

# Live EEG Demonstration Script

## More Brain for Brainport Eindhoven

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### PREPARATION (15 minutes before start)

#### Equipment Checklist

- ☐ Muse headband fully charged
- ☐ Laptop/tablet with Mind Monitor app installed and tested
- ☐ Bluetooth connection verified
- ☐ Projection/screen visible to all attendees
- ☐ Backup video ready to play
- ☐ Meditator comfortable and prepared
- ☐ Room temperature comfortable (not too hot/cold)
- ☐ Minimize noise distractions

#### Room Setup

- Meditator seated comfortably facing audience
  - Screen visible to all attendees
  - Clear explanation of what data will be displayed
  - Ensure meditator can remain undisturbed for 20 minutes
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### PRESENTATION FLOW (45 minutes total)

#### 1. WELCOME & INTRODUCTION (3 minutes)

**Opening:** "Good [morning/afternoon/evening], and welcome to More Brain for Brainport Eindhoven. My name is [NAME], and today you're going to witness something remarkable: the real-time effects of Transcendental Meditation on the human brain."

What makes this demonstration unique is that we're not just talking about meditation—we're going to show you, live, what happens in the brain during the practice."

**Set Expectations:** "In the next 45 minutes, you'll:

- Learn what Transcendental Meditation is
  - Understand how we measure brain activity
  - Watch live EEG data during a meditation session
  - See the scientific evidence behind TM's benefits
  - Have time for your questions"
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#### 2. WHAT IS TRANSCENDENTAL MEDITATION? (4 minutes)

**Key Points to Cover:**

"Transcendental Meditation is a simple, natural technique practiced 20 minutes twice daily while sitting comfortably with eyes closed.

**What makes TM unique:**

- It's effortless—no concentration or contemplation required
- Learned through personalized instruction from certified teachers
- Backed by over 380 peer-reviewed scientific studies
- Used by millions worldwide, from students to CEOs

**What TM is NOT:**

- Not a religion or philosophy
- Not mindfulness (which involves monitoring thoughts)
- Not concentration or visualization
- Not trying to empty your mind

**The core principle:** TM allows your mind to naturally settle inward to a state of deep rest while remaining fully alert. Think of it like a wave on the ocean settling back to the calm depth beneath."

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**3. UNDERSTANDING EEG & BRAIN WAVES (5 minutes)**

**Introduce the Technology:**

"Today we're using a Muse headband—a consumer-grade EEG device that measures electrical activity in your brain through sensors on your forehead and behind your ears.

**Show the device to the audience**

Your brain is constantly producing electrical signals as neurons communicate. EEG measures these signals, which appear as different types of 'brain waves.'"

**Explain the 5 Brain Wave Types:**

"Let me show you what we'll be watching:

**DELTA (0.5-4 Hz) - Deep sleep, healing**

- Slowest waves
- Normally only present during deep sleep
- Generally not seen in waking meditation

**THETA (4-8 Hz) - Deep relaxation, creativity**

- Present in light sleep and deep meditation
- Associated with creative insights
- We expect to see increased theta during TM

**ALPHA (8-13 Hz) - Relaxed alertness ★**

- The 'sweet spot' for meditation
- Calm but aware state
- This should dominate during TM practice

**BETA (13-30 Hz) - Active thinking, concentration**




- Your normal waking state right now
- Active problem-solving
- Should decrease significantly during TM

**GAMMA (30-100+ Hz)** - Peak performance, integration

- Highest frequency
- Associated with insight and learning
- May increase in experienced meditators

**Visual Aid:** [Point to screen showing wave patterns]

"During TM, we expect to see:

-  Alpha waves increase significantly
-  Theta waves increase moderately
-  Beta waves decrease
- ✨ Greater coherence (synchronization) across brain regions"

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**4. MEET THE MEDITATOR (2 minutes)**

**Introduce your volunteer:**

"Let me introduce [NAME], who has been practicing TM for [X years/months]. [He/She/They] will be meditating for the next 20 minutes while we monitor their brain activity in real-time.

[NAME], can you briefly share what TM has done for you?"

**[Meditator shares 1-2 minute testimonial]**

"Thank you. Now, let's get [NAME] set up with the Muse headband."

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**5. DEVICE SETUP & CALIBRATION (3 minutes)**

**Demonstrate the Setup Process:**

"Watch as we position the Muse headband. Proper contact is essential for accurate readings."

**Key Points While Setting Up:**

1. "The sensors need to make contact with the skin"
2. "We position it about one finger-width above the eyebrows"
3. "The ear sensors sit behind the ears"
4. "Now we'll calibrate—this establishes [NAME]'s baseline"

**Show the calibration on screen:** "See these lines? They show signal quality. We want all green connections before we start."

**Once calibrated:** "Perfect! We're ready to begin. [NAME] will now sit quietly for 2 minutes in their normal waking state, then begin their TM practice for 20 minutes, followed by 2 minutes of rest."

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## 6. BASELINE MEASUREMENT (2 minutes)

**While recording baseline:**

"Right now, [NAME] is sitting quietly with eyes open, just relaxing. Look at the screen—you can see the brain wave activity. Notice the beta waves are quite active. This is [NAME]'s normal, alert, waking state.

**[Point to screen]**

The different colored lines represent different brain regions. The amplitude shows how strong each type of wave is."

**After 2 minutes:** "Good. We have our baseline. [NAME], whenever you're ready, you can close your eyes and begin your TM practice."

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## 7. DURING MEDITATION - LIVE COMMENTARY (20 minutes)

**MINUTES 0-5: The Settling Phase**

"[NAME] has just begun meditating. Watch the screen carefully...

**[Pause to let audience observe]**

Do you see that? The beta waves—those fast, active thinking waves—are already starting to decrease. This is the mind beginning to settle.

TM is completely effortless. [NAME] isn't trying to concentrate or control thoughts. The technique naturally allows the mind to transcend—to go beyond the active thinking level.

Notice the alpha waves starting to increase. This represents that state of relaxed but alert awareness."

**MINUTES 5-10: Deep Meditation**

"We're about 5-7 minutes into the practice now, and look at this transformation:

**[Point to specific changes on screen]**

- The alpha waves are now dominant—see how much larger they are?
- Beta activity has decreased significantly
- We're seeing increased theta as well
- Most importantly, notice the coherence—different parts of the brain are synchronizing

This coherence is what research shows leads to improved cognitive function, creativity, and reduced stress.

[NAME] is experiencing what we call 'restful alertness'—the body is deeply relaxed while the mind remains quietly alert. Studies show this state provides rest twice as deep as sleep."

**MINUTES 10-15: Sustained Meditation**

"We're now at the peak of the meditation. This is remarkable to see in real-time.

Research published in journals like Consciousness and Cognition shows that this pattern of alpha coherence across the brain is unique to TM—it's not seen with other relaxation techniques or even other forms of meditation.

**[If alpha coherence is visibly high]:** 'See that synchronization across brain regions? That's alpha coherence—it's like an orchestra playing in harmony instead of individual instruments playing separately. This is associated with improved brain function that continues after meditation.'

What's happening biochemically? Studies show:

- Cortisol (stress hormone) decreasing by up to 30%
- Serotonin levels increasing
- Blood lactate (fatigue indicator) decreasing
- Oxygen consumption dropping (indicating deep rest)

All while [NAME] remains fully conscious and aware."

**MINUTES 15-20: Maintaining the State**

"We're approaching the end of the 20-minute practice. Notice how stable these alpha patterns have remained.

This is one reason why TM is practiced for 20 minutes twice daily—research shows this duration is optimal for:

- Dissolving accumulated stress
- Normalizing brain function
- Accumulating long-term benefits

In studies comparing 20 minutes of TM to 20 minutes of eyes-closed rest, only TM produces these distinctive brain patterns and the associated benefits."

**MINUTE 20: Coming Out**

"[NAME] is now coming out of meditation. Watch as the brain patterns transition back...

See the beta waves gradually returning as [NAME] becomes more active and alert? But notice—the alpha is still elevated compared to the baseline. This residual calm continues after meditation.

People typically report feeling refreshed, clear-minded, and energized after TM—not drowsy like after sleep."

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**8. POST-MEDITATION MEASUREMENT (2 minutes)**

**After meditation:**

"[NAME], how do you feel?"

**[Let meditator respond briefly]**

"Now let's look at the data one more time with eyes open, in normal waking consciousness.

**[Compare to baseline]**

Even now, several minutes after finishing, we can see:

- Alpha waves remain elevated
- Beta waves are active but more organized
- Overall, a more balanced, coherent pattern than before meditation

This is the 'after effect'—the benefits that carry into your daily activity. With regular practice, these positive changes become more and more stable."

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**9. DATA REVIEW & SCIENTIFIC CONTEXT (5 minutes)**

**Show summary comparison:**

"Let's review what we just witnessed:

**BEFORE TM:**

- High beta (active thinking)
- Moderate alpha
- Low coherence

**DURING TM:**

- Dominant alpha waves
- Increased theta
- Reduced beta
- High coherence across brain regions

**AFTER TM:**

- Sustained elevated alpha
- Balanced brain activity
- Residual coherence

**Place in Scientific Context:**

"This demonstration aligns with decades of research. Over 380 peer-reviewed studies on TM have been published, including:

**Cognitive Benefits:**

- Increased IQ scores in students
- Improved reaction time
- Enhanced creativity and problem-solving
- Better memory and learning

**Health Benefits:**

- 48% reduction in heart attack and stroke risk
- 30% decrease in cortisol levels
- Significant reduction in anxiety and depression
- Improved sleep quality

**Performance Benefits:**

- Enhanced focus and productivity
- Better decision-making under stress
- Increased resilience
- Improved athletic performance

This isn't just about feeling relaxed—it's about optimizing brain function for peak performance in all areas of life."

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**10. WHY THIS MATTERS FOR BRAINPORT (3 minutes)**

**Connect to the Brainport Community:**

"Why is this particularly relevant for Brainport Eindhoven?

Our region thrives on innovation, technology, and high performance. Whether you're:

- An engineer solving complex problems
- An entrepreneur making critical decisions
- A student pushing through demanding studies
- A professional managing stress and deadlines

...you need your brain operating at its best.

TM provides:

- **Clearer thinking** when solving technical challenges
- **Greater creativity** for innovation
- **Better stress management** in high-pressure environments
- **Improved focus** for deep work
- **Enhanced recovery** from mental fatigue

Major tech companies including Google, Apple, and many others offer TM to their employees because the ROI is clear: better brain function means better performance.

In Brainport, where we pride ourselves on being at the cutting edge, optimizing our most important tool—our brain—just makes sense."

## 11. Q&A SESSION (10 minutes)

### Common Questions & Answers:

**Q: "How is this different from mindfulness?"** A: "Great question. Mindfulness involves monitoring your thoughts and staying on the surface level of the mind. TM transcends—it goes beyond thought to a deeper level of rest and awareness. That's why the EEG patterns are distinctly different. Research comparing the two shows TM produces unique benefits, particularly for stress reduction and cognitive enhancement."

**Q: "Do I need to believe in it for it to work?"** A: "Not at all. TM is a technique, not a belief system. It works whether you're skeptical or a believer—that's the beauty of it. The brain naturally settles when you use the technique correctly, regardless of your mindset."

**Q: "How long before I see benefits?"** A: "Many people feel more relaxed and clear-headed after their very first session. The brain changes we showed happen immediately. However, for lasting transformation—like the health and cognitive benefits we discussed—regular practice over weeks and months is key."

**Q: "Can I learn from a book or app?"** A: "TM is always taught by certified teachers through personalized instruction. This ensures you learn it correctly and establish an effective, lifelong practice. It's similar to learning a musical instrument—guidance from a qualified teacher makes all the difference. The research demonstrating these benefits is based on authentic TM as taught by certified teachers."

**Q: "How much does it cost?"** A: "TM is taught by a non-profit organization. Course fees are income-based to make it accessible, and payment plans are available. Scholarships exist for those who need financial assistance. Given the lifetime benefits, most people find it an excellent investment in their health and performance."

**Q: "What if I can't quiet my mind?"** A: "That's the beauty of TM—you don't need to quiet your mind or control your thoughts. That happens naturally and effortlessly. If you can think, you can meditate. The technique works with the mind's natural tendency to seek happiness and reduced effort."

**Q: "Is 20 minutes twice daily realistic?"** A: "Most people find it very doable. It's less time than many people spend on social media daily. Given that it improves focus, productivity, and reduces stress, most practitioners find they actually save time—they work more efficiently and need less recovery time."

## 12. NEXT STEPS & CLOSING (3 minutes)

### Provide Clear Path Forward:

"If you're interested in learning TM, here's what happens next:

#### 1. Find a Certified Teacher

- Visit [tm.org/centers](https://tm.org/centers) to find courses in the Netherlands
- Attend a free introductory talk
- Ask any questions about the technique and course

#### 2. The TM Course

- Personal one-on-one instruction (1-2 hours)
- Three follow-up group sessions
- Lifetime access to refresher courses and support
- You learn your personal mantra and technique

#### 3. Establish Your Practice

- Start experiencing benefits immediately
- Continue with 20 minutes, twice daily
- Attend follow-up sessions for refinement
- Join the community of TM meditators

### For More Information:

- Visit our website: [YOUR WEBSITE]
- Check out [TM.org](https://tm.org) for research and testimonials
- Follow us on [SOCIAL MEDIA] for upcoming demonstrations
- Contact us at [EMAIL/PHONE]"

### Final Message:

"What you witnessed today isn't magic—it's neuroscience. The EEG doesn't lie. Those brain changes are real, measurable, and achievable by anyone who learns the technique properly.

In Brainport, we're all about optimizing systems and maximizing performance. Your brain is your most valuable asset. Isn't it worth investing 40 minutes a day to make it function at its absolute best?

Thank you for coming. We're happy to chat individually if you have more questions."

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## FALLBACK PLAN - IF LIVE DEMO FAILS

### Technical Difficulties Script:

"Folks, we're experiencing some technical difficulties with our live feed. This is exactly why we have backup recordings!

While technology is amazing, sometimes the Bluetooth connection doesn't cooperate—which is ironic given we're in Brainport!

Let me show you a recorded demonstration we did previously under controlled conditions. The data and patterns you'll see are identical to what we would have shown you live..."



**[Play backup video]**

"This is actually better in some ways—we can pause and highlight specific moments more easily."

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**POST-PRESENTATION CHECKLIST**

- ☐ Collect contact information from interested attendees
  - ☐ Provide handouts or links to resources
  - ☐ Note any technical issues for improvement
  - ☐ Thank the meditator and volunteer
  - ☐ Document attendance numbers
  - ☐ Follow up with attendees within 48 hours
  - ☐ Request feedback for future improvements
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**TIPS FOR SUCCESS**

**For the Presenter:**

- Practice the script multiple times
- Know the technology thoroughly
- Be comfortable with silence during meditation
- Have stories and examples ready
- Stay calm if technology fails
- Be authentic and personable

**For the Meditator:**

- Arrive early and get comfortable
- Use bathroom before starting
- Eat lightly beforehand
- Dress comfortably
- Practice with the Muse headband before the demo
- Don't worry about "performing"—just meditate normally

**For Best Results:**

- Keep room temperature comfortable
  - Minimize external noise
  - Ensure good visibility of screen
  - Have water available
  - Keep energy positive and welcoming
  - Make it conversational, not lecture-y
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# TIMING SUMMARY

Section	Duration
Welcome & Introduction	3 min
What is TM?	4 min
Understanding EEG	5 min
Meet the Meditator	2 min
Setup & Calibration	3 min
Baseline Measurement	2 min
During Meditation (live)	20 min
Post-Meditation	2 min
Data Review	5 min
Brainport Connection	3 min
Q&A	10 min
Next Steps & Closing	3 min
<b>TOTAL</b>	<b>~45 min</b>

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*This script is designed to be adapted based on your audience, venue, and style. Make it your own while maintaining the scientific integrity and key messages.*