

## **Using IVA+Plus test scores to promote your practice and demonstrate the efficacy of Neurofeedback.**

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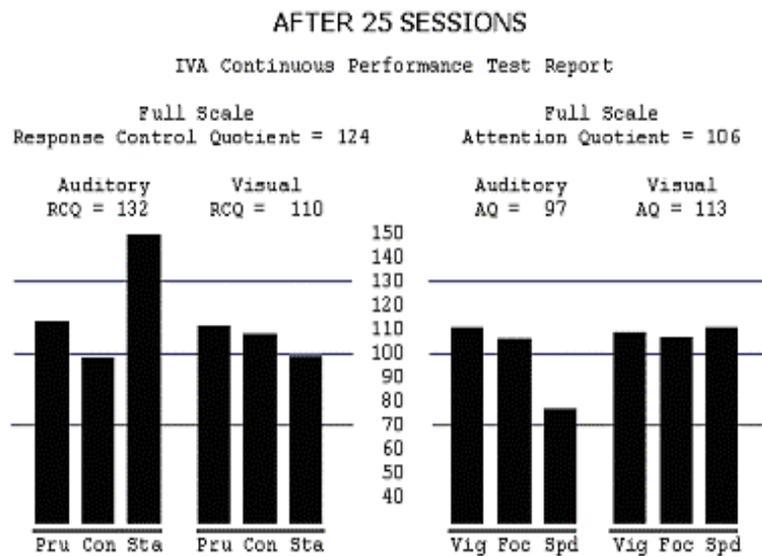
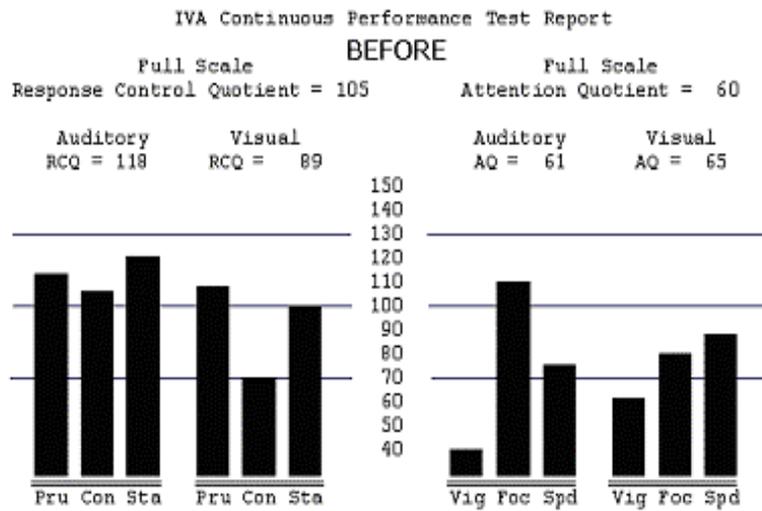
Neurofeedback is a comprehensive method of biofeedback that promotes cranial self-regulation (Demos, 2005). Studies supporting the efficacy of neurofeedback began in the early 1970's, most notably with the research of Stermann (1972). Those interested in a list of efficacious studies would benefit by reading Cory Hammond's *Comprehensive Review of Neurofeedback* found on the homepage of [www.isnr.org](http://www.isnr.org), the International Society for Neuronal Regulation (ISNR). This website feature is updated each month. Another publication of merit is the *Evidence-Based Practice in Biofeedback and Neurofeedback* by Yucha and Gilbert (2004), published by Association for Applied Psychophysiology and Biofeedback (AAPB).

Despite the preponderance of studies, the traditional medical community has not yet embraced neurofeedback training: it remains an experimental procedure (Butler, 2005, p. 65). Consequently, each neurofeedback provider, sooner or later, will be called upon to provide data in support of his or her clinical work. The IVA+Plus continuous performance test is an excellent source of data. It can be used in a number of ways:

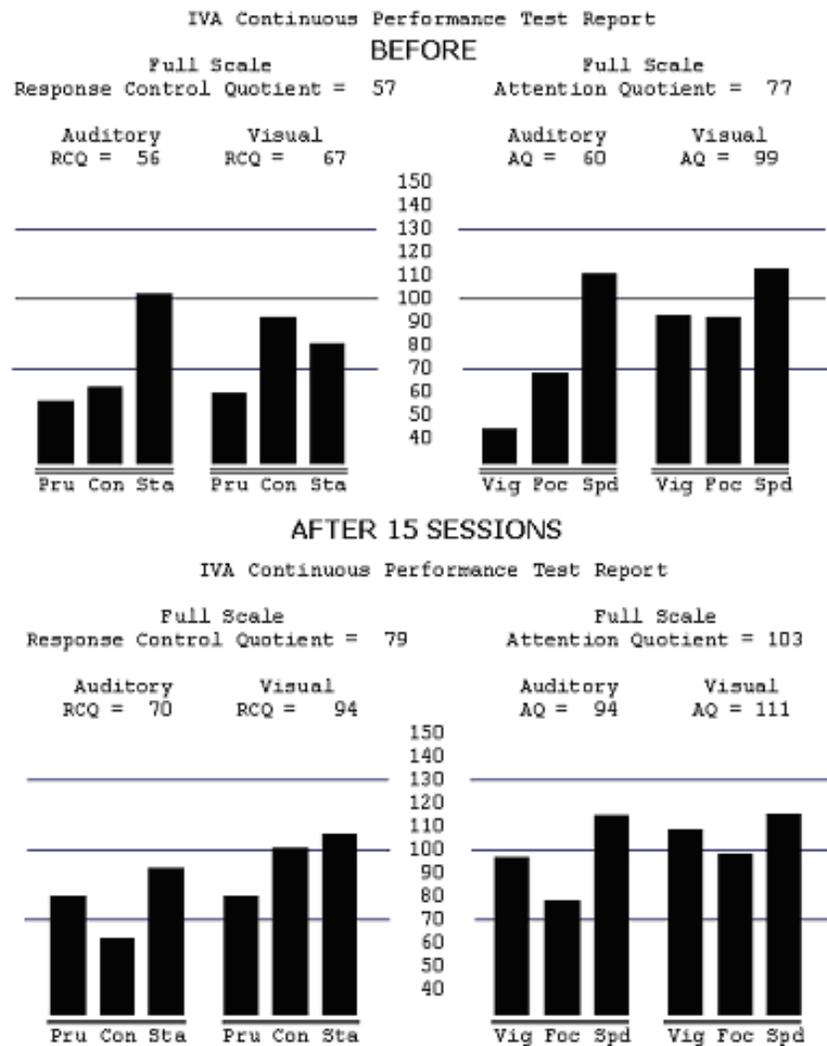
- Demonstrate training progress (or lack thereof)
- Justify continuing or terminating neurofeedback training.
- Demonstrate the efficacy of your neurofeedback practice.
- Assist in the diagnosis of Attention Deficit Disorder (ADD)
- Evaluate clients with learning disorders, cognitive deficits, mild traumatic brain injury and dissociative disorders
- Determine stimulant medication effectiveness

There are numerous disorders that may contribute to inattention or "zoning out." ADD is but one of many conditions that can be reflected in the IVA+Plus continuous performance test. Furthermore, IVA+Plus test scores can provide you with a true measure of treatment outcomes that can be shared with the public at seminars or with new clients who are contemplating neurofeedback training. The following IVA+Plus test scores have been derived from my practice. Before and after graphics demonstrate the value of my application of neurofeedback, they stand on their own merit. After reviewing each of the case studies with my audience, no one has ever questioned the value of neurotherapy.

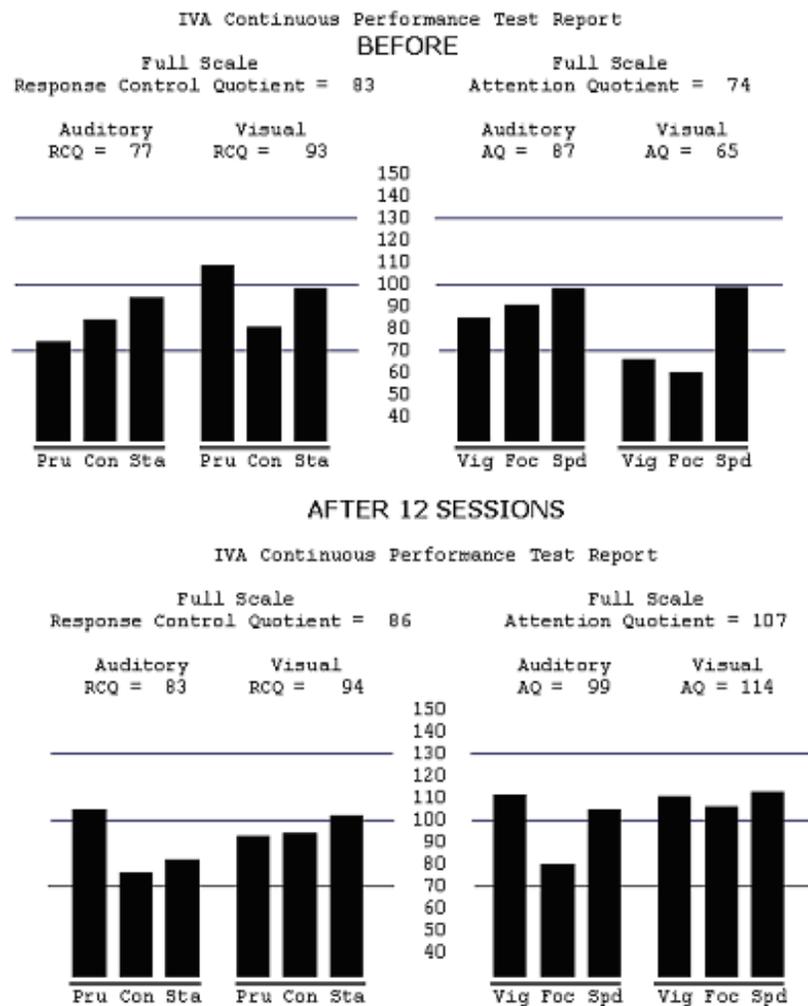
**Case #1:** 15-year-old boy with ADD and non-verbal learning disorder. His ability to pay attention improved almost 3 standard deviations after 25 sessions.



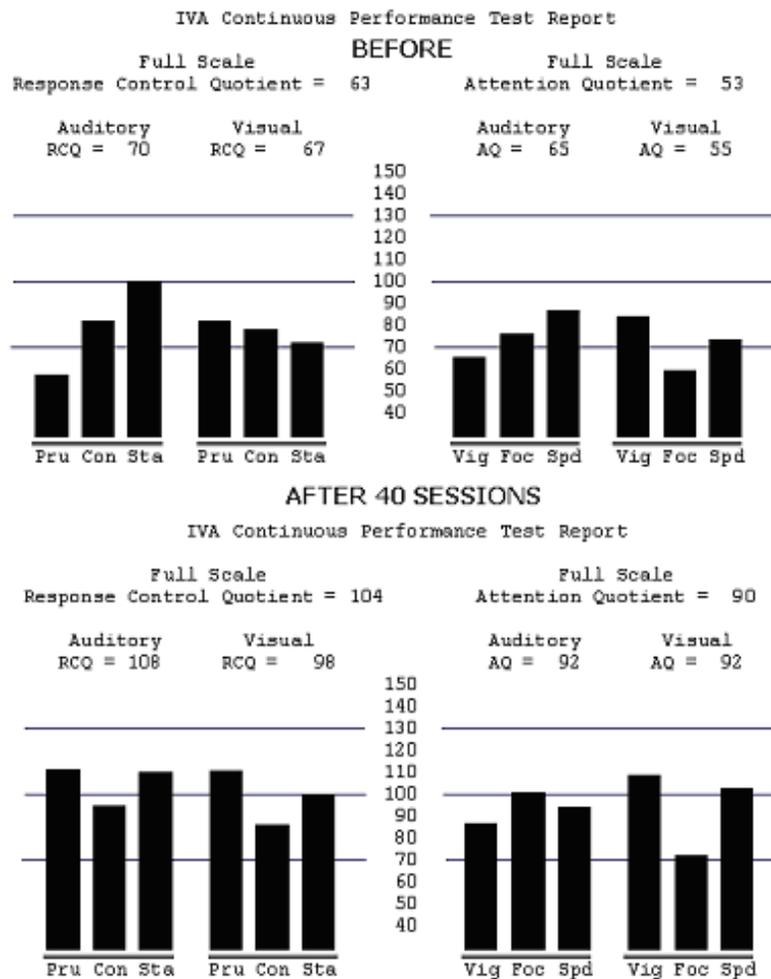
**Case #2:** 13-year-old boy who did not think neurofeedback training was of any value. Only after seeing the before and after IVA+Plus scores after 15 sessions was he convinced.



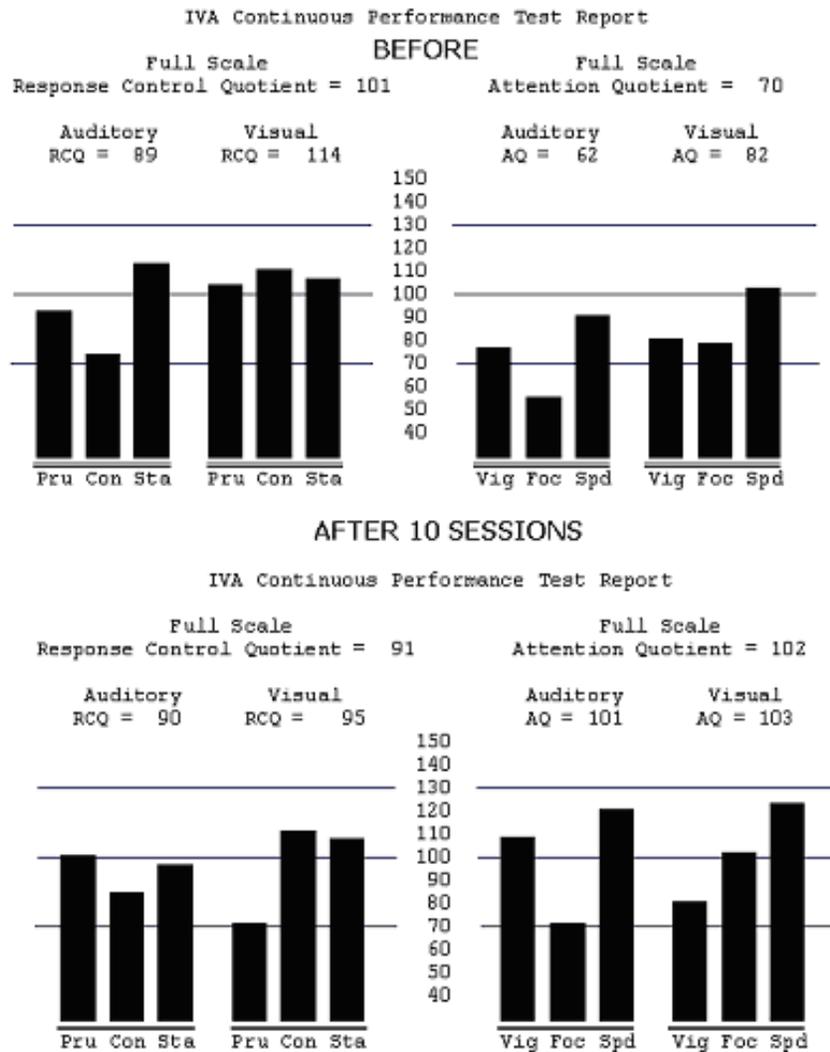
**Case #3:** 10-year-old boy with ADHD and insomnia. His mother reports better sleep, concentration and attention to detail. The 2 standard deviation increase in attention came after only 12 sessions.



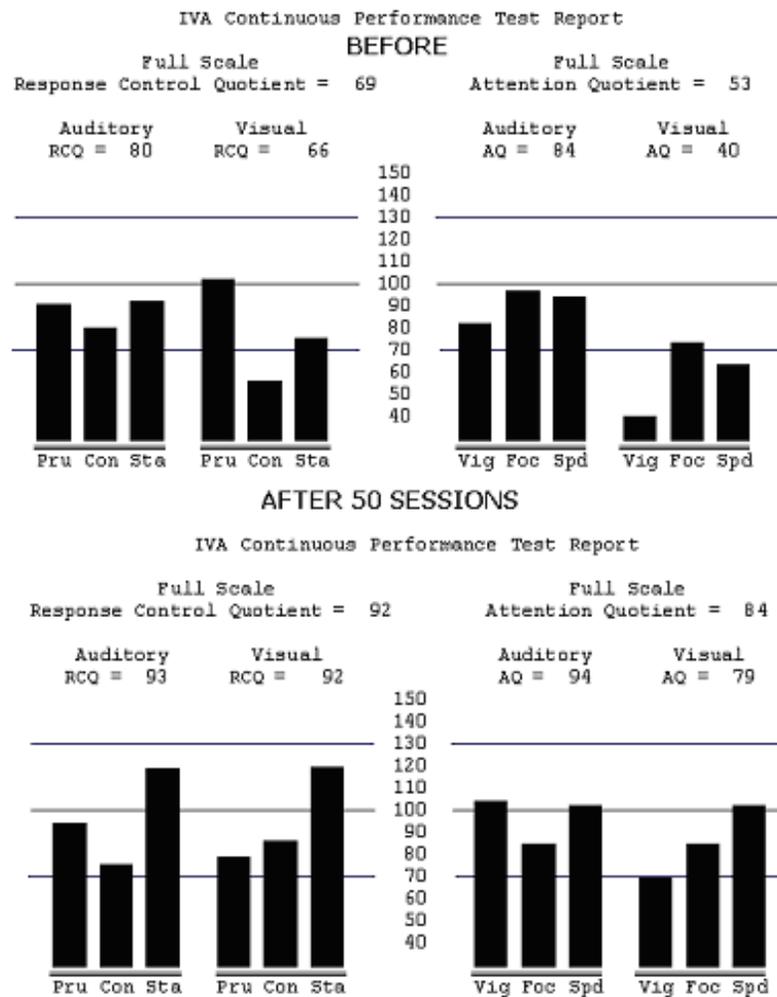
**Case #4:** 13-year-old boy with Aspergers Disorder, ADD, and Dyscalculia. After 40 sessions he was having brief conversations with me and his social skills had improved remarkably. His handwriting skills and his attention also improved significantly.



**Case #5:** 17-year-old male with Dyscalculia, poor attention and poor driving skills. A two standard deviation improvement in attention was achieved after 10 sessions.



**Case #6:** 9-year-old boy with Reactive Attachment Disorder, ADHD and explosive anger episodes. He refused to take test and yelled at the computer. After 10 sessions of neurofeedback he agreed to take test and his IVA+Plus scores showed significant improvement after a total of 50 sessions.



My recommendation is that the IVA+Plus continuous performance test should be administered before neurofeedback training begins and then re-administered 10-15 sessions later to demonstrate the efficacy of the training. Unfortunately, I have had referrals from other practitioners who did not use a continuous performance test to measure progress. In one case over 100 neurofeedback training sessions transpired with no test or other clinical data to support the efficacy of neurotherapy. If the IVA+Plus had been used before training had begun, it may have been possible to identify the attainment of training goals at a much sooner stage of training. (Demos, 2005, p.139, 179-181). Of course, not all measures of progress can be determined by IVA+Plus. Other instruments can be used to determine the efficacy of training. However, with the majority of trainees, I believe that the IVA+Plus assessment is very sensitive to changes in attentional functioning achieved through neurofeedback; it provides the critical data you need when measuring progress. It is the most useful and easy to use CPT that I have found.

I am recommending that each neurofeedback provider create a practice log of pre and post-test measures utilizing a continuous performance test. This log will not only demonstrate the effectiveness of neurotherapy but it will also allow a neurofeedback therapist to evaluate the success of each training protocol with individual clients, and thus, be able to make appropriate adjustments. If you find that IVA+Plus CPT test scores do not significantly improve after 10-20 training sessions with the majority of your trainees, then I recommend that you consult with recognized professionals in neurofeedback for assistance.

#### References:

- Butler, K. (2005). Alice in Neuroland. *Psychotherapy Networker* Vol. 29 No. 5.  
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 Hammond, C. (Current). *Comprehensive Neurofeedback Bibliography: [www.isnr.org](http://www.isnr.org)*,  
 Serman, M. B., & Friar, L. (1972). Suppression of seizures in epileptics following sensorimotor EEG feedback training. *Electroencephalography & Clinical Neurophysiology*, *33*, 89-95.  
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John N Demos is a licensed counselor residing in the state of Vermont. The Biofeedback Certification Institute of America (BCIA) has certified him as an EEG-biofeedback practitioner and an accredited didactic trainer ([www.bcia.org](http://www.bcia.org)). He is the author of *Getting Started with Neurofeedback* which is the basis for a series of workshops conducted in Vermont, Ohio and at annual conferences. For more information consult [www.eegvermont.com](http://www.eegvermont.com).

The IVA+Plus Continuous Performance Test is available from BrainTrain, Inc. For more information about the IVA+Plus CPT please visit [www.braintrain.com](http://www.braintrain.com) or call 1-800-822-0538.