# **Combining Technologies: Driving Functional Neuroplasticity**



#### **Course Description:**

Therapists and educators now have at their finger tips a wealth of technological advances that are providing both positive outcomes and valuable insights. One of these tools is the Interactive Metronome Program, which is rapidly becoming established in its contributions to assessing and treating time perception or an individual's 'internal clock' critical for speech and language, cognitive abilities like focus, memory, reading, and learning, and motor coordination. Alongside IM, additional tools have been adopted to develop auditory frequency reception and expression. Arguably, the most fundamental feature to which the auditory system is attuned is frequency. Several researchers have developed the idea that frequency is the auditory analogue of space in vision, in part because of the way in which sensory transduction occurs; whereas the retina and primary visual cortex are organized spatiotopically, the cochlea and primary auditory cortex are organized tonotopically. Frequency, along with time, are the two "indispensable attributes" of audition, whereas space and time are the two indispensable attributes of vision. (Kubovy and Van Valkenburg, 2001). In the presentation, providers will further analyze the components of each frequency reception with time perception, their neurological constructs and influence upon development, recovery and performance. Participants will be able to identify key components of each construct and apply such principles to overall treatment planning. We are now armed with more information about these new technologies and how they alone fit into the treatment picture, but do you ever wonder how best to combine these interventions. Following this presentation, you will be better equipped to formulate sound clinical rationales for the use of these technologies in combination to promote maximum brain potential. Come to this presentation with specific cases in mind and share in this cross-disciplinary multi-media discussion.\*Contact hours are offered pending successful completion of a written exam at the end of the course. PARTICIPANTS MUST ATTEND BOTH 1-HOUR PRESENTATIONS TO RECEIVE CREDIT FOR THIS COURSE (2 HOURS).

#### **Target Audience:**

This course welcomes the following professionals who have completed the Interactive Metronome Certification Course.

- Speech and Language Pathologist
- Speech and Language Pathology Asst
- Audiologist
- Occupational Therapist
- Certified Occupational Therapy Asst
- Physical Therapist
- Physical Therapy Asst
- Athletic Trainer
- Licensed Medical, Rehabilitation or Mental Health Professional
- Music Therapist

### **Instructional Level:**

Advanced

### **Learning Outcomes:**

Upon completion of this course, participants will be able to:

- Discern between frequency and pitch perception systems;
- Identify tools within one's clinical practice to address timing and listening skills:
- Design treatment plans, taking into consideration the technology or technologies that are best suited to meet the client's specific needs as well as how to best sequence them:
- Grade treatment programs using sound clinical reasoning in order to address timing and pitch perception across the lifespan.

\*Note: This course covers information that pertains to licensed therapists and therapy assistants. COTA and PTA professionals must practice IM under the supervision of a licensed OT or PT.

- Discern between frequency and pitch perception systems and how each influences auditory processing;
- Identify tools within one's clinical practice to address timing and perceptual aspects of auditory processing in order to improve functional communication skills;
- Design treatment plans, taking into consideration the technology or technologies that are best suited to meet the client's specific needs as well as how to best sequence them in the treatment of communication disorders:
- Grade treatment programs using sound clinical reasoning in order to address timing and pitch perception across the lifespan.

\*Note: This course covers information that pertains to licensed therapists and therapy assistants. SLPA professionals must practice IM under the supervision of a licensed SLP.

### Instructor:

Mary Jones, OTR/L, LMT, CIMT graduated from St. Loye's School of Occupational Therapy (UK) in 1986. Has been an Occupational Therapist for 20 (+) years and has been practicing in the USA since 1993. Additional training has included a BS in Healthcare and Social Welfare from Manchester University in 1992, Massage Therapy License in 1996, NDT certification in 1994. Mary has worked in a variety of healthcare settings in both the USA and the UK. These include home health in the inner-city (London), orthopedics, geriatric psychiatry, outpatient rehab, brain injury specialty (adult and pediatric) and pediatric outpatient therapy. Clinical advanced training includes NDT advanced courses, infant massage certification, cranio-sacral therapy, myofascial release techniques, motor control and the development of motor learning, Therapeutic Listening Program, Integrated Listening Systems, Brain Gym, Pilates, Active Isolated Stretching Techniques, Visual-motor Training, Vestibular Training, Beckman Oral Motor Assessment and Intervention, Handwriting Without Tears, ADHD and Nutrition Interventions, Aromatherapy, Aquatic Therapy, Sensory Integration assessment and interventions, Autism assessment and interventions, Interactive Metronome Certification and Development of Best Practice Strategies with IM. Mary owns her own pediatric practice "Sensational Kids LLC", based out of Bradenton, FL. Mary has lectured extensively in her field at a local and national level.

#### Disclosure:

The Interactive Metronome, Inc. has developed and patented a licensed technology trademarked as the Interactive Metronome®. (U.S. Patents #4,919,030; #5,529,498; #5,743,744; #6,719,690; other U.S. and foreign patents pending) Interactive Metronome, Inc. is the sole source of the following products: Interactive Metronome®, Gait Mate® and IM Home®. Because there are no other like-kind products available, course offerings will only cover information that pertains to the effective and safe use of the above-named products.

## Agenda:

This course is presented over 2 separate 1-hour presentations on the following dates. Participants must attend <u>both</u> presentation dates to receive contact hours for continuing education. Participants will be reminded of this at the time of registration.

Part 1: Jan 11, 2012 @ 6pm EST
Part 2: Feb 15, 2012 @ 6pm EST

### **CEUs Offered for:**

0.2 ASHA (SLP/SLPAs) 0.2 AOTA (OT/COTAs) 2.0 BOC (ATs)

\*PTs & PTAs may submit paperwork to your state board for CEUs



procedures

Effective July 1, 2011, individuals must meet at least one of the following conditions in order to be eligible to earn ASHA CEUs.

- ASHA Member (includes Life member and International affiliates)
- ASHA Certificate of Clinical Competence (CCC) Holder
- · Licensed by a state or provincial regulatory agency to practice speech-language pathology (SLP) or audiology
- Credentialed by a state regulatory agency to practice SLP or audiology
- Credentialed by a national regulatory agency to practice SLP or audiology
- Currently enrolled in a masters or doctoral program in SLP or audiology



Interactive Metronome is approved by the Continuing Education board of AOTA to provide continuing education activities in occupational therapy. This program is offered for 0.2 CEUs (Advanced Level). The assignment of AOTA CEUs does not imply endorsement of specific course content, products, or clinical procedures by AOTA.



Interactive Metronome, Inc. is recognized by the Board of Certification, Inc. to offer continuing education (CE) for Certified Athletic Trainers (ATs). This program has been approved for a maximum of 2.0 CEUs (Advanced Level). ATs are responsible for claiming only those hours actually spent participating in the CE activity.