

# **Neurofeedback Training to Improve Comprehension and Expression of ASD**

## **Child: A Case Study**

### **ABSTRACT**

Autism spectrum disorder (ASD) is a neurodevelopmental related disorder that pertains until adulthood. Children with autism show difficulty in functioning such as in social interaction, communication and behaviour. Thus this preliminary case study addresses the effect of neurofeedback training to improve autistic spectrum disorder behaviour. Neurofeedback is a form of training using the operant conditioning paradigm to regulate the brainwave activities voluntarily using a real-time feedback (audio or visual). The neurofeedback training aimed to enhance beta wave (15 to 20 Hz) and inhibit theta wave (4-8 Hz) at T5 and P3. A 12 years old boy diagnosed with ASD undergone 15 sessions of neurofeedback training to improve his language comprehension and expression. The participant showed observable improvement in speech/ language or communication and sociability subscale of the Autism Treatment Evaluation Checklist (ATEC). Improvement could be observed in term of Matts comprehension and expression based on parents and teachers report on both ATEC scores and interview. The study presents feasible evidence of neurofeedback training to improve ASD symptoms.