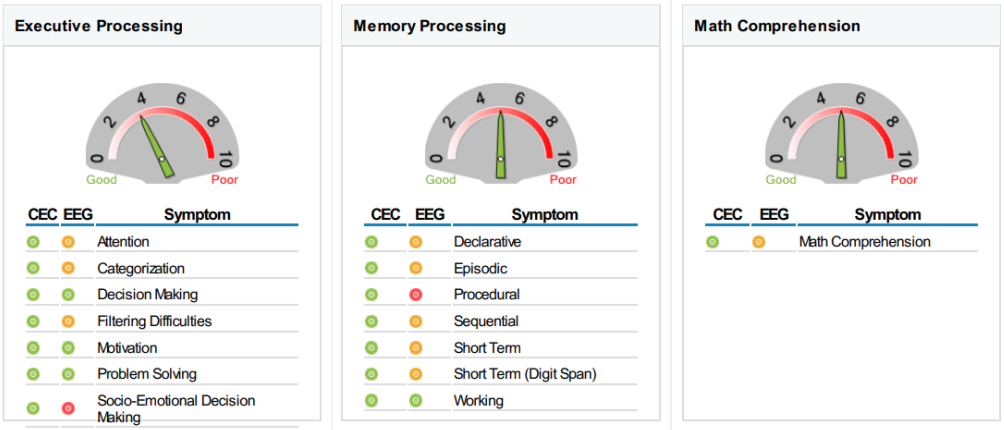
Cognitive efficiency is the brain's ability to process information. It is used to estimate the Overall Cognitive Efficiency of the Subject. It covers 9 primary functions.

Brain Wave States: **Delta & Theta** are Global Underactive represents sleep and twilight states, Global Inhibited is the **Alpha** state representing normal waking, Global Overactive are **Beta** states which indicate interactive through stressed states.

Subject 2 Baseline



Subject 2 – 7 Day



Executive Processing

- M1 – Exec = 8.5
- M2 – Exec = 3.5

Improvement 307%

Memory Processing

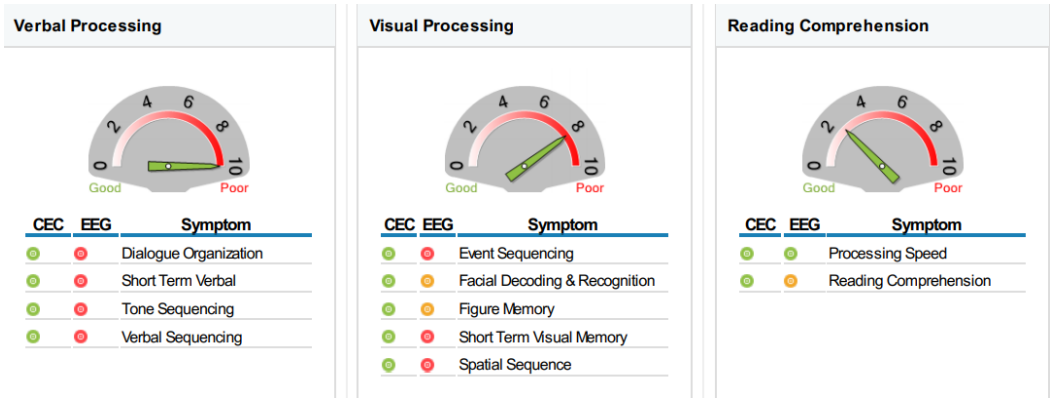
- M1 – Mem = 6.5
- M2 – Mem = 4.9

Improvement 133%

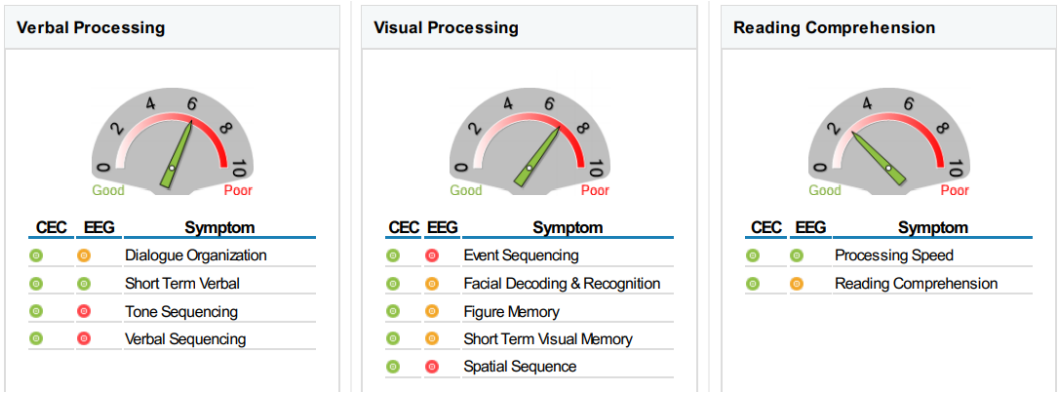
Math Comprehension

- M1 – Math = 5
- M2 – CE 5

50% Average Functioning



Subject 2 – 7 Day



Verbal Processing

- M1 – Verb = 10
- M2 – Verb = 6.1

Improvement 425%

Visual Processing

- M1 – Vis = 8
- M2 – Vis = 7

Improvement 131%

Reading Comprehension

- M1 – Read = 2.5
- M2 – Read = 2.5

85% Functioning

Subject 3	M1		M3		Delta	
Cognitive Efficiency 38/90	**19%**	**22**	**35%**	**38**	**184%**	**173%**
Attention	r	1	r	1		
Verbal Processing	r	1	y	5		
Decision Making	r	1	r	1		
Visual Processing	r	1	y	5		
Motivation	r	1	y	5		
Reading Comprehension	y	5	y	5		
Problem Solving	r	1	y	5		
Math Comprehension	g	10	g	10		
Memory	r	1	r	1		
Delta Theta 47/70	**1.5%**	**16**	**6.5%**	**47**	**433%**	**294%**
Impulsive	r	1	r	1		
Socially Inappropriate	r	1	y	5		
Hyper Active	r	1	g	10		
Easily Distracted	r	1	g	10		
Excessive Speech	g	10	g	10		
Disorganized	r	1	g	10		
Hyper Emotional	r	1	r	1		
Alpha 56/80	**7.1%**	**34**	**10.0%**	**56**	**141%**	**165%**
Victim Mentality	y	5	g	10		
Excessive Self Concern	g	10	r	1		
Rumination	y	5	g	10		
Anger	r	1	y	5		
Self Depreciation	r	1	g	10		
Agitation	g	10	g	10		
Irritability	r	1	y	5		
Passive Aggressive	r	1	y	5		
Beta = 61/70	**0.0%**	**70**	**5.9%**	**61**	**1%**	**87%**
Worry	g	10	r	1		
Hyper Vigilant	g	10	g	10		
Obsessive Thinking	g	10	g	10		
Dislikes Change	g	10	g	10		
Excessive Rationalization	g	10	g	10		
Restless	g	10	g	10		
Poor Emotional Self-Awareness	g	10	g	10		

Executive Functions 29/70	**2.1%**	**20**	**3.8%**	**29**	**179%**	**145%**
Attention	r	1	r	1		
Categorization	y	5	g	10		
Decision Making	r	1	r	1		
Filtering	g	10	g	10		
Motivation	r	1	r	1		
Problem Solving	r	1	y	5		
Socio-Emotional Decision Making	r	1	r	1		

Memory Processing 38/70	**3.8%**	**27**	**5.0%**	**38**	**133%**	**141%**
Declarative	y	5	r	1		
Episodic	y	5	g	10		
Procedural	y	5	y	5		
Sequential	y	5	r	1		
Short Term	r	1	r	1		
Short Term Digits	y	5	g	10		
Working	r	1	g	10		

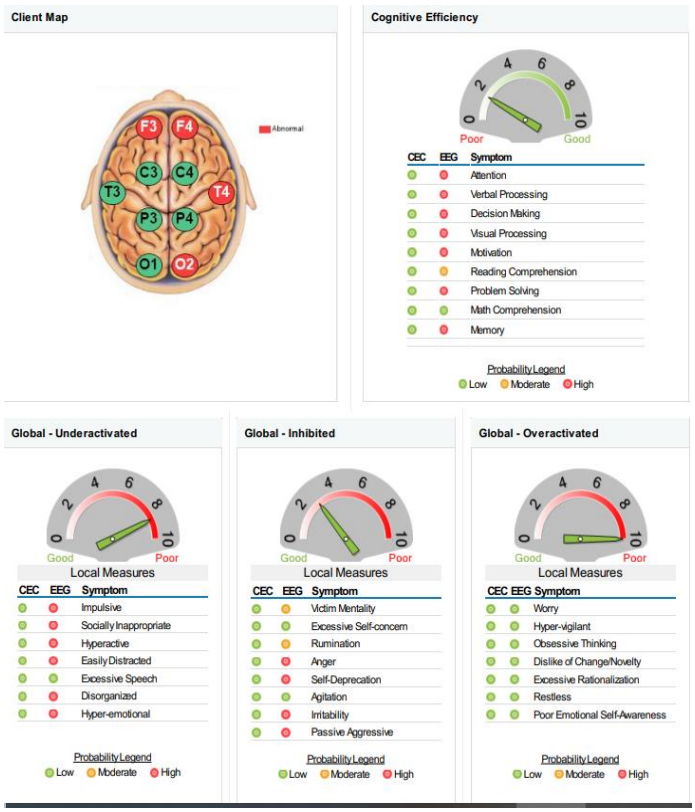
Math 10/10	**0%**	**10**	**0.0%**	**10**	**1%**	**100%**
Math Comprehension	g	10	g	10		

Verbal 20/40	**10.0%**	**8**	**3.9%**	**20**	**39%**	**250%**
Dialogue Organization	y	5	y	5		
Short Term Verbal	r	1	y	5		
Tone Sequencing	r	1	y	5		
Verbal Sequencing	r	1	y	5		

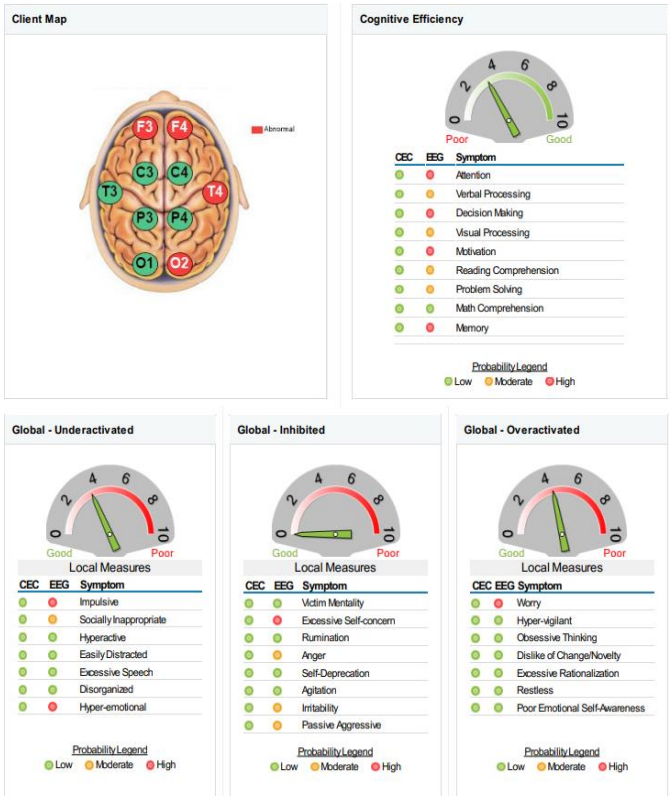
Visual 25/50	**2.0%**	**21**	**3.0%**	**25**	**150%**	**119%**
Event Sequencing	r	1	y	5		
Face Decoding & Recognition	y	5	y	5		
Figure Memory	y	5	y	5		
Short Term Visual Memory	y	5	y	5		
Spatial Sequence	y	5	y	5		

Reading 15/20	**5.0%**	**10**	**7.5%**	**15**	**150%**	**150%**
Speed	y	5	y	10		
Comprehension	y	5	g	5		

Subject 3 Baseline



Subject 3 – 7 Day



Cognitive Efficiency

- M1 – CE = 1.9
- M2 – CE = 3.5

Improvement 173%

Global Underactive

- M1 – Delta = 8.5
- M2 – Delta = 3.5

Improvement 294%

Global Inhibited

- M1 – Alpha = 2.5
- M2 – Alpha = 0

Improvement 165%

Global Overactive

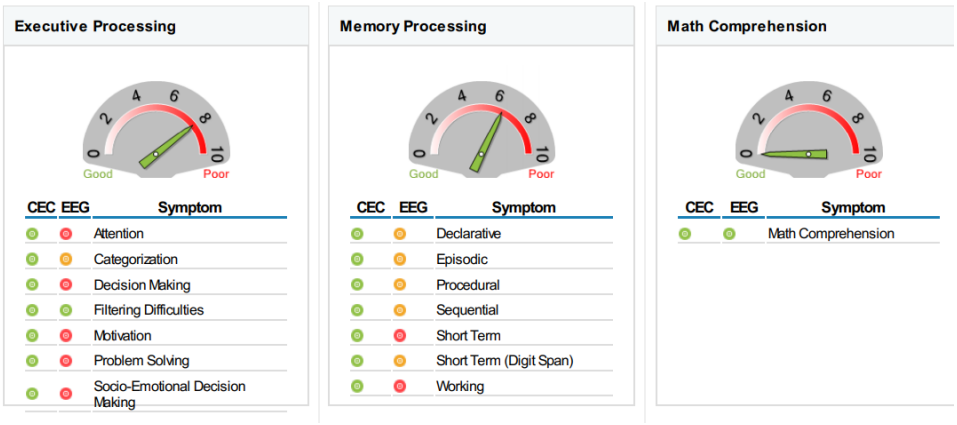
- M1 – Beta = 10
- M2 – Beta = 4.1

Improvement 87%

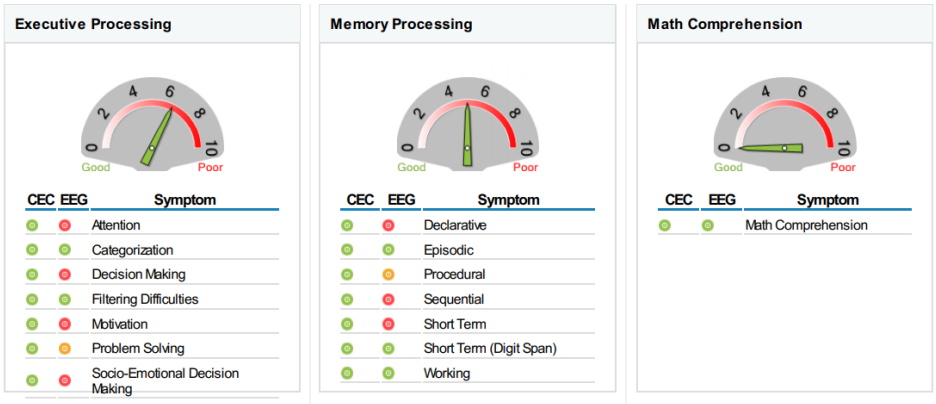
Cognitive efficiency is the brain's ability to process information. It is used to estimate the Overall Cognitive Efficiency of the Subject. It covers 9 primary functions.

Brain Wave States: **Delta & Theta** are Global Underactive represents sleep and twilight states, Global Inhibited is the **Alpha** state representing normal waking, Global Overactive are **Beta** states which indicate interactive through stressed states.

Subject 3 Baseline



Subject 3 – 7 Day



S

Executive Processing

- M1 – Exec = 7.9
- M2 – Exec = 6.25

Improvement 145%

Memory Processing

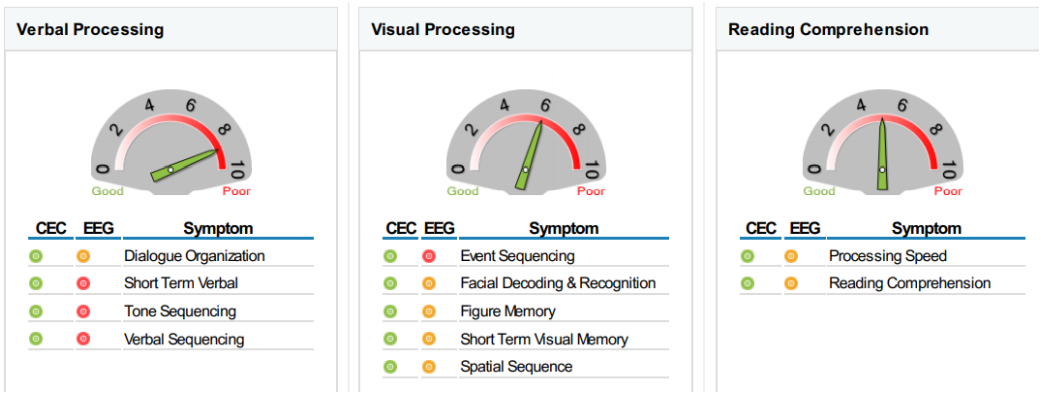
- M1 – Mem = 6.25
- M2 – Mem = 5

Improvement 141%

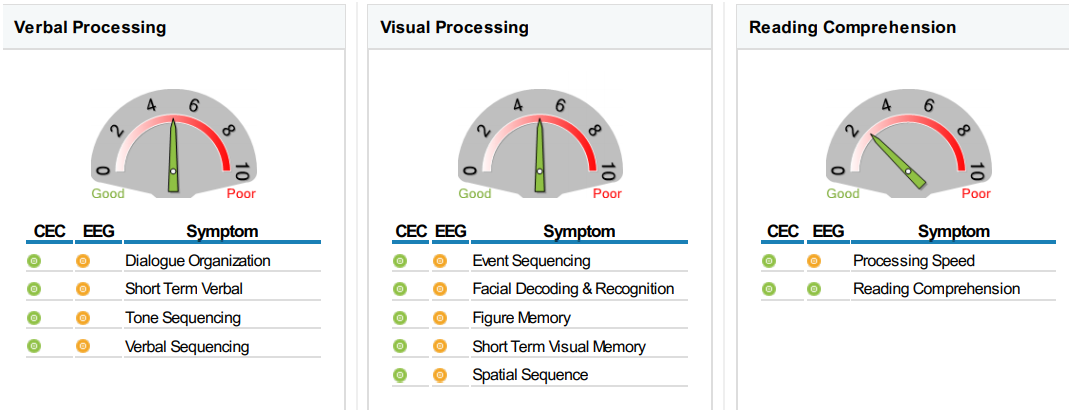
Math Comprehension

- M1 – Math = 0
- M2 – Math = 0

100% Functioning



Subject 3 – 7 Day



Verbal Processing

- M1 – Verb = 8.5
- M2 – Verb = 5

Improvement 250%

Visual Processing

- M1 – Vis = 6
- M2 – Vis = 5

Improvement 119%

Reading Comprehension

- M1 – Read = 5
- M2 – Read = 2.5

75% Functioning

Improvement 150%

Overall Change	**80%**	**179**	**87%**	**186**	**7**	**306%**
Subject 4	M1		M3		Delta	
Cognitive Efficiency 49/90	**45%**	**42**	**50%**	**49**	**111%**	**117%**
Attention	y	5	r	1		
Verbal Processing	r	1	r	1		
Decision Making	g	10	g	10		
Visual Processing	r	1	r	1		
Motivation	y	5	g	10		
Reading Comprehension	y	5	y	5		
Problem Solving	y	5	g	10		
Math Comprehension	y	5	g	10		
Memory	y	5	r	1		
Delta Theta 25/70	**5.0%**	**37**	**3.0%**	**25**	**60%**	**68%**
Impulsive	y	5	r	1		
Socially Inappropriate	r	1	r	1		
Hyper Active	y	5	r	1		
Easily Distracted	y	5	r	1		
Excessive Speech	g	10	g	10		
Disorganized	g	10	g	10		
Hyper Emotional	r	1	r	1		
Alpha 47/80	**0.0%**	**29**	**10.0%**	**47**	**1%**	**162%**
Victim Mentality	y	5	y	5		
Excessive Self Concern	y	5	g	10		
Rumination	g	10	y	5		
Anger	r	1	g	10		
Self Depreciation	r	1	r	1		
Agitation	y	5	y	5		
Irritability	r	1	g	10		
Passive Aggressive	r	1	r	1		
Beta = 37/70	**8.3%**	**40**	**1.8%**	**37**	**21%**	**93%**
Worry	y	5	r	1		
Hyper Vigilant	y	5	y	5		
Obsessive Thinking	y	5	g	10		
Dislikes Change	y	5	g	10		
Excessive Rationalization	y	5	y	5		
Restless	y	5	y	5		
Poor Emotional Self-Awareness	g	10	r	1		

Executive Functions 42/50	**5.0%**	**36**	**5.9%**	**42**	**118%**	**117%**
Attention	y	5	r	1		
Categorization	y	5	y	5		
Decision Making	g	10	g	10		
Filtering	y	5	y	5		
Motivation	y	5	g	10		
Problem Solving	y	5	g	10		
Socio-Emotional Decision Making	r	1	r	1		

Memory Processing 31/70	**5.9%**	**40**	**4.1%**	**31**	**69%**	**78%**
Declarative	y	5	y	5		
Episodic	y	5	y	5		
Procedural	y	5	y	5		
Sequential	g	10	y	5		
Short Term	y	5	y	5		
Short Term Digits	y	5	y	5		
Working	y	5	r	1		

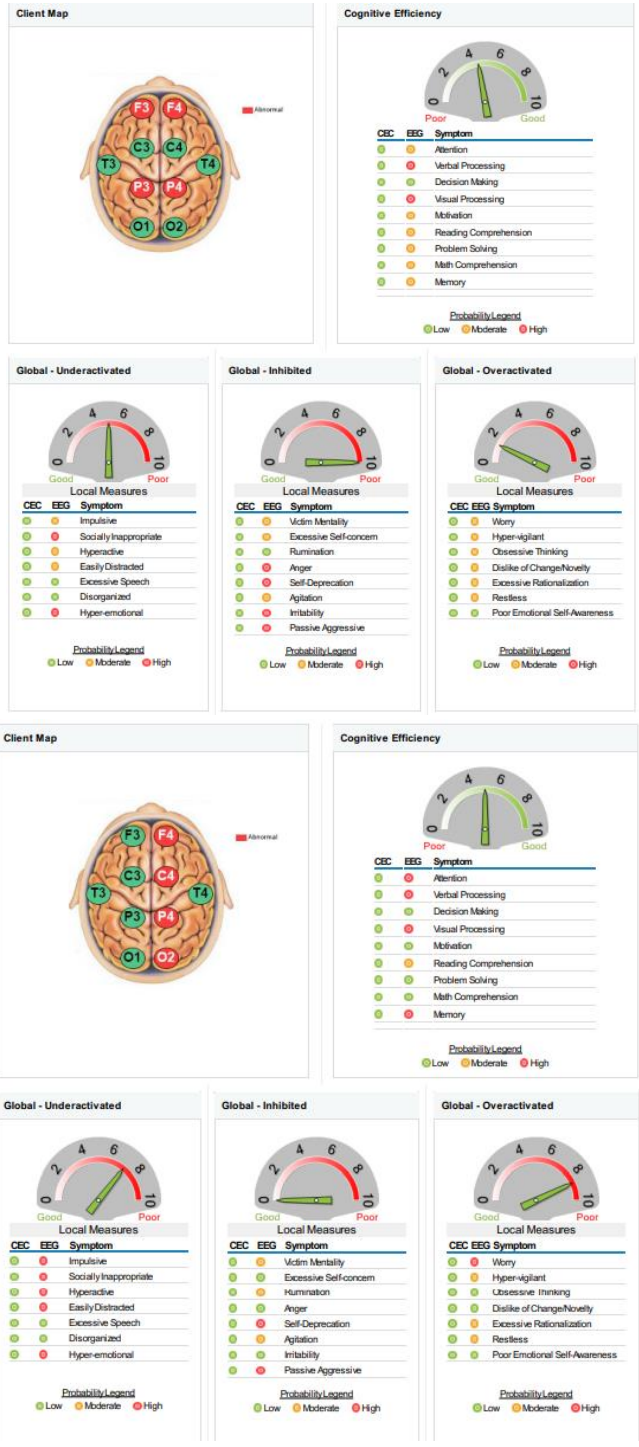
Math 10/10	**0%**	**10**	**0.0%**	**10**	**1%**	**100%**
Math Comprehension	g	10	g	10		

Verbal 13/40	**2.1%**	**12**	**2.2%**	**13**	**105%**	**108%**
Dialogue Organization	y	5	r	1		
Short Term Verbal	y	5	g	10		
Tone Sequencing	r	1	r	1		
Verbal Sequencing	r	1	r	1		

Visual 17/50	**4.0%**	**21**	**3.0%**	**17**	**75%**	**81%**
Event Sequencing	r	1	r	1		
Face Decoding & Recognition	y	5	y	5		
Figure Memory	y	5	y	5		
Short Term Visual Memory	y	5	r	1		
Spatial Sequence	y	5	y	5		

Reading 15/20	**5.0%**	**10**	**7.5%**	**15**	**150%**	**150%**
Speed	y	5	y	10		
Comprehension	y	5	g	5		

Subject 4 Baseline



Subject 4 – 7 Day

Cognitive Efficiency

- M1 – CE = 4.25
- M2 – CE = 5

Improvement 117%

Global Underactive

- M1 – Delta = 5
- M2 – Delta = 7

Improvement 68%

Global Inhibited

- M1 – Alpha = 10
- M2 – Alpha = 0

Improvement 162%

Global Overactive

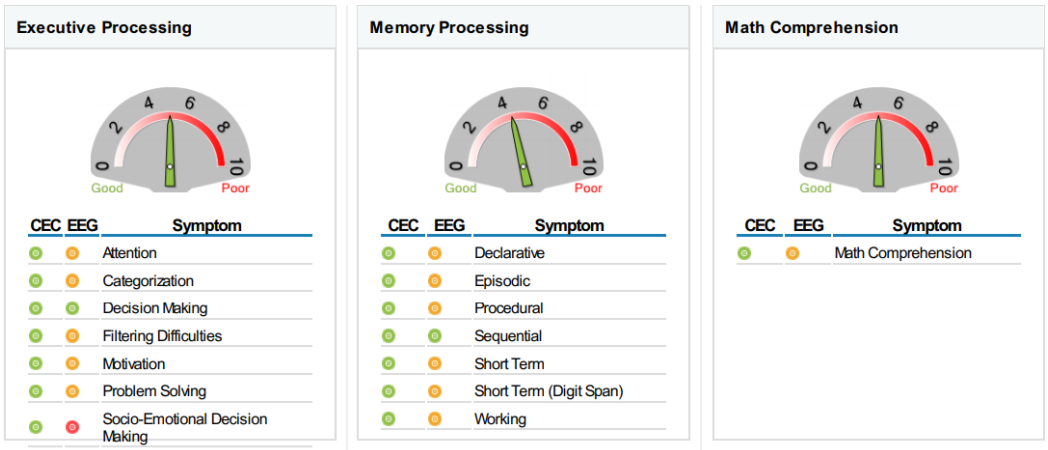
- M1 – Beta = 1.75
- M2 – Beta = 8.25

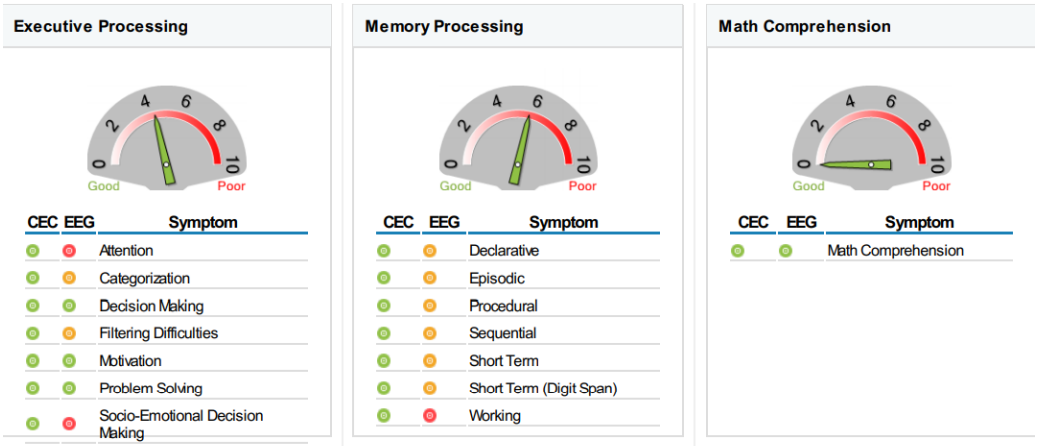
Improvement 93%

Cognitive efficiency is the brain's ability to process information. It is used to estimate the Overall Cognitive Efficiency of the Subject. It covers 9 primary functions.

Brain Wave States: **Delta & Theta** are Global Underactive represents sleep and twilight states, Global Inhibited is the **Alpha** state representing normal waking, Global Overactive are **Beta** states which indicate interactive through stressed states.

Subject 4 Baseline





Executive Processing

- M1 – Exec = 5
- M2 – Exec = 4.1

Improvement 117%

Memory Processing

- M1 – Mem = 4.1
- M2 – Mem = 5

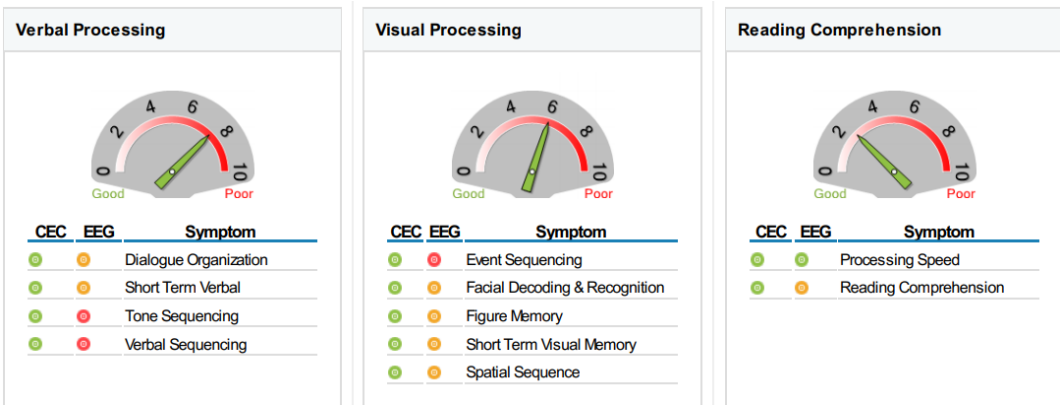
Improvement 78%

Math Comprehension

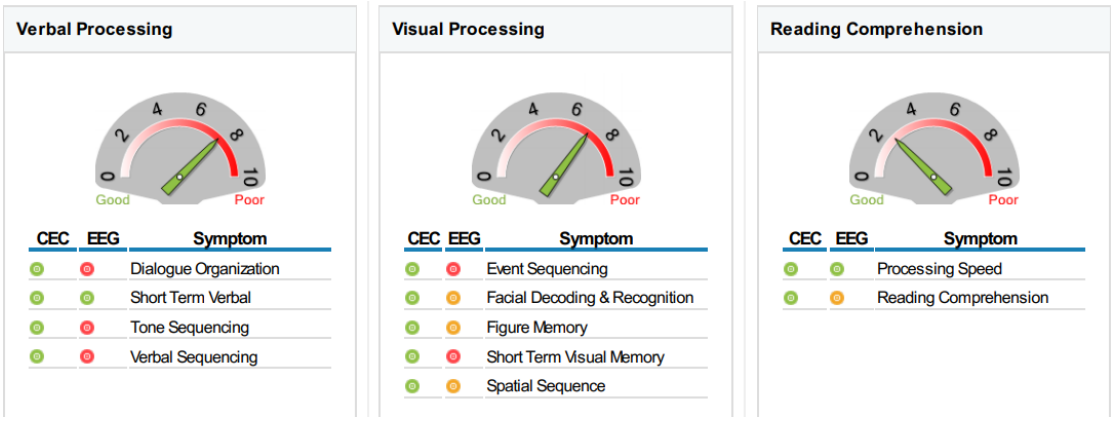
- M1 – Math = 0
- M2 – Math = 0

100% Functioning

Subject 4 Baseline



Subject 4 – 7 Day



Verbal Processing

- M1 – Verb = 7.9
- M2 – Verb = 7.8

Improvement 108%

Visual Processing

- M1 – Vis = 6
- M2 – Vis = 7

Improvement 81%

Reading Comprehension

- M1 – Read = 2.5
- M2 – Read = 2.5

75% Functioning

Overall Change		**46%**	**211**	**85%**	**293**	**82**	**195%**

Subject 5	M1		M3		Delta	
Cognitive Efficiency 44/90	**15%**	**17**	**43%**	**44**	**283%**	**259%**
Attention	r	1	r	1		
Verbal Processing	r	1	r	1		
Decision Making	r	1	g	10		
Visual Processing	r	1	r	1		
Motivation	r	1	g	10		
Reading Comprehension	y	5	y	5		
Problem Solving	r	1	g	10		
Math Comprehension	y	5	y	5		
Memory	r	1	r	1		
Delta Theta 37/70	**2.0%**	**20**	**2.0%**	**37**	**100%**	**185%**
Impulsive	r	1	y	5		
Socially Inappropriate	r	1	r	1		
Hyper Active	r	1	y	5		
Easily Distracted	r	1	y	5		
Excessive Speech	y	5	g	10		
Disorganized	g	10	g	10		
Hyper Emotional	r	1	r	1		
Alpha 47/80	**8.5%**	**29**	**10.0%**	**47**	**118%**	**162%**
Victim Mentaity	y	5	y	5		
Excessive Self Concern	y	5	g	10		
Rummination	g	10	y	5		
Anger	r	1	g	10		
Self Depreciation	r	1	r	1		
Agitation	y	5	y	5		
Irritability	r	1	g	10		
Passive Aggressive	r	1	r	1		
Beta 37/70	**1.8%**	**40**	**1.5%**	**37**	**86%**	**93%**
Worry	y	5	r	1		
Hyper Vigilant	y	5	y	5		
Obsessive Thinking	y	5	g	10		
Dislikes Change	y	5	g	10		
Excessive Rationalization	y	5	y	5		
Restless	y	5	y	5		
Poor Emotional Self-Awareness	g	10	r	1		

Executive Functions 42/70	**1.5%**	**15**	**5.8%**	**42**	**383%**	**280%**
Attention	r	1	r	1		
Categorization	y	5	y	5		
Decision Making	r	1	g	10		
Filtering	y	5	y	5		
Motivation	r	1	g	10		
Problem Solving	r	1	g	10		
Socio-Emotional Decision Making	r	1	r	1		

Memory Processing 31/70	**4.1%**	**32**	**5.0%**	**31**	**122%**	**97%**
Declarative	y	5	y	5		
Episodic	y	5	y	5		
Procedural	y	5	y	5		
Sequential	g	10	y	5		
Short Term	r	1	y	5		
Short Term Digits	y	5	y	5		
Working	r	1	r	1		

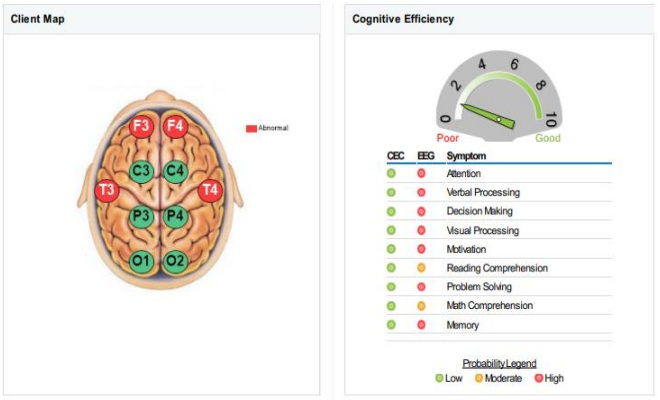
Math 10/10	**5%**	**10**	**5.0%**	**10**	**100%**	**100%**
Math Comprehension	g	10	g	10		

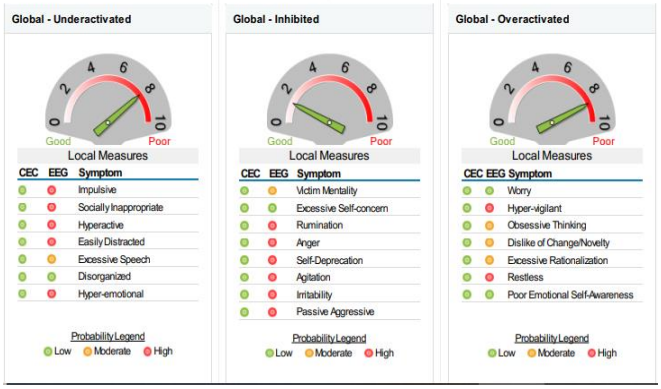
Verbal 13/40	**0.0%**	**12**	**2.8%**	**13**	**3%**	**108%**
Dialogue Organization	y	5	r	1		
Short Term Verbal	y	5	g	10		
Tone Sequencing	r	1	r	1		
Verbal Sequencing	r	1	r	1		

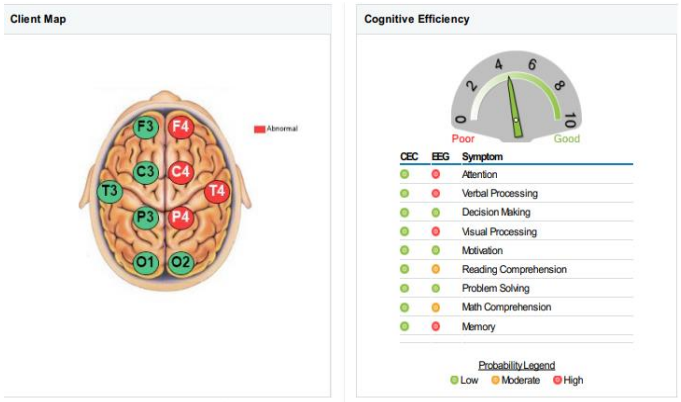
Visual 17/50	**3.0%**	**21**	**3.0%**	**17**	**100%**	**81%**
Event Sequencing	r	1	r	1		
Face Decoding & Recognition	y	5	y	5		
Figure Memory	y	5	y	5		
Short Term Visual Memory	y	5	r	1		
Spatial Sequence	y	5	y	5		

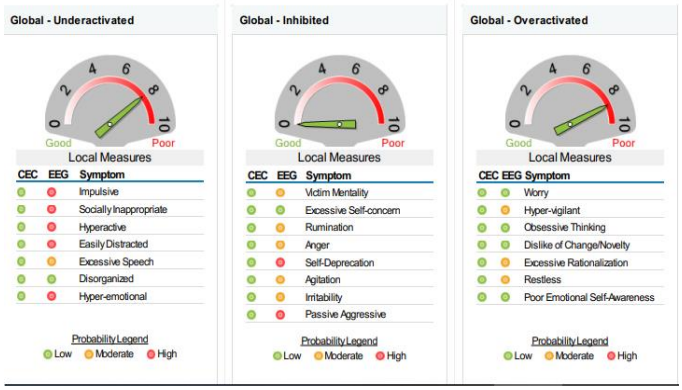
Reading 15/20	**5.0%**	**15**	**7.5%**	**15**	**150%**	**100%**
Speed	g	10	g	10		
Comprehension	y	5	y	5		

Subject 5 Baseline









Subject 5 – 7 Day

Cognitive Efficiency

- M1 – CE = 1.5
- M2 – CE = 4.25

Improvement 259%

Global Underactive

- M1 – Delta = 8
- M2 – Delta = 8

Improvement 68%

Global Inhibited

- M1 – Alpha = 1.5
- M2 – Alpha = 0

Improvement 162%

Global Overactive

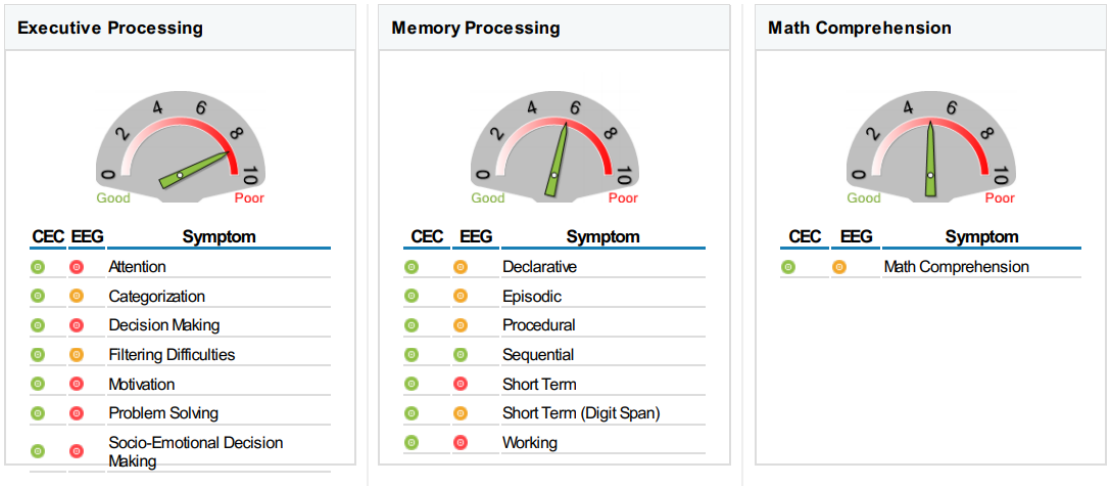
- M1 – Beta = 8.25
- M2 – Beta = 8.5

Improvement 185%

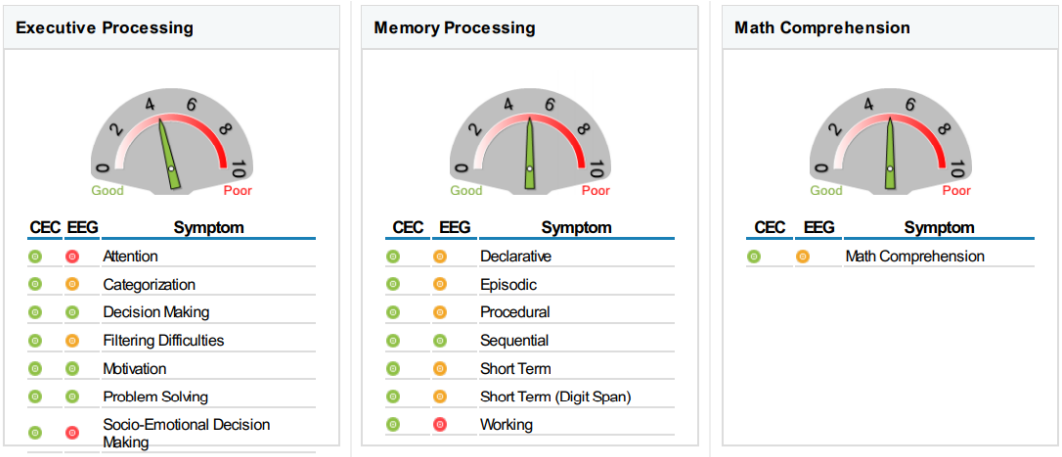
Cognitive efficiency is the brain's ability to process information. It is used to estimate the Overall Cognitive Efficiency of the Subject. It covers 9 primary functions.

Brain Wave States: **Delta & Theta** are Global Underactive represents sleep and twilight states, Global Inhibited is the **Alpha** state representing normal waking, Global Overactive are **Beta** states which indicate interactive through stressed states.

Subject 5 Baseline



Subject 5 - 7 Days



Su

Executive Processing

- M1 – Exec = 8.5
- M2 – Exec = 4.25

Improvement 280%

Memory Processing

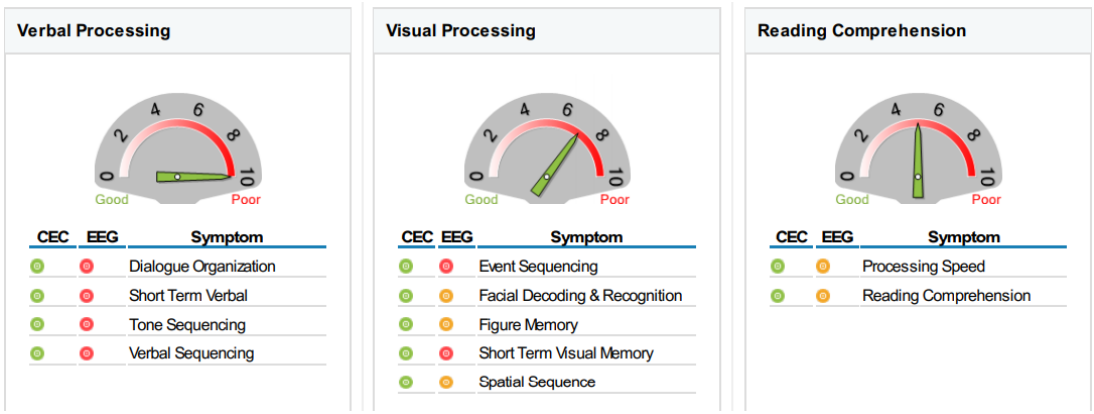
- M1 – Mem = 5.9
- M2 – Mem = 5

Improvement 97%

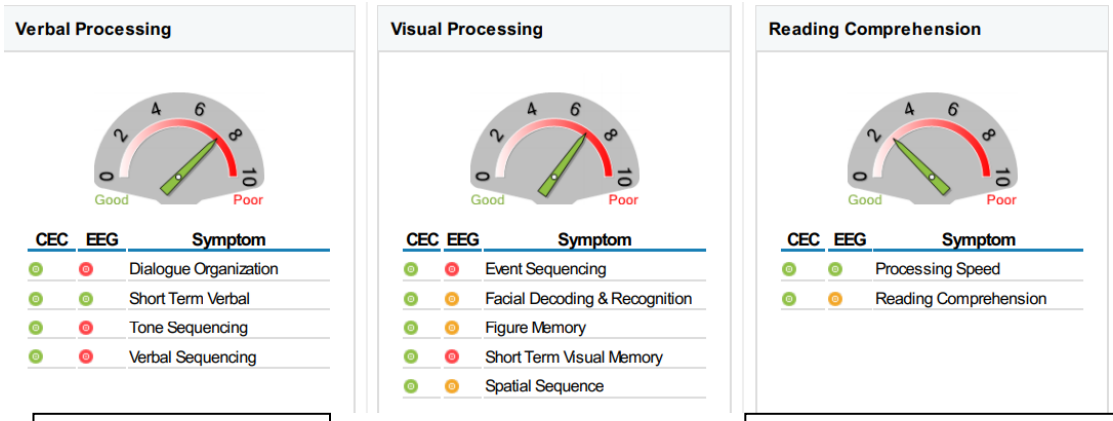
Math Comprehension

- M1 – Math = 5
- M2 – Math = 5

50% Functioning



Subject 5 – 7 Day



Verbal Processing

- M1 = 10
- M2 = 7.5

Improvement 108%

Visual Processing

- M1 = 7
- M2 = 7

Improvement 81%

Reading Comprehension

- M1 = 5
- M2 = 2.5

Improvement 100%