

# Increased accuracy, decreased variability: effects of IM-training on golf shot outcome measures.



## Course Description:

This webinar will start off from a published scientific paper with focus on the effects of timing-training (via Interactive Metronome) on golf shot accuracy, and will highlight why golf is the ultimate sport in which to investigate the effects of such training. Furthermore, it will focus on the customized and standard IM-exercises utilized during the experiment and the reasoning behind the choice of exercises. Methods used in the present experiment and the methodological issues that emerged during and after the experiment was conducted will be discussed at length, including choice of tempo (bpm) for training exercises, number of repetitions, length of training sessions, type of sensory feedback (auditory and/or visual), the difference between timing- and rhythmicity-skills and their measurement, as well as suggestions for future research. Moreover, this webinar will highlight and exemplify the importance of capturing outcomes with “non-IM” pre- and post-test measures of motor control when working with the Interactive Metronome in any situation or context.

## Target Audience:

- Occupational Therapist
- Certified Occupational Therapy Asst
- Physical Therapist
- Physical Therapy Asst
- Athletic Trainer
- Licensed Medical, Rehabilitation or Mental Health Professional
- Music Therapist

## Learning Outcomes:

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

- Discuss the importance of timing as it relates to sports performance and the details and results of a scientific study on the effects of IM-training, including constraints and promises;
- Recognize that non task-specific training can transfer to task-specific performance and take this into consideration when planning interventions;
- Demonstrate an understanding of the basics of measuring motor performance outcomes in general, and in golf in particular.

**\*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**

## Instructor:

Marius Sommer is a 3rd year PhD Candidate in Sport Psychology @ Umeå University - Sweden. His thesis aims to investigate effects of multimodal, bi- and unilateral training on selected aspects of motor learning, functional laterality and performance in athletes. More specifically, effects of training within the domains of timing (IM), co-ordination, laterality, concentration and attention are in focus for investigations. Marius PhD studies, on the side of the work on his thesis, have so far focused on Sport performance measuring (kinematics, timing, and laterality), Cognitive measures (attention styles, emotional intelligence, trait/state anxiety and motivation), Brain imaging (fMRI), and the Perception – Action coupling. Marius is a certified IM provider since 2007, has a Bachelor Degree of Social Sciences including certificates in sports medicine, sport psychology and sports pedagogy, and lectures in courses on Sports Psychology and Social Cognition at the university undergraduate level. Alongside his PhD studies Marius works as a mental coach, using a range of brain training strategies, focusing primarily on Cognitive Behavior Therapy and the IM. As a Mental Coach Marius has been working with national level athletes in ice-hockey, soccer, tennis, badminton and WRC Rally, as well as ice-hockey- and soccer officials and Parkinsons patients.

Marius has vast personal experience participating in a wide range of team and individual sports. He has been a state representative in both Soccer and Alpine Skiing, and has been a professional snowboarder for 10 years, being Top 5 on the snowboard world ranking 1999/2000. On his leisure time Marius is riding motocross, surfing, skateboarding or playing golf and ice-hockey.

## Disclosures:

**Instructor Financial Disclosure(s):** Marius has received honoraria from Interactive Metronome, Inc for presenting his research to IM providers in webinar format. He does not receive royalties or any other form of compensation for the

continued publication and use of educational materials he has authored, nor does he sell or receive compensation for the sale of Interactive Metronome products.

**Instructor Nonfinancial Disclosure(s):** Interactive Metronome, Inc provided IM hardware and software for the independent research studies conducted by Marius Sommer and his colleagues at Umeå University - Sweden.

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**Agenda (60 minutes):**

- Speaker introduction & disclosure
- Science in Sports
- Published Paper: Improved motor timing: Effects of synchronized metronome training on golf shot accuracy
- Why Golf?
- Experimental Design
- Methods & Methodological Issues
- Results & Golf Outcome Measures
- Summary & Conclusions
- Implications
- Limitations
- Future Research

**Instructional Methods:**

LECTURE, PPT, PHOTOS, PUBLISHED RESEARCH PAPER

**CEUs:**

This course is not offered for CEUs.