**4-CHANNEL Z-SCORE NEUROFEEDBACK: A SINGLE CASE STUDY**

Nancy Wigton, M.A., LPC, BCIA-EEG, QEEG-T * Applied Neurotherapy Center * Scottsdale, Arizona * www.appliedneurotherapy.com

**Introduction**

In 2008, at the I95 conference, a new Neurofeedback technology was made available. This new technique is called "Z Score Neurofeedback" (ZS). It is based on the work of Dr. Jeffrey Fife of Linking Ears Technologies, using 91.5% of the actual QEEG data available and utilizing the 32 channels in the Linking Ears technology. The 32 channels are in the Channel Percent Z (CPPZ) mode, which is the only available mode in this technology. This case is presented to show the new field of "Brainmaster" and its impact on the field of Neurofeedback.

Currently there are three manufacturers that have incorporated the use of the Neurofeedback Z-Statistic into their software: Brainmaster Technologies, Inc., NeuroTrac Technologies, Inc., and NeuroTrac Dynamics. Each company independently has developed a proprietary technology that utilizes the Z-Statistic as an algorithm.

**Technical Specifications**

Neurofeedback "ZS-12" EEG hardware, using the NeuroGuide V.3.1 software (NeuroGuide Technologies, 1201 Benefit Street, San Francisco, CA 94118). The QEEG data was obtained from a patient with a diagnosis of ADHD, and was obtained during the first week of Neurofeedback. The QEEG data was obtained from the patient's brain, and was obtained during the first week of Neurofeedback. The QEEG data was obtained from the patient's brain, and was obtained during the first week of Neurofeedback.

**Method**

The approach used in this case was the 4-Channel Percent Z (CPPZ) protocol. It is important to note that the Z-Statistic approach is not a "one-shot" application for closed-loop QEEG results. There are important considerations to be made, and these considerations are not as clear-cut as was first expected. This is not to say that the Z-Statistic application is not useful, but it is not as clear-cut as was first expected. This is not to say that the Z-Statistic application is not useful, but it is not as clear-cut as was first expected.

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**Discussion**

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*Note: This is a single case study and is not intended to be a comprehensive analysis of Neurofeedback. It is presented as an example of how the Z-Statistic approach can be used in clinical practice.*