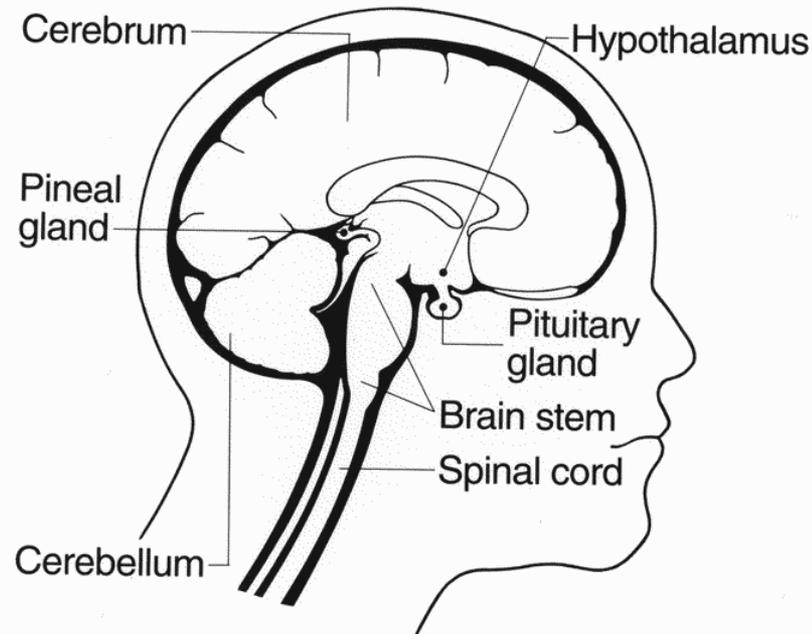




The Aging Brain

Reprint from the Detroit Jewish News, August 30-Sept 6 issue
Lynn Breuer, LMSW Director of Chronic Disease Management at
Jewish Family Service

Expected changes

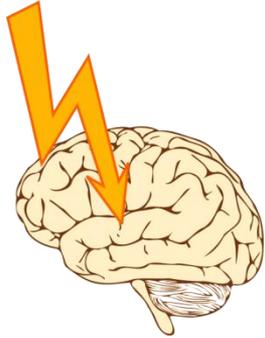


- As we expect normal aging brings expected changes in the areas of hearing, vision and mobility... normal changes to expected cognition include word-finding difficulties, decreased focus and attention, slower processing speeds (that tip of the tongue feeling) and slight memory difficulties.

Age 25



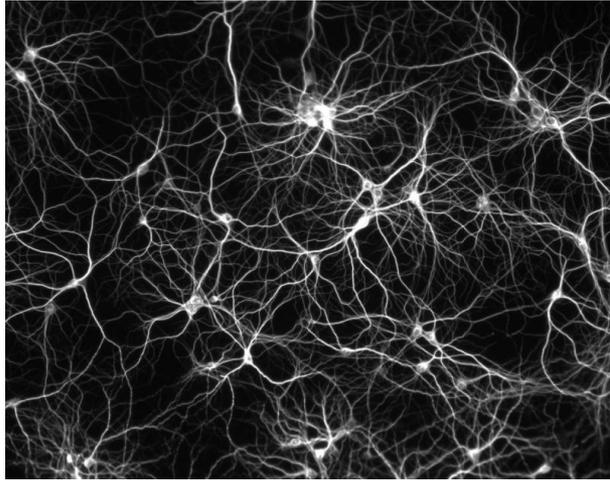
- At age 25 we reach the top of the bell shaped curve and begin a very slow decline. Most of us don't notice any changes until closer to age 50, where the cumulative changes start to be felt when we can't remember exactly where we parked the car at the mall. Or when a word is on the tip of our tongue, and instead of spitting it out within seconds as we did in our 20s, it takes a few minutes (or hours) to get it out.



Signals

- Signals are sent to and from our brains at lightning speed one nerve at a time. Each nerve passes the information on to the next throughout our bodies. We have so many neural connections in our brain that the analogy has been made to a complex roadmap with well-worn highways, mile roads and side streets.

Neural

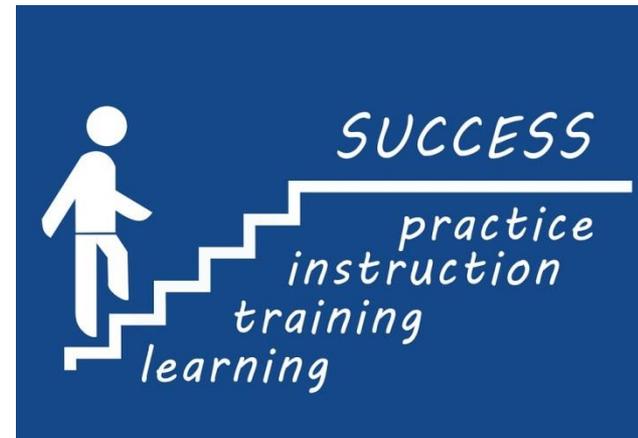
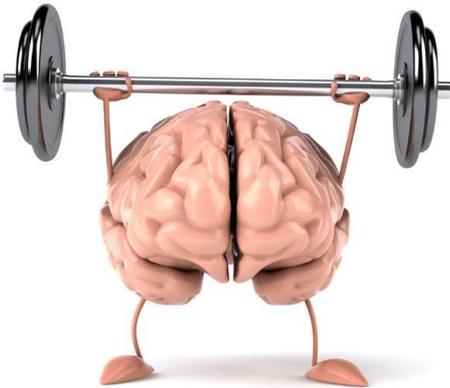


Connections

- As we age some of these neural connections no longer work and the signal is lost, not unlike when a road is closed for construction and cars cannot get through. This is the culprit behind the cognitive changes we notice.

What can we do about this?

- The best way to fight back is through building brain resiliency.

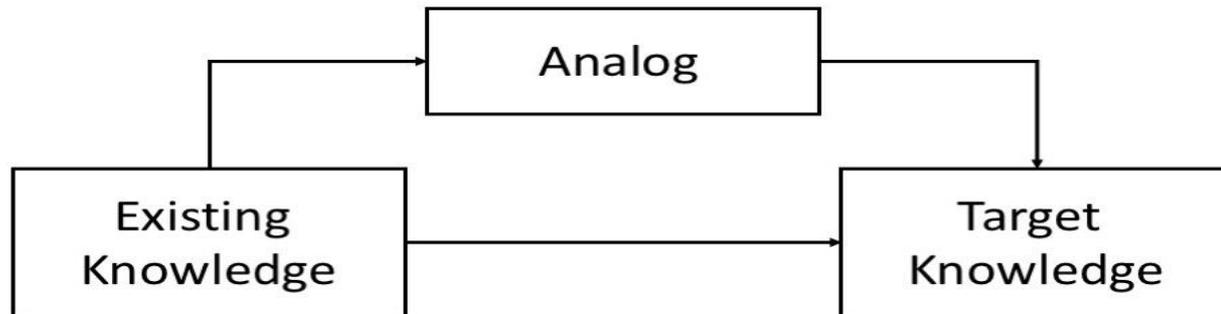


- This is possible due to our brain's built in capacity to learn, adapt and change throughout our lives, often referred to as neuroplasticity.

Analogy



While this won't open the closed freeway-like pathways in our brains, it can help us increase our network of smaller neural connections, the mile roads and side streets to complete our analogy.



An Analogy is a comparison of two otherwise unlike things based on resemblance of a particular aspect.

How do we Build Brain Resiliency



- There are several lifestyle factors linked to brain health, including good nutrition, regular exercise, engaging in social activities, spiritual engagement, sleep hygiene, stress management and medication management.

Types of Analogies

Part to whole	battery : flashlight :: hard drive : computer
Cause and effect	fatigue : yawning :: itching : scratching
Person to situation	mother : home :: teacher : school
Synonym	obese : fat :: slender : thin
Antonym	poverty : wealth :: sickness : health
Geography	Chicago : Illinois :: Denver : Colorado
Measurement	pound : kilogram :: quart : liter
Time	March : spring :: December : winter

Current Research



- Current research favors mental stimulation, specifically cognitive training, for playing a critical role in building brain resiliency.

Cognitive Training



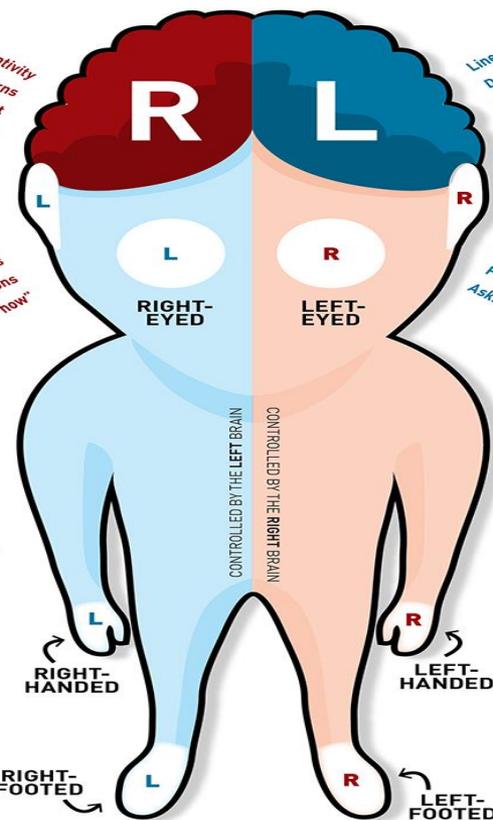
Are You Right-Brained or Left-Brained?

RIGHT-EARED →

- Like shapes / patterns
- Singing / music / theater / art
- Visualizations
- Likes to see the "whole" picture
- Emotional
- Colors
- Active
- Prefers essay tests to true / false
- Willing to take risks
- Finds similarities
- Sensitive to thoughts / emotions
- Asks "why" more often than "how"

← **LEFT-EARED**

- Linear thinking
- Detail / fact oriented
- Reading / phonics / language / talking
- Auditory / listening
- Like the "parts" before the "whole"
- Logical
- Numbers
- Time-oriented
- Prefers true / false to multiple-choice
- Doesn't like to take risks
- Looks for differences
- Prefers things with concrete rules / definitions
- Asks "how" more often than "why"



How to find your dominant brain

1. Circle the **EAR** that you would use to listen through a door.
2. Circle which **EYE** is stronger (see guide).
3. Circle the **HAND** that you would use to write or eat.
4. Circle the **FOOT** that you would use to kick a ball.
5. Count all circled L's and R's.

How to find your stronger eye

1. Extend your arms and make a triangle with your thumbs and forefingers.
2. Center a light switch in the triangle.
3. Close each eye.
4. Which one keeps the switch centred? That's your stronger eye!

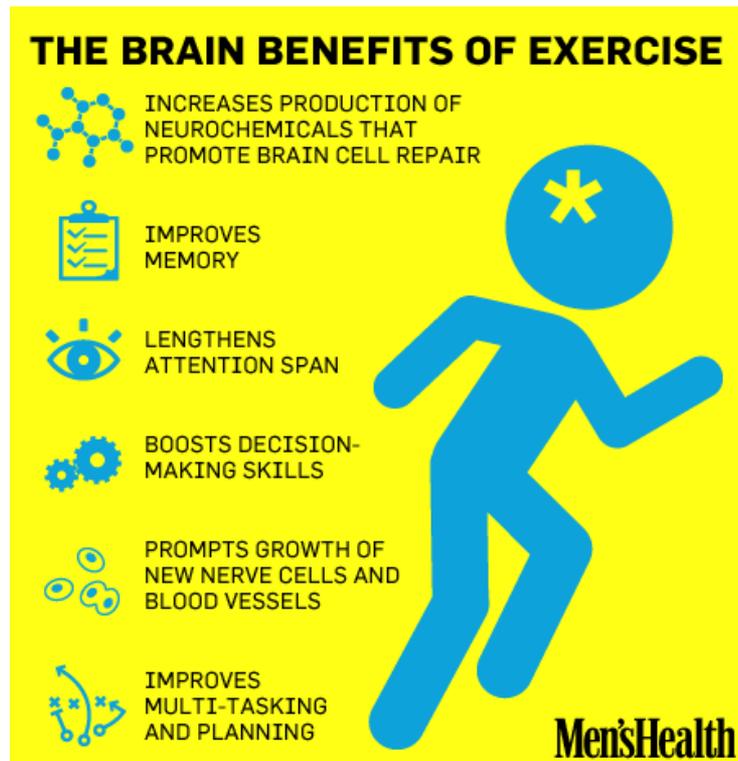
Mostly L's = Right brained. **Mostly R's** = Left brained. **Equal L's and R's** = Balanced brain!

WWW.THEPREMIERTUTORS.ORG

To be as effective as possible, it need to strategically target specific cognitive tasks, in pre-determined order, with increasing difficulty over time.

And improvements should translate into real world skills beyond the training session.

THE BRAIN BENEFITS OF EXERCISE

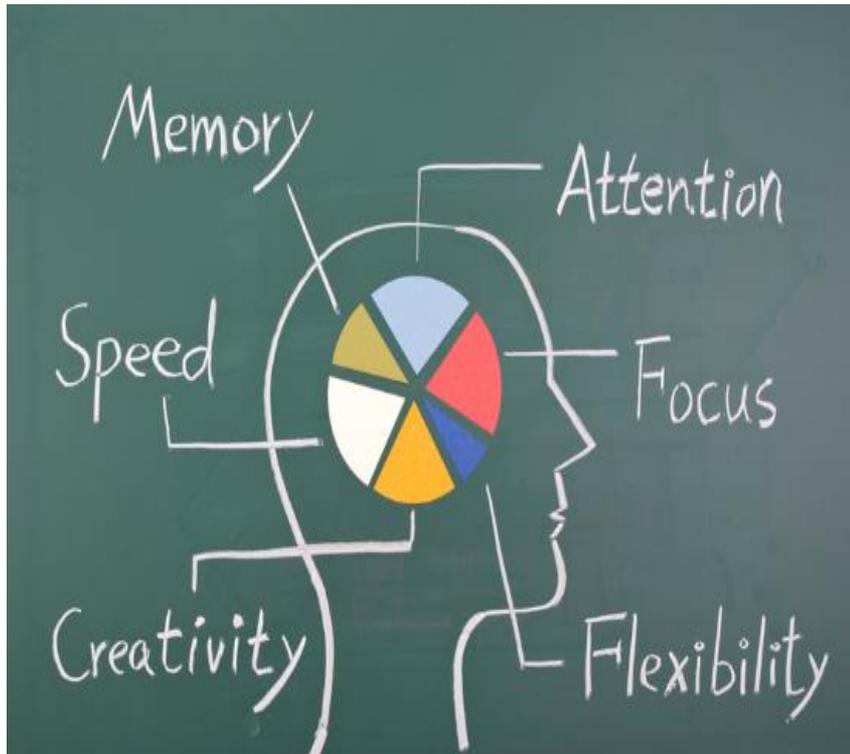


- INCREASES PRODUCTION OF NEUROCHEMICALS THAT PROMOTE BRAIN CELL REPAIR
- IMPROVES MEMORY
- LENGTHENS ATTENTION SPAN
- BOOSTS DECISION-MAKING SKILLS
- PROMPTS GROWTH OF NEW NERVE CELLS AND BLOOD VESSELS
- IMPROVES MULTI-TASKING AND PLANNING

Men'sHealth

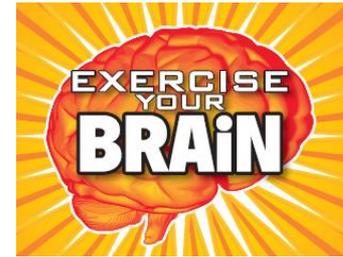


Mind Aerobics



- One of the few research based programs on the market addressing these issues is Mind Aerobics, developed by the New England Cognitive Center

Specific Skills



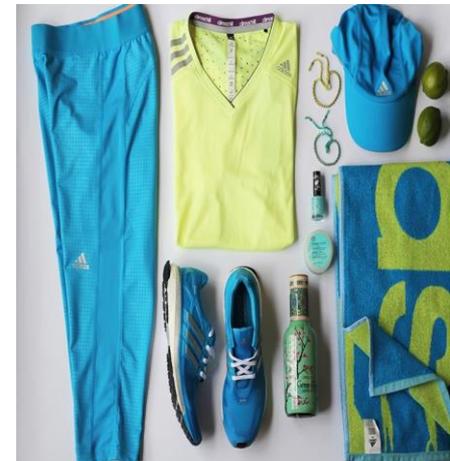
- Reaction to time, which refers to how quickly we react to the world around us.
- Visual/spatial skills, which are critical to minimizing the risk of falls as well as help in with our parking skills
- Attention and concentration
- Memory which is broken down into not only short and long term, but also visual memory, auditory memory and kinesthetic memory
- Language
- Problem solving skills

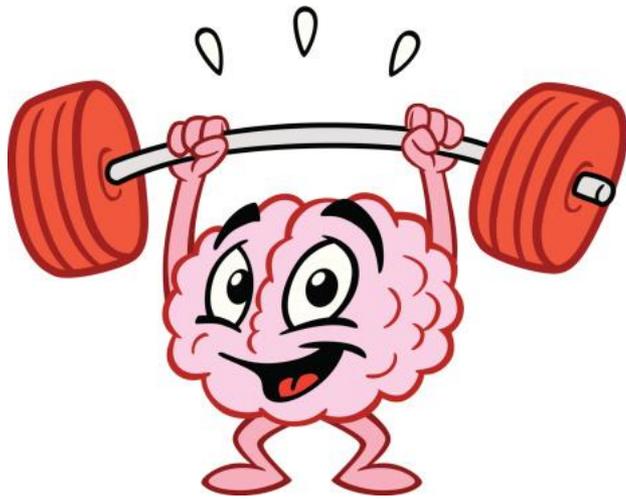
Cognitive Punch

- Classes have added cognitive punch by being held in a group setting so socialization is included in the package, giving your brain quite a workout...



With no workout clothes required.





Reaction to Time



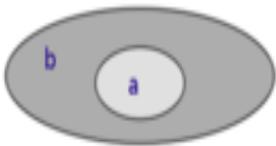
A relationship is not based on the length of time you spent together; it's based on the foundation you built together.

~Unknown

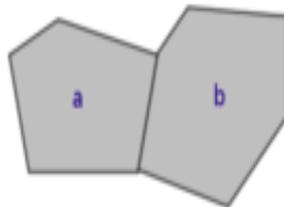
16quotes.com

Visual and Spatial Skills

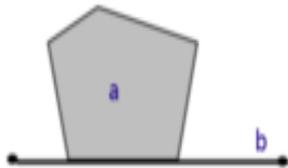
Within(a,b)



Touches(a,b)



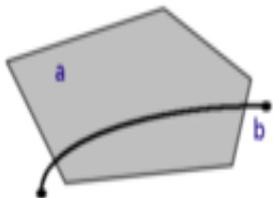
Touches(a,b)



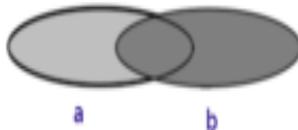
Crosses(a,b)



Crosses(a,b)



Overlaps(a,b)



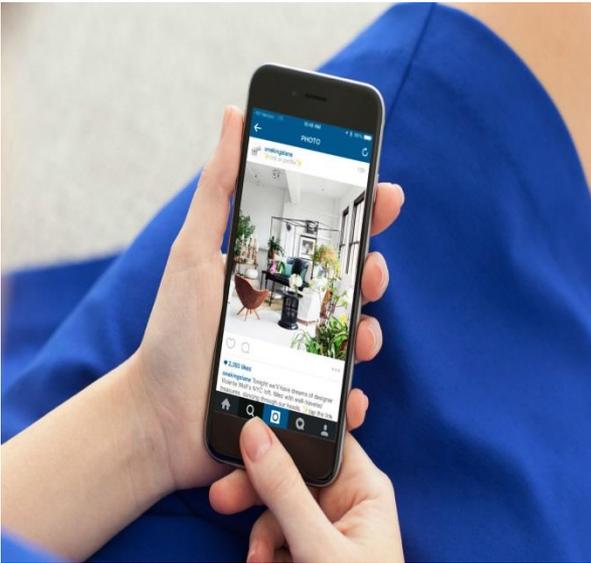
VISUAL PROCESSING (GV):

THE ABILITY TO MAKE USE OF SIMULATED MENTAL IMAGERY (OFTEN IN CONJUNCTION WITH CURRENTLY PERCEIVED IMAGES) TO SOLVE PROBLEMS.

Attention and Concentration



16	13	9	23	1	5	9
22	4	6	13	19	22	11
3	15	2	12	24	5	18
17	12	18	8	15	20	17
25	3	20	1	4	23	6
7	10	8	16	7	21	14
11	19	2	14	24	21	10

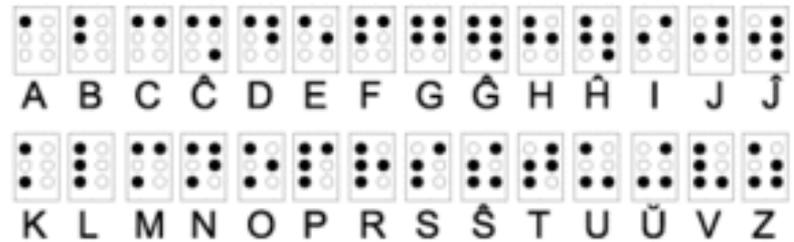


Memory

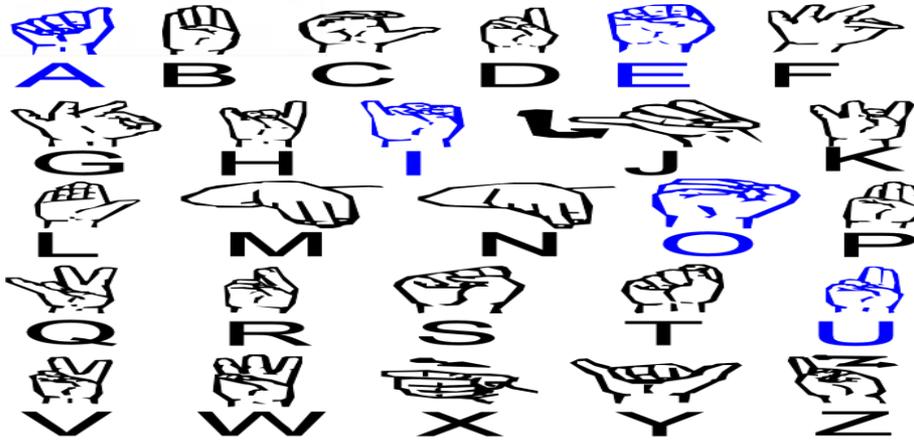
- Short term
- Long term
- Visual
- Auditory
- Kinesthetic



Language



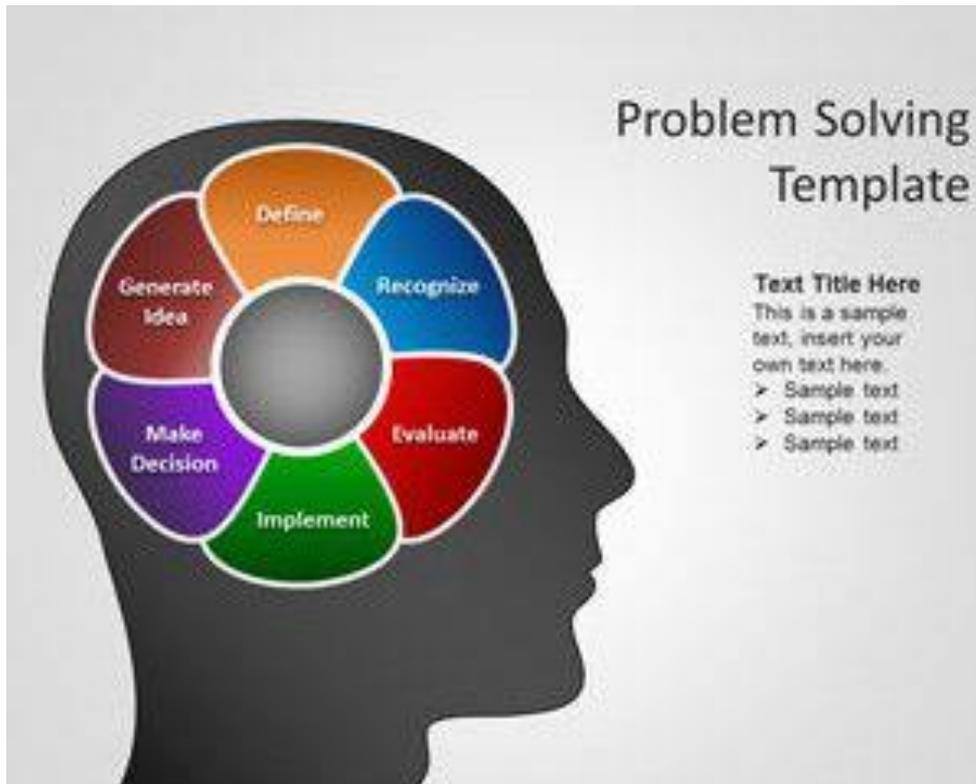
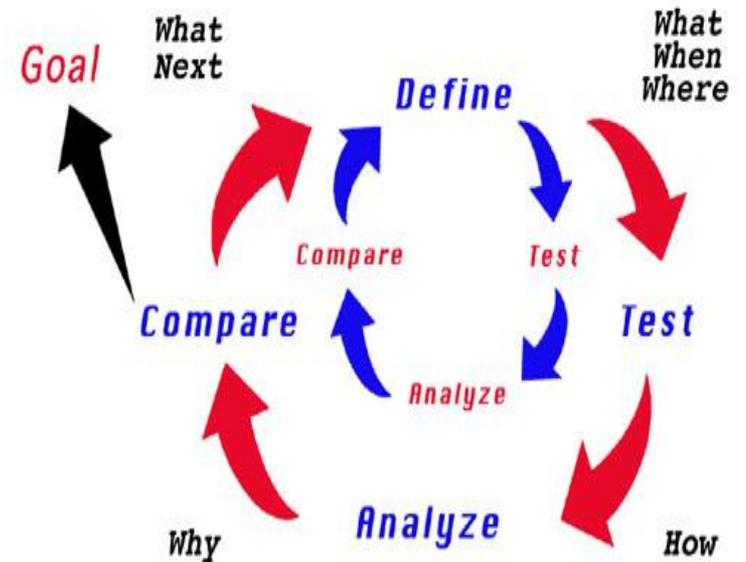
Esperanta Brajla Alfabeto



Problem Solving



Problem Solving Process



Mind University

- Mind Aerobics was developed to systematically stimulate six major functions of the brain.
- Mind Aerobics classes are organized by cognitive level and participants are grouped into classes based on their cognitive function. Each level class is conducted by a certified Mind Aerobics facilitator and consists of 24 sessions that gradually increase in difficulty over the course of 12 weeks.
- MindU@jfsdetroit.org 248 788-6463