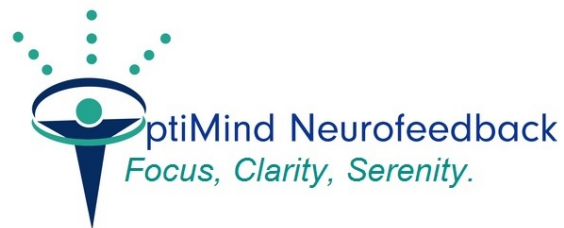


Does NeurOptimal® Improve Focus and Attention?

A Kid, An Idea, A Study
And A Big Payoff

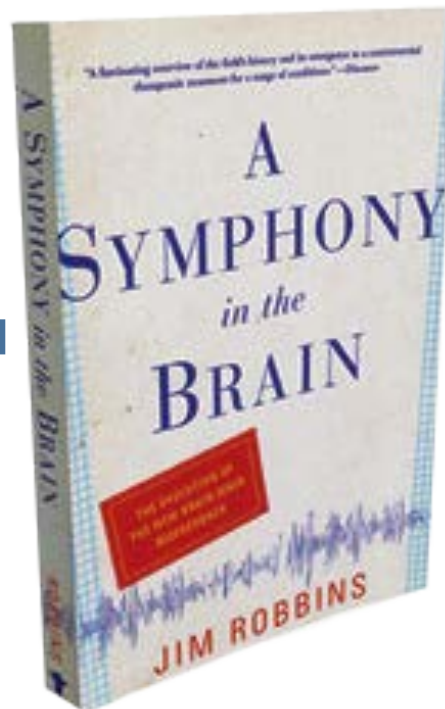
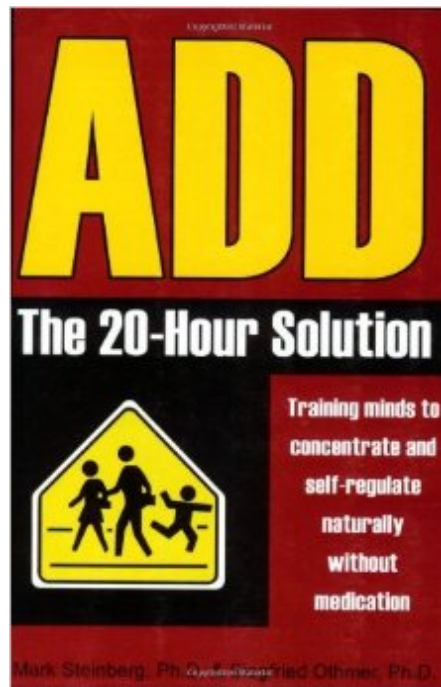
Presented By Julian Ford



How Did I Get Here?



My Search For Non-Prescription ADHD Interventions



The Balanced Brain
Neurofeedback Brain Training Center

Wait, this thing could really help...

- Me → Anger, Stress, Distraction
- Husband → Focus, Peak Performance
- Eldest Son → Mood Swings
- Middle Son → Migraines
- Youngest Son → Continuing ADHD control

Agnostic Neurofeedback



The Big Idea



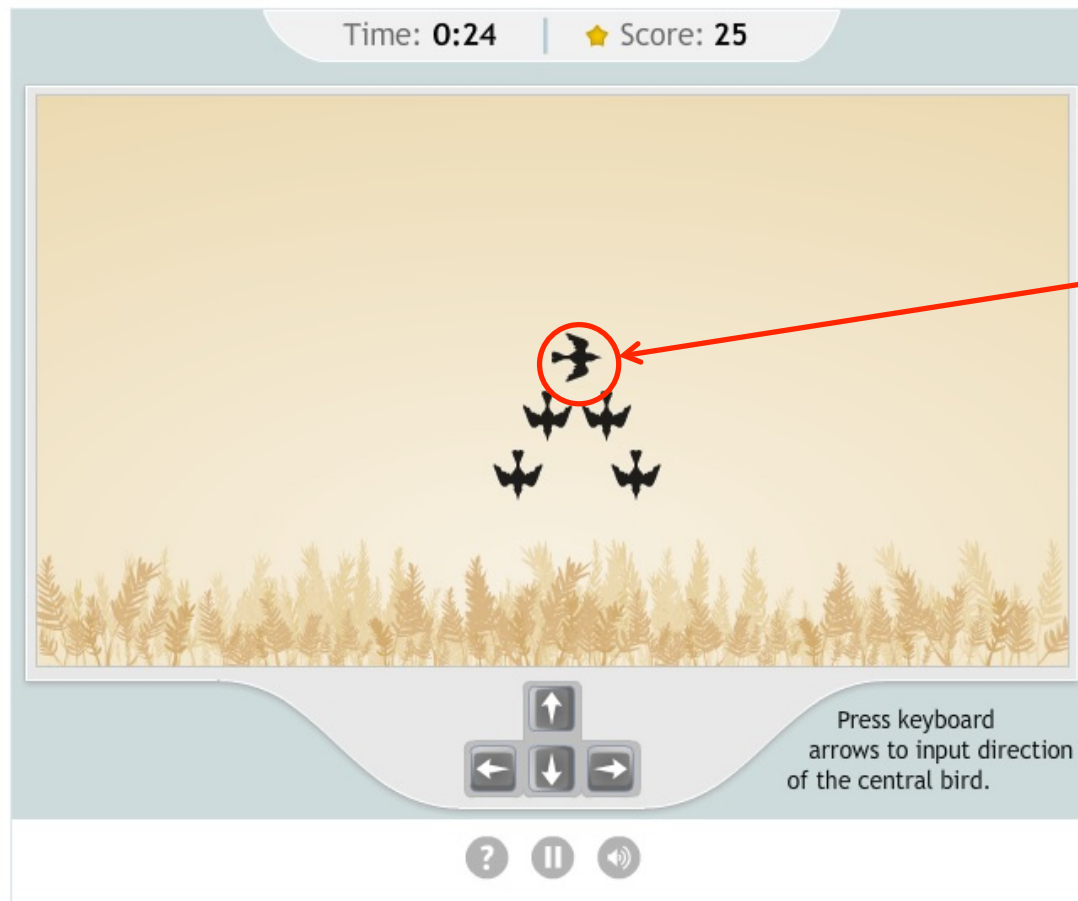
The Design

- 18 study participants
- 9 would receive 5 neurofeedback sessions
- 9 would receive no neurofeedback
- A measure of attention given to each group at similar intervals will determine whether brain training can enhance attention.

The Attention Measure

Lumosity.com's *Lost In Migration*

– Other Attention Games



Focusing on just the middle bird, subjects pressed the arrow key corresponding to the direction the middle bird was flying.

Anyone repeating tasks improves with time.

BUT--

Could NeurOptimal[®] make them improve *more*?

More to the point - could we get them to do it?

OMG, Was I supposed to be there today?

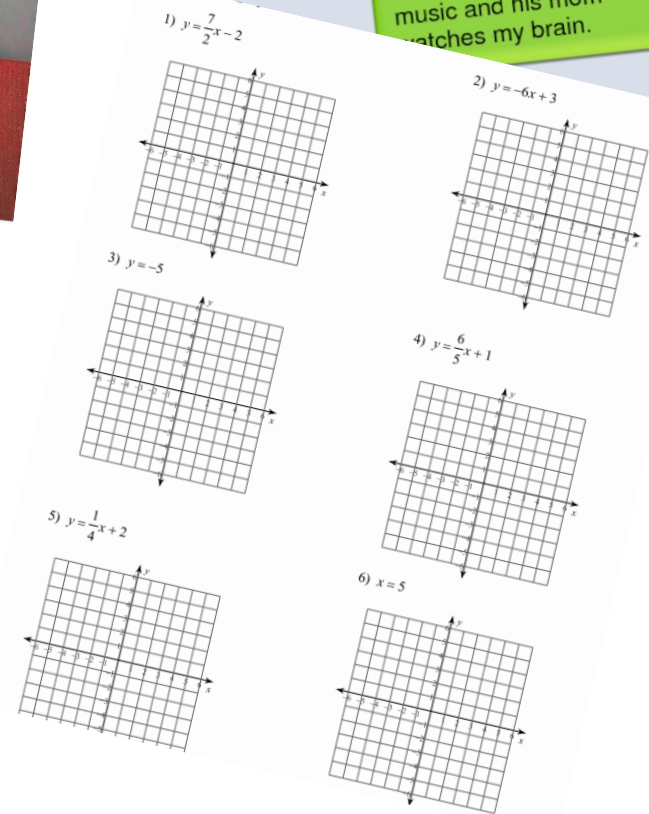
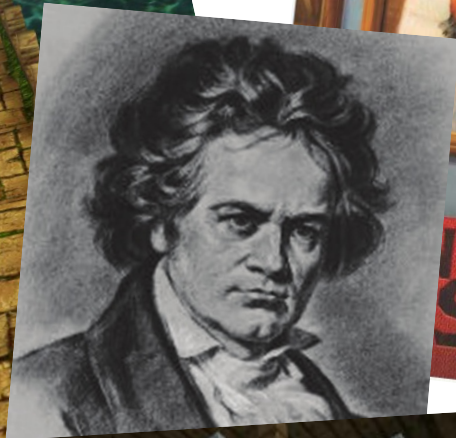
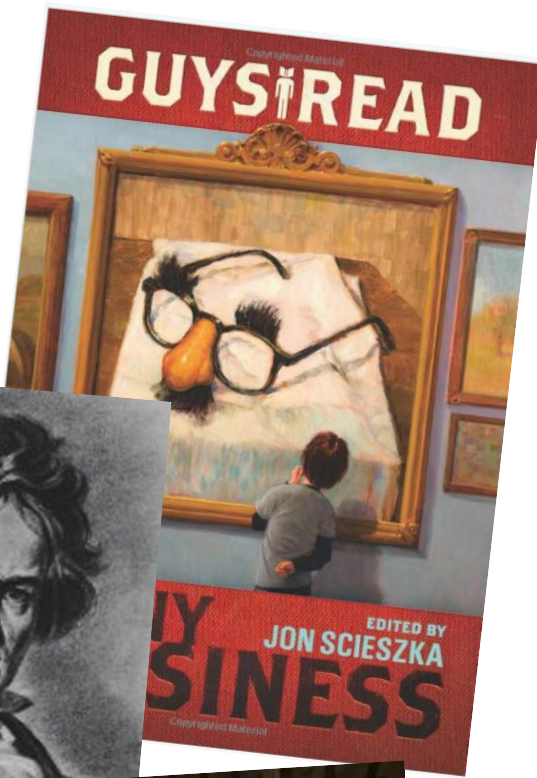
What's neurofeedback?

WHERE do those wires go?

Do I have to listen to this music?

What kept them in the chair

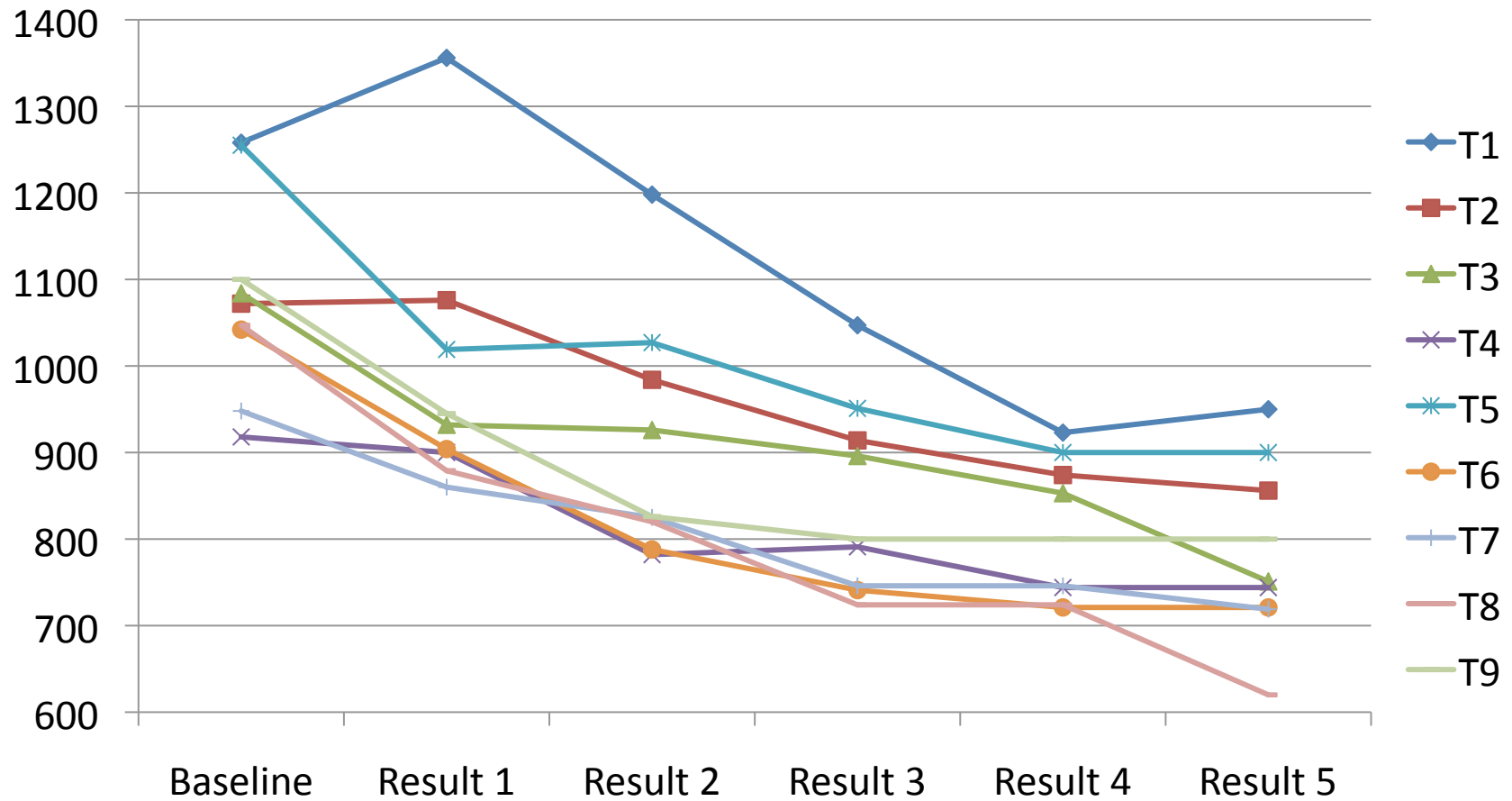




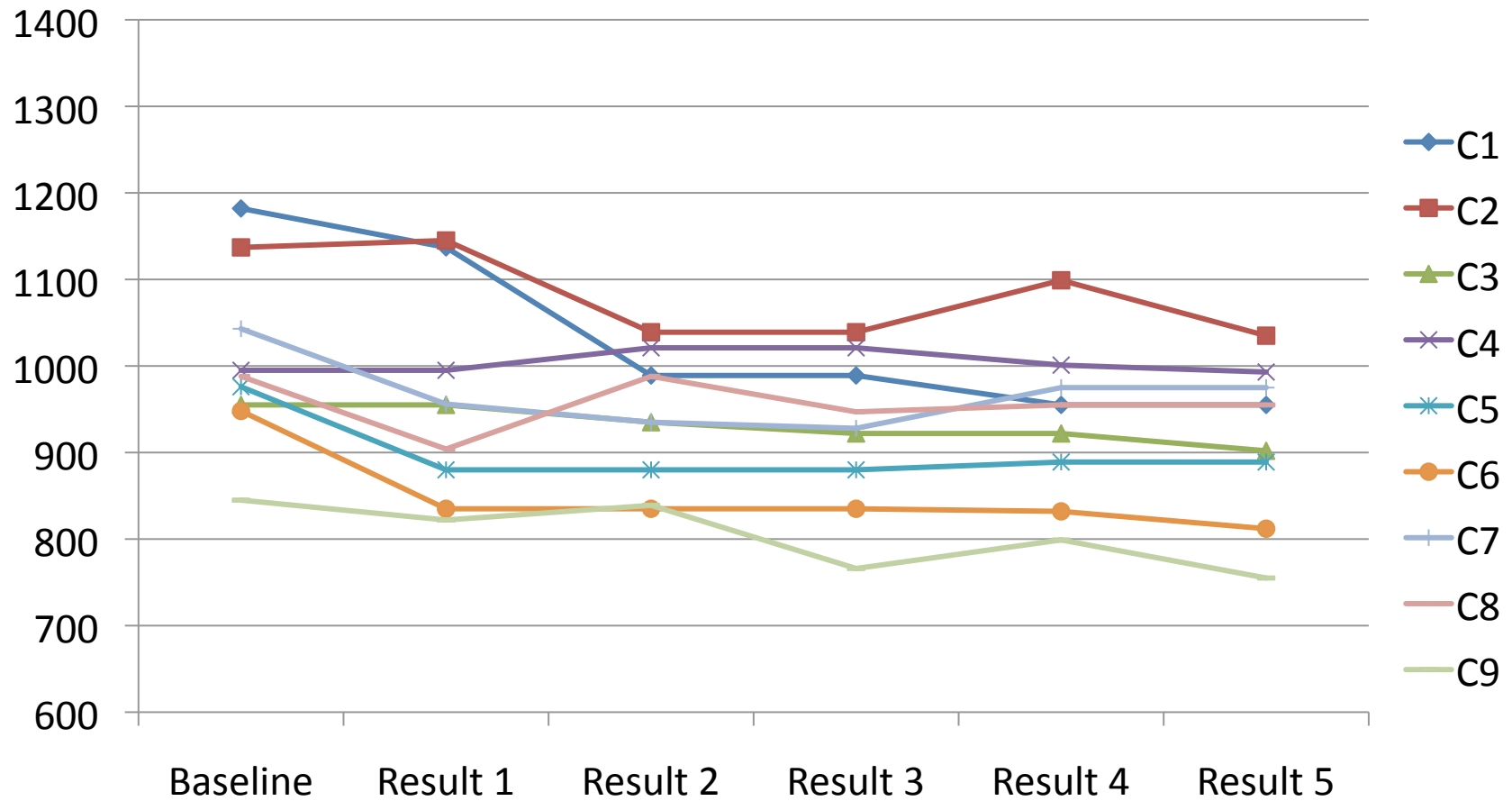
About the groups

- Each group had 8 males and 1 female.
- All subjects were high average to gifted students (all maintained Bs or better)
- There was one high functioning Asperger's boy in the test group, no other diagnoses were acknowledged.
- Offline analyses all showed no out-of-the-ordinary analyses except my "noisy" one.

Individual Results Test Group



Individual Results Control Group



The Results – Neurofeedback Group

Test Subject	Base Reaction Time	Final Reaction Time	% Decrease in Reaction Time	Final Test Accuracy/ % Accuracy Increase
1	1258 ms	950 ms	24.48%	100% / 13.63%
2	1072 ms	856 ms	20.15%	98% / 1.03%
3	1084 ms	751 ms	30.72%	100% / 6.38%
4	918 ms	744 ms	18.95%	100% / 9.89%
5	1255 ms	900 ms	28.29%	100% / 9.89%
6	1042 ms	721 ms	30.81%	100% / 0%
7	948 ms	719 ms	24.16%	100% / 9.89%
8	1047 ms	620 ms	40.78%	100% / 3%
9	1100 ms	800 ms	27.27%	100% / 3.09%
Average	1080.44 ms	784.56 ms	27.39%	6.31%
Most Improved			40.78%	13.63%
Least Improved			18.95%	0%

The Results – Control Group

Control Subject	Baseline Reaction Time	Final Reaction Time	% Decrease in Reaction Time	Final Test Accuracy/ % Accuracy Increase
1	1182 ms	955 ms	19.20%	94% / 0%
2	1137 ms	1035 ms	8.97%	89% / 7.22%
3	955 ms	902 ms	5.55%	98% / 3.15%
4	995 ms	993 ms	.002%	100% / 0%
5	976 ms	889 ms	8.91%	93% / 5.68%
6	948 ms	812 ms	14.34%	95% / 4.31%
7	1043 ms	975 ms	6.52%	93% / 0%
8	988 ms	955 ms	3.34%	88% / 2.22%
9	845 ms	755 ms	10.65%	100% / 0%
Average	1007.67 ms	919 ms	8.61%	2.51%
Most Improved			19.20%	7.22%
Least Improved			.002%	0%

The Big Picture – The Study Data

On average, **reaction times improved 27.39% for test subjects** whereas control subjects' reaction times improved just 8.61%.

All test subjects had 98-100% accuracy at the end. Only 3 control subjects were this accurate by the end.

Conclusion: Neurofeedback is an attention booster as it is recorded in this game.

The Big Picture – My Practice

It's all good. NeurOptimal[®] training can cut through the distraction and work well even if a client isn't focused on the training. Movies, talking, reading, computer games, texting, drawing, sleeping, or focusing intently, NeurOptimal[®] WORKS!

Cell phones and computers in the training room made no 60 Hz impact on offline analyses in this study.

The Really Important Stuff

- Track star set records, attributed it to training.
- Tuba player finally understood algebra.
- Very sick kid had big health improvements.
- Better reading speed and comprehension.
- Better focus in class.
- Better familial relations.

These real life changes are what NO is about!

Study Awards

Max won the science fair overall award for
Outstanding Experimental Design.

He was thrilled beyond words.

Which is saying a lot for a kid who loves talking.

BEST SCIENCE FAIR PROJECT AWARD

This award is presented to

MAXIMILLIAN ZEKOWSKI

*for having one of the best science fair projects in this history of
Luther Burbank Middle School.*



[Handwritten signature]

Signature

5/23/13

Date

Where do we go from here?

(An Encouraging Shout Out To Fellow Newbies)

Offering free training to others is great *trainer* training for you– the sessions you give away may have impacts you can't foresee.

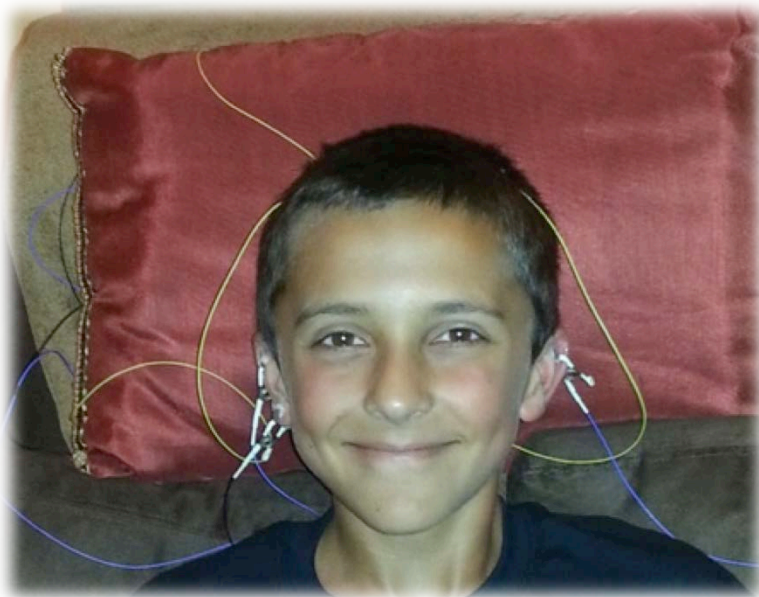
Just start. Think outside the box as you set up an office and use your rich PASS resources.

Above all, ***TRAIN YOURSELF REGULARLY!***

You don't need to have alphabet soup after your name to be an effective trainer. You don't require a medical pedigree because expertise is built into the NeurOptimal[®] system.



The only
prescriptions
your brain
really needs.



And What If....



