Whole-Brain Relationships

Companion workbook

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Integrative Change Framework Review

Question 4 of 4

Which stage is **this class** a part of? The stage where you gain ***knowledge*** about you, your brain and your body and then develop a few ***essential skills that you'll need in later stages***?

- A Stage 1 - Learn & Understand
- B Stage 2 - Discover & Prepare
- C Stage 3 - Implement & Infuse
- D Stage 4 - Amplify & Infuse

Answers: 1-C, 2-B, 3-C, 4-A

Stress Response System Review

Question 1 of 3

Our stress response, or emotional response system is designed to operate

- A all the time
- B intermittently
- C twice a day
- D only when we're scared

Question 2 of 3

We're designed to experience all of our emotions. What determines the health of our emotional response is

- A how frequently it activates
- B how intensely it activates
- C in what scenario or environment it activates
- D what default state it rebounds back to
- E all of the above

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Question 3 of 3

To the brain, the fundamental definition of stress is

A anything hard

B anything I don't enjoy doing

C anything that is new, different or conflicting

Answers: 1-B, 2-E, 3-C

Feeling and Emotions Review

Question 1 of 3

Where do we experience emotional response?

A in our mind

B in our body

C emotions don't exist

Question 2 of 3

The primary role of emotion is

A to cause pain

B to interfere with our logical thinking

C to get us to move or behave in some way

Question 3 of 3

Feelings are like a _____ that describes the emotional response combined with the environment or scenario where it activates

A a made-up story

B neon sign

C a label

Answers: 1-B, 2-C, 3-C

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Brain-Body Communications Review

Question 1 of 3

When the brain believes we are in danger, it triggers the secretion of

A acetylcholine (calming agent)

B dopamine (reward agent)

C norepinephrine (adrenaline)

Question 2 of 3

Once an experience is viewed as no longer threatening, _____ is released to counter the stress response

A dopamine (reward agent)

B acetylcholine (calming agent)

C norepinephrine (adrenaline)

Question 3 of 3

In this class, we're referring to our **sympathetic** 'fight or flight' system as _____ and the **parasympathetic** 'rest and relax' system as _____.

A the 'Brake' ; the 'Accelerator'

B the 'Accelerator' / the 'Brake'

Answers: 1-C, 2-B, 3-B

Emotional Regulation Review

Question 1 of 5

Self-Regulation means

A being unemotional

B suppressing your emotion

C being like a 'vulcan', always in your intellect and very cerebral

D avoiding your emotions

E none of the above

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Question 2 of 5

How do we learn to regulate our emotional nervous system as children?

A trial and error

B we don't. That's something we're supposed to learn as adults

C through modeling and soothing by our adult caregivers

Question 3 of 5

Our emotional working range adopts a certain arousal level as it's default 'home base'...

A if we spend a lot of time in high-activation

B when we spend a lot of time in low-activation

C we spend a lot of time in moderate activation

D all of the above

Question 4 of 5

The ability for your brain and emotional nervous system to know ***how often*** to turn on, ***how much*** to turn on and which situations ***are appropriate*** to turn on is called....

A conceptualization

B isolation

C differentiation

D modulation

Question 5 of 5

Our attachment style combined with our ability to manage our emotions determines...

A our stress tolerance range

B our academic range

C our vocal range

Answers: 1-E, 2-C, 3-D, 4-C, 5-A

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The 'Window of Tolerance' Review

Question 1 of 3

As we are learning to regulate our emotional response, what do we need to consider?

- A: the emotional resilience RANGE itself (it's high and low limits)
- B: the individual's rebound or regulation ABILITY
- C: the LEVEL, or intensity of emotional arousal that the range is SYNCed to, or based within
- D: all of the above

Question 2 of 3

How ***appropriate*** an emotional response is, to the environment in which it activates is called

- A: deterance
- B: relevance
- C: concurrence

Question 3 of 3

Developing Emotional Intelligence (EQ) includes

- A: "widening" or increasing our emotional resilience range
- B: learning to flexibly work within that range and "rebound back" to it when we encounter unexpected stressors
- C: "centering" our emotional range by training it to differentiate when to turn UP emotional response and when intense response is NOT needed
- D: A and B
- E: A, B and C

Answers: 1-D, 2-B, 3-E

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What Emotional Regulation Looks like - Review

Question 1 of 3

What do you generally see in people who are emotionally regulated?

A emotional stability

B emotional resilience and flexibility

C both A and B

Question 2 of 3

The ability to **specifically describe** an emotional experience, instead of just giving it a generic label is referred to as

A emotional specificity

B emotional granularity

C emotional diversity

Question 3 of 3

Self-regulation is about the ability to ***rebound back to*** and ***flexibly operate within*** a varied range of _____ emotion.

A moderate

B minimal

C maximum

Answers: 1-C, 2-B, 3-A

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Right and Left Hemispheres Review

Question 1 of 7

In which brain hemisphere does most of our ***problem-solving, logical thinking*** and ***judgment*** take place?

A left

B right

Question 2 of 7

Which hemisphere develops first in children?

A left

B right

Question 3 of 7

In which hemisphere do we do most of our ***past*** and ***future*** thinking?

A left

B right

Question 4 of 7

In which hemisphere do we process ***facial recognition***, the ***emotional 'landscape'*** of others and ***language nuance***?

A left

B right

Question 5 of 7

In which hemisphere do we process the most ***creativity, artistry, imagination*** and ***what's happening NOW***?

A left

B right

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Question 6 of 7

Children under the age of 7-8 are strong in

A creativity

B discernment ability

C imagination

D judgment ability

E A and B

F A and C

Question 7 of 7

How many brains do we have?

A 3 - the Thinking brain, the Primitive brain and the Emotional brain

B 1 - although there are different clusters or 'hubs' of neurons, the brain is more like one large network

Answers: 1-A, 2-B, 3-A, 4-B, 5-B, 6-F, 7-B

Great job at finishing Module I !

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Levels of Consciousness - Review

Question 1 of 3

The level of consciousness where ***active learning*** and ***present awareness*** takes place is...

A the unconscious level

B the subconscious level

C the conscious level

Question 2 of 3

The level of consciousness where we ***learn passively*** and can ***easily retrieve*** memory is ...

A the conscious level

B the subconscious level

C the unconscious level

Question 3 of 3

The level of consciousness that stores ***long-term memory*** and ***automated body function*** and is ***referenced*** for behavior choices is...

A the unconscious level

B the subconscious level

C the conscious level

Answers: 1-C, 2-B, 3-A

Brain Efficiency - Review

Question 1 of 3

Activities that are ***routine*** and ***familiar*** are very energy- _____ to the brain.

A expensive

B depleting

C efficient

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Question 2 of 3

Anything that is ***new, different*** or ***unexpected*** is ***conflicting*** to the brain and very energy-_____

A expensive

B efficient

C exploitive

Question 3 of 3

The best way to deal with the brain's ***natural, initial resistance*** is...

A slow down

B speed up

C blow it off

D commitment and repetition

E A and D

Answers: 1-C, 2-A, 3-E

Brain Wave Frequency - Review

Question 1 of 4

the **slowest** brainwave speed and why babies sleep a lot is...

A beta

B delta

C theta

Question 2 of 4

The brain speed where can think ***and*** feel, analyze ***and*** still create is..

A zeta

B delta

C alpha

Question 3 of 4

The brain speed where we have the highest ***concentration*** and ***performance***, but also can also be seen with ***high anxiety*** is. **.**

A alpha

B high-end beta

C theta

Question 4 of 4

the brain speed of most children ***under the age of 7 or 8*** which is conducive to ***dreaming*** and ***imagination*** is..

A high-end beta

B delta

C theta

Answers: 1-B 2-C, 3-B, 4-C

Feedback Loops - Review

Question 1 of 2

The ability for our ***young*** brains to ***accept*** and ***store*** patterns ***before*** it has fully developed judgment and discernment ability is called...

A premature choice making

B premature cognitive commitment

C premature cognitive rejection

Question 2 of 2

This premature storage of a pattern can be ***intensified*** by..

A trauma

B neglect

C dopamine

D all of the above

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Question 3 of 3

Although it takes some work, these patterns can be ***identified*** and our unwanted behaviors ***interrupted*** with...

A awareness

B intention

C repetition

D all of the above

Answers: 1-B, 2-D 3-D

Pleasure and Pain - Review

Question 1 of 3

Anything ***new, different*** or ***unexpected*** can cause the brain ***conflict***. Another term for this state of the brain is...

A cognitive derangement

B cognitive harmony

C cognitive dissonance

Question 2 of 3

We experience 'pleasure' when something ***matches*** our ***expectations*** or a ***belief*** about the experience. This is called...

A cognitive harmony

B cognitive bliss

C cognitive dissonance

Question 3 of 3

Pleasurable experiences feel great! But they can also become ***problematic*** due to...

A overuse can lead to addiction

B experiencing pleasure all the time is never a problem

C we can suffer when continual sources of pleasure can't be maintained

D A and C

Answers: 1-C, 2-A 3-D

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Negativity Bias and Neuroplasticity - Review

Question 1 of 3

Our brain ***naturally*** has a negative bias because..

A humans are just mean at their core

B negativity helps us relate better to other people

C it's an effective way to keep us safe by keeping us away from dangerous experiences that could end our life

Question 2 of 3

We can completely ***get rid*** of our negative bias if we try hard enough. Yes or no?

A yes - we can do anything if we try hard enough

B no - it's a safety feature of our brain. However, with time and practice, we can train our brain to more frequently notice the positive aspects of our life.

Question 3 of 3

Current research shows that ***brain change is possible*** until age...

A 25

B 40

C brain change is possible throughout our entire life

Answers: 1-C, 2-B, 3-C

The 'Workroom' - Review

the cerebral cortex

Question 1 of 2

The ***2 hemispheres*** of the cerebral cortex are ***connected*** by a thick wall of neurons called....

A cerebral ganglia

B the hemispheric bridge

C the corpus callosum

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Question 2 of 2

We can ***positively influence*** the 'Workroom' of our brain, or our cerebral cortex, by...

A	being aware of, and choosing, what we expose it to
B	meditation or mindfulness practice - it optimizes the use of our whole brain by increasing the number of neurons that connect the 2 hemispheres
C	watching violent movies and listening to fake news
D	A and B

Answers: 1-C, 2-D

The 'Conflict Manager' - Review

the anterior cingulate cortex (ACC)

Question 1 of 3

The Anterior Cingulate Cortex ("The Conflict Manager") is ***connected*** to...

A	the intellectual 'hubs' of the brain network
B	the emotional 'hubs' of the brain network
C	both the intellectual AND the emotional 'hubs'

Question 2 of 3

The ACC is what helps us ***resolve mental conflict*** or dissonance. It needs exposure to _____ in order ***to get stronger***?

A	heat
B	pleasure
C	a mix of routine and different experiences so it has something to decide about
D	a mix of logic and emotion so it can practice using the right amount of both in decision-making
E	C and D

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Question 3 of 3

The "Conflict Manager' has a sort of ***threshold for activation*** that determines when emotional response will be intensified, or not. Which factor(s) help ***raise*** this activation threshold?

A time

B non-reactivity

C intense concentration

D A and B

Answers: 1-C, 2-E, 3-D

The 'Filter' - Review

the reticular activating system (RAS)

Question 1 of 3

The Reticular Activating system (the "Filter") is connected to most of our senses and ***screens in information*** so that....

A we don't get overwhelmed

B we can focus on what's important to us

C we don't forget anything

D A and B

Question 2 of 3

Visualization is a powerful use of the RAS / 'Filter' because...

A If we just think about something it will show up on our doorstep without us needing to take any action

B the brain responds the same way to what's real as it does to what's imagined.

C the brain responds differently to what's real and what's imagined.

Question 3 of 3

How does the 'Filter' in our brain help us ***accomplish goals***?

A by preventing procrastination

B by directing our attention towards input that helps us to accomplish those goals

C by supplying us with hits of dopamine

Answers: 1-D, 2-B, 3-B

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The 'Coordinator/Label-Maker' - Review

the amygdala

Question 1 of 4

The '***coordinator***' role of the amygdala considers which of the following during any experience?

A have you seen this situation before?

B what did you do last time this happened?

C how life-threatening is this?

D all of the above

Question 2 of 4

The '***label-making***' feature of the amygdala consider which of the following in any experience?

A how should this be interpreted?

B what should we call it?

C what nationality is this person?

D how deeply should we register this experience in memory?

E A, B and D

Question 3 of 4

The amygdala gives an ***emotional 'value'*** to every experience. If that value is high, the memory becomes '***sticky'*** and is ***deeply registered***. What is this called?

A resilience

B salience

C resistance

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Question 4 of 4

How can we ***influence*** the amygdala?

A by giving an experience a different meaning

B by slowing down and allowing more time for choices to be made

C by forcing yourself to get negative thoughts out of your head

D A and B

Answers: 1-D, 2-E, 3-B, 4- D

The 'Packing and Shipping Center - Review

the hippocampus

Question 1 of 4

The ***role(s)*** of the hippocampus include...

A aiding to put an emotional experience into perspective by keeping the amygdala calmer while its trying to translate an experience

B organizing an experience before its put into memory

C 'time-stamping' a memory so we can tell its from our past.

D all of the above

Question 2 of 4

the type of memory we sense ***in our bodies*** is called...

A implicit memory

B explicit memory

C consolidated memory

Question 3 of 4

the type of memory that contributes to the ***'timeline'*** of our life and helps us ***differentiate*** that its from ***our past*** is called...

A implicit memory

B explicit memory

C consolidated memory

Question 4 of 4

Memory can become ***fragmented*** if the hippocampus is ***blocked*** from doing its job. What are some well-know hippocampus ***blockers*** that can sometimes result in a 'blackout' of memory?

A stress

B rage

C deeply felt joy

D excessive use of alcohol

E sleeping pills

F A,B,D and E

Answers: 1-D, 2-A, 3-B, 4-F

The 'Expressway to Calm' - Review

the vagus nerve

Question 1 of 3

What are some of the ***functions*** of the vagus nerve?

A activates the release of adrenaline (action agent)

B activates the release of acetylcholine (calming agent)

C increases heart rate and breathing

D decreases heart rate and breathing

E A and C

F B and D

Question 2 of 3

The ability to ***sense our organs*** (gut feeling) and what's neuro-chemically ***happening in our bodies*** is called _____.

A proprioception

B organoception

C Interoception

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Question 3 of 3

How can we ***strengthen*** the vagus nerve, or increase vagal tone?

A	deep diaphragmatic breathing
B	social or community involvement
C	jumping up and down
D	practicing body sensation awareness
E	A, B and D

Answers: 1-F, 2-C, 3-E

Great job!

For the next module, we're going to switch it up.

After each video, take a few moments to write out your answers to 3 questions

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Integrative Change Framework Review

Question 1 of 4

Which is the correct order of the stages for Integrative Change?

A. Learn /Understand > Implement/ establish > Discover/Prepare > Amplify / Infuse

B. Discover/Prepare > Learn/Understand > Amplify/Infuse > Implement/ Establish

C. Learn/Understand > Discover/Prepare > Implement / Establish > Amplify/Infuse

D. Implement/Establish > Discover/ Prepare > Learn/Understand > Amplify/ Infuse

Question 2 of 4

Which stage is where you get ***specific*** details about what's at the root of your behavior, ***clarify*** where you want to go from here, and set the stage to ***optimize*** your change efforts?

A. Stage 1 - Learn & Understand

B. Stage 2 - Discover & Prepare

C. Stage 3 - Implement & Establish

D. Stage 4 - Amplify & Infuse

Question 3 of 4

Which stage is where you put your selected and customized ***brain-strengthening*** and ***nervous system retraining practices*** to consistent, daily use?

A. Stage 1 - Learn & Understand

B. Stage 2 - Discover & Prepare

C. Stage 3 - Implement & Establish

D. Stage 4 - Amplify & Infuse

Whole-Brain Relationships

Healthy Stress Response - questions

1. Describe a situation where you noticed yourself having a strong emotional response. Who or what was involved?

2. Do you recall how it felt in your body? (hands clenched, pit in stomach, felt hot etc)

3. What did you do or think at that moment, in behavior and thought? Think of any small detail, even if you initially answer 'nothing'

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Infant Stress Response / Limiting Belief Creation - questions

1. How did your parents or caregivers respond when you were upset, or scared? How about when you were excited or happy?

2. Even great parents can't be present to witness EVERY child experience. Was there ever a time at school, on a playground or with friends that you experienced something scary, sad or confusing and an adult wasn't around to witness it and respond?

Whole-Brain Relationships

Limiting Belief cycle / Adaptive Behaviors I - questions

1. As you were growing up, what patterns of behavior stand out to you?

2. Is there a 'type' of person you are drawn too? Do you see a pattern? What sort of relationship qualities do feel the most relaxed and comfortable around?

3. Describe how you feel inside your body and mind most of the time - use any words you want to describe it (tight, pressured, sleepy, anxious, buzzy etc)

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Adaptive Behaviors II - questions

1. Are there any behaviors that are becoming problematic or no longer helping you, that may be getting reinforced by a dopamine reward? Remember, reward can come in the form of 'relief' or 'stimulus' too.

2. What strategies do you notice yourself using to relax? get pumped up? to get your courage up? or to shut your thinking brain 'off'?

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Adaptive Behaviors II - questions

3. Describe how some of these strategies may be taking their toll on your health, your relationships or your work goals.

Bonus question:

4. Is your life diverse enough? Can you think of a few additional healthy strategies that you could add to your list in question #2?

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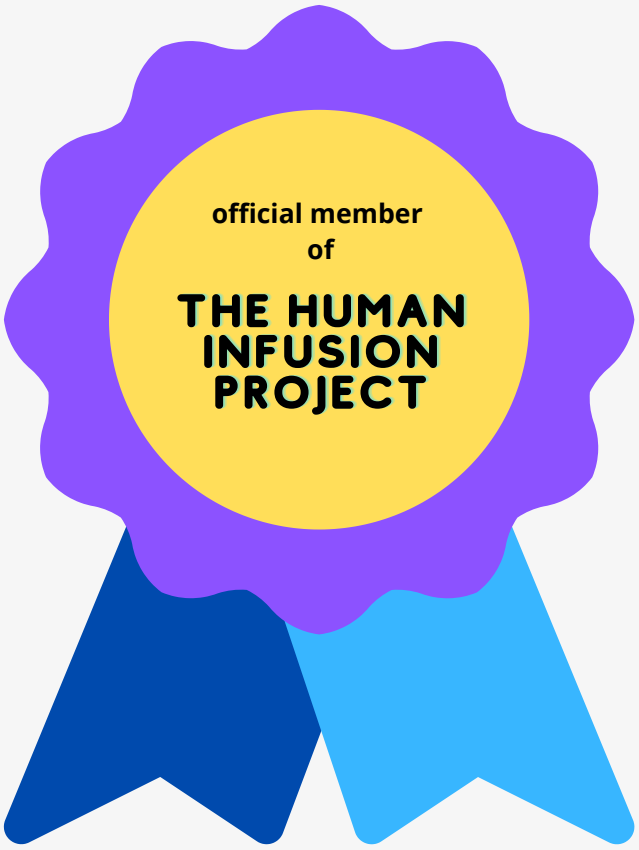
Fantastic job at completing this course!



Emotional Regulation

- The first step of emotional Intelligence is about increasing awareness and becoming emotionally _____.

- And self-regulation is about having emotional _____ within a range that surrounds a _____ center.

- There is nothing wrong with feelings of anxiety or sadness. But it's often the _____, the _____ or _____ we stay in that emotional experience that can become problematic

Right & Left Hemispheres

- The hemisphere that develops first in children is the _____ hemisphere

- This is why children's brains under the age of 7-8 have a lot of creativity and _____ but are not able to discern between _____ and fiction, or problem solve well.

- When the Thinking brain is fully engaged, the Feeling brain _____, and when the Feeling brain is fully engaged, the we can't problem- solve well or fully use our _____

- One of the keys to self-regulation is learning to _____ our Feeling brain before it escalates, so that the Thinking brain can _____ and make better choices.

Conscious, Subconscious & Unconscious Brain states

- The brain state that we're aware of and that only represents about 5-15% of our brains functioning is the _____ brain.

- The subconscious brain is great for quick recall of _____ and recent memory.

- Habits or conditioned responses are created because the brain likes to be energy- _____

- Much of the UNconscious brain is used for long-term storage of _____, uninterrupted patterns that have become _____, and self-perpetuating feedback loops. This is helpful for general body operation. But can be unhelpful with undesired thought patterns.

- The SUBconscious brain refers back to traces of previous _____ stored in the _____ brain. That way it can try to predict an outcome and direct us to make the same choice as before, which is..... much more energy- _____

Brain Efficiency

- We all love routines that are _____ because they are highly energy-efficient for the brain.

- Conflict to the brain anything that is _____ or does not match what the brain is _____ or used to.

- Once the brain has a pattern that is repeated enough times, it gets stored in the _____ brain to run automatically.

- The brains love of familiarity is a both a blessing and an obstacle: for some things, we love the ease and comfort of routine and familiarity. But it also makes it a challenge to _____ the behaviors we don't want any more.

- The best way to start working with the brains natural resistance to change, is to _____ down and become more aware of your patterns

- However, with commitment and _____, changes in the brain also become energy _____.

Brainwave Speeds

- Brain neurons talk to each at different brainwaves speeds called _____

- Babies sleep a lot because they are primarily in _____ frequency

- Children 2-8 operate in Theta frequency, which is why they are so _____ and have a lot of _____

- The frequency where we can use both our intellect and imagination is called _____ frequency. At this speed, our brains can solve _____, make sound decisions, while ALSO accessing _____.

- Complex thought, _____ and high anxiety are often seen in high range _____ frequency. At this high-end brain speed, we can't access creativity or imagination like we can in the slower Alpha frequency.

Brain Conflict

- _____ is any information coming in through our senses that is different than what we already have 'pre-registered' in our memory as 'normal' and familiar. In other words, something different is happening, different than what my brain expected.

- This mental form of conflict is called _____ _____ . And it can be highly uncomfortable.

- Processing conflict, or 'difference' is energy-_____.

Pain Avoidance & Pleasure Seeking

- It's _____ to avoid some sort of emotional or physiological discomfort in life as a human being

- So our best bet at navigating it with the least amount of additional _____ is to train our brains and bodies to be able to work with both pleasure and pain in _____ ways, without routinely _____ in either.

- Not only does this decrease the _____ of our emotional response activation, but it makes the times when pleasure is absent, more _____.

Negativity Bias

- Our brains are like "_____" for the Good and "_____" for the Bad.

- Although this primitive default system IS a quicker way to learn, it makes us vulnerable to _____, stress and chronic _____

- Fortunately, this is one brain characteristic that can be consciously _____. And with time and practice, you can change your brain into one that more frequently notices the _____ aspects of your life

Neuroplasticity

- Neuroplasticity is the ability for the brain to _____ itself, the ability to form new _____ and pathways, compensate for injuries and _____ its response to new situations and environments.

- Our ability to change our brains all throughout our life is called self-directed _____

- The feature of frequently used brain cell pathways that allows signals to travel faster and more efficiently is called _____

Six Brain Areas we can Influence

How to Influence the "Workroom"

the cerebral cortex

- Present _____ and Conscious _____
- Mindfulness and _____ Practice

How to Influence the "Conflict Manager"

the anterior cerebral cortex (ACC)

- Practice _____ to emotional activation.
- Use it or Lose it means that the *fewer* new and uncomfortable experiences that you have, the _____ you are making the part of your brain that is able to handle upset or _____ when it *does* come.
- Practice doesn't need to be _____ to be effective

How to Influence the "Filter"

The reticular activating system

- Tell your brain what's _____ to you
- Whether you're *actually* doing something or simply *thinking* about doing something, your brain will process it and respond _____.
- Pay attention to what you _____ about.
- Work it in *reverse* by visualizing a _____ end-goal. One based on a _____ and *helpful belief* that moves you *towards* it.
- "Manifestation" requires taking _____ to reinforce the new pattern

How to Influence the "Coordinator/Label-Maker"

the amygdala

- Pay attention to the _____ or the interpretation we assign to an experience

- We can positively influence our threshold for emotional response activation by _____ down and allowing more time for our Intellect to offer up choices to be considered.

- Not responding to emotional activation is also called _____

How to influence the "Packing & Shipping Center"

the hippocampus

- There is no evidence of direct influence. But by managing _____ more effectively and self-regulating our _____ system, we COULD possibly minimize the hippocampus shrinkage that is seen with poor stress management.

- And intentionally practicing _____ and _____ thinking, we COULD positively *increase* its activity and therefor impact its growth..

How to Influence the "Expressway to Calm"

the vagus nerve

- Deep, _____ breathing.

- Social or _____ involvement and positive relationships activate the calming chemicals of the _____ more frequently.

- Increasing body _____ can help to physically process any blocked or ‘held’ emotional cycles, so that someone who has experienced a traumatic event can begin to complete the _____ physiological process.