

EEG EXPERT REPORT ON QIK CPT

Visual Test

Initials: XYZ
Age at Test: 23
Gender: female

Subject #: 1781
Test #: 1
Test Note: class

Test Date: Dec.-8, 2006
Test Time: 16:08

Description of Test: Qik CPT is a computerized visual continuous performance test developed for assessing attention and impulse control. The EEG Expert Report on Qik CPT is specifically intended for use by neurofeedback clinicians for assessment and monitoring the effects of EEG training. A simple visual target or non-target is presented once every two seconds. During the 21-minute test, the subject must press a button to respond to each target and not press for each non-target.

Primary Variables of Attention:

- Sustained Attention** reflects **Omission Errors**, which occur when the subject does not respond to the target.
- Impulse Control** reflects **Commission Errors**, which occur when the subject incorrectly responds to the non-target.
- Speed of Response** reflects **Response Time**, the processing time that it takes to respond correctly to a target.
- Consistency of Response** reflects **Variability of Response Time**, the standard deviation of correct response times.

RESULTS	Data	Norm ± St. Dev	#SDs	Standard Score
Sustained Attention	0.0 %	0.6 ± 1.2 %	-0.5	107
Impulse Control	5.4 %	2.3 ± 2.7 %	1.2	83
Speed of Response	241.5 ms	414.1 ± 71.3 ms	-2.4	136
Consistency of Response	52.7 ms	84.6 ± 29.1 ms	-1.1	117

These results, compared to same age and gender norms, are reported as standard deviations and standard scores. The standard deviation indicates the extent of a problem (or deviation from the norm). The normal range is between -1 and +1 standard deviations. The standard score also compares these results to the norm. One standard deviation equals 15 standard score points. The normal range of standard scores is 85 to 115. Scores below 80 are considered significantly below average, and scores above 120 are considered significantly better than average. A standard score of 100 means that the performance is average compared to norms.

- Results table data are calculated on total test results.
- Standard scores significantly below average (<80) are printed in red.
- Standard scores significantly above average (>120) are printed in green.
- Qik CPT results are confidential.

EEG EXPERT REPORT ON QIK CPT

Visual Test

Initials: XYZ

Test Date: Dec.-8, 2006

Test #: 1

RAW DATA	Period 1	Period 2	Period 3	Period 4	Period 5				Total
	Sect. 1 Low Demand	Sect. 1 Low Demand	Sect. 2 High Demand	Sect. 2 High Demand	Sect. 3 Low Demand	Sect. 1	Sect. 2	Sect. 3	
Omissions (#)	0	0	0	0	0	0	0	0	0
Commissions (#)	1	0	12	16	3	1	28	3	32
Response time (ms)	286	289	226	220	279	288	223	279	242
Variability (ms)	28	30	45	50	47	29	48	47	53

STANDARD SCORES	Period 1	Period 2	Period 3	Period 4	Period 5	Section 1	Section 2	Section 3	Total
Omission Errors	105	106	105	106	106	106	106	106	107
Commission Errors	91	106	98	92	67	100	95	67	83
Response Time	138	134	136	134	136	137	136	136	136
Variability	124	118	117	113	110	122	116	110	117

OTHER RESPONSES	Period 1	Period 2	Period 3	Period 4	Period 5	Section 1	Section 2	Section 3	Total
Anticipatory Resp. (#)	0	0	0	0	0	0	0	0	0
Multiple Responses (#)	0	0	0	0	0	0	0	0	0
Post-commission RT (ms)	302	0	203	212	302	302	208	302	220

Periods 1 and 2 (in section 1) and period 5 (in section 3) represent the target-infrequent or boring task. Periods 3 and 4 (in section 2) represent the target-frequent or high response demand task.

Anticipatory Responses occur within 150 milliseconds of any stimulus (target or non-target).

Multiple Responses reflect more than one response to a stimulus

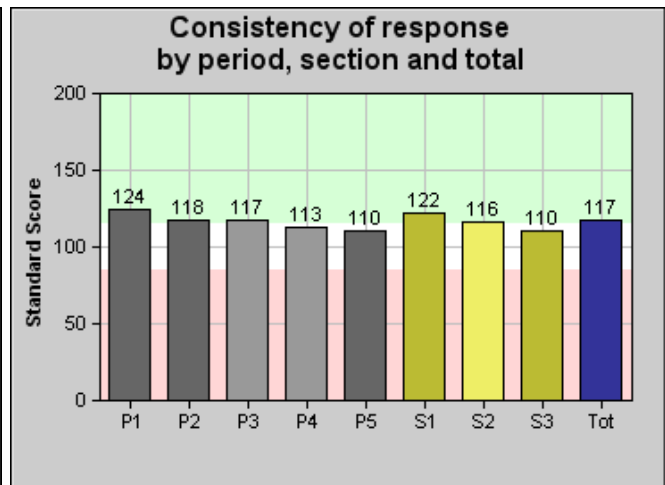
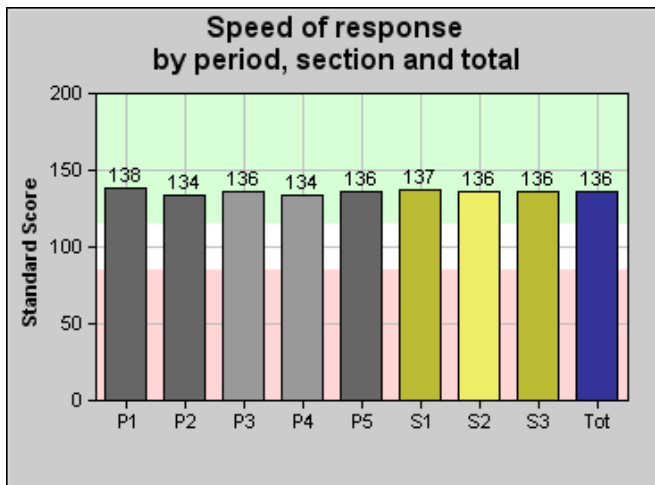
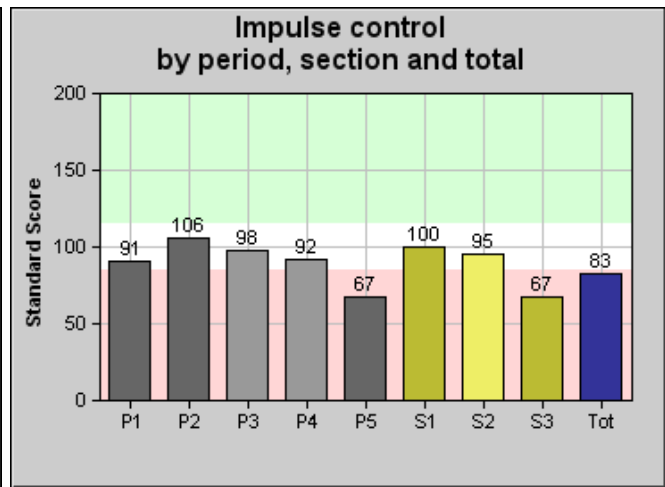
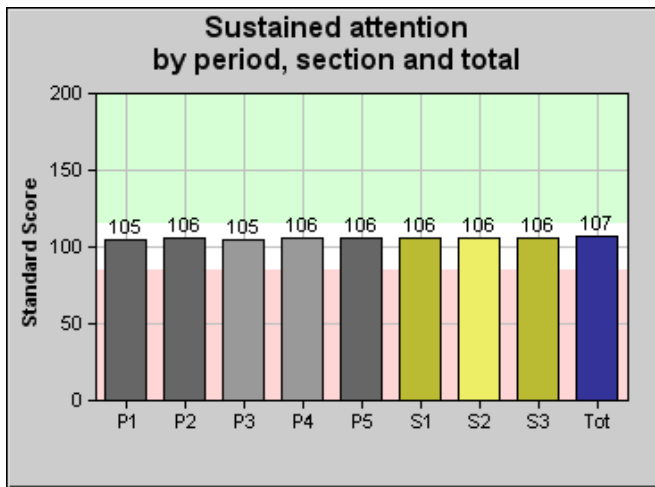
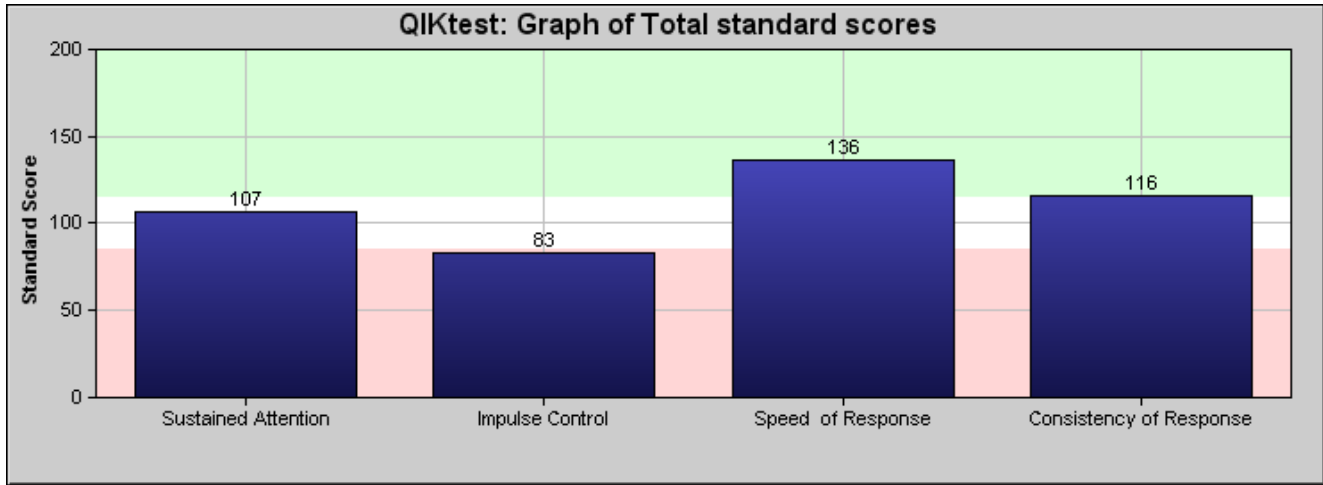
Post-commission Response Time is the response time immediately following a commission error.

Scores significantly below average are printed in red. Scores significantly above average are printed in green.

Initials: XYZ

Test Date: Dec.-8, 2006

Test #: 1

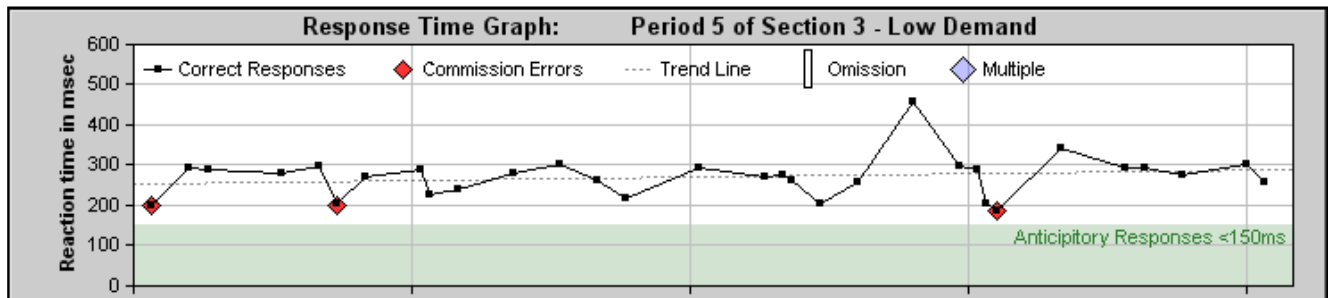
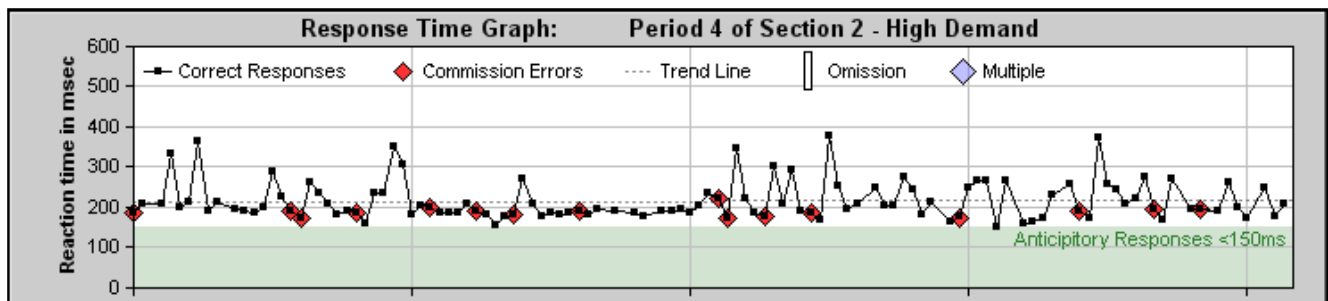
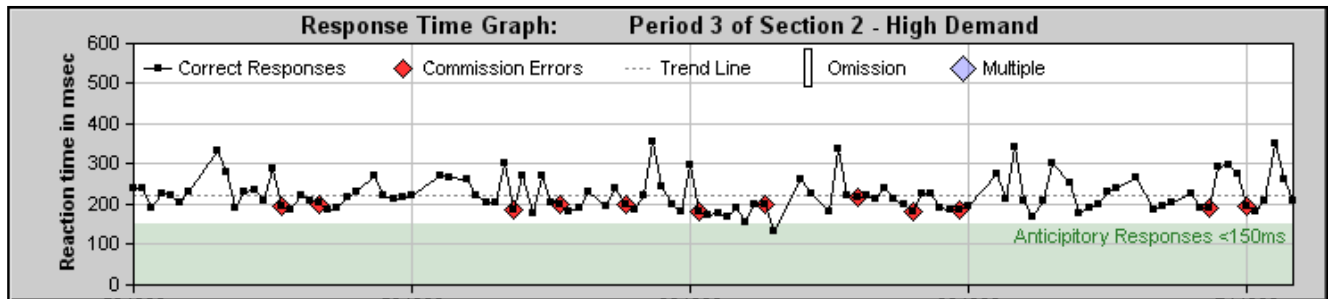
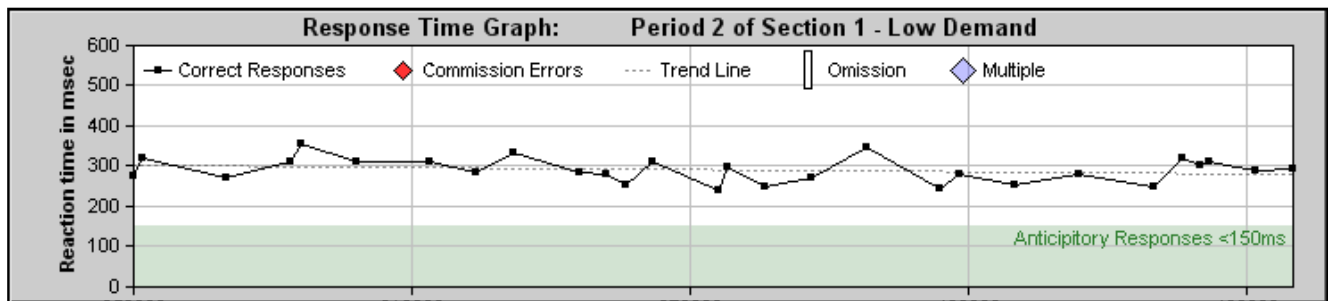
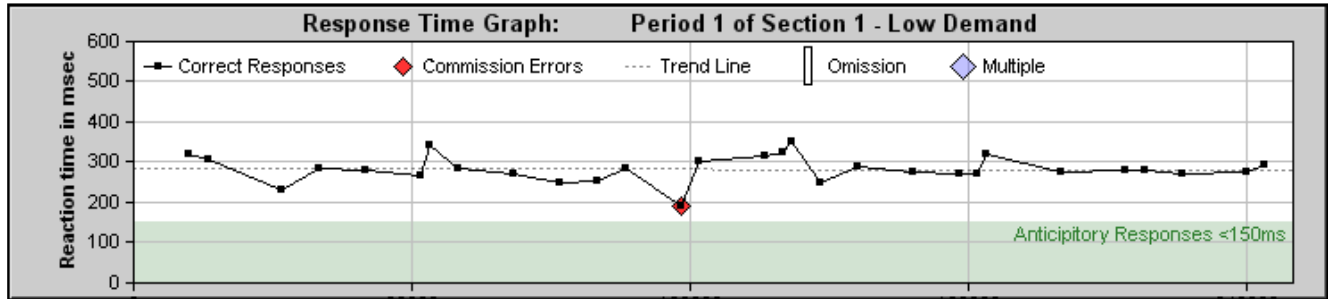


EEG EXPERT REPORT ON QIK CPT
Visual Test

Initials: XYZ

Test Date: Dec.-8, 2006

Test #: 1



X-Axis for all charts: time into QIKtest in msec, with vertical gridlines of 1 minute

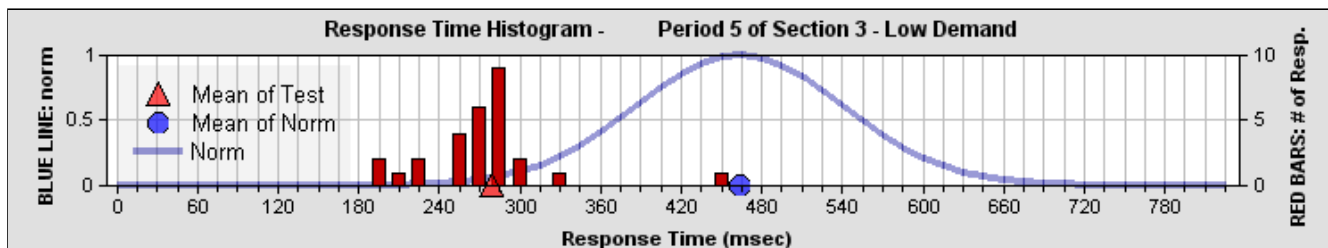
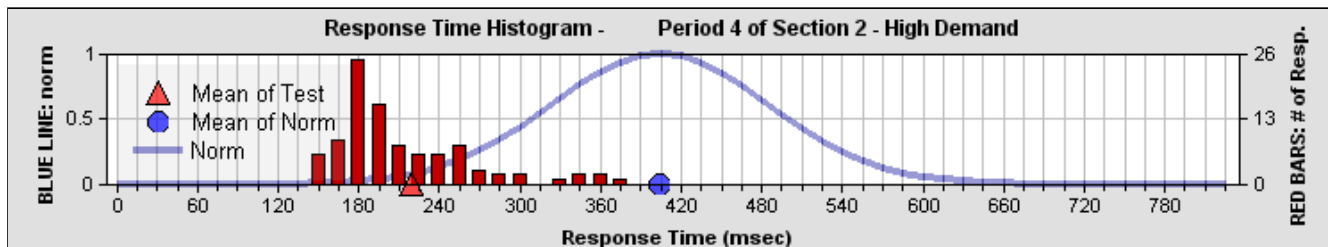
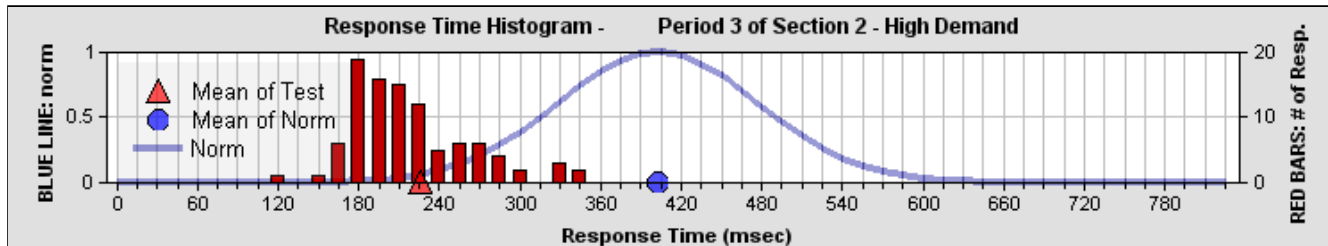
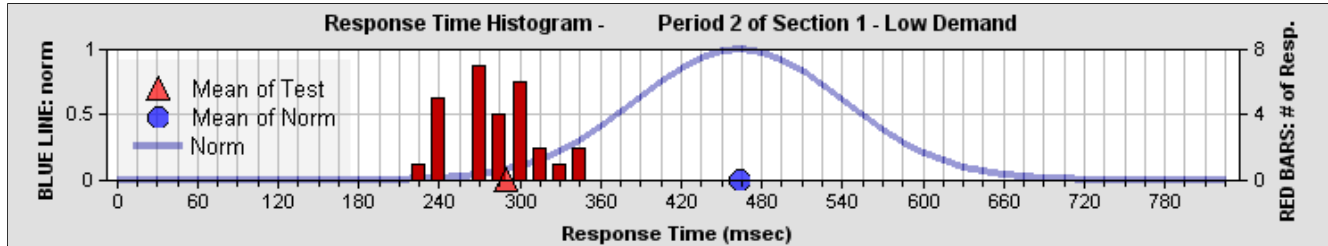
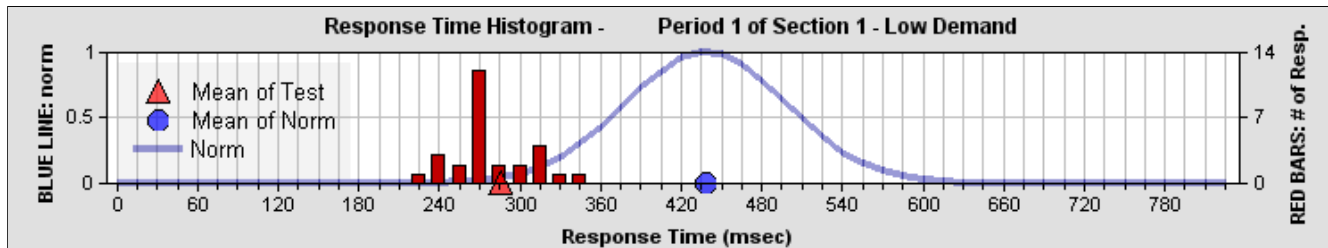
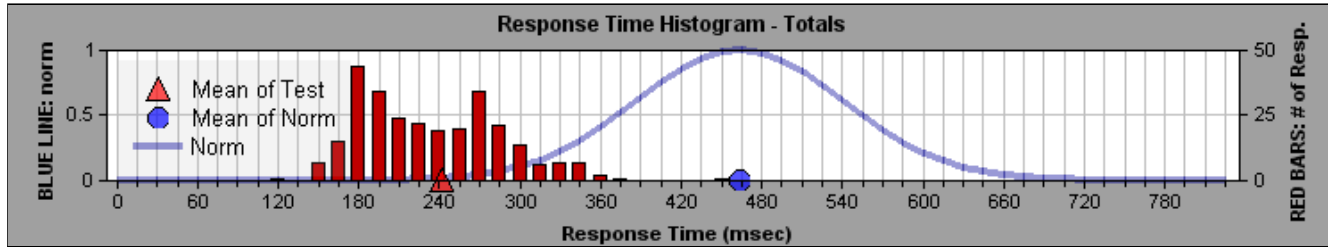
EKG EXPERT REPORT ON QIK CPT

Visual Test

Initials: XYZ

Test Date: Dec.-8, 2006

Test #: 1



Initials: XYZ

Test Date: Dec.-8, 2006

Test #: 1

INTERPRETATION

I. TOTAL SCORES:

→ All total scores are within the normal range.

II. SCORES BY SECTION

→ **Third section *Commission Errors*** standard scores are significantly below average. This is a repeat of the boring task (target-infrequent condition), and poor scores in the third section indicate difficulty maintaining attention and control with boredom and fatigue.

III. SCORES BY PERIOD

→ **Fifth period *Commission Errors*** standard scores are significantly below average.

→ **Standard scores for *Commission Errors*** are significantly worse in period 1 than period 2. This could be indicative of excessive anxiety.

→ **Post Commission Response Time is faster than average correct Response Time in periods 3 and 4.**

A Post Commission Response Time is the response time immediately following a Commission Error. People typically slow down after a Commission Error. Speeding up after a Commission Error indicates increased speed with increased attention after an error. This might indicate that Commission Errors are resulting from inattention rather than over arousal, and might reflect lack of frontal control and possibly under arousal. Look at graph of response times to see which Commission Errors are faster (impulsive) or slower (inattentive) than average.

EEG EXPERT REPORT ON QIK CPT
Visual Test

Initials: XYZ

Test Date: Dec.-8, 2006

Test #: 1

Pre-Post Scores

