

Awear Technologies

'See What You Think'

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Booth #106



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AWEAR

see what you think

Smart Eyewear to Improve Attention



'Old School'

Attention Training



United States Patent
Greder

(10) Patent No.: US 9,510,765 B2
(45) Date of Patent: Dec. 6, 2016

'NEW School'

Attention Training

Why should YOU help Awear make an Impact?

- Be **part of an innovative solution** to reverse the **low-attention span epidemic**
- Help Awear develop foundational 21st Century skills that are the **portal to all learning** – Attention & Focus
- Support our efforts to address a **major cost driver** in schools – disengaged/inattentive/ disruptive students
- Help us **dent the universe** as Steve Jobs said.



What is Awear really planning to do?

- Scale proven neurocognitive training and transfer it from the **Clinic to the Classroom**.
- Improve **effectiveness** of neurocognitive training with our **patented innovative** smart eyewear interface.

Personal Story



Acknowledgement of Need

"I can't for the life of me remember the last time I felt a genuine emotion."

"It hasn't always been this way....."

"I was introduced to a little pill that, in a sense, took away my ability to sense. This little pill goes by the name Adderall, a drug designed to fix kids with Attention Deficit Disorder (ADD)."

"It would be great if there was a better way."

– Young College Student

Ever feel this way when you try to read?

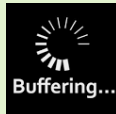


You don't need to be diagnosed with ADHD to experience this!



Understanding the Problem

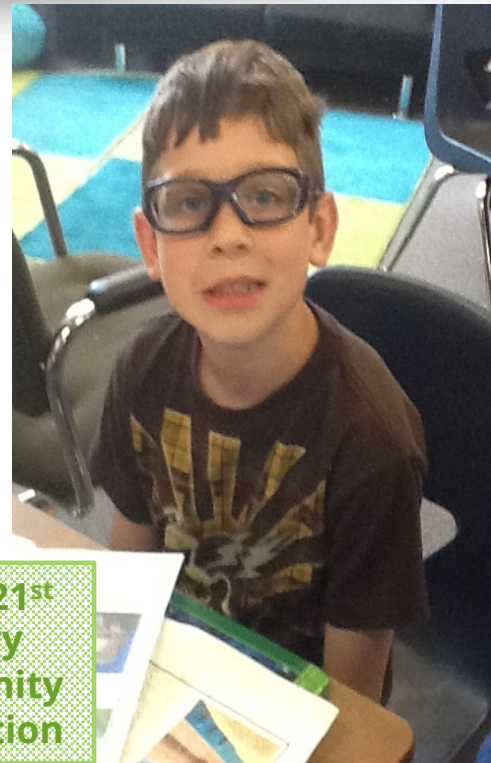
If you have a poor antennae or slow internet it doesn't matter how many videos are on Youtube or FM stations on the radio dial.



Likewise, if kids can't pay attention it doesn't help to push more content at them.

FIRST, WE MUST STRENGTHEN ATTENTION SKILLS!

We must improve brains from the inside out!

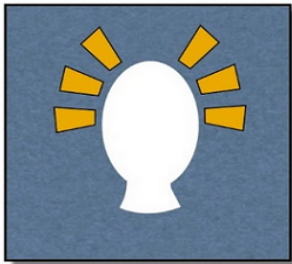


**Biggest 21st
Century
Opportunity
in Education**

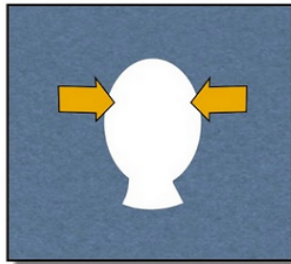
Attention is the portal to ALL learning.

How People Learn:

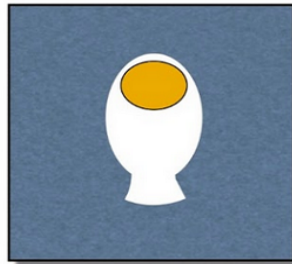
Four cognitive processes every teacher should know



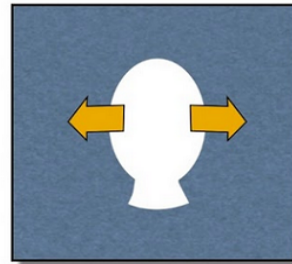
Attention



Encoding



Storage



Retrieval

Impact – Individuals/ Schools

Incremental cost of an attention-challenged student in the classroom estimated at \$5000 each year, adding \$3 billion in extra costs to schools



11% ADHD

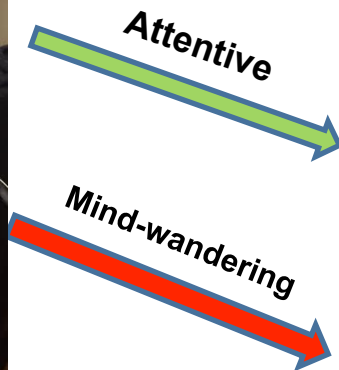
10 million Inattentive

9 **60% Reading Problems**

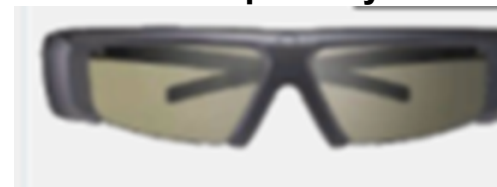


What is neurocognitive feedback?

Responsive eyewear detects brain states using EEG during reading & darkens lenses when student's mind wanders.

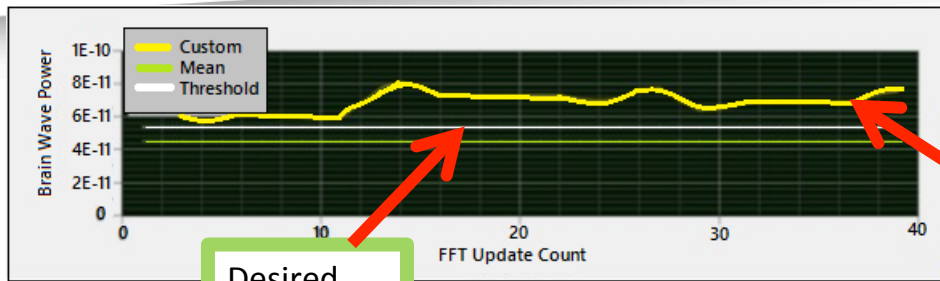


Normal
transparency



Less
transparent





Desired
Threshold

Real-time signal
> threshold,
lenses clear



Desired
Threshold

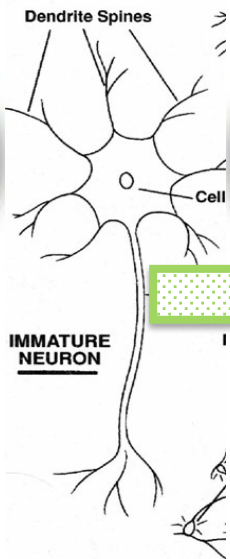
Real-time signal
< threshold,
lenses dark



How do we learn? What is feedback?

Discriminative
Stimulus

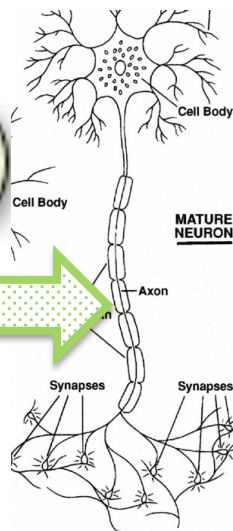
Pan On Hot
Burner



Operant
Response

Touch Pan

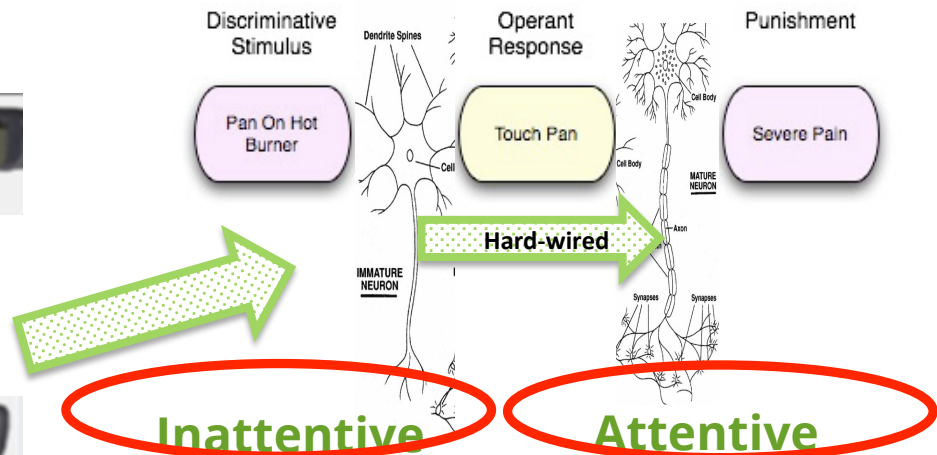
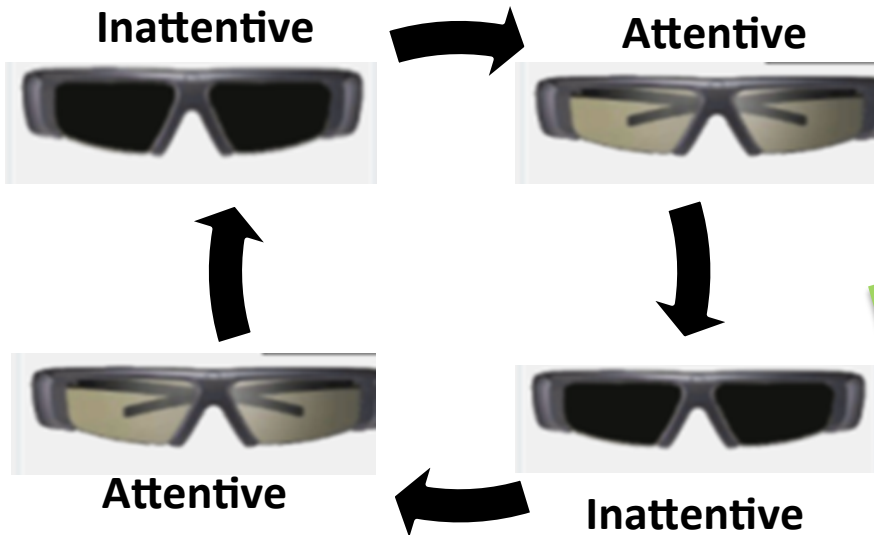
Hard-wired



Punishment

Severe Pain

How does feedback improve attention?



Product Designs & Styles

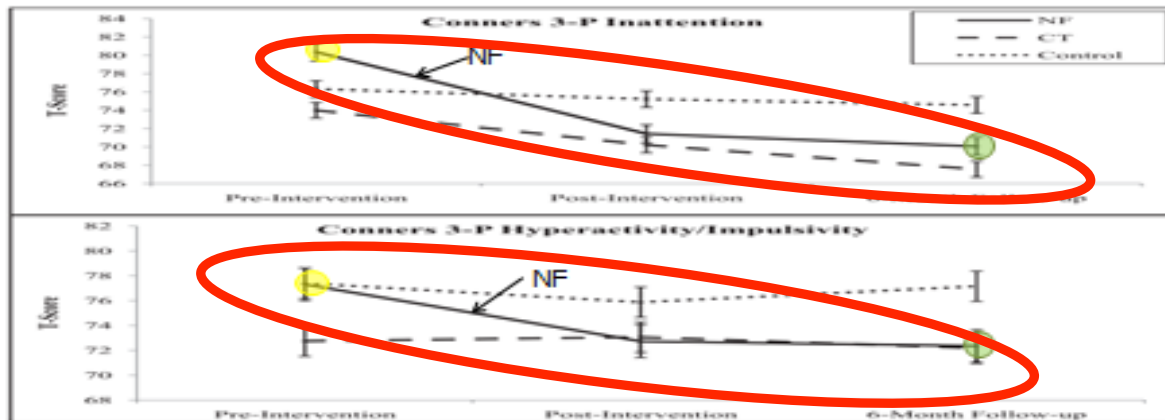


February 28-March 1, 2017

📍 The Depot, Minneapolis

- **Level 1 of 5 (1=highest) approach** - American Academy of Pediatrics
- **'A Viable Option' CHADD**
- **DARPA** has spent **millions** developing neurofeedback for military uses.

Neurofeedback in Schools Works!



Naomi J. Steiner, Elizabeth C. Penette, Kristen M. Rene, Robert T. Brennan and Glen C. Perrin. *In-School Neurofeedback Training for ADHD: Sustained Improvement from a Randomized Control Trial*

Neurofeedback(NF) is effective in school settings. NF participants made more prompt and greater improvements in ADHD symptoms, which were sustained at the 6-month follow-up, than a cognitive training group and control group.

External Endorsements

Scientific Endorsement

“Their work is head and shoulders above that of the 10 EEG feedback companies with booths at the meeting. “

Bruce E. Wexler, MD, Professor of Psychiatry, Yale University

Customer Intent



“Learning Rx is prepared to utilize the technology and fund deployment activities at their sites.”

Ken Gibson, CEO LearningRx.

“This is a strong proposal presented by an experienced team. It presents an innovative solution to an important problem and deserves to be funded.”

National Science Foundation Grant Reviewer



National Science Foundation
WHERE DISCOVERIES BEGIN



Our Partners & Supporters



**Behavioral Medicine
Associates Inc.**



835 East Fifth Street
St. Paul, MN 55106

Independent Validation & Funding



National Science Foundation
WHERE DISCOVERIES BEGIN



NIMH
National Institute
of Mental Health



National Institutes
of Health

Four different prestigious review boards have validated our technology, confirmed the market need, and endorsed our team. (\$500k)

awear

see what you think

robotics alley

CONFERENCE & EXPO

February 28-March 1, 2017

The Depot, Minneapolis

Recognition/ Awards



Visit from Congressman Paulsen

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Progress & Plans

GOAL: Establish AWEAR as Essential Tool required by Professionals' for the treatment of Attention Disorders

Current

- **Expand evidence base** to validate and promote the product
- **Broaden Exposure** through new competitions and conferences
- **Leverage social media** for awareness campaigns

Next Steps

- **Grow social media**, print, professional channels, and crowdsourcing footprint
- **Establish pilots and strategic working relationships** with schools and influence groups
- **Present at conferences and publish** in scholarly education publications.

Future

- **Build reference base** with additional working and strategic partnerships with educational influence groups and practitioners
- **Broaden advertising campaigns** through available channels.
- **Integrated marketing and sales plans** to expand user base.

Milestones	Deadline
1. Validated and verified working prototype. Completed larger trial with UM. (Contractor-SBIR Grant \$75,000)	3/1/2013
2. Completed pilot human study with University of MN and Learning Rx. Won Tekne award (Contractor-STTR grant - \$180,000)	12/30/2014
3. Developed gaming/training intervention for use with wearable with UW-M. Secured trademarks. (Contractor-SBIR grant - \$175,000)	12/1/2015
4. Together with ABM, develop algorithms for Google Glass/Smart Phone. Intel Wearable competition finalist. (Contractor-SBIR grant \$220,000)	12/1/2015
5. Patent issuance. Apply for SBIR Phase II's. Confirm production strategy and launch system	12/1/2016
6. Complete design & testing of prototype hardware and software. Get Grants. Secure Funding.	12/31/2017
7. Validate and verify functionality and pilot with public schools and LRX. Launch end 2018.	3/31/2018

Business Model

- **B2E/B2B Sales:** Direct sales to Schools, Learning Centers, Tutors, and Counselors (\$1,500 per unit)
- **Subscriptions:** Provide training protocols and software via subscription model (\$295 per unit per year)
- **Resellers:** Special Education equipment resellers to sell and distribute
- **Licensing:** License Patent & Protocols to 3rd party developers to create variations of the product for other markets

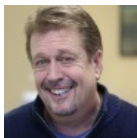
Management Team

- **Rod Greder Ph.D – Founder/CEO**



25 year business veteran with executive management experience in new product development, R&D, marketing, and technology with DuPont and Dow Chemical. He is an educator and witnessed the need to improve student's cognitive skills to improve classroom performance.

- **Steve Mesmer – COO/Partner**



EdTech executive with 20 years of success launching and growing EdTech products and companies. (Write the World, Questar, McGraw Hill, Pearson)

- **Gary Jader MBA - VP, Marketing**



COB of Twin Cities Academy School, Longtime successful product developer and marketer in medtech and high tech at 3M, United Healthcare and numerous start-ups.



Capital Request

- Verification and Validation of Prototype - \$80k
- Additional Product Development - \$25k
- Marketing Communications/Sales Dev./IP - \$38k
- Contractor/Consultant/Advisory Services - \$141k

Current request is intended to
get to production-ready
eyewear

Four Grant applications are in
process and could total > \$750K

Total Request - \$284

A crowd funding event is
scheduled for this summer

February 28-March 1, 2017

📍 The Depot, Minneapolis

Awear Summary

Opportunity

- 10 million students need solution.
- \$1.5 billion education market alone
- Save schools hundreds of millions of dollars
- Safe, effective, affordable research-based solution

Plan

- Viable plan and team to carry it out
- **6+ review comm. have validated plan and team**

Progress

- Functional prototype, Issued patent
- Committed customer and collaborators
- Received (>\$500K) in grants and investment

Awear Differentiators

- Research-based effectiveness
- Treats root causes and overcomes transference dilemma
- Safer alternative to drugs
- Affordable and saves schools money
- Scalable to classroom/home
- Capitalizes on emerging wearable trend

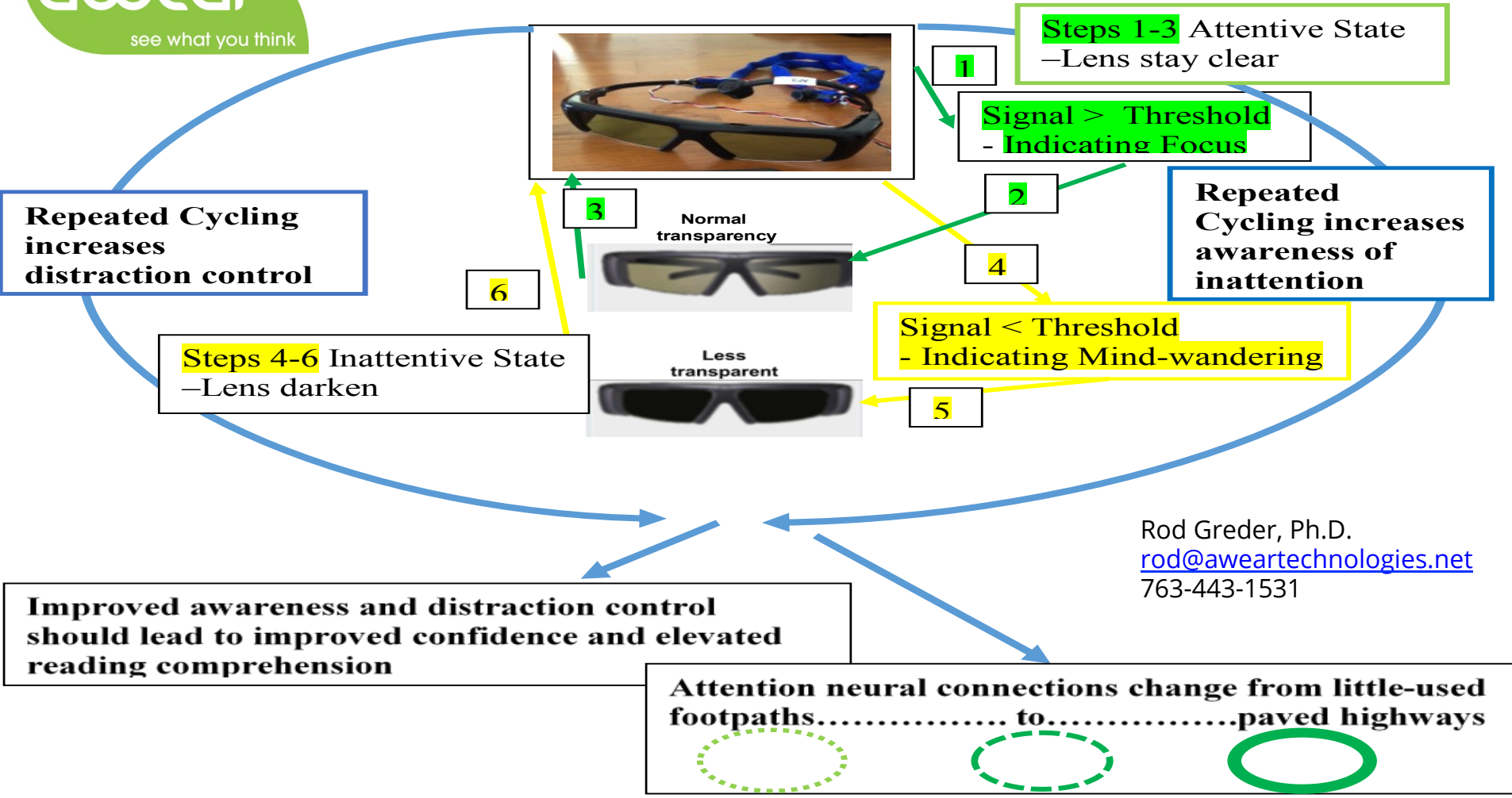


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APPENDIX

Smart EEG Eyewear Flow Diagram



February 28-March 1, 2017

📍 The Depot, Minneapolis

Competitive Analysis

- Stimulants
- Side effects, dependency
- **Controls symptoms**

Medication



- Limited results
- **Not complete solution**

Nutrition/
Fitness



- Computer games
- Too engaging??
- **Limited transferable results**

Software/
Games



Awear's solution (neurosensing feedback) is safer, more affordable, more effective, shows sustained improvements AND IS SCALABLE

- Psychologists
- Educational Specialists
- **Expensive**
- **Not scalable**

ADHD
Specialists



- Neurocognitive Feedback
- **Longer lasting results**
- **Need to Scale**

Behavioral
Modification



	2016	2017	2018	2019	2020
Units			150(LRx)	250	1,000
Revenue					
Hardware			\$225,000	\$375,000	\$1,500,000
Annual Licenses (\$295/ea)*			\$44,250	\$73,500	\$295,000
Income			\$269,250	\$448,750	\$1,795,000
Cost of Sales			\$75,000	\$125,000	\$500,000
Gross Profit (Loss)			\$194,250	\$323,750	\$1,295,000
Expenses					
R&D	\$400,000**	\$100,000**	\$700,000***	\$700,000	\$700,000
Sales & Marketing	\$20,000	\$20,000	\$100,000	\$200,000	\$300,000
General/Administration	\$10,000	\$20,000	\$250,000	\$250,000	\$350,000
Total Operating Cost	\$430,000	\$140,000	\$1,050,000	\$1,150,000	\$1,350,000
Net Income (Loss)	(\$30,000)	(\$40,000)	(\$155,750)	(\$126,250)	\$645,000

Financial Summary

Growing cumulative subscription revenue per unit (\$295/year) is key LT driver

Use of Current----- Round Funds		
Activity	Budget	Deliverable
Crowdfunding	5000	Raise 100,000 and create organic community for future sales
Grants, competitions	2500	Raise 150,000-250,000 from non-dilutive sources
Prototype Improvement	30000	Test technical improvements and create 3 devices for testing
Marketing Comm.	10000	Website, Video, Brochure, White papers, Presentations
KBT Technology License	10000	Quarterly payment of \$2500
IP	10000	Patent and Trademark prosecution
Software/Mobile development	25000	Detect spectral changes during peak skill training
Prototype Trial – In schools	25000	Validate visual feedback improvement of reading
Direct	117,500	
Salaries/Wages/Fees	25000	BOD/Advisors compensation
	60000	Product Developer/Manager-EEG
	48000	Partner's Compensation
	7500	Interns
Other	140,500	
Reserve	25,000	
Total	283,000	

Current request is intended to get to production-ready milestone

Risks & Contingency Plan

Issue	Background	Contingency Plan
Product Adoption-User	<ul style="list-style-type: none"> -Reluctance of students to wear the smart eyewear 	<ul style="list-style-type: none"> -Target usage for individual or small class setting or spec ed environments (less stigma) -Wearables will become more commonplace -Demonstrably prove the benefits -Make design cool
Product Adoption-Payer	<ul style="list-style-type: none"> -Skepticism of benefits and reluctance to purchase -Budget issues 	<ul style="list-style-type: none"> -Generate evidence from 3rd party trials -Encourage trial usage before purchase -Sell with demo and comparisons -Generate compelling benefit statement (social and financial) -Sell to learning centers, tutors, private schools with higher likelihood of purchase

Risks & Contingency Plan

Issue	Background	Contingency Plan
Technology Issues	-Sensing and feedback mechanisms not work with necessary fidelity or not integratable	-Develop and enable contingency technology plans: i.e. alternate neuro-sensing technologies, alternate target states, alternate feedback modalities (options exist)
Competitive Threat	-Competitor enters market earlier or with more compelling benefits and/or design	-Enforce existing patent, Partner to accelerate development, Rigorously confirm benefits/ usability
Funding	-Need significant funding to conduct clinical trials and develop evidence base	-Aggressively pursue federal grant funding -Pursue socially-minded angel investors -Partner with channel partners (Learning Rx) --Use crowdfunding

Public Benefit Summary

If we enter 150, 250, and 1000 schools and learning centers in 2018, 2019 and 2020, respectively, we estimate we can impact 3,000, 5,000, 20,000 kids in each of those years by using our wearable and training program.

If we can mainstream 25% of these kids and prevent special needs costs we can save schools in general **\$3.75M, \$9.0M and \$25M** over the first 3 years.

Incremental cost of an attention-challenged student in the classroom estimated at \$5000 each year.

