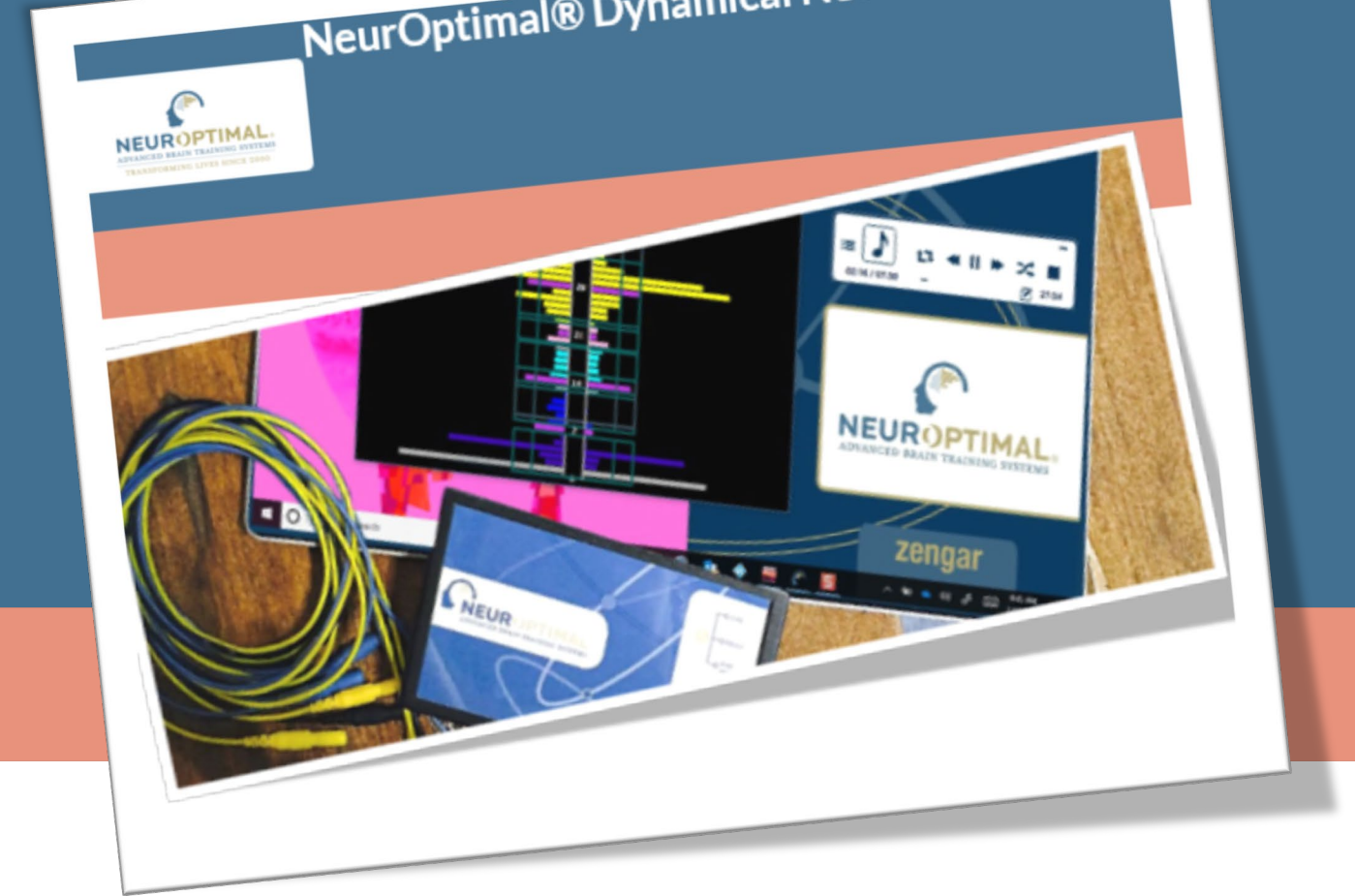


# NeuroOptimal® Dynamical Neurofeedback®





# TRAINER DIALOGUE:



- Welcome- Thank you, for coming in for your NeurOptimal® Introduction meeting
- Let's talk a few minutes together
- I would love to hear what brought you in today-
- Then I want to share with you what this process is about
  - *(Do you mind if I videotape you telling your story?)*

*\*Give them the "Permission to videotape form"*

# BRAIN TRAINING



NeuroOptimal®  
Dynamical  
Neurofeedback®



*BRAIN OPTIMIZATION THROUGH TRAINING*

# TRAINER DIALOGUE:



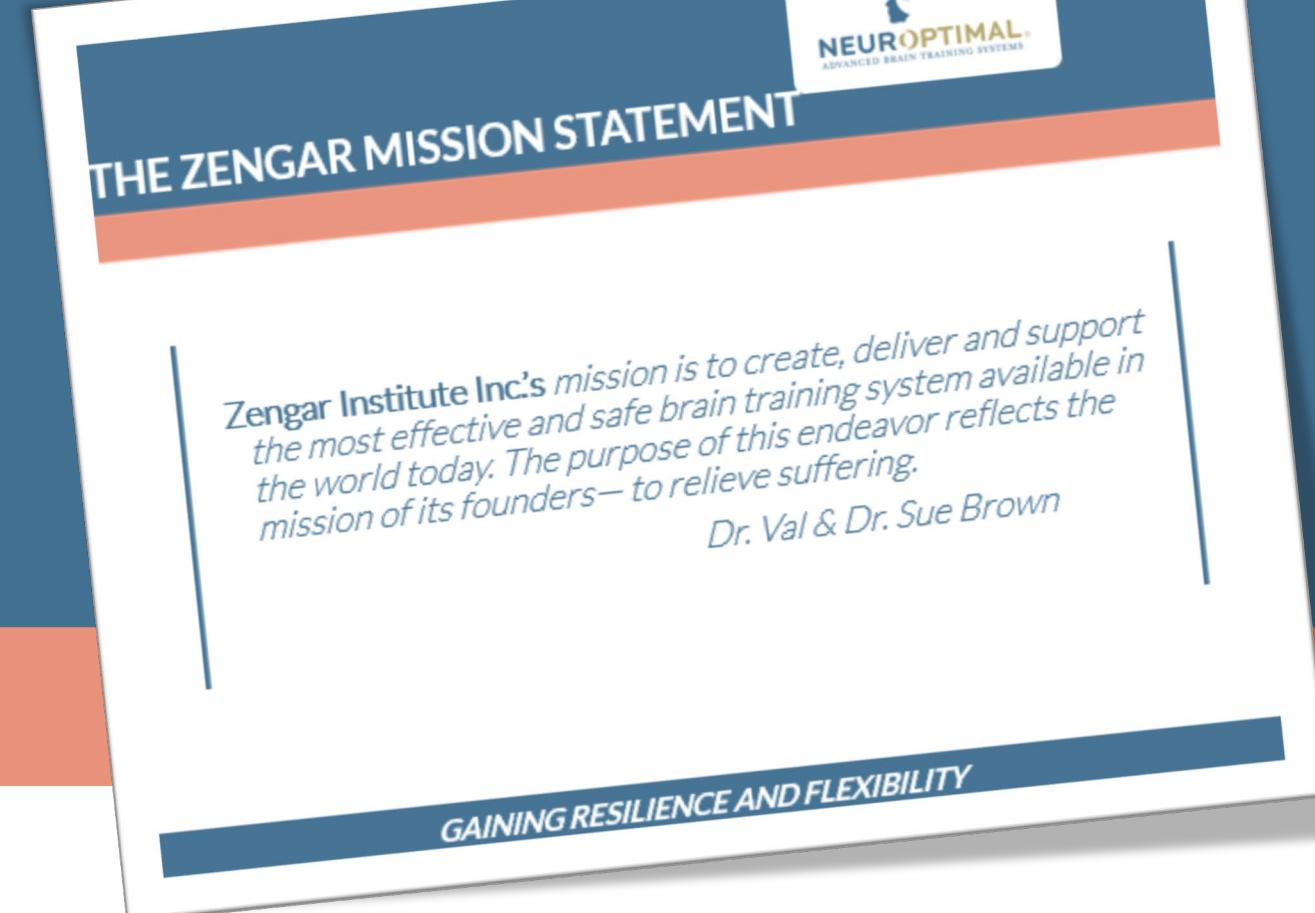
- NeuroOptimal® (NO) is a Neurofeedback System created by Dr.'s Val & Sue Brown
- Zengar Institute has been in operation since 1996
- 17 years and well over 3 MILLION hours of use worldwide, NeuroOptimal® is time-tested, safe and effective

# THE ZENGAR MISSION STATEMENT

*Zengar Institute Inc.'s mission is to create, deliver and support the most effective and safe brain training system available in the world today. The purpose of this endeavor reflects the mission of its founders – to relieve suffering.*

*Dr. Val & Dr. Sue Brown*

# TRAINER DIALOGUE:



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Dr. Val & Dr. Sue Brown

# NEUROOPTIMAL® DYNAMICAL NEUROFEEDBACK®



*THE BRAIN IS IN CONSTANT MOVEMENT AND NEVER REPEATS THE SAME PICTURE*

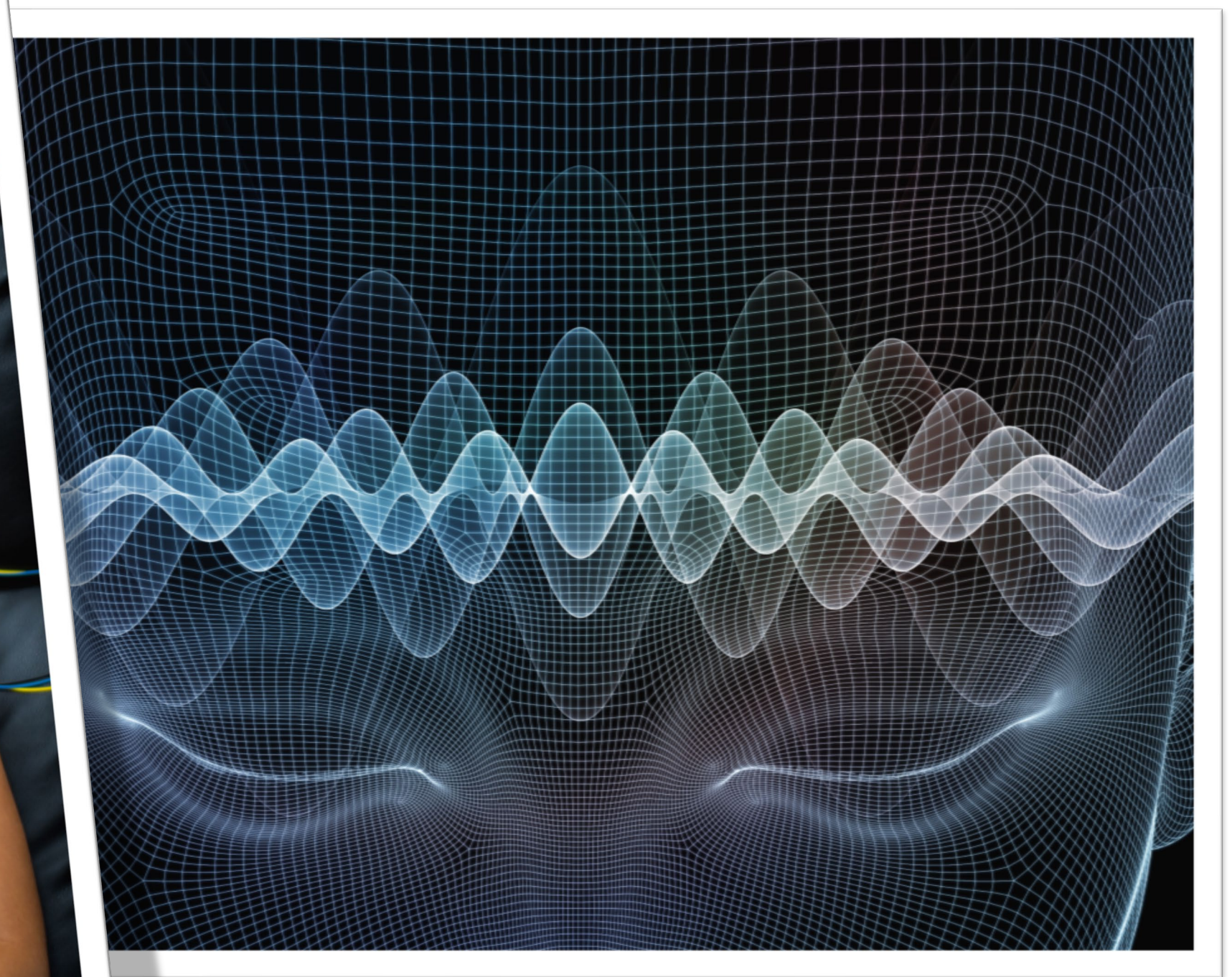
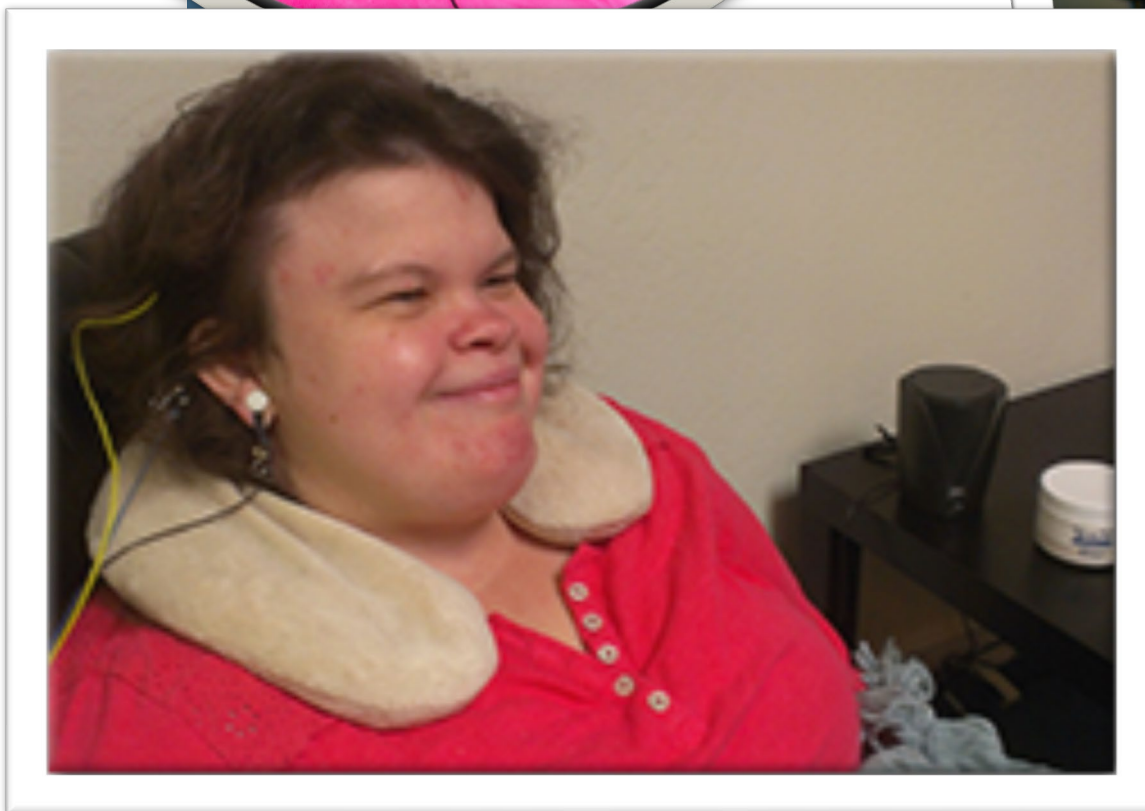


# TRAINER DIALOGUE:



- NO is a method of training the brain.
- The software notices small subtle changes in the electrical signal of the brain and creates an interruption in the audio/visual stream to make you aware (we call this ‘information’)
- The brain responds by adjusting according to that “Information” or interruption coming back to the present
- This is the way the central nervous system (CNS) normally reacts to change in its environment.
- NO is communicating mathematically in the same way the CNS intrinsically talks to the body.
- Every time someone is doing a session it is a totally different brain, just like a kaleidoscope.

# What is Being Measured?



*EVERY BRAIN IS DIFFERENT AND IS FOREVER  
CHANGING, LEARNING AND ADAPTING MOMENT TO MOMENT*

# TRAINER DIALOGUE:



- The movement we see is called an electrical signal, Electro-magnetic or sometimes called brain activity
- How do we measure that signal?
  - Through *Sensors* on the scalp with conductive paste
  - *zAmp* – amplifies the electrical signal and turns it from an analogue signal into a digital signal
  - All you do is sit there and relax, listen to the music, watch the screen (if you want) close your eyes if you would rather, read, or fall asleep!

# WHO NEEDS NEUROOPTIMAL<sup>®</sup>?



*ANYONE THAT FEELS THEY NEED THAT STEP UP*

# TRAINER DIALOGUE:



- As life can hit hard, our brain isn't always able to respond quickly. Instead, it will repeat the same pattern and the same story.
- Telling the same stories – will usually create a persistent consistent electrical pattern in our electrical signal of the brain
- Worrying about the same things- over & over
- Not able to flexibly move through our thoughts, or daily tasks
- Sleep can be affected
- Moods can be affected
- Relationships can be threatened
- Performance can suffer

# WHAT DOES NEUROOPTIMAL<sup>®</sup> DO?



*NEUROOPTIMAL<sup>®</sup> PROVIDES THE CNS  
WITH INFORMATION ABOUT WHAT IT IS DOING*

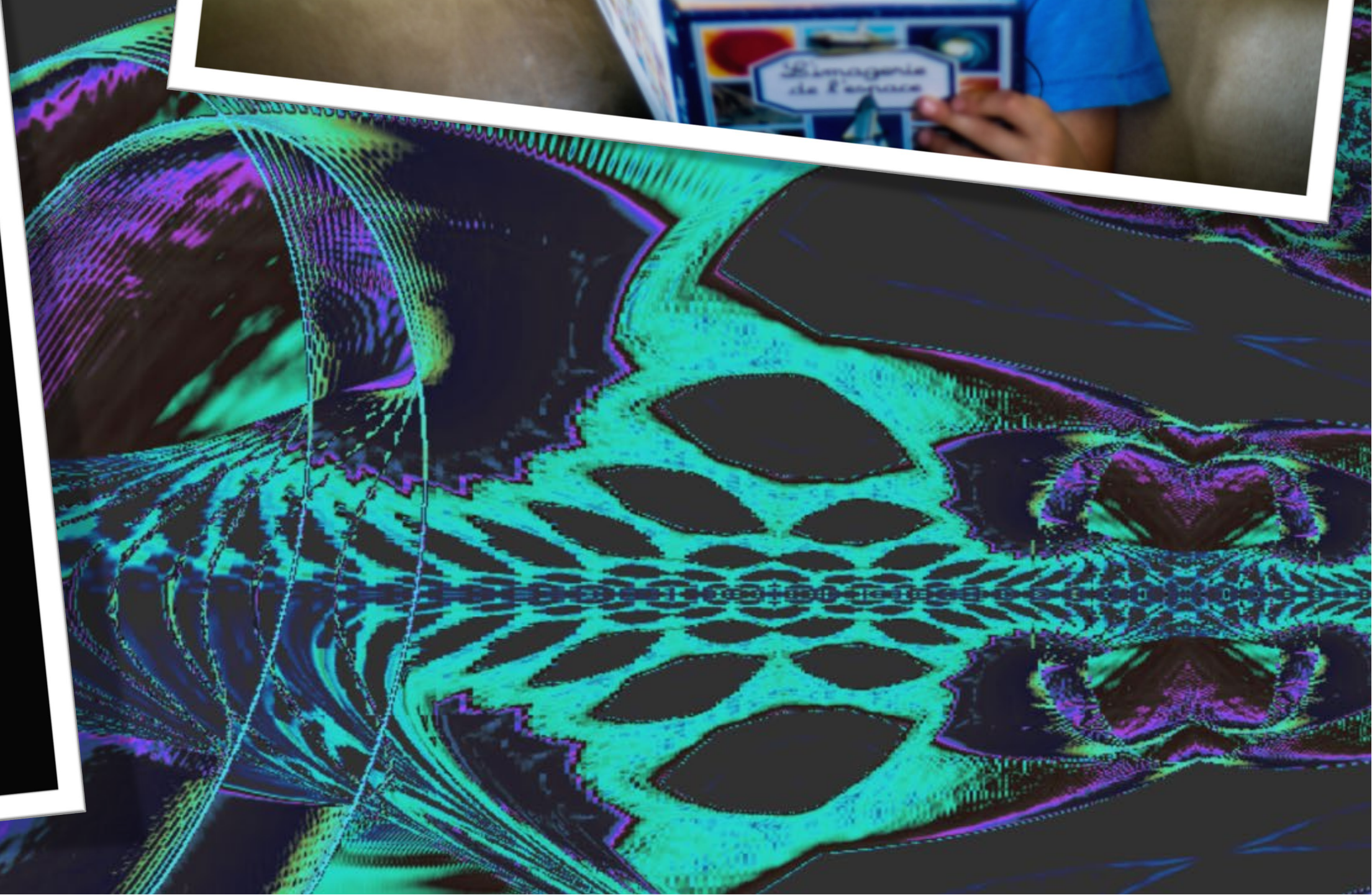
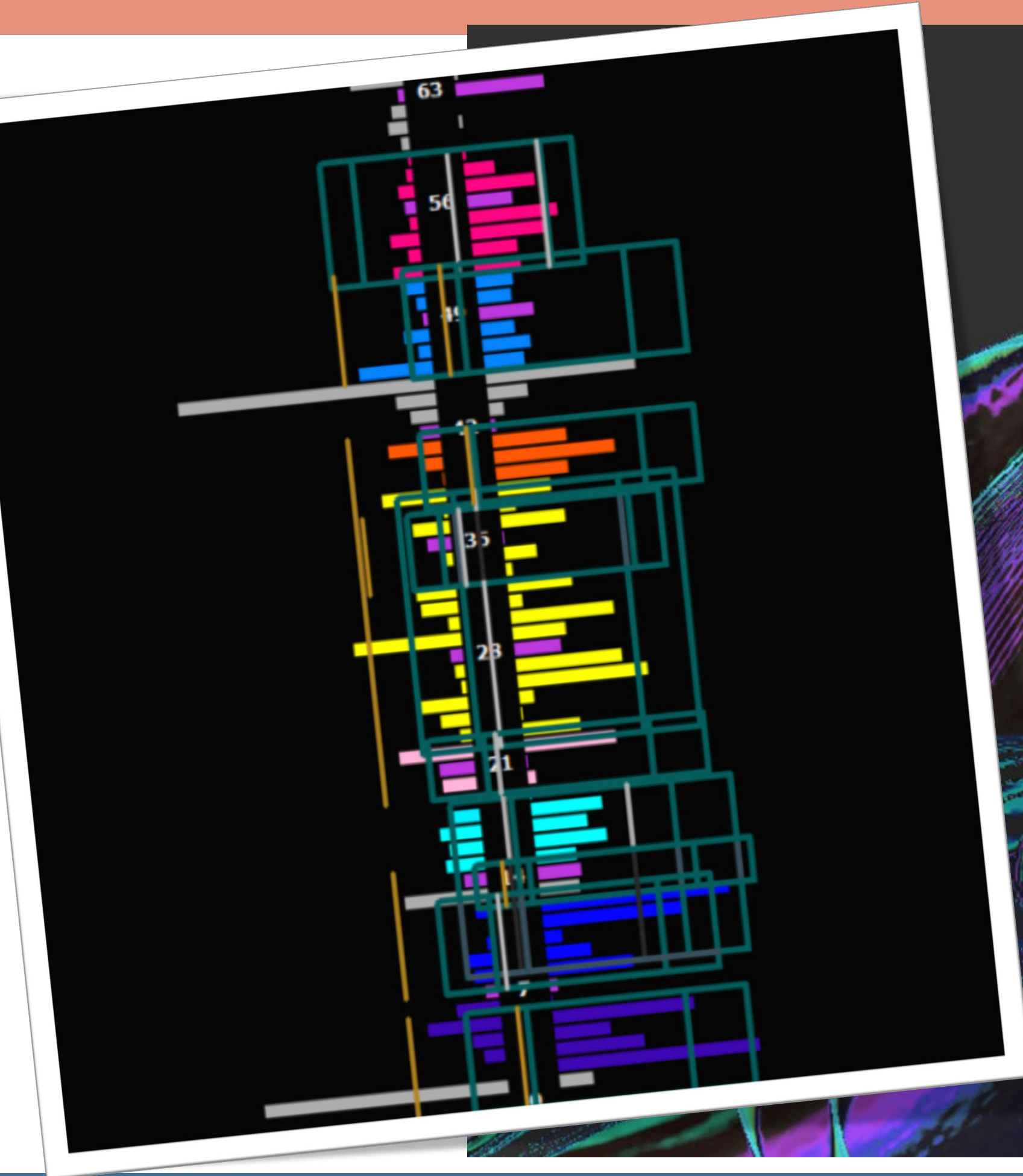
# TRAINER DIALOGUE:



- To create flexibility using *NeurOptimal*® the feedback system-communicates with the CNS (Central Nervous System)
- *NO* (NeurOptimal®) is a computer software program
- Using sensors and paste the electrical information is being read from the scalp
- We use a zAmp (amplifier) to turn the electrical activity coming in through the sensors from an analog signal to digital, so the computer can understand it. It also amplifies (makes the electrical signal louder).
- NO creates an interruption anytime there is a 'difference' in the electrical signal, in terms of Duration, Intensity, Frequency or Shift- the DIFS

# HOW DOES IT WORK?

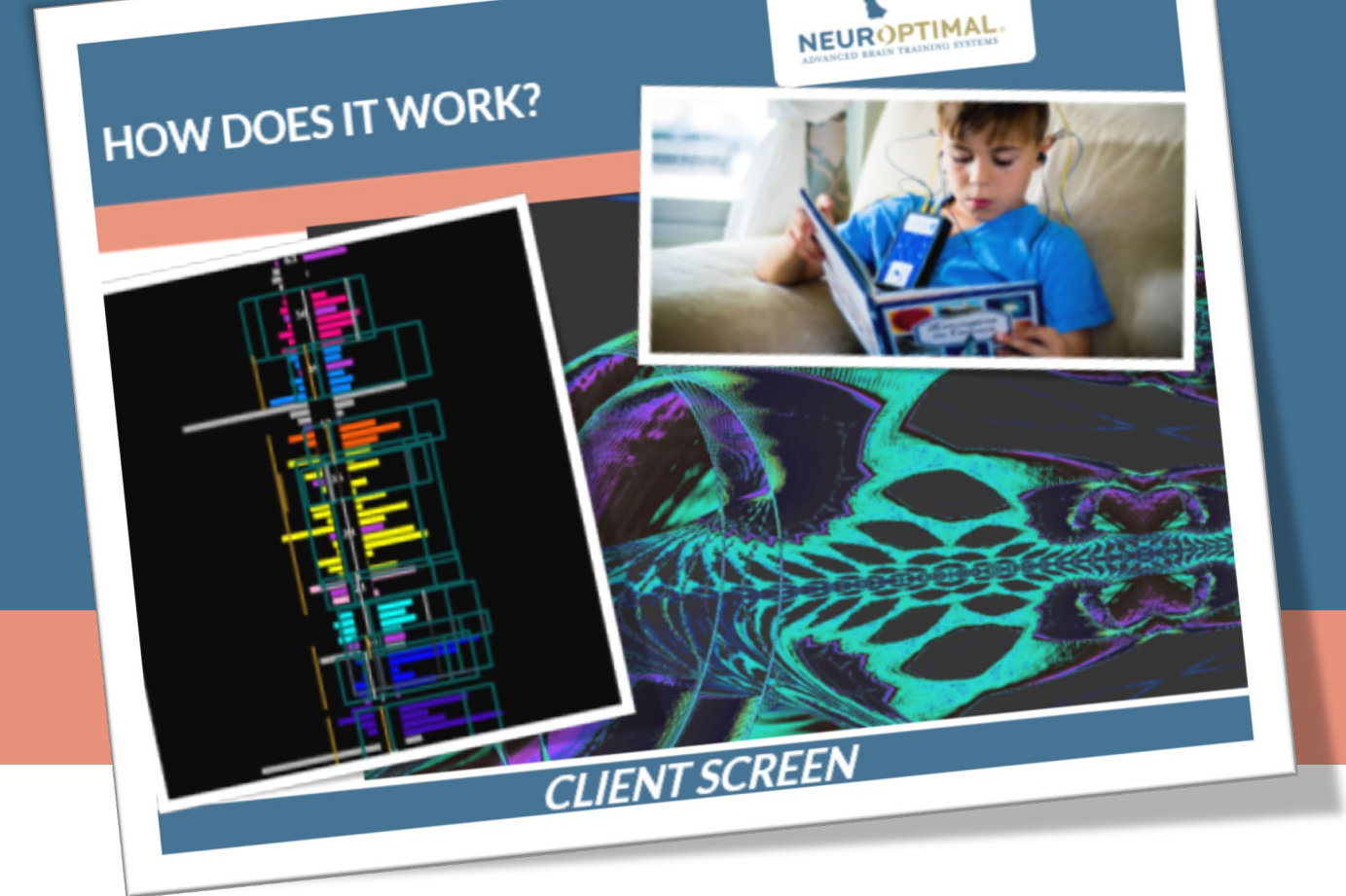
  
**NEUROOPTIMAL**<sup>®</sup>  
ADVANCED BRAIN TRAINING SYSTEMS



*CLIENT SCREEN*

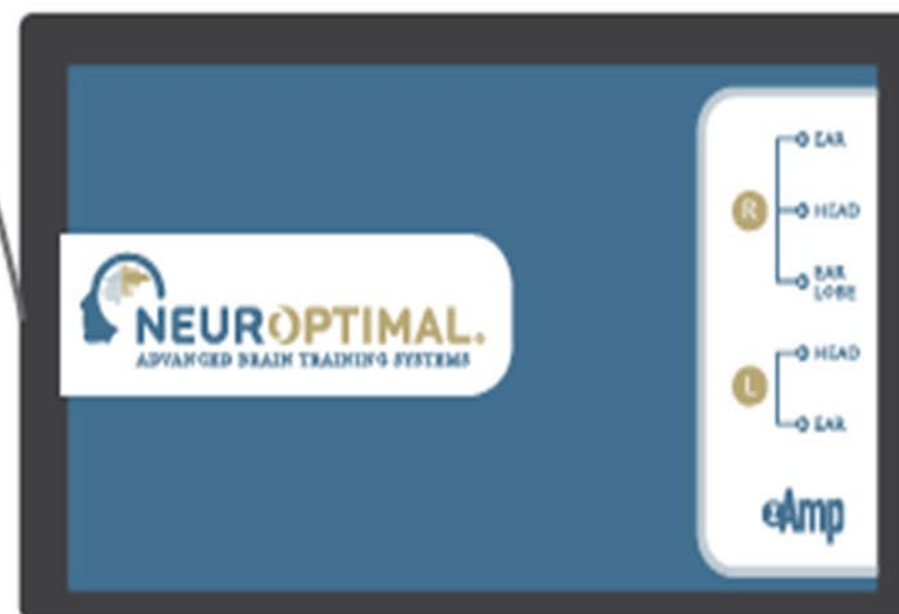


# TRAINERS DIALOGUE:



- Reading this electrical signal from the brain, the NeuroOptimal® system mathematically measures the Duration, Intensity and any Shifts/Changes that occur.
- This means that both the strength of the signal and the timing of the signal is being measured (where most other Neurofeedback systems measure in Amplitude/Strength only)
- The speed of NO's software and the idea of measuring 'timing' is unique to only NeuroOptimal®

# FEEDBACK LOOP



# TRAINER DIALOGUE:



- The sensors go on the head of the Client
- Special conductive paste that holds the Sensors in place
- Individuals typically sit in a nice comfortable chair
- The zAmp 'amplifies' the data and changes the electrical signal from Analog to Digital
- That signal is sent into the software program for analysis
- This information is analyzed 256 times per second and is detecting changes in the activity (DIFS)
- Your brain perceives these slight interruptions as a notification that something changed and then the CNS 'adjusts' to that information.
- The brain's job is to keep us alive. Therefore, it always is moving towards a place of comfort.

# WHAT ARE THE BENEFITS



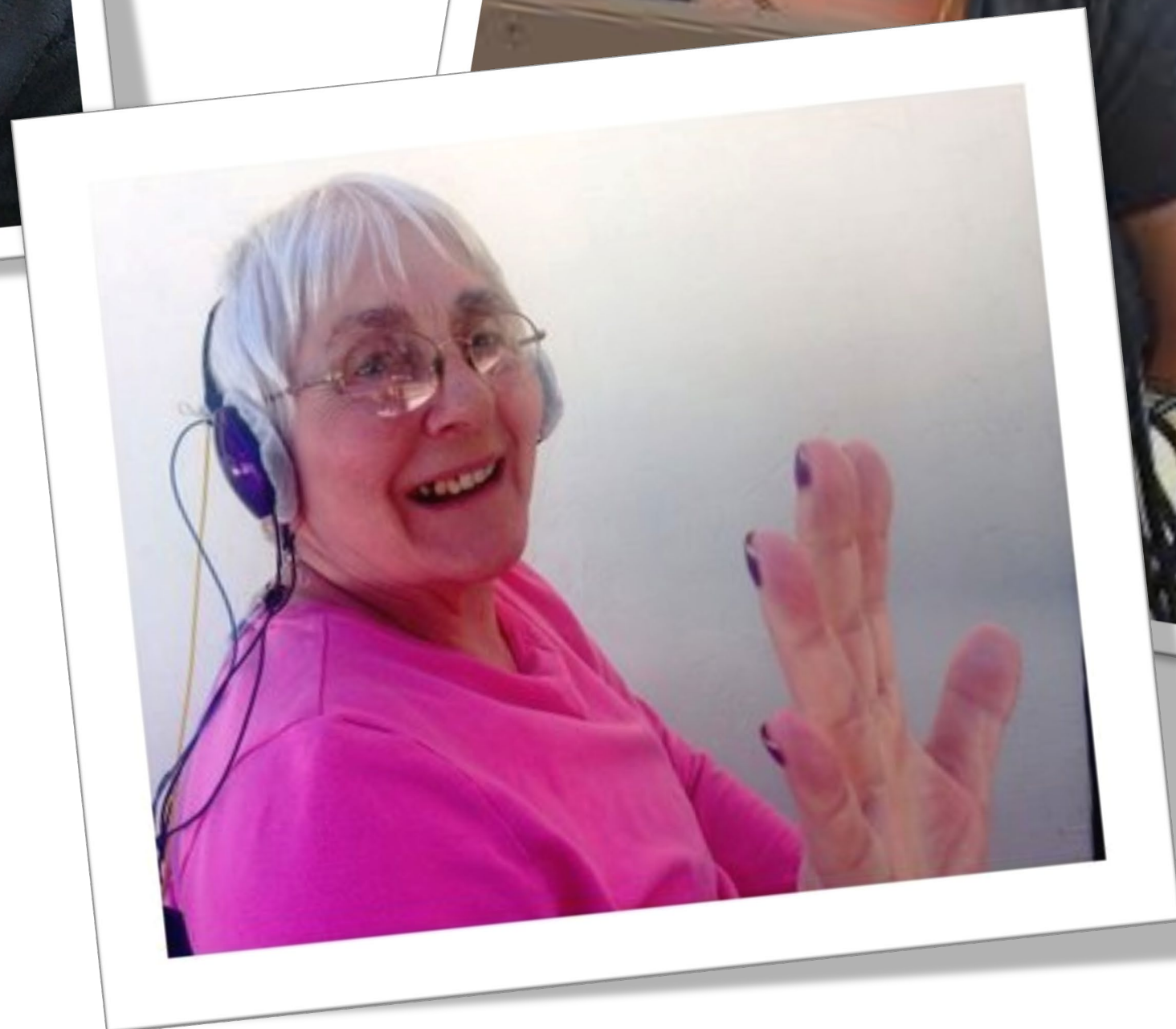
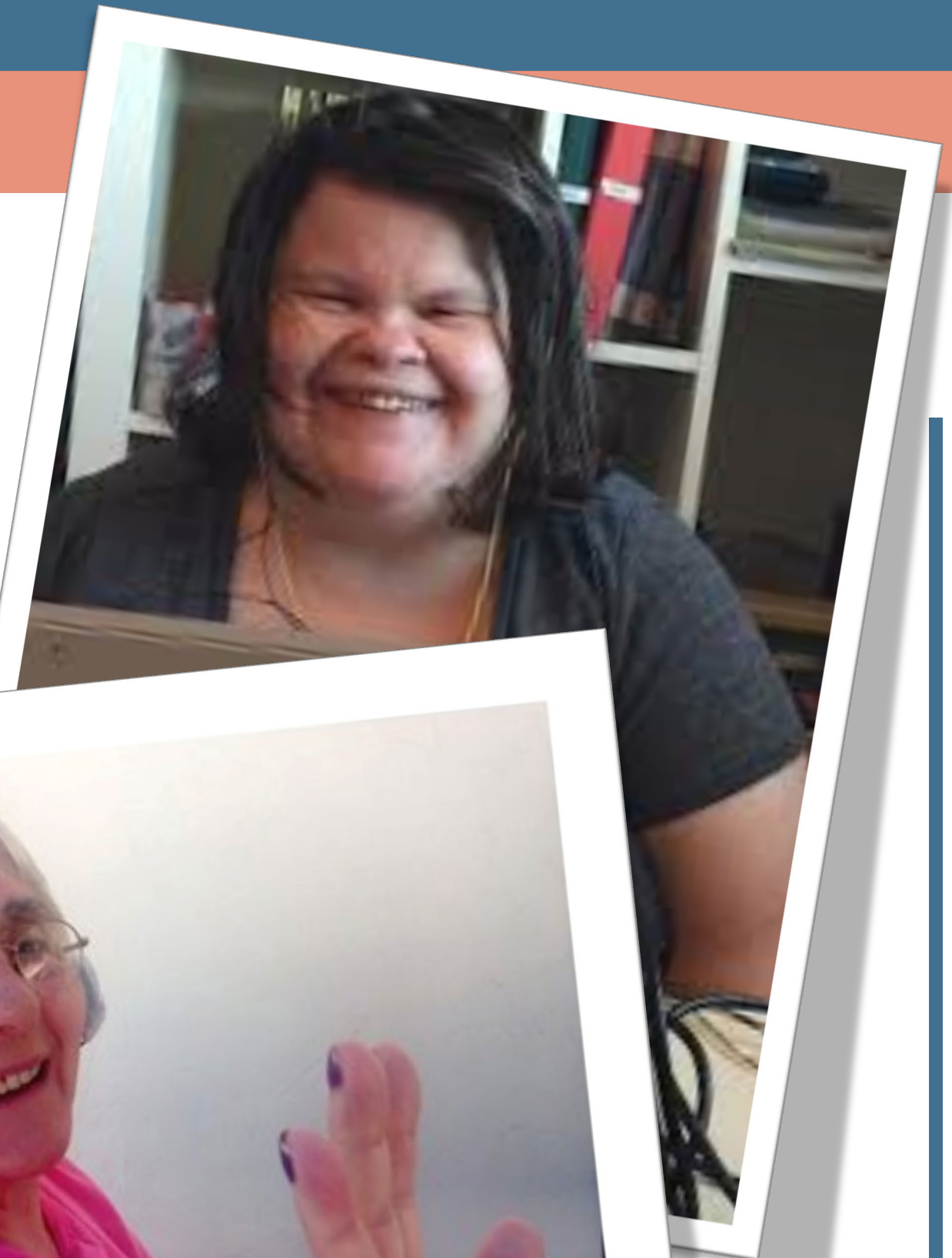
*MANEUVERING THROUGH THE TURBULENCE OF LIFE*

# TRAINER DIALOGUE:



- One of the biggest benefits is the ability to gain **Flexibility & Resilience** to easily and effortlessly make decisions without concern
- Everything we do in life has the potential to add stress and as the body is able to self-heal, this process presents the information so the individual can regain that ability
- It is diagnostically agnostic (it doesn't matter what the Dx is)
- NO reminds the brain to self-regulate or 're-adjust' to the external environmental turbulence
- Nothing is put into the brain (no electricity, no strong frequency or vibration, or light/sound)

# BENEFITS OF BRAIN TRAINING



*HOW WILL IT AFFECT ME?*

## *Common Changes that are Witnessed When Training*



## TRAINER DIALOGUE:

- Sleep patterns change- many times people feel more rested
- Most of the time sleeping through the night
- Waking feeling refreshed, the restless & internal frustration may dissipate
- Many times we see that people become more involved in family & discussions
  - More communicative- sharing personal ideas
- Mood – over all content & happier- Feeling More Internally balanced
- Less Impulsive- Stay focused longer- Notice visual & auditory details
- More energy than before training -Listens better and with intent
- More compassion and empathy -Less obsessive & compulsive
- Less distracted & better memory
- More patient, less reactive
- Can roll with life’s “punches” more easily

## How Do I Know if it is Working?

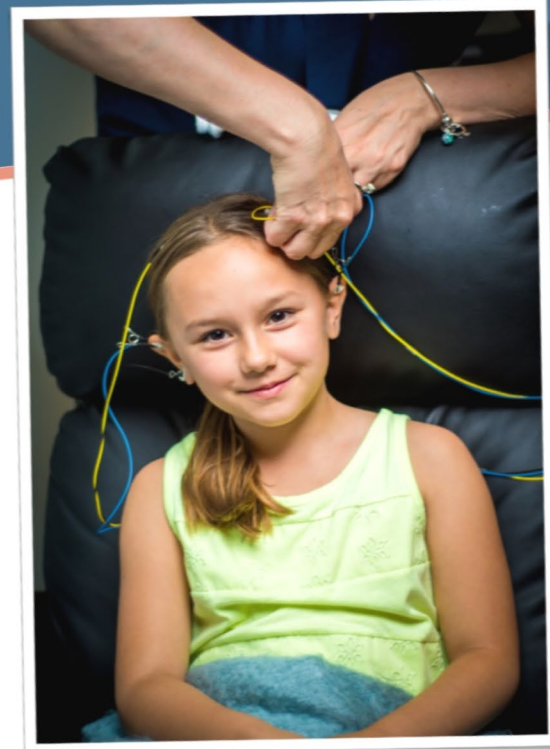




# TRAINER DIALOGUE:

NEUROPTIMAL  
ADVANCED BRAIN TRAINING SYSTEM  
"REPROGRAMMING" SINCE 2000

How Do I Know  
if It is Working?



- **“How Do I Know It is Working”? Let’s Explore that:**
- How does the Brain know how to walk?
- How does the body know when to send oxygenated blood to an organ?
- How does a body ‘self-heal’ a broken leg or a skinned knee?
- What happens when the CNS detects change in the body’s temperature or any bodily function
- The CNS knows this as an internal communication system and NO is able to speak that same language so the brain responds

# OUR JOB AS A DETECTIVE



*TRAINER PERSPECTIVE*

# TRAINER DIALOGUE:

OUR JOB AS A DETECTIVE

NEUROPTIMAL  
ADVANCED BRAIN TRAINING SYSTEMS



TRAINER PERSPECTIVE

## As a Trainer we do not assume the Role of Therapist But that of a Detective

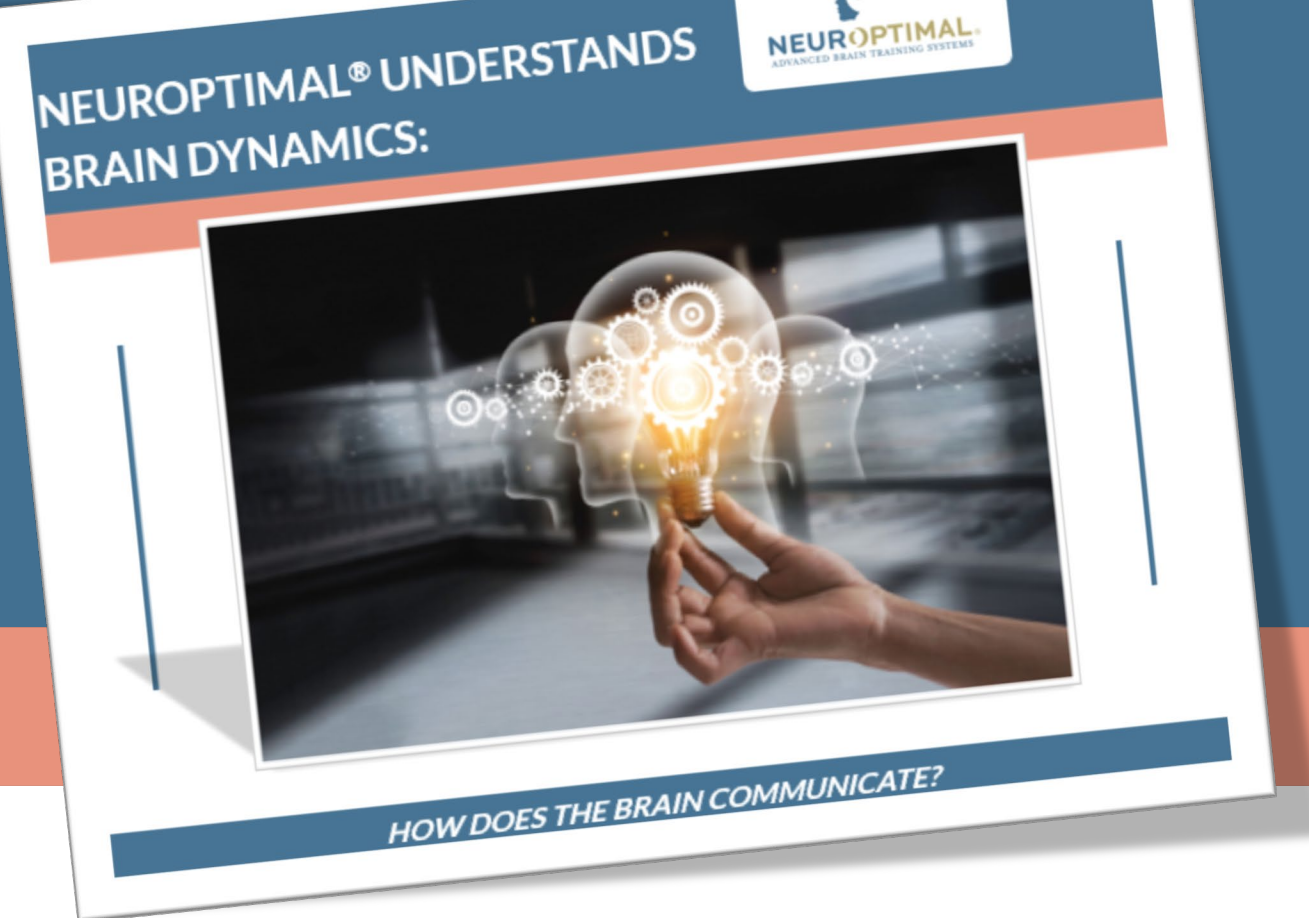
- The Trainer can take a proactive part in documenting changes or shifts
- We Create an environment that encourages & empowers you to recognize your intrinsic self-healing abilities (just like a broken leg)
- Therefore, as Trainers, we cannot accept the responsibility to ‘cure’ you or ‘heal’ any specific disorders/issues- but we understand because your body organically knows how to do this we just need to use NO as a reminder
- We want to empower you to be in charge of YOUR own process.
- We share information about the program and process
- We may video tape your responses for you to look at later, we may ask you to keep a diary
- We want to keep you actively looking at and noticing the DIFS

# NEUROPTIMAL® UNDERSTANDS BRAIN DYNAMICS:



*HOW DOES THE BRAIN COMMUNICATE?*

# TRAINER DIALOGUE:



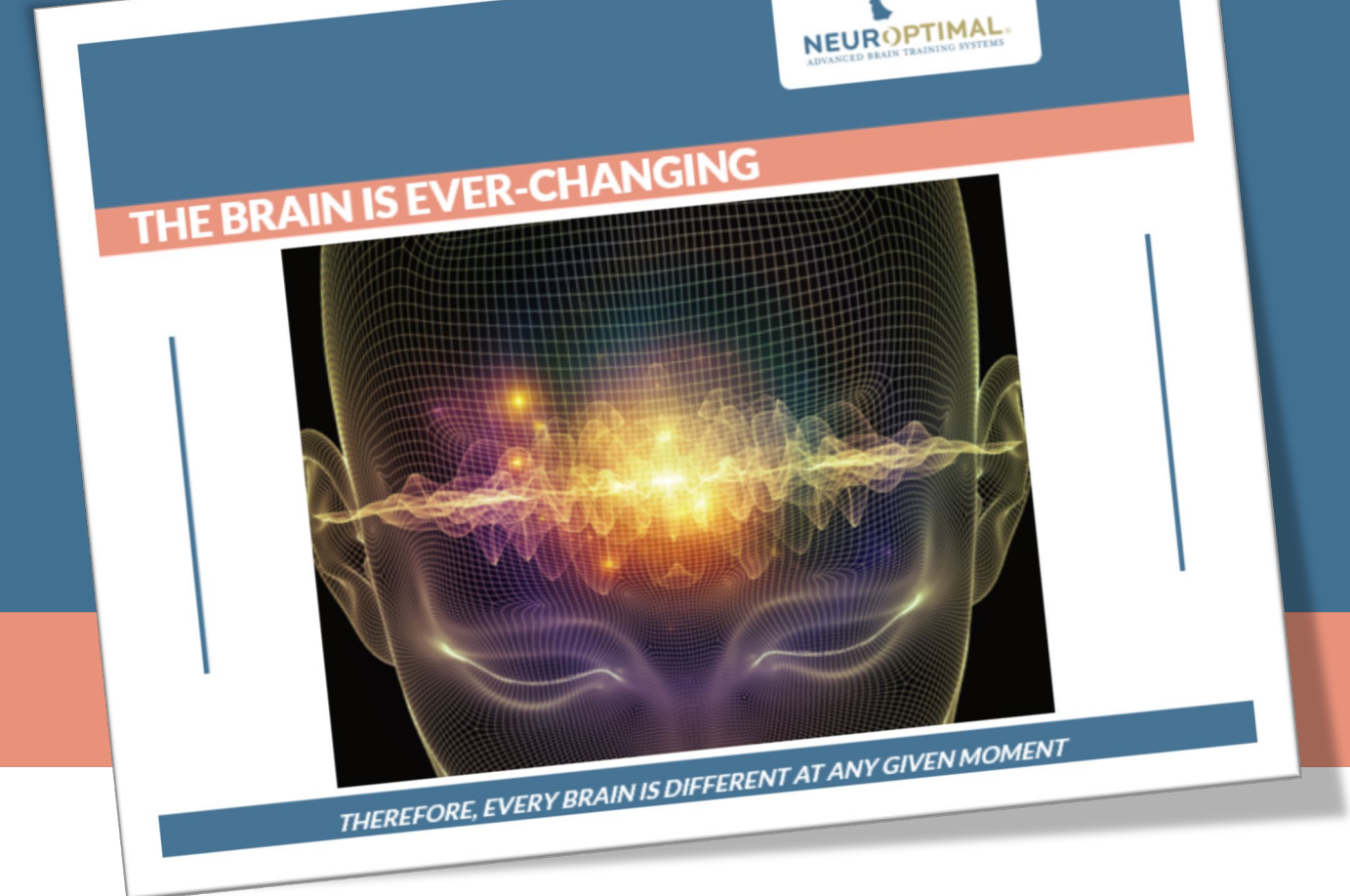
- The Brain is the most complex DYNAMICAL structure known to the Universe
- It is able to process massive amounts of information, develop responses and apply these responses for increased efficiency and mastery
- To Understand the Chaos- it is helpful to know how the Brain perceives incoming information
- Consciousness is self regulated meaning that processes not requiring our immediate attention take place outside of our awareness

# THE BRAIN IS EVER-CHANGING



*THEREFORE, EVERY BRAIN IS DIFFERENT AT ANY GIVEN MOMENT*

# TRAINER'S DIALOGUE:



- Supportive in its innate ability to change
- The Central Nervous System (CNS) is ever changing and constantly detecting changes- this is how NO works
- We have the most Dynamical process available
- It trains the brain by using the CNS' own unique ability to monitor change within the body and respond to that change –
- Therefore the communication of the NeuroOptimal<sup>®</sup> system is the same process as the CNS communicates to itself

# PROCESS VARIABILITY



*INFORMATION IS...*



# TRAINER DIALOGUE:



- Our Brain is Infinitely cycling & self regulating
- We understand there are no ABSOLUTE values that are inherently 'best' or the "amount" of activity required for specific functions
- It always varies from Brain to Brain and it always varies with time for that same Brain
- In other words, our system generally regulates to around a blood pressure of 120/80 or to a temp of about 98.6 but this does not stay constant nor is it 'fixed'

# WHAT HAPPENS WHEN OUR BRAIN IS NOT ABLE TO SMOOTHLY DETECT CHANGE?



We become rigid in our thoughts and deeds



*NEUROPTIMAL® WILL TRAIN FLEXIBILITY AND RESILIENCE*

# TRAINER DIALOGUE:



- What happens when our brain is not able to smoothly detect change?
- We tend to become:
  - Rigid
  - Disorganized
  - Persistent Complaints
- The electrical signal stays in a “fixed pattern”. By interrupting that pattern with a milli-second of silence or static (the interruption in the music) the brain will **adjust** and **find a new place of internal comfort**

# SHOULDN'T A PERSON BE A MEDICAL DOCTOR TO MESS WITH MY BRAIN?



*TRAINING NOT TREATMENT*

# TRAINER DIALOGUE:

SHOULDN'T A PERSON BE A  
MEDICAL DOCTOR TO MESS  
WITH MY BRAIN?

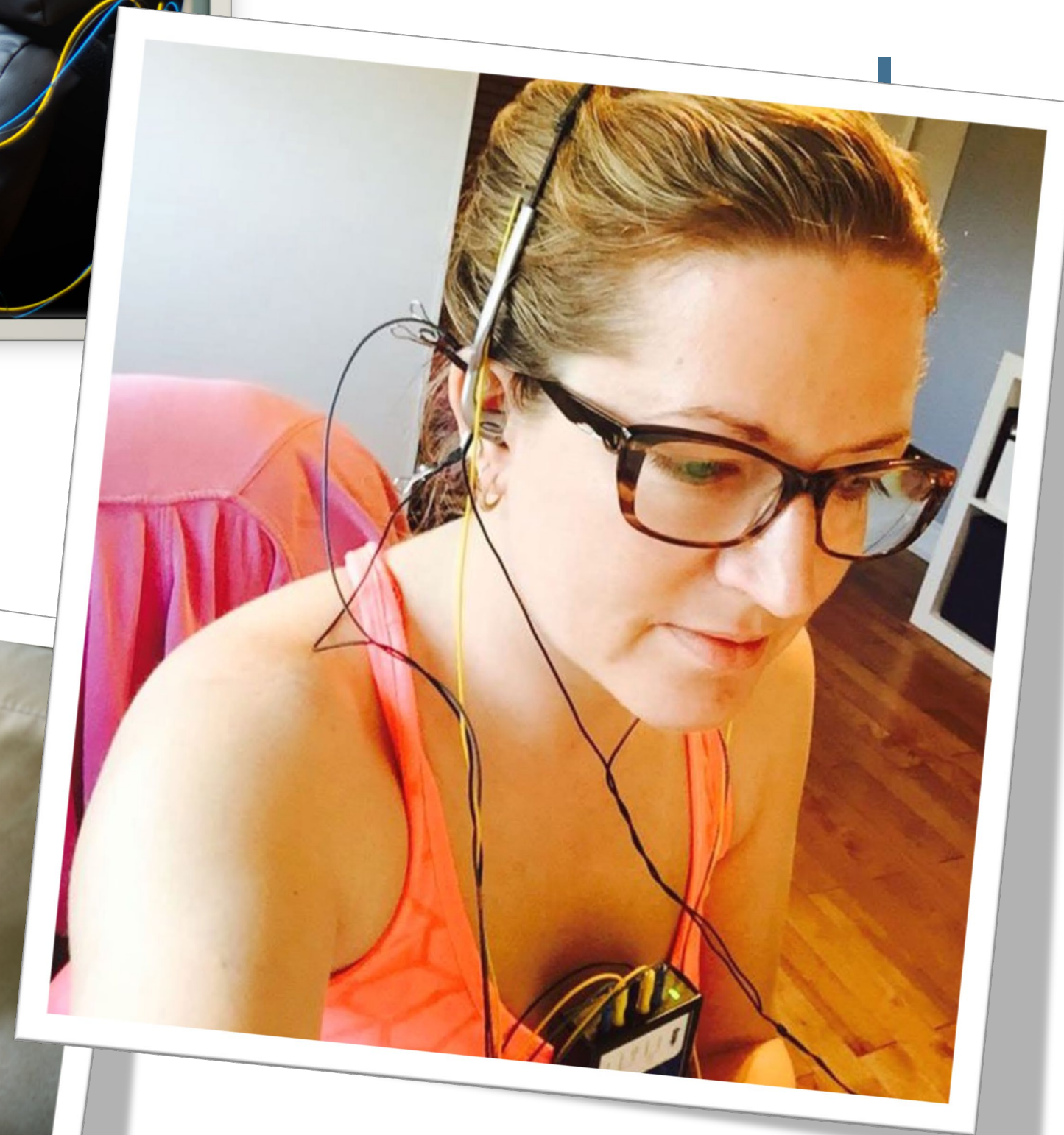
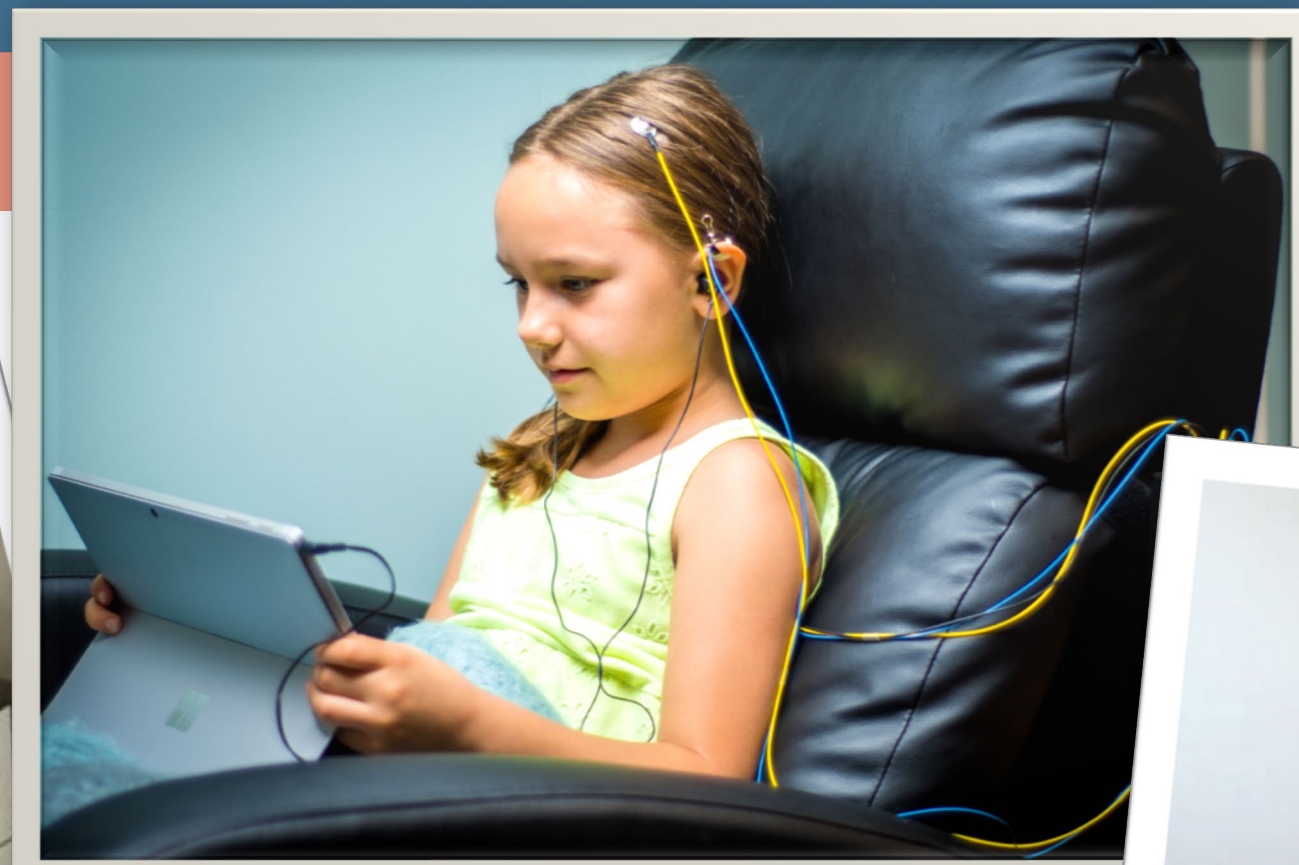
NEUROPTIMAL  
ADVANCED BRAIN TRAINING SYSTEM



TRAINING NOT TREATMENT

- This is training (not therapy)
- It is diagnostically agnostic
- NO reminds the brain to self-regulate
- Nothing is put into the brain (no electricity, no strong frequency or vibration, or light/sound)
- Because nothing goes into the brain & nothing comes out of the brain we are 'teaching' the brain to respond differently...
- All we are doing is providing information to the brain about what it is doing. It sorts itself out on its own from there.
- There are no decisions being made by me on behalf of your brain.

# YOUR ROLE AS THE TRAINEE:



*A LEARNING PROCESS WORKS BEST WITH CONSISTENT SESSIONS*

# TRAINER DIALOGUE:



- The Trainee has the responsibility to decide on the consistency of their brain training sessions (1-2 times weekly, 3-4 times a week, daily)
- The Trainee has the responsibility to together document shifts with your Trainer
- The Trainee understands that the ‘progress’ is learned internally to adjust and learn to self-heal
- The Trainee understands the use of the Progress Tracking Tools will keep the process focused on internal shifts

# NeuroOptimal® 3.0

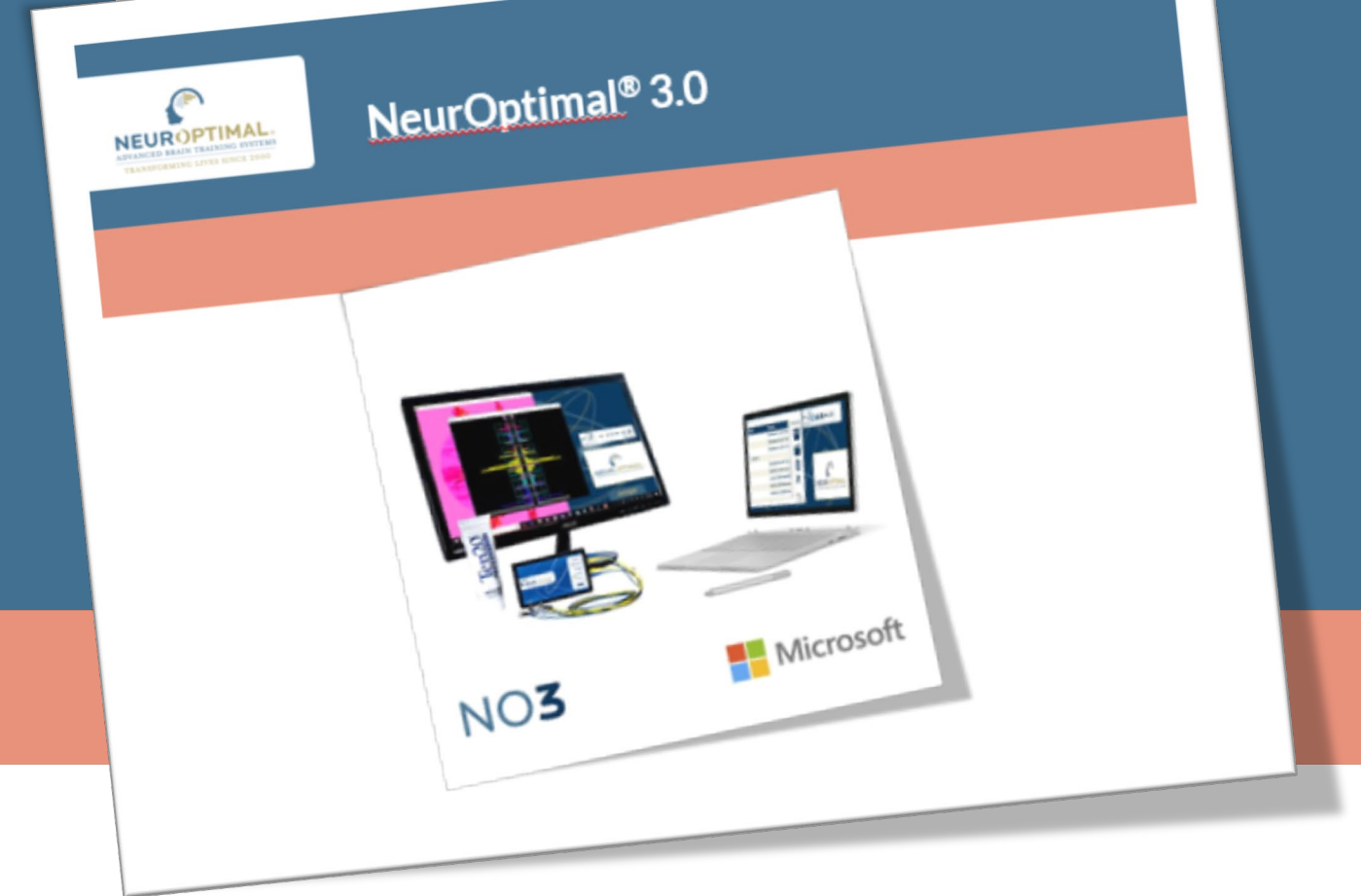


**NO3**





# TRAINER DIALOGUE:



- The NeurOptimal® Process is a private dance between the software system & the Trainee
- The internal responses by the Trainee are always diverse and dependent upon the Trainee's ability to observe and process this information

# The Neuroptimal<sup>®</sup> Session Experience

1

Before the first Neuroptimal<sup>®</sup> session, you will ask your client to fill out a brief questionnaire describing how they are feeling and what they wish to achieve in coming to your training sessions



The client will be seated in a comfortable reclining chair facing a computer monitor.

2

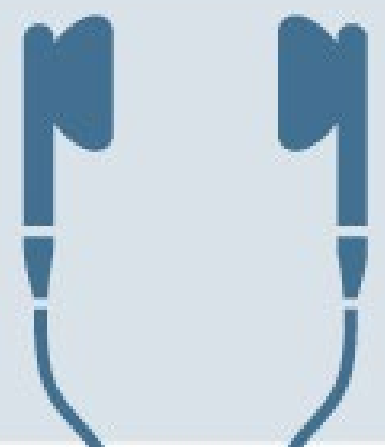
# Trainer Dialogue:




- We ask that you fill out some paperwork- possibly a questionnaire & Intake Form
- Usually you'll be seated in a comfy chair or at a table with a Monitor or Large TV available for you to watch



Two sensors are placed on the scalp and another three are placed on the ears.

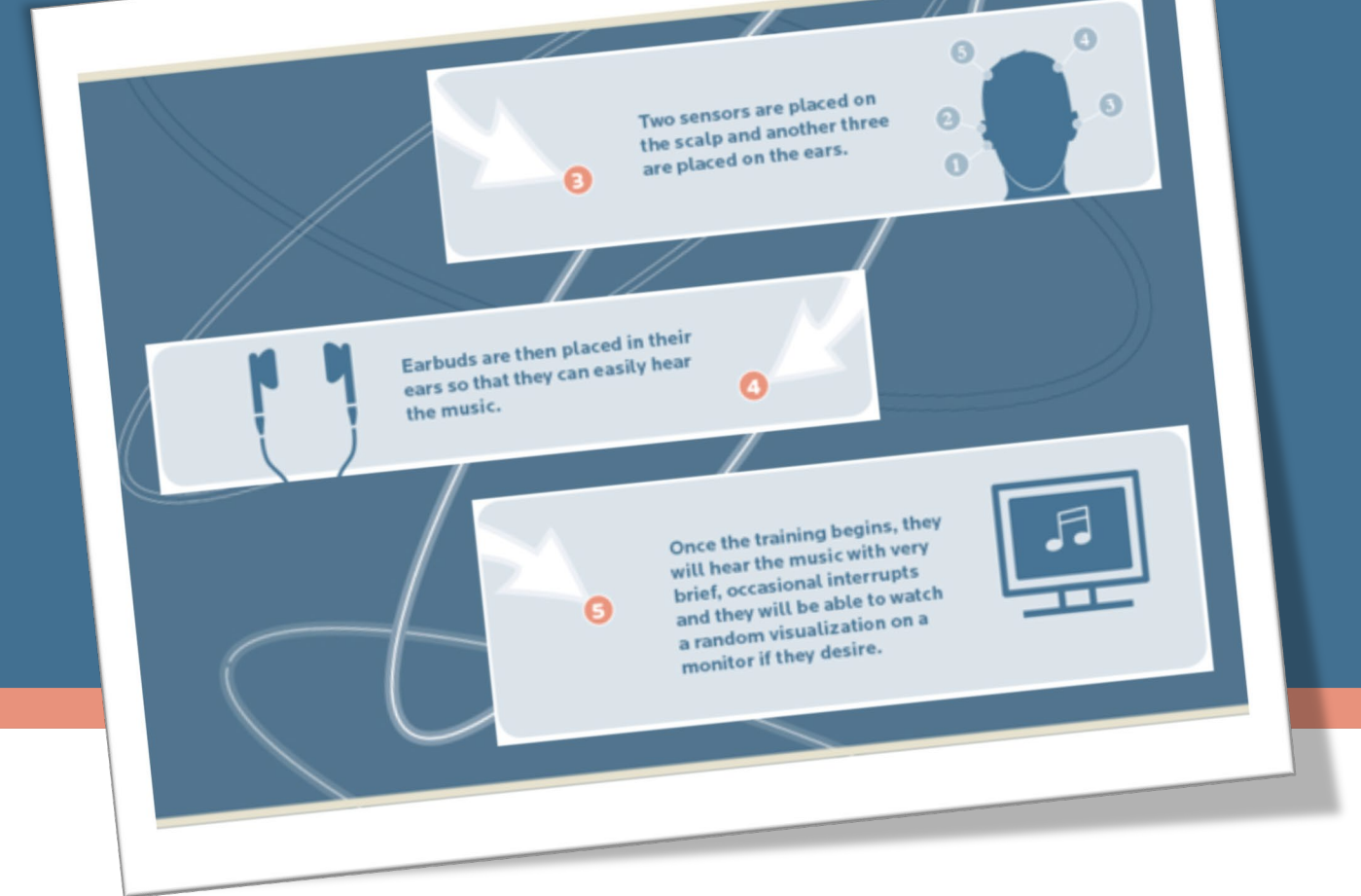


Earbuds are then placed in their ears so that they can easily hear the music.



Once the training begins, they will hear the music with very brief, occasional interrupts and they will be able to watch a random visualization on a monitor if they desire.

# Trainer Dialogue:



- 5 Sensors are placed on the scalp and ears- with conductive paste
- We offer ear buds (or speakers) in our office or you can bring in your own ear buds
- Throughout the 33 minute session, slight interruptions (or what sounds like static) in the music
- These interruptions are NO's way of drawing your non-conscious attention to the process

# FAQ's



# Frequently Asked Questions



- **How often to do Sessions?**- *We empower clients to make that decision*
- **How many Sessions for X,Y or Z?** — *The Dx doesn't matter, sessions are always individual to the person*
- **How many Sessions is enough?**- *Whatever the Client wants and feels they need.*
- **Do people have side effects?**-*We do not put anything in nor take anything out, therefore the effects are their journey, possibly reminding them of another past event. Possibly could need Dr. to look at being over-medicated.*
- **What to expect after first Session?**- *Reduce expectations! We are not expecting anything in particular to happen and neither should they.*
- **Sensor Falls Off in a Session?** — *Feel free to put them back on unless asleep then don't wake them-*
- **Do results last?** *It is a learned process, like learning to read, we can't take that away from you once you know it*
- **Medications-** *Medications may need to be adjusted as your CNS learns to function as it used to, help Dr. understand the process*
- **When to stop Neurofeedback-** *NeuroOptimal<sup>®</sup> does not have a specific time to start or stop. It is always up to the client to be aware of the very subtle shifts and determine when it makes sense to be finished with the support of the Trainer.*
- **Booster Sessions-** *Many times if someone has finished sessions they may feel they want to come back and do more sessions, this can usually help someone feel their best in just a few sessions*
- **Session series vs. lifetime commitment-***Some people feel great after a group of initial sessions, others want to keep that feeling and continue on to for life (like a gymmembership).*



# STATE OF THE ART DYNAMICAL NEUROFEEDBACK<sup>®</sup>





# Trainer Dialogue:



- If you are interested in starting this process, would you like to schedule a time to come in for your first session?
- Here is a folder filled with the paperwork if you would like to proceed... and information that will remind you at home of everything we have talked about here today.
- Our cost per session is \_\_\_\_\_ We give first time discounts of \_\_\_\_\_ or for every 10 sessions we offer \_\_\_\_\_
- We have also put in the folder information on how we will track your shifts and changes as you go.