

DCI 2023 SUMMIT

READY...SET...ACTION!

Self Efficacy and Metacognition: What does this have to do with me?





Who Is Your Presenter Today?

Dr. Kurt Ream

34 Total Years in this world we call EDUCATION.

- MS science and math teacher
- MS assistant principal
- Elementary principal
- Long term substitute-MS
- High school science teacher
- Building Administrator with the Missouri Schools for the Severely Disabled
- District Continuous Improvement for the last 2 years. (Initial West Cadre)

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What will you learn today?

I will have a brief understanding of neuroplasticity.

I can connect neuroplasticity with self efficacy and metacognition.

I will understand fixed and growth mindset.





Reflect on this quote.....

“There is nothing either good or bad but thinking makes it so.”

(Hamlet, act 2 scene 2)

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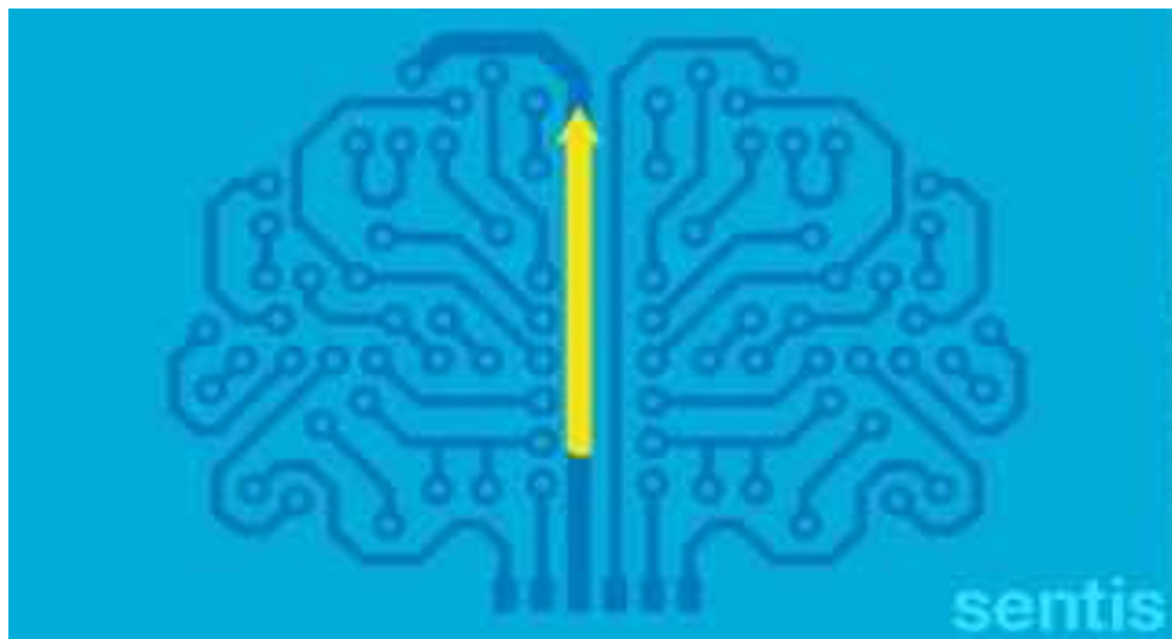


Neuroplasticity

Neuroplasticity can be viewed as a general umbrella term that refers to the brain's ability to modify, change, and adapt both structure and function throughout life and **in response to experience.**

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NEUROPLASTICITY

The Ability of the Brain to Reorganize Itself,
Both in Structure and How It Functions

HOW THE BRAIN CHANGES



NEUROGENESIS

Continuous generation
of new neurons in
certain brain regions



NEW SYNAPSES

New skills and
experiences
create new neural
connections



STRENGTHENED SYNAPSES

Repetition and
practice strengthens
neural connections



WEAKENED SYNAPSES

Connections in the
brain that aren't used
become weak

Intermittent
Fasting

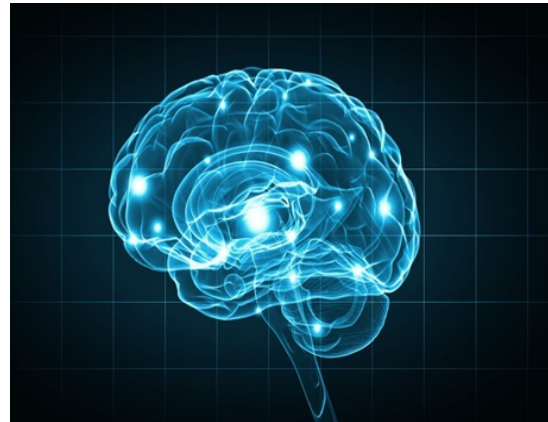
Traveling

Using Memory
Devices

Learn a
Musical Instrument

Improve Neuroplasticity

Non-
Dominant
Hand
Exercises



Reading
Fiction

Expanding Your Vocabulary

Creating Artwork

Dancing (Exercise)

Sleeping



A word about Stress

Chronic stress: Cortisol levels get constantly elevated, which can eventually start to cause problems with digestion, **sleeping**, and even interfere with the immune system.

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Back to quote....

“There is nothing either good or bad
but thinking makes it so.”
(Hamlet, act 2 scene 2)

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Moving forward.

Thinking about neuroplasticity
and the connection to self-
efficacy and metacognition.

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Self-efficacy is...

...a person's belief in his or ability to succeed in a particular situation. Bandura described these beliefs as determinants of how people think, behave, and feel (1994).

Synonyms for Self-efficacy; self-belief, self-confidence, complete confidence, confidence.

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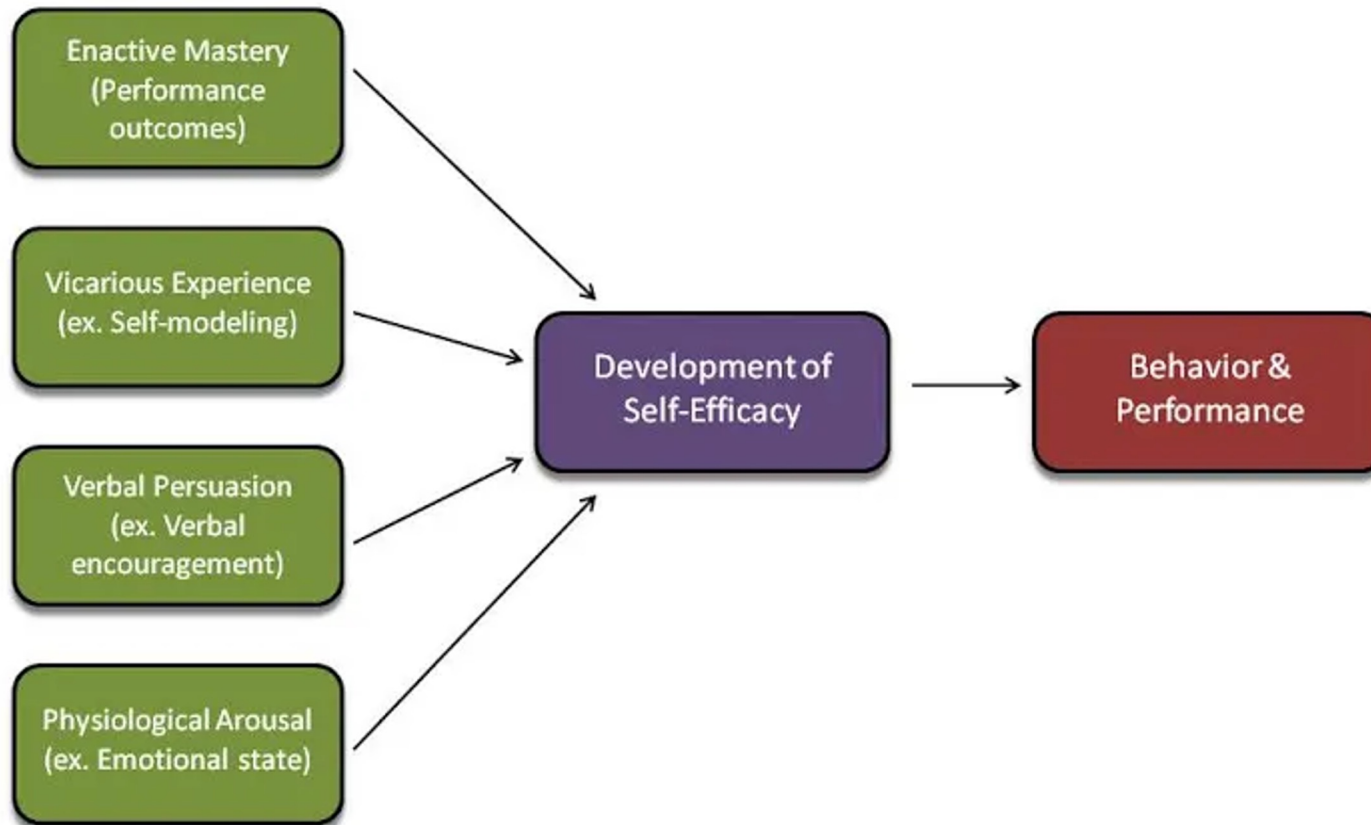


Four Main Sources of Efficacy



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Sources of Self-Efficacy



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Neuroplasticity and Self Efficacy

Remember neuroplasticity is connected to...brain's ability to modify, change, and adapt both structure and function throughout life and in response to experience.

In simpler terms, self-efficacy is your BELIEF that you can succeed in a particular situation.

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Metacognition

Metacognition is thinking about thinking and knowledge and understanding of what we know and how we think, including **the ability to regulate our thinking** as we work on a task.
(McElwee, 2009)

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Metacognition causes neuroplasticity.

Psychology says that metacognition can create new neural connections through internal communication between the neural networks. *Good metacognition, therefore, strengthens our ability to improve the internal communication of our brain and organism.*

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8 WAYS TO DEVELOP METACOGNITIVE SKILLS

It's okay if you don't know everything

Knowing the gaps in your knowledge is key

Set yourself great goals

Goals should be both challenging and realistic

Seek out feedback

This improves your knowledge base, helping you make better choices

React better to the feedback you receive

Feedback that is sought but not acted upon is a wasted opportunity



Monitor your performance

Don't wait until the end to see how you are doing

Keep a diary and write in it

This will improve self-awareness

Ask yourself good questions

This helps maintain conscious awareness of where you are and where you intend to go

Fail to prepare, prepare to fail

Leaving 'things' last minute will only makes 'things' harder



If metacognition is “thinking about thinking”,
then what are you thinking?

Are you thinking in a fixed mindset or a growth
mindset?

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GROWTH MINDSET

SKILLS ARE BUILT
YOU CAN LEARN
AND GROW

THE PROCESS
GETTING BETTER

BELIEFS

FOCUS

SKILLS ARE BORN
YOU CAN'T LEARN
AND GROW

PERFORMANCE
OUTCOMES
NOT LOOKING BAD

FIXED MINDSET

KEY INGREDIENTS TO GROWTH

USEFUL - LEADS
TO GROWTH

EMBRACE &
PERSEVERE - FRAME
AS AN OPPORTUNITY

USE THEM TO
LEARN

APPRECIATE &
USE IT



NOT NECESSARY
NOT USEFUL

BACK DOWN &
AVOID - FRAME AS
A THREAT

HATE THEM
GET DISCOURAGED
AVOID THEM

NOT HELPFUL
GET DEFENSIVE
TAKE IT PERSONAL

Effort

Challenge

Failure

Feedback

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Growth mindset.

Self-aware people want to improve on their weaknesses and use their strengths for good. This growth mindset means they seek to improve themselves and the world.

Tony Robbins

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What are the implications for you and the role you play in your educational setting?

1. You can begin to **MASTER** more experiences in your educational setting while creating a positive learning environment for yourself.
2. You can create **VICARIOUS** experiences and model for colleagues a new spirit of positive thinking.
3. You can become better at **SOCIAL PERSUASION** by becoming a trusted source of information and feedback to others.
4. You become more aware of your **AFFECTIVE STATE** and can be in charge of your own stress and emotions.

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One Minute Statement

In your own words, write a learning statement about neuroplasticity, self-efficacy, and metacognition.

Then share what you wrote with your table partner.

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One Last Thought-Two Wolves



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One evening, an elderly Cherokee brave told his grandson about a battle that goes on inside people. He said, "My son, the battle is between two 'wolves' inside us all. One is evil. It is anger, envy, jealousy, sorrow, regret, greed, arrogance, self-pity, guilt, resentment, inferiority, lies, false pride, superiority, and ego. The other is good. It is joy, peace, love, hope serenity, humility, kindness, benevolence, empathy, generosity, truth, compassion, and faith." The grandson thought about it for a minute and then asked his grandfather, "which wolf wins?" The old Cherokee simply replied, "The one that you feed."

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Thank you!!!!



Dr. Kurt S. Ream

DCI Consultant - Regional Professional Development Center - UCM

311 E. Clark Street (Foster Knox RM 232)

Warrensburg, MO 64093 Office: 660-543-8240 FAX: 660-543-8245 Cell: 660-909-1603

Email: kream@ucmo.edu

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