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By SBT

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Product Specialist for HappyNeuron Pro

Presentation Objectives

- Understand what is HappyNeuron Pro.
- Understand brain function and how HappyNeuron Pro helps.
- Understand where and how HappyNeuron can be used and by whom and with what patient groups.

What is Digital Cognitive Health Therapy?

- Therapy delivered via software with tablets & computers.
- Exercises such as word games, math problems, and puzzles.
- Designed to improve cognitive functioning of specific populations.

What Exactly Is HappyNeuron Pro?

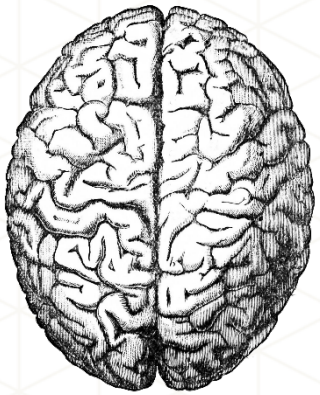
A **digital medium** which offers alternatives to hardcopy exercises done with paper and pencil or large sets of puzzles.

A way to **practice** cognitive skills at home or in the clinic.

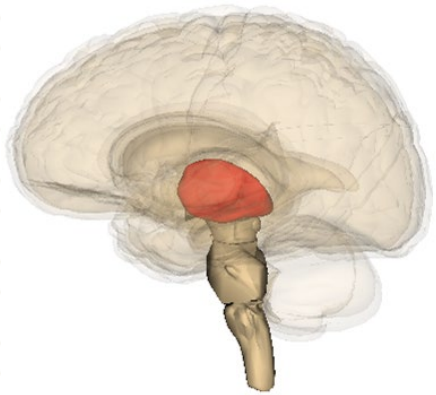
Additional tool within a therapeutic toolkit to **supplement therapy** being done, not replace.

Why Should I Care About Digital Cognitive Health and HappyNeuron Pro?

Anatomy of the Brain



2 hemispheres



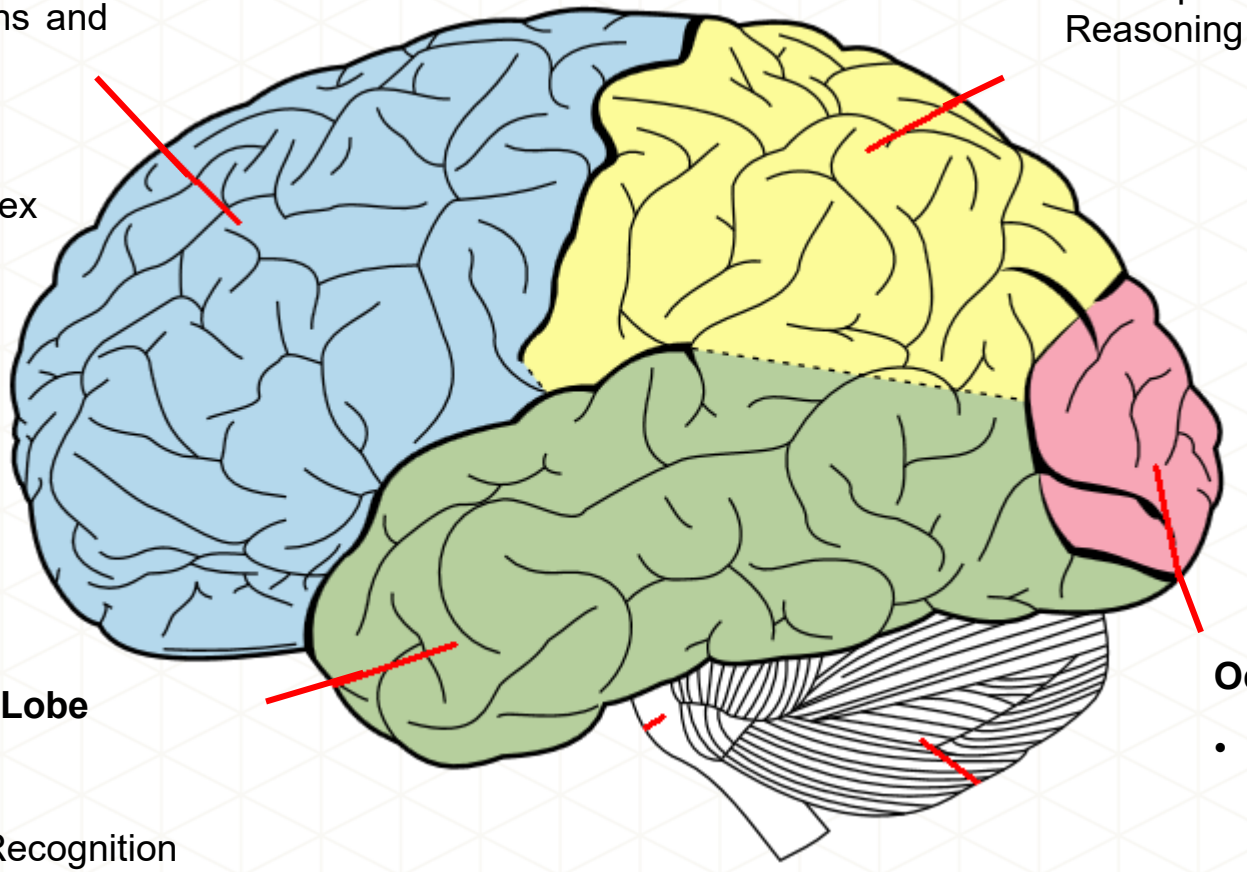
Limbic System

- Physiological Functions
- Emotions

Frontal Lobe

- Cognitive control
- Executive Functions and attention
- Social Cognition
- Primary motor cortex

Neocortex



Parietal Lobe

- Sensory Cortex
- Visual Attention
- Visuospatial Reasoning

Temporal Lobe

- Hearing
- Facial Recognition
- Language

Occipital Lobe

- Sight and image processing

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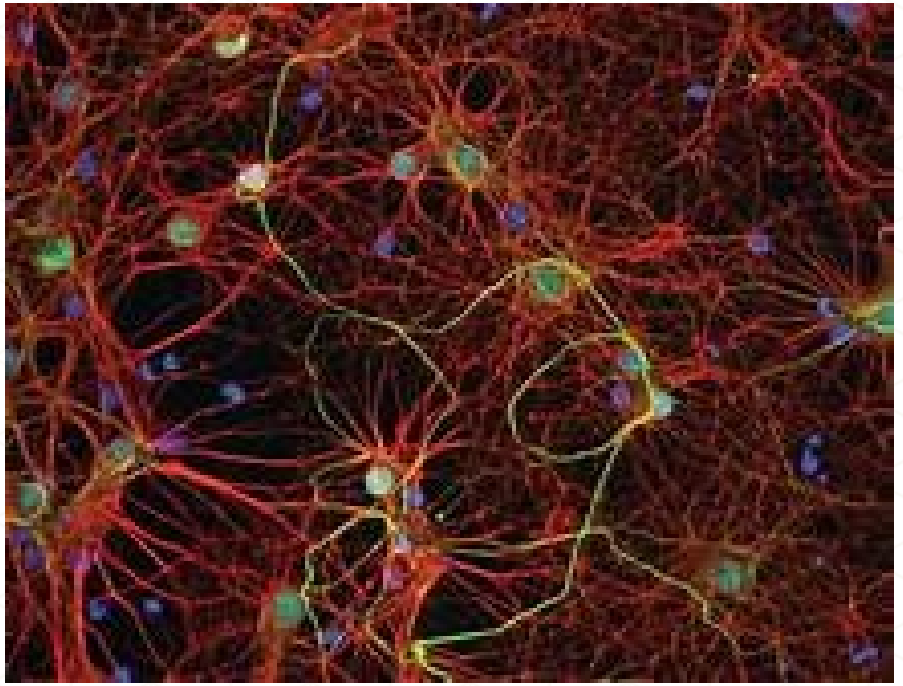
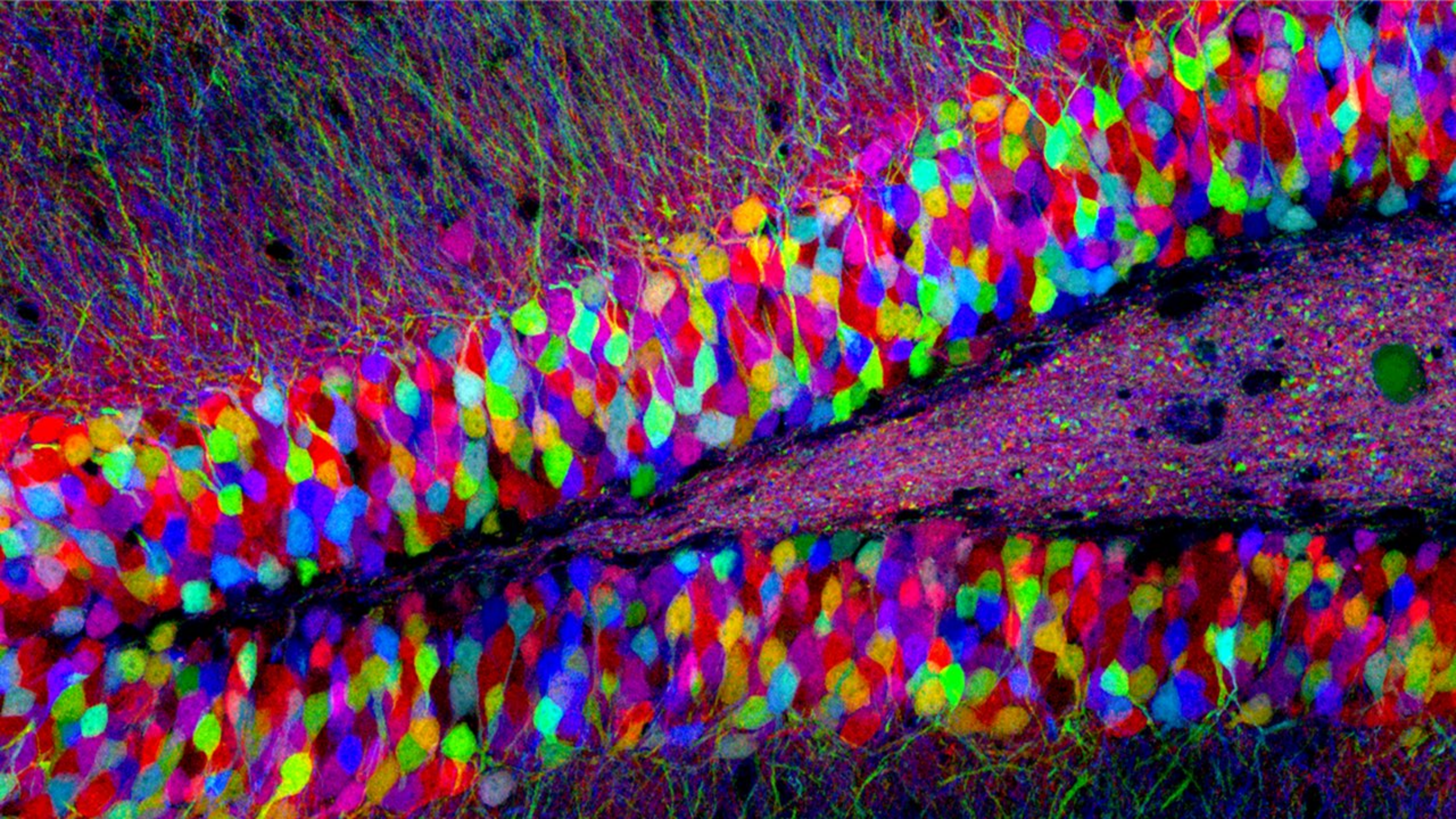
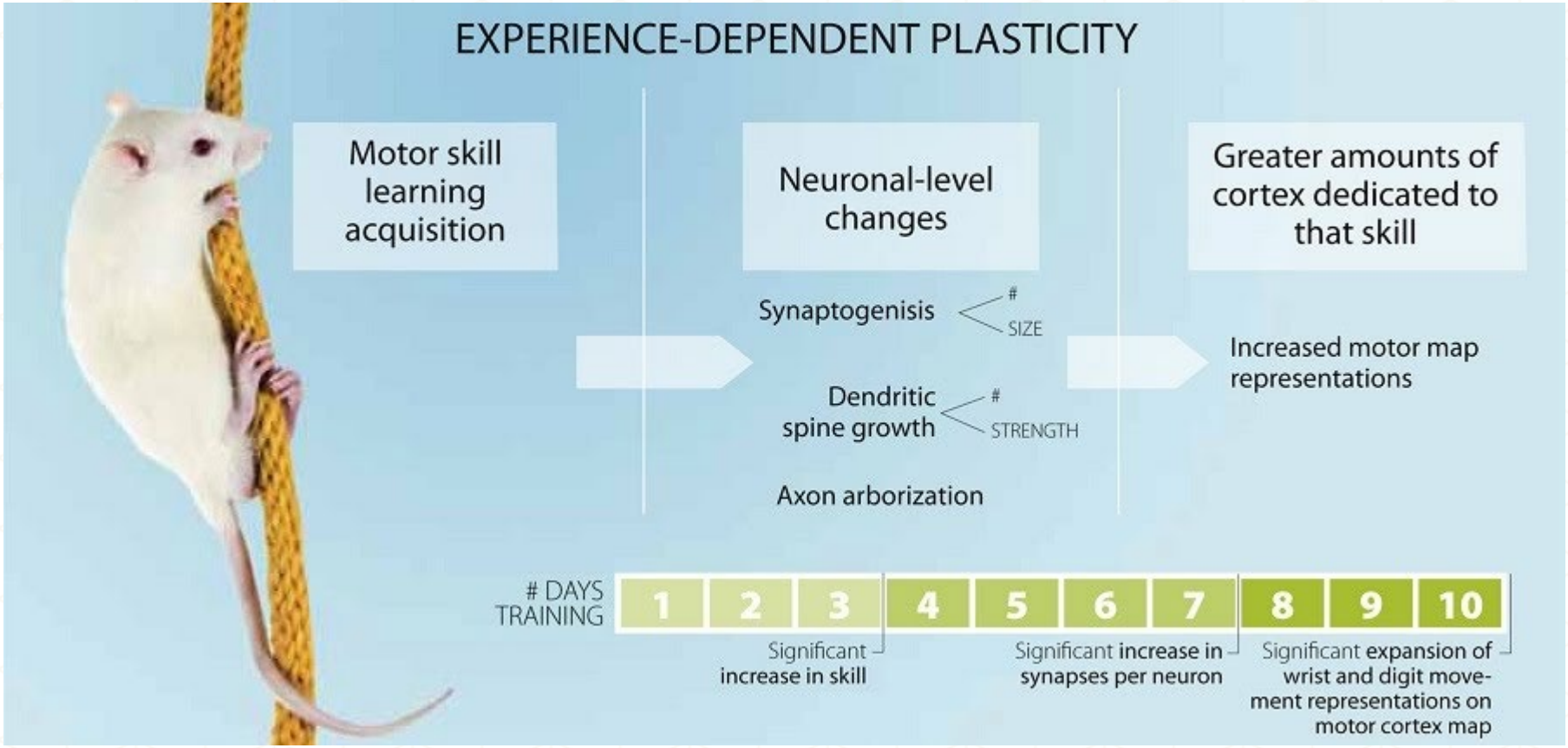


When we have new experiences, practice a skill, or get injured, our brain changes! Connections can be strengthened, broken, or reshaped – this is called ***neuroplasticity***!

Therapy changes the brain – you teach your patient a way to handle stress or combat negative thinking. They practice it and use this new strategy in life. Their behavior and reactions to stress and negative thinking change = **neuroplasticity**.





1. Practice **facilitates** neuroplasticity.
2. Patients **do not** get enough practice of cognitive skills.
3. This causes impairment = **Less brain matter is devoted to a skill**.

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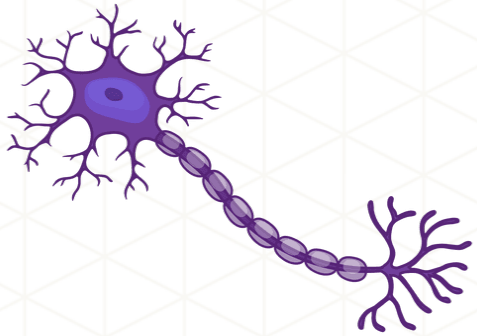
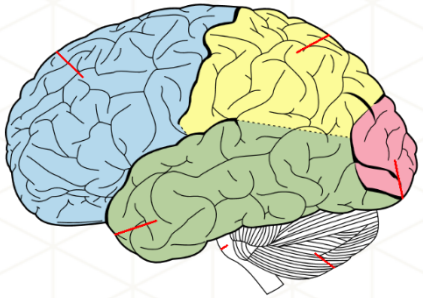
What Does Cognitive Stimulation Do to the Brain?

Cognitive stimulation intervenes by impacting both **biological** and **cognitive reserve**.

Biological Reserve





Biological Reserve: Our pool of neurons and structural changes that occur when we need to access specific brain connections for a task.

Cognitive Reserve

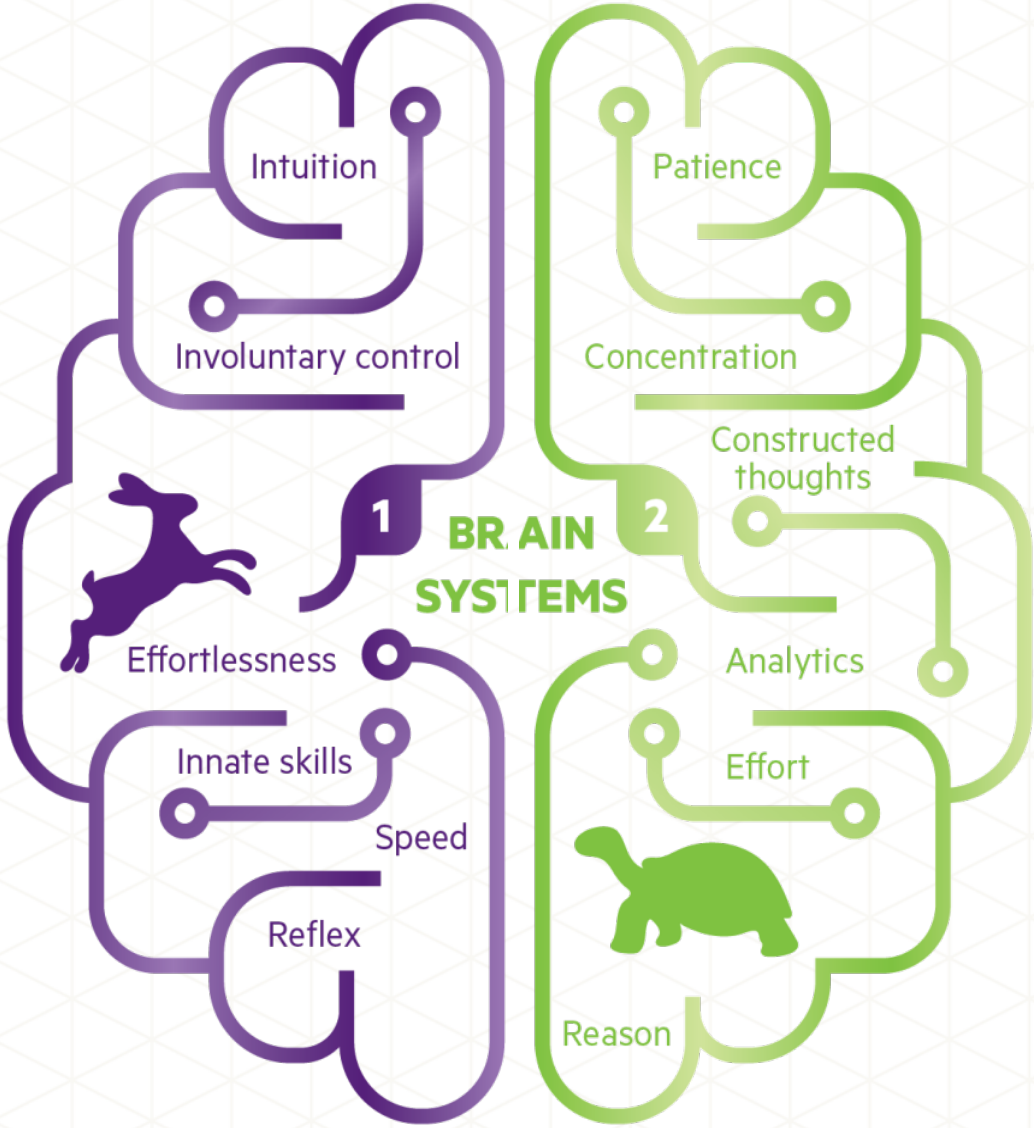
Cognitive Reserve: Cognitive capacity and strategies we can call upon to provide a framework for how to complete a task.

Two Hemispheres Coming Together

Our two hemispheres are separate from each other, and almost have two separate personalities.

Our **right hemisphere** focuses on logic. It communicates in pictures. The right hemisphere is engaged with the current moment, processing details and information as they are occurring. In a way, our right hemisphere acts as a parallel processor.

Our **left hemisphere** focuses on the past and the future. It takes information from each moment and extracts relevant details connecting them to past experiences and uses these details to make predictions about the future. The left hemisphere communicates in language, using words and sentences to construct ideas and thoughts.



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Cognitive Function and HappyNeuron Pro

What does HappyNeuron Pro Have To Help the Various Domains of Cognition?

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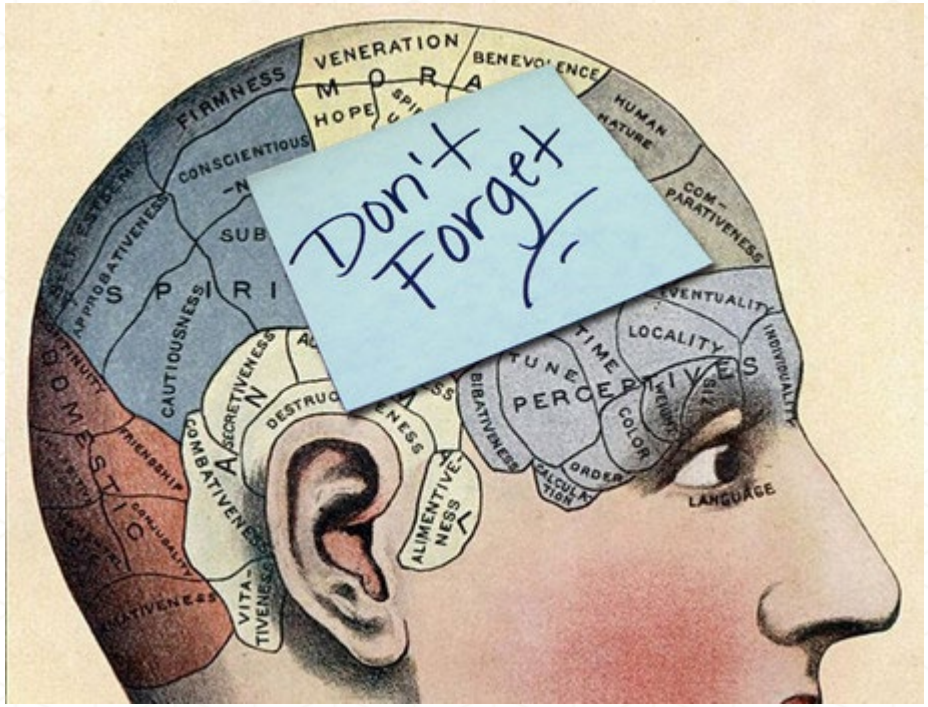
Memory

Our capacity to encode, store, and recall information short-term, long-term, or while we are engaged in an activity or task.



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Storage capacity of the human brain estimated by an American team in 2016.

The human brain can store as much information as systems such as Amazon, Facebook, Google & Microsoft.

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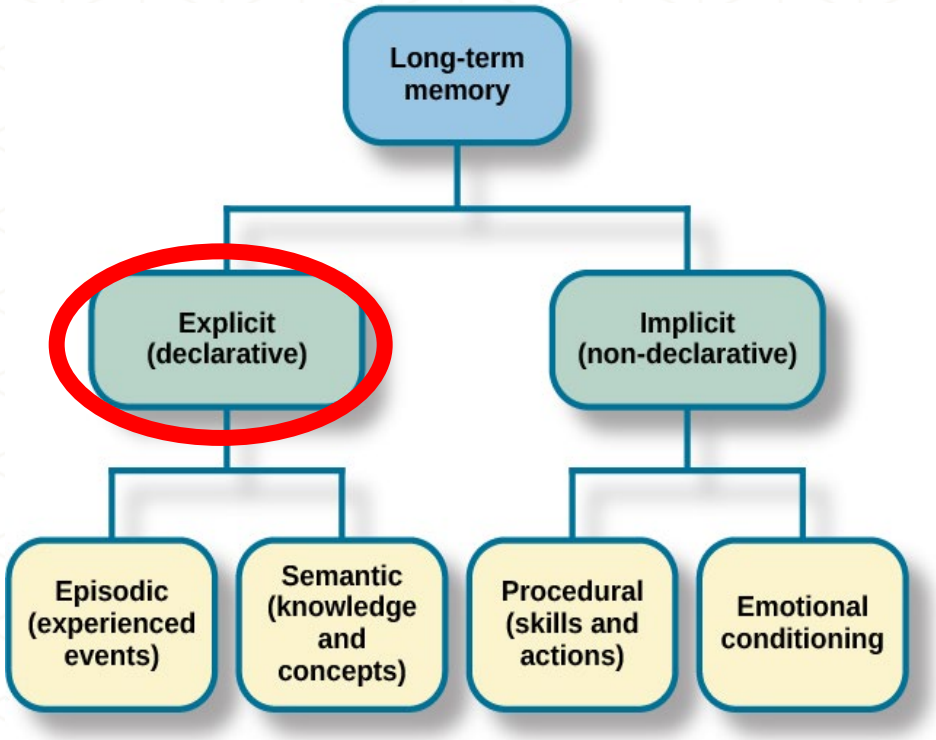
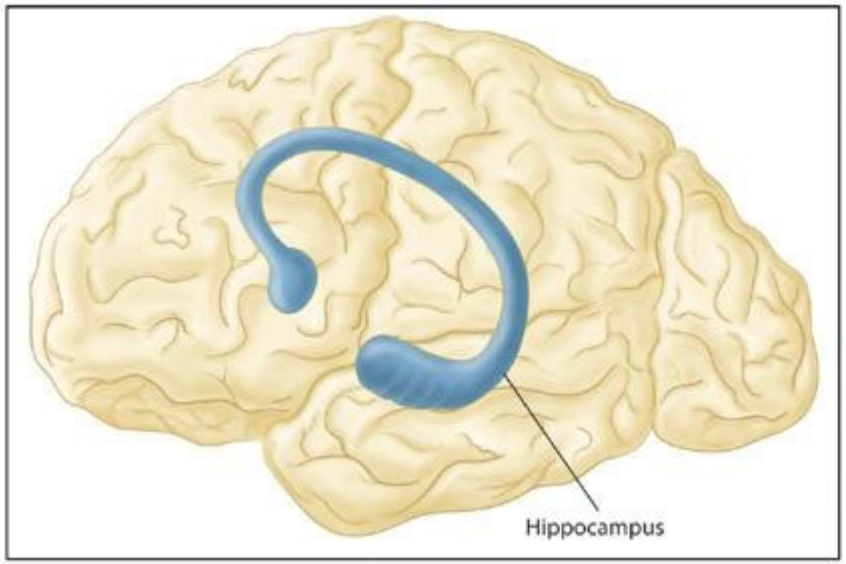
We Use 2 Categories of Memory Everyday…

- **Short-term memory**: Maintains sensory information and working memory.
- **Long-term memory**: Is split into explicit and implicit memory.





Negatively impacted by aging.

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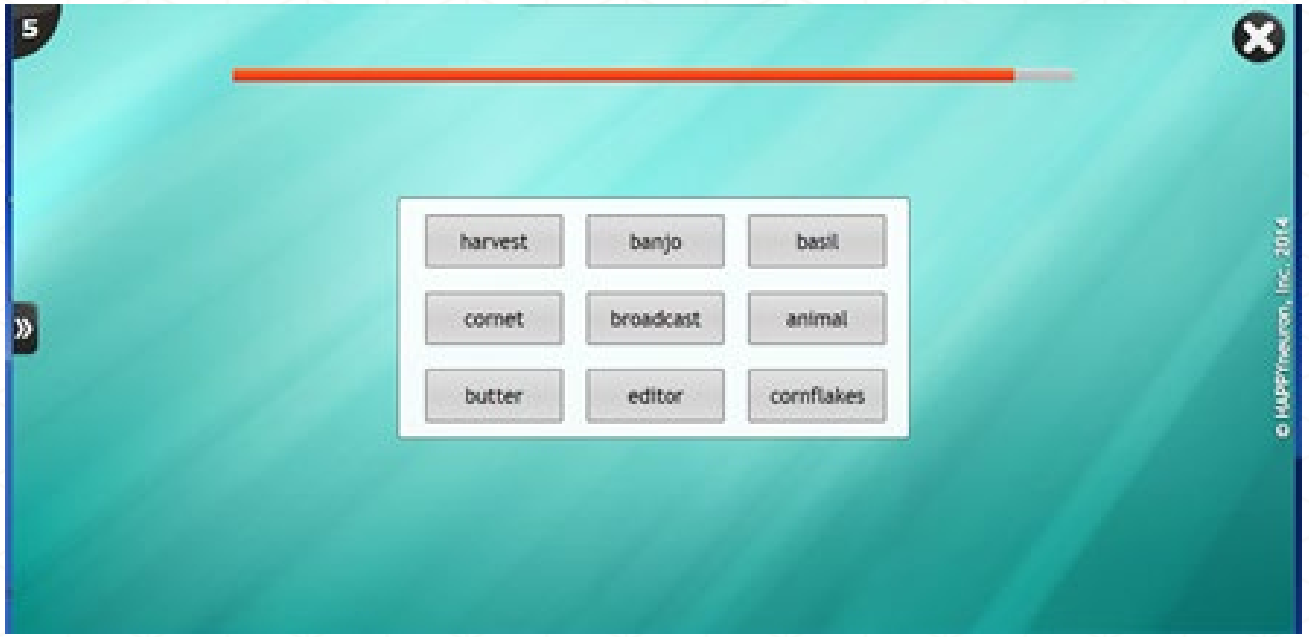
What HappyNeuron Pro has for Memory

HappyNeuron Pro offers exercises that target:

1. **Verbal** Memory
2. **Visual** Memory
3. **Auditory** Memory



Featured Exercise: Elephant Memory - ***Users must memorize the list of words presented to them!***

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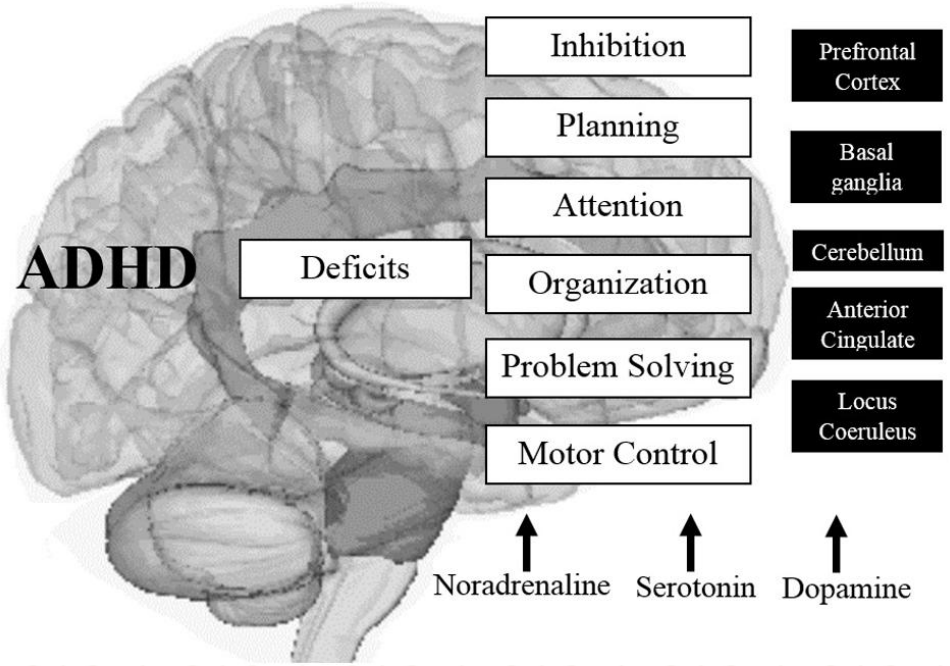
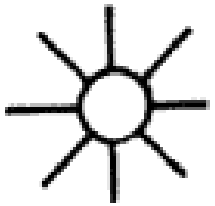
Attention

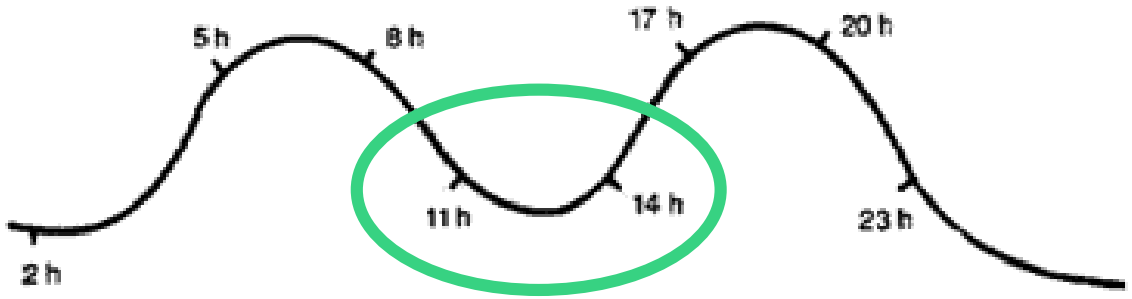


- Attention is a cognitive capacity needed for the organization and treatment of information.
- It allows us to stay focused on a task over time, process salient information from the environment while focusing on a task and allows us to work on one or multiple tasks at a time.
- Attention capacity varies and fluctuates during the day with our circadian rhythm.
- Is impacted by a variety of factors!

11h-14h Time where a cognitive intervention could prove beneficial!



Attention Fluctuation During the Day



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The Different Types of Attention

- **Sustained Attention**
  Allows for maintaining focus as new information is available while performing a task.
- **Selective Attention**
  Allows for filtering out irrelevant stimuli and directs concentration to relevant information from the environment.
- **Divided Attention**
  Allows us to focus on two or more tasks at a time!

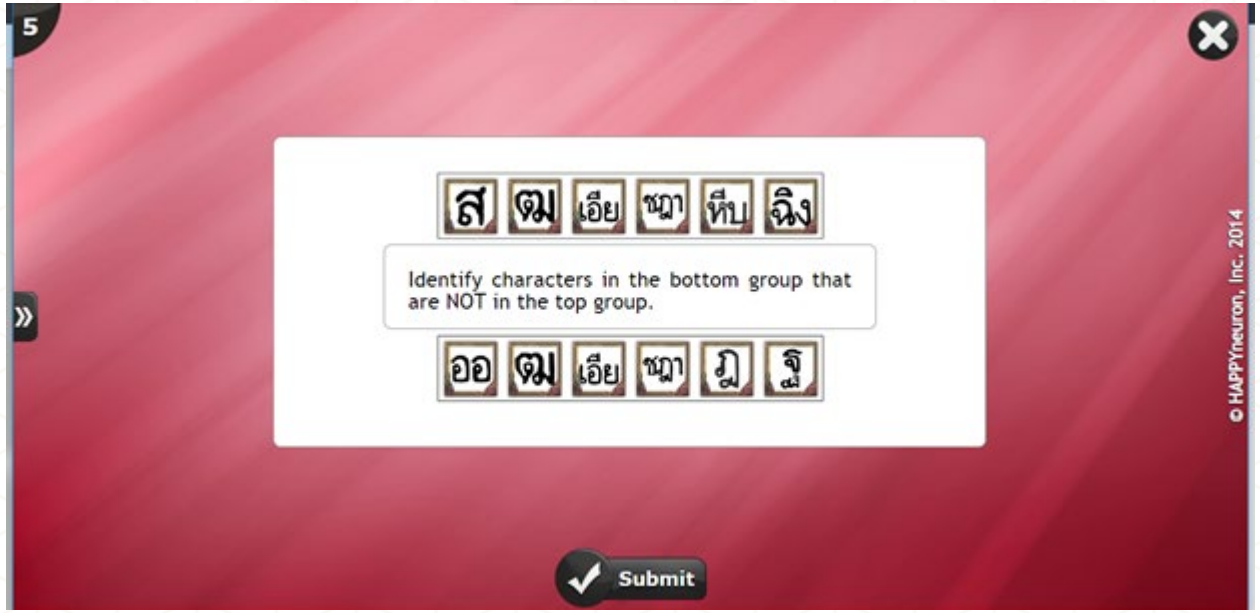
Attention Shifting

Allows for you to switch focus from a task as a new stimulus becomes important.

******We do not support texting and driving!***

What HappyNeuron Pro has for Attention

HappyNeuron Pro offers exercises that target Visual Attention. Other exercises target Auditory Attention and Processing Speed, which are related to attention networks.



Featured Exercise: Ancient Writing

- Users must distinguish which characters from the bottom row are not featured on the top row!

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Executive Functioning

A set of cognitive functions needed for **control**, **planning**, **flexibility**, and **inhibition**. Executive function allows for selected and organized behavior.

Three major components of executive function include:

- **Inhibition** to start or stop a behavior.
- **Flexibility** to shift ideas, behaviors, attention, etc. from one task to another.
- **Planning** to organize or plot an action or behavior.

Stimulating these functions allows for someone to maintain their ability to reason, make decisions, and problem-solve!

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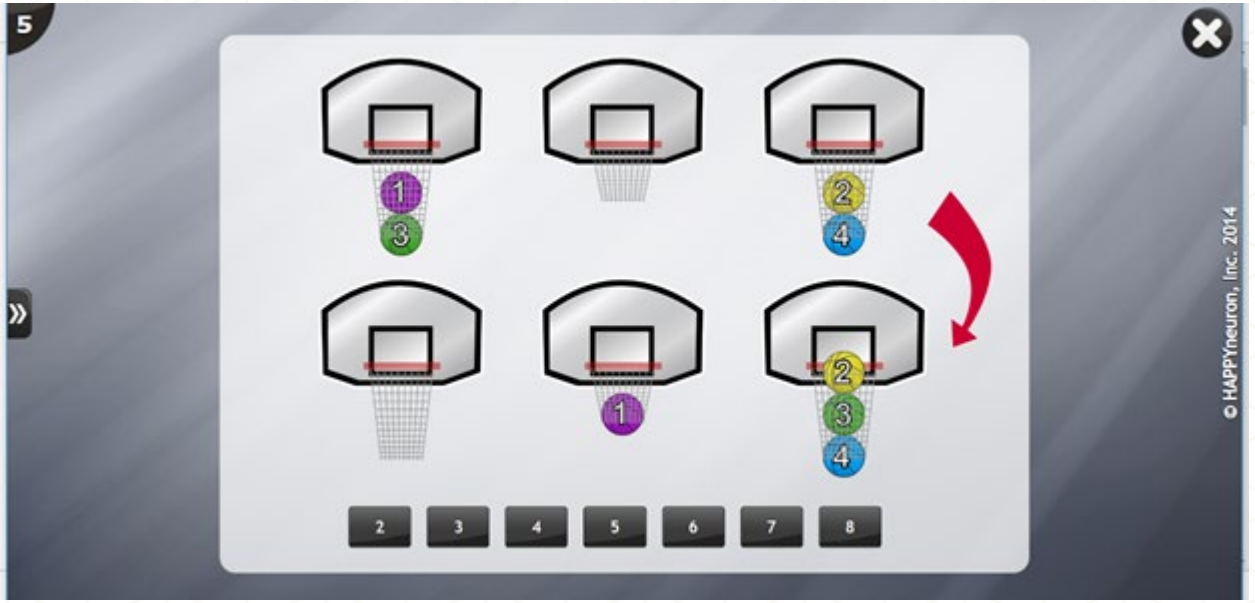
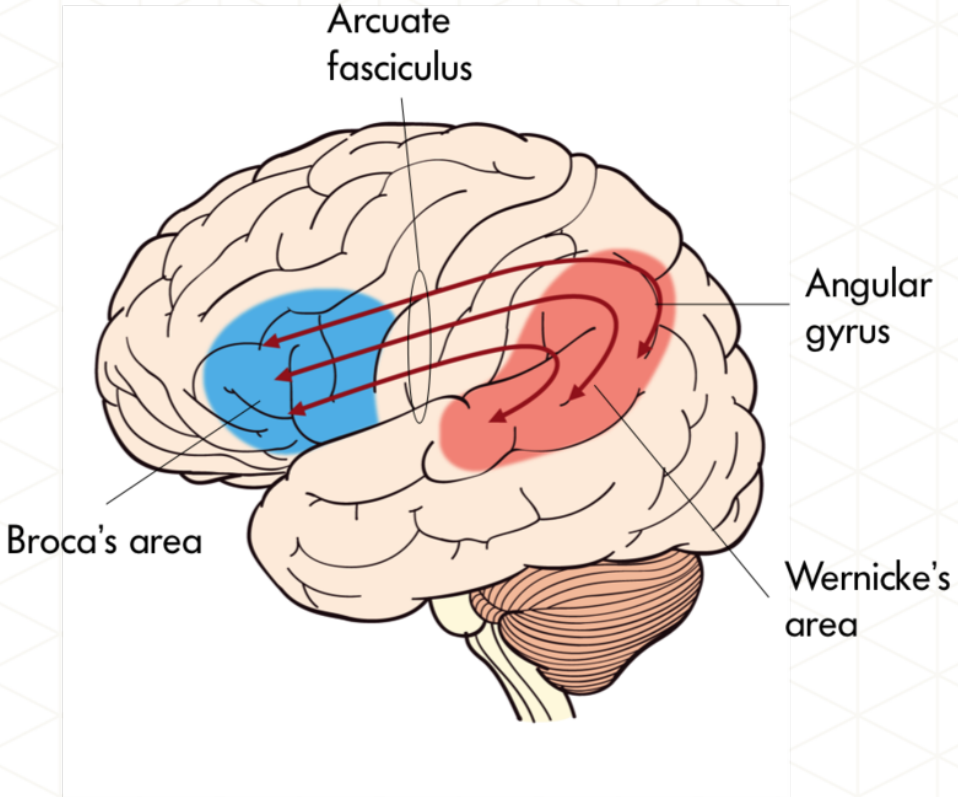
What HappyNeuron Pro has for Executive Functioning

HappyNeuron Pro offers exercises that target Executive Functioning. These exercises include verbal, mathematic, and spatial reasoning.



Featured Exercise: Basketball in New York - *Users must match the top basketball court with the bottom in as few moves as possible!*

Language



Allows for exchange of ideas, thoughts, information by verbal or written communication.

In writing, language is comprised of elements such as phonetics, syntax, and vocabulary. These components allow for logical formation of sentences and paragraphs.

As people age, language stimulation is needed for maintaining effective communication skills that allow for social engagement.

Two major areas for language in the brain include Broca's area (speech production) and Wernicke's area (processing and comprehension).

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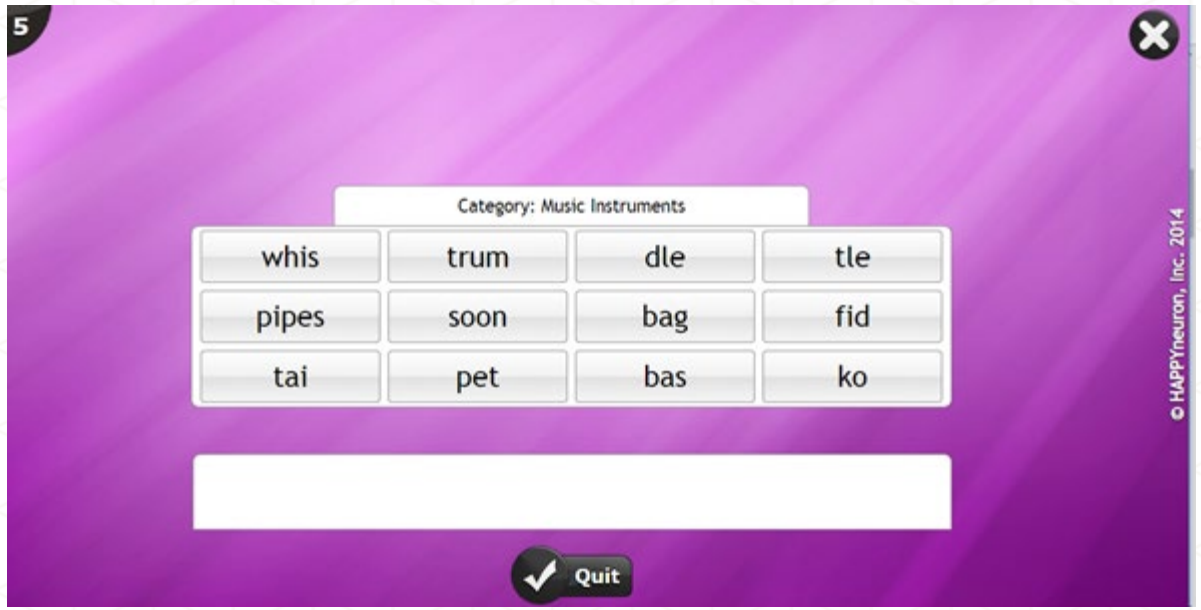
What HappyNeuron Pro has for Language

HappyNeuron Pro offers exercises that target language.

Exercises can overlap with executive function, verbal, and auditory memory.



Featured Exercise: Split Words - *Users must combine fragments of words according to a category to make logical words!*

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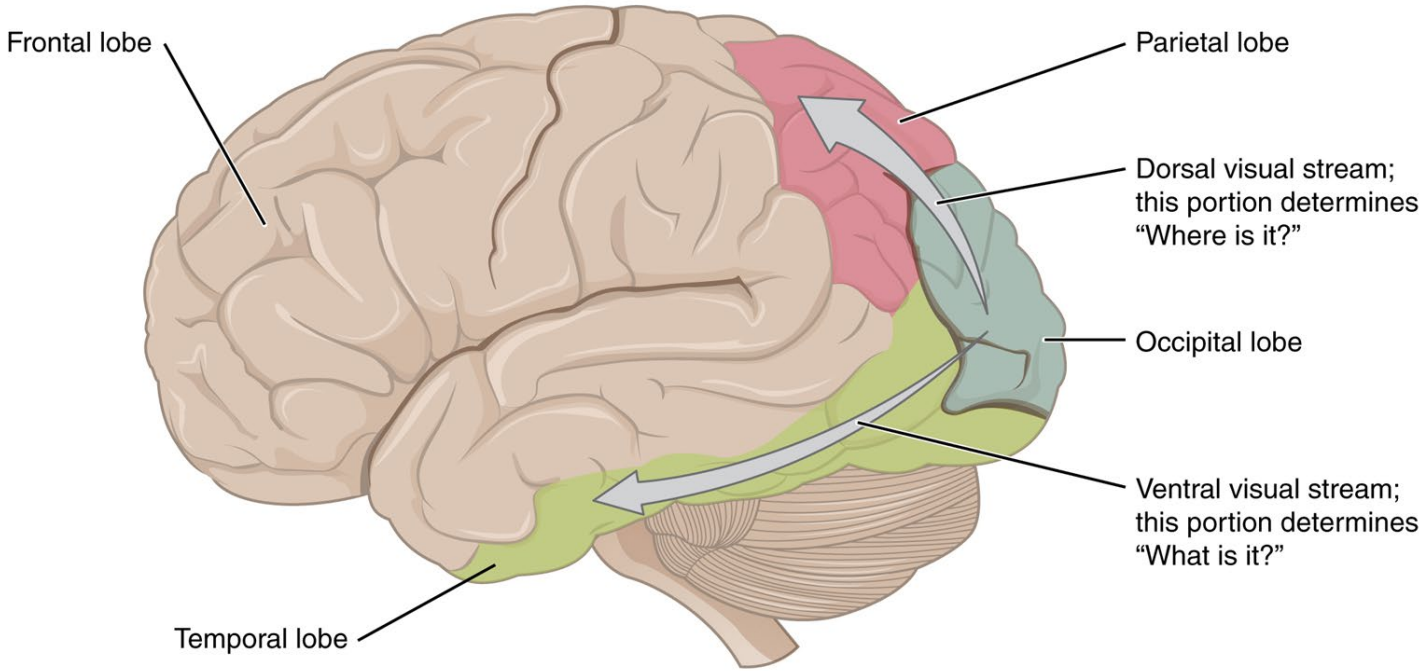
Visuospatial Reasoning



Visuospatial reasoning is needed for people to orient themselves in **space**, **perceive** relationships with objects in the environment, and **organize** visual information within a scene.

This kind of reasoning is also needed for mental **representation** and **manipulation** of objects when they are not physically present.

Working on **visuospatial reasoning** helps maintain the ability to **manipulate** objects and **navigate** space. This is important for people as this keeps us from knocking into things and falling!

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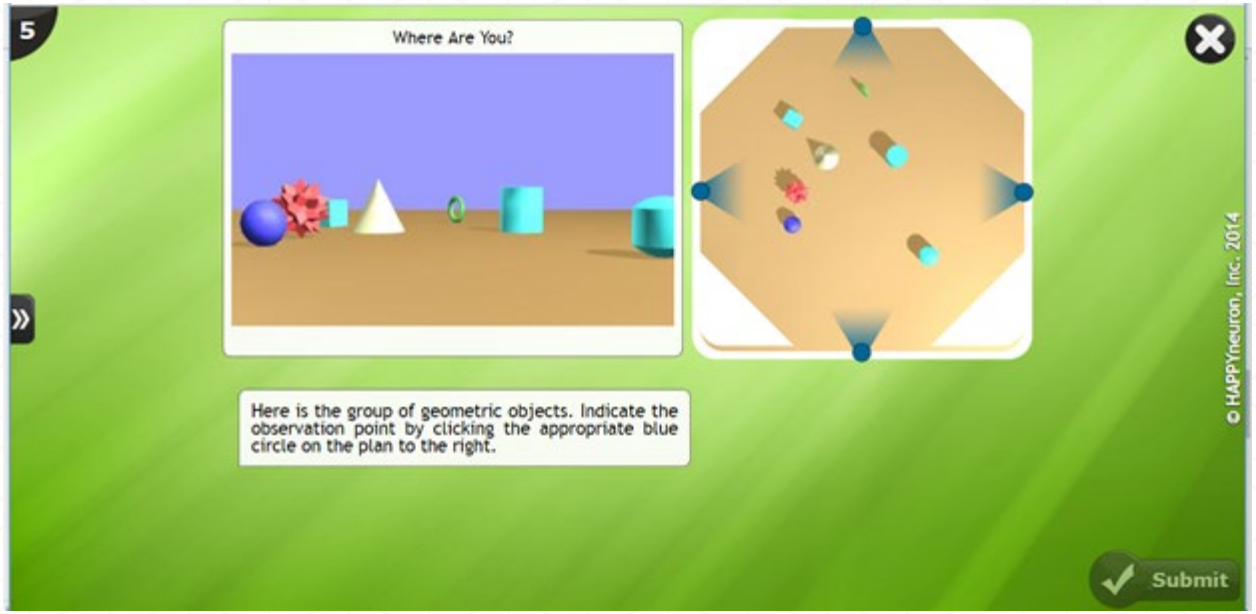
What HappyNeuron Pro has for Visuospatial Reasoning

HappyNeuron Pro offers exercises that the visuospatial system.

These exercises train orientation, manipulation, and memory of objects and their position in space!



Featured Exercise: Points of View - *Users must determine where they are based on the information given between the two pictures!*

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What Are Improved Patient Outcomes?

Adding HappyNeuron Pro with your own therapy leads to better patient outcomes.

Practicing cognitive skills at home over time leads to improved patient outcomes.

Independent Living

Getting Back to Work or Schooling

Enjoyment of life!

Clear Thinking

Community and Social Involvement

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HappyNeuron Pro Can:

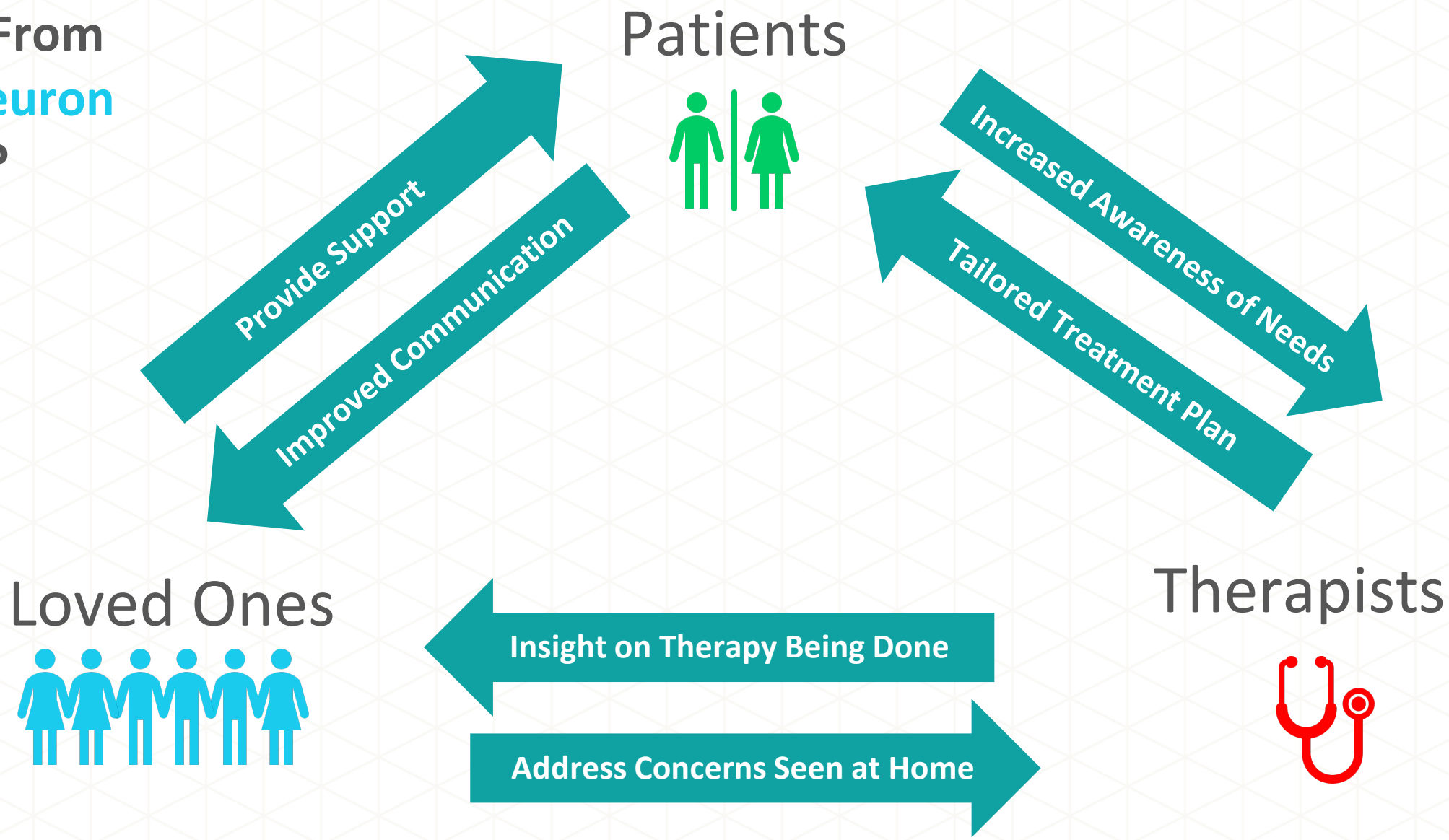
- Assist with **building relevant skills** for optimal life functioning.
- **Allow for practice** of these skills inside or outside of therapy hours.
- **Provide** a new platform with engaging activities that challenge patients while keeping them engaged during therapy.

We can do many things, but we cannot replace **YOU!**

You can treat your patients, **we can help.**

We cannot replace your course of therapy, **only assist with it!**

Who Can Benefit From HappyNeuron Pro?



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What Kinds of Patients Can HappyNeuron Pro Help?

Geriatrics

Healthy Aging
Dementia
Alzheimer's Disease
...

Neurology

Stroke
Brain Injury
Multiple Sclerosis
...

Psychiatry

Schizophrenia
Depression
Bipolar Disorder
...

Check out our website to learn how HappyNeuron Pro helps patients in geriatric, psychiatric, and neurological medicine!

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Where and How Do I Use HappyNeuron Pro?

Home Healthcare Private Practice

Rehabilitation Clinics

Hospitals and Medical Centers

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How Much Does All This Great Stuff Cost?

Practice Size	1 Month (No Commitment)	1 Year Commitment
Private practice (1 Therapist)	**$149** per month	**$99** per month for 12 months
Office (2-3 Therapists)	**$199** per month	**$149** per month for 12 months
Facility (4-5 Therapists)	**$249** per month	**$199** per month for 12 months

You get UNLIMITED ACCESS to ALL exercises and can create UNLIMITED PATIENT ACCOUNTS!

Who Do I Ask Questions To About HappyNeuron Pro?

Dustin Luchmee *Product Specialist*
Email me: dustin@happyneuronpro.com
Call me: +1.215.987.6165

*We are in Philadelphia, PA. I am available Monday through Friday, from 9:00am until 5:00pm EST. For off work hours, send an email. I will answer very shortly!

How Do I Purchase HappyNeuron Pro?

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