

Applying Learning Science Assessment to Close Equity Gaps and Improve Career Readiness

Marilee Bresciani Ludvik, Ph.D.

She/Her/Hers

Indigenous Residence: Kumeyaay

Professor, ARPE, San Diego State University

**Faculty Fellow, Office of Curriculum, Assessment, and
Accreditation**

mbrescia@sdsu.edu

Stephen Schellenberg, Ph.D.

He/Him/Hiss

Indigenous Residence: Kumeyaay

Professor, Geologic Sciences

**Associate Vice President, Office of Curriculum, Assessment, and
Accreditation**

saschellenberg@sdsu.edu

What drew you To this session?

Please go to:
www.menti.com
(Open in a separate browser)
and use the code 59 99 43 1



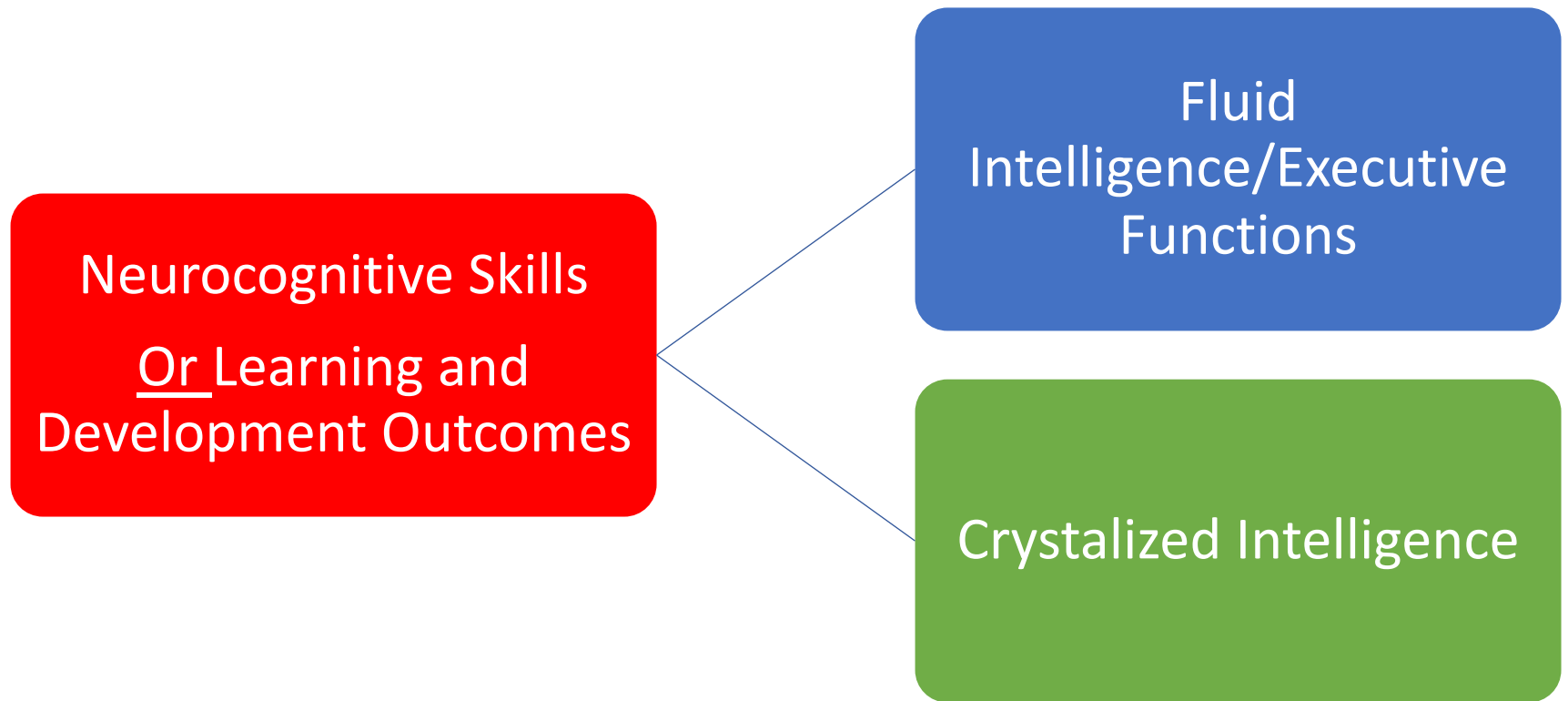
THEORETICAL CONTEXT SETTING: NEURODIVERSITY

Learning and Development are inextricably
intertwined

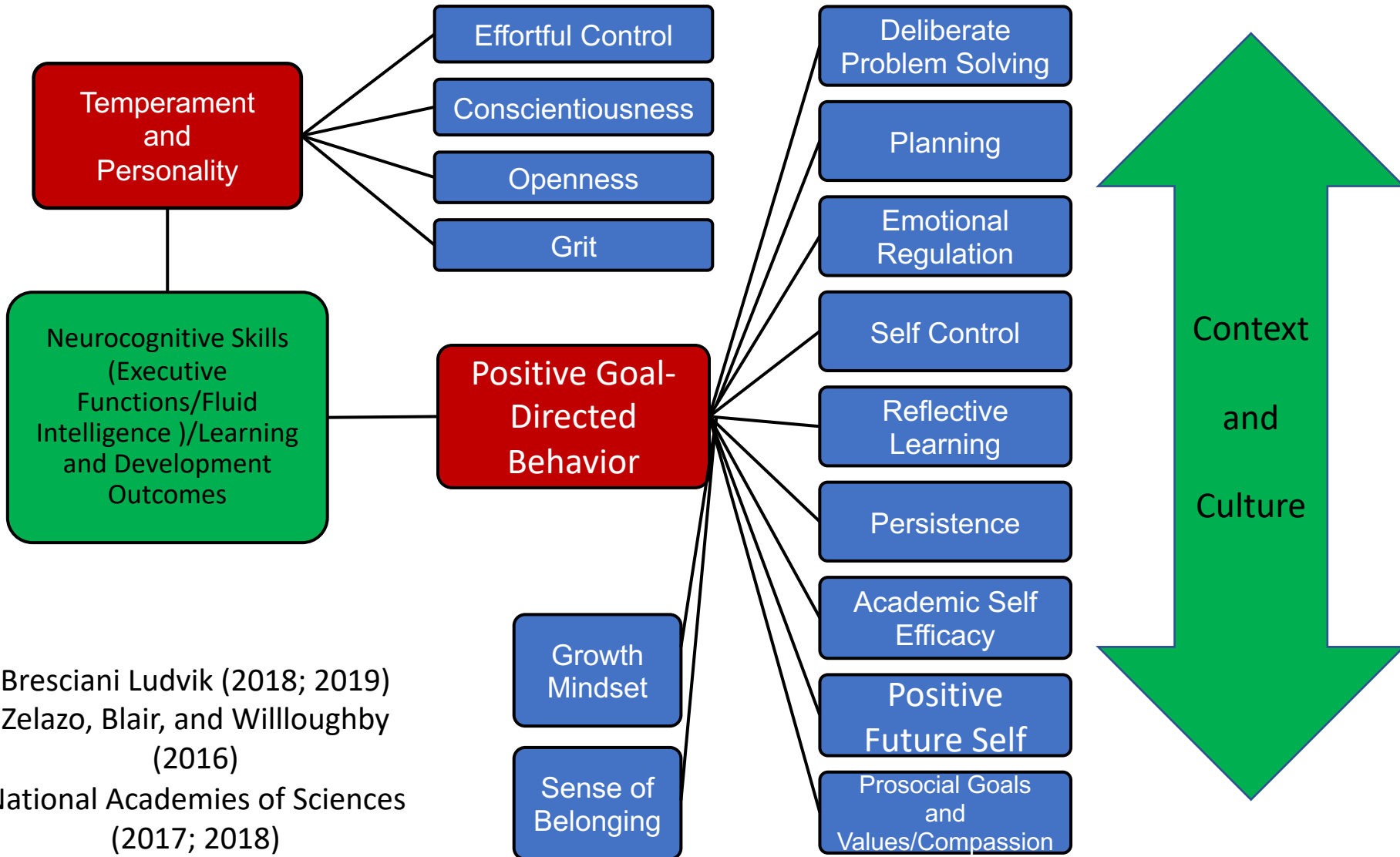
Student Learning Imperative, 1996

Learning and Development as Neurocognitive Skills

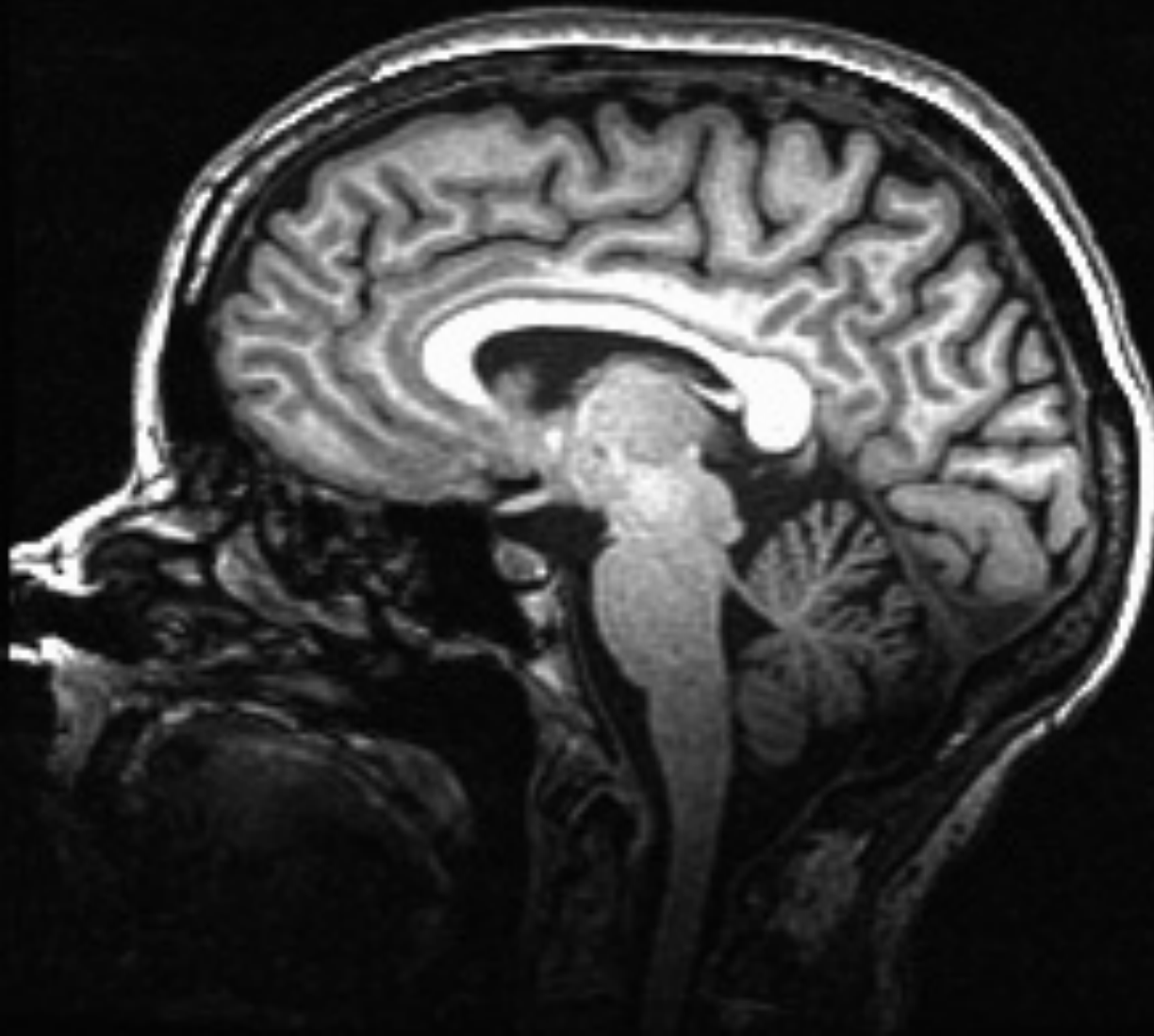
(Bresciani Ludvik, 2018; Zelazo, Blair, and Willoughby, 2016)



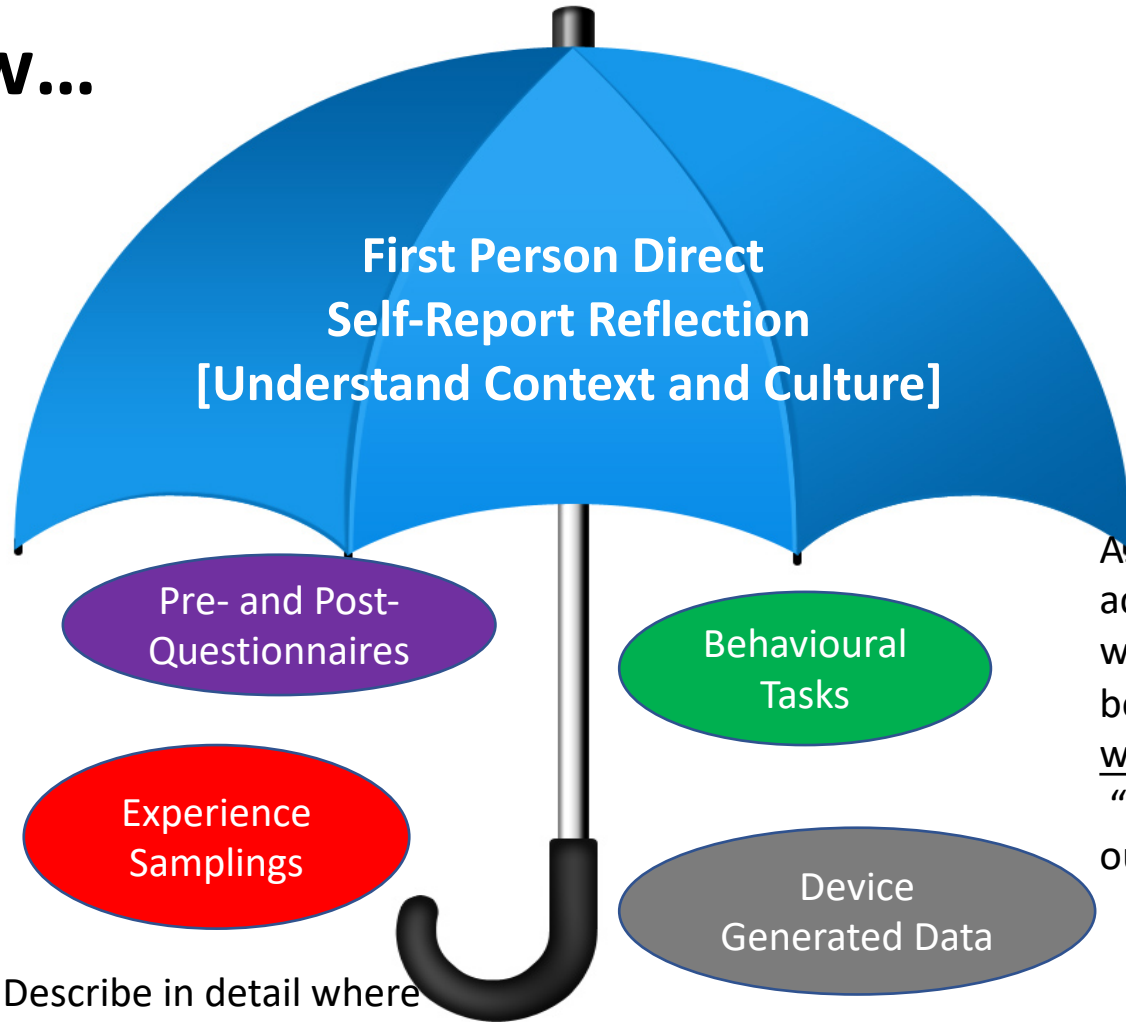
Map of Fluid Intelligence/Executive Functions to Specific Learning and Development Outcomes



NEUROPLASTICITY



How Do We Know...



Examples include:
BAI; PSS; FFMQ;
MDCS, etc

Assessed
activity/assignment
where behaviour can
be observed either
within the designed
“intervention” or
outside of

Reflective Practice - Describe in detail where
emotion regulation was experienced –
within or outside the designed “intervention” and 360
observations

Not Applicable Here

(Bresciani Ludvik 2020)

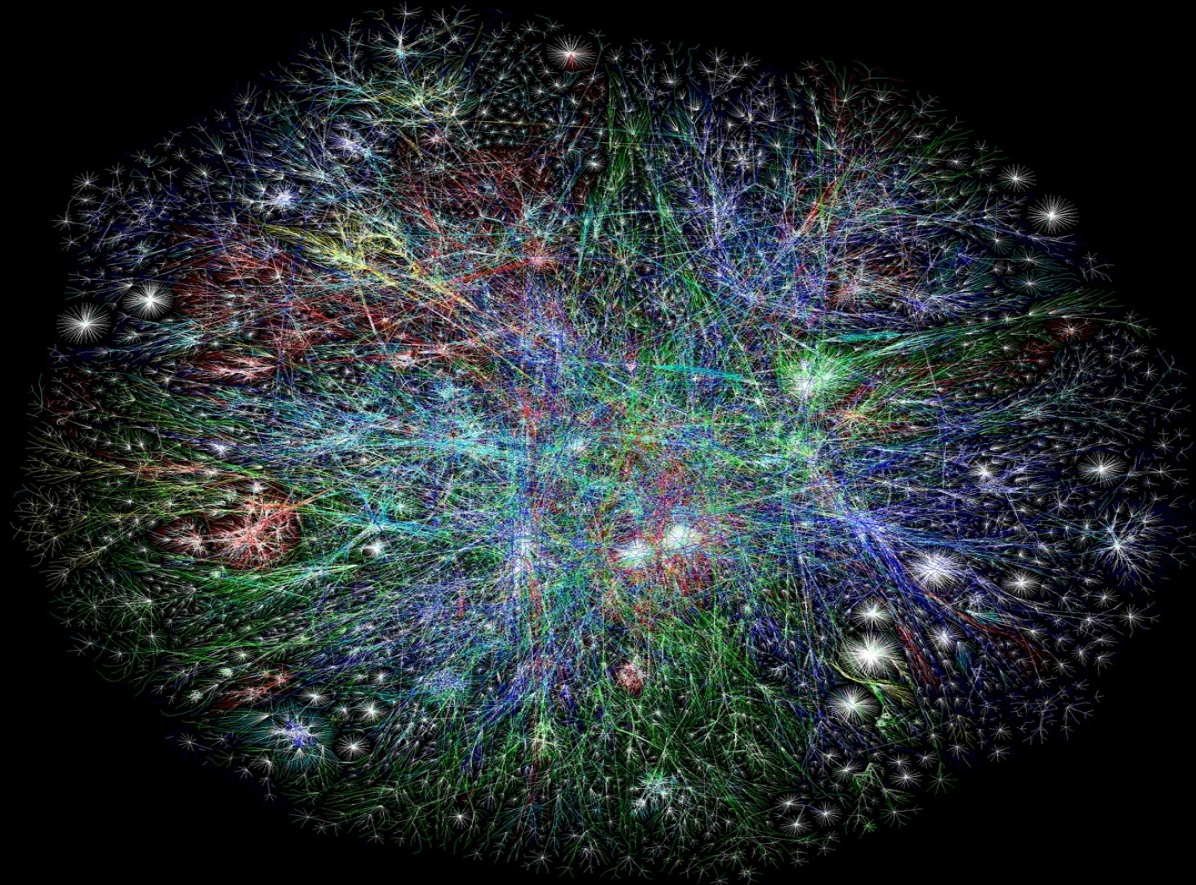
**What age groups are
You predominately
serving?**

Please go to:
www.menti.com
(Open in a separate browser)
and use the code 59 99 43 1



“When we try to pick out anything by itself, we find it hitched to everything else in the universe.”

- John Muir



INSIDE THE TEENAGE BRAIN

Adolescents are prone to high-risk behaviour

Prefrontal Cortex

Its functions include planning and reasoning; grows till 25 years

Adults Fully developed

Teens Immature, prone to high-risk behaviour

Amygdala

Emotional core for passion, impulse, fear, aggression.

Adults Rely less on this, use prefrontal cortex more

Teens More impulsive



Parietal Lobe

Responsible for touch, sight, language; grows till early 20s

Adults Fully developed

Teens Do not process information effectively

Ventral Striatum

Reward centre, not fully developed in teens

Adults Fully developed

Teens Are more excited by reward than consequence

Hippocampus

Hub of memory and learning; grows in teens

Adults Fully functional; loses neurons with age

Teens Tremendous learning curve

Typical Developing Brain Keys

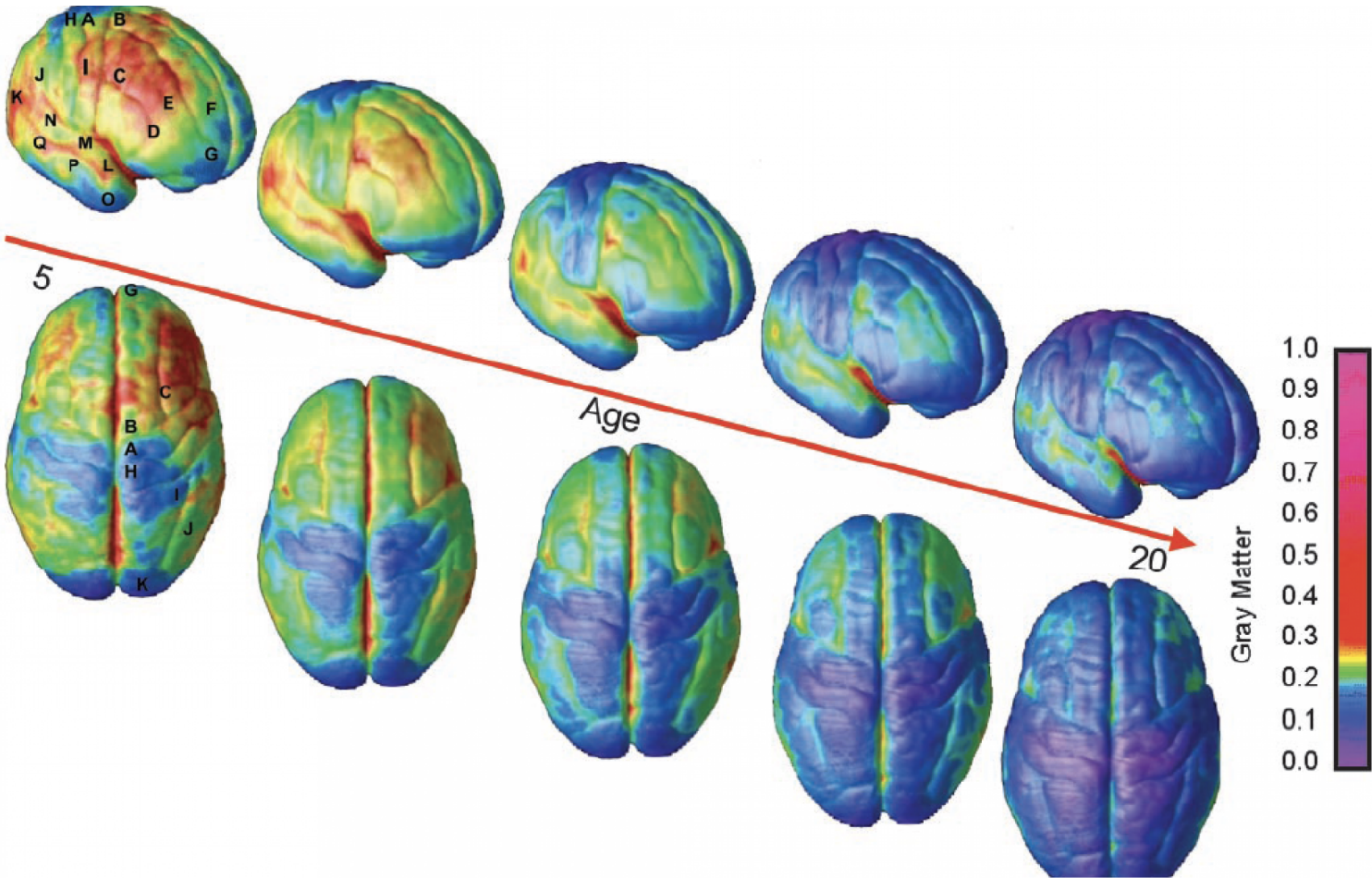
Optimal Neural Development

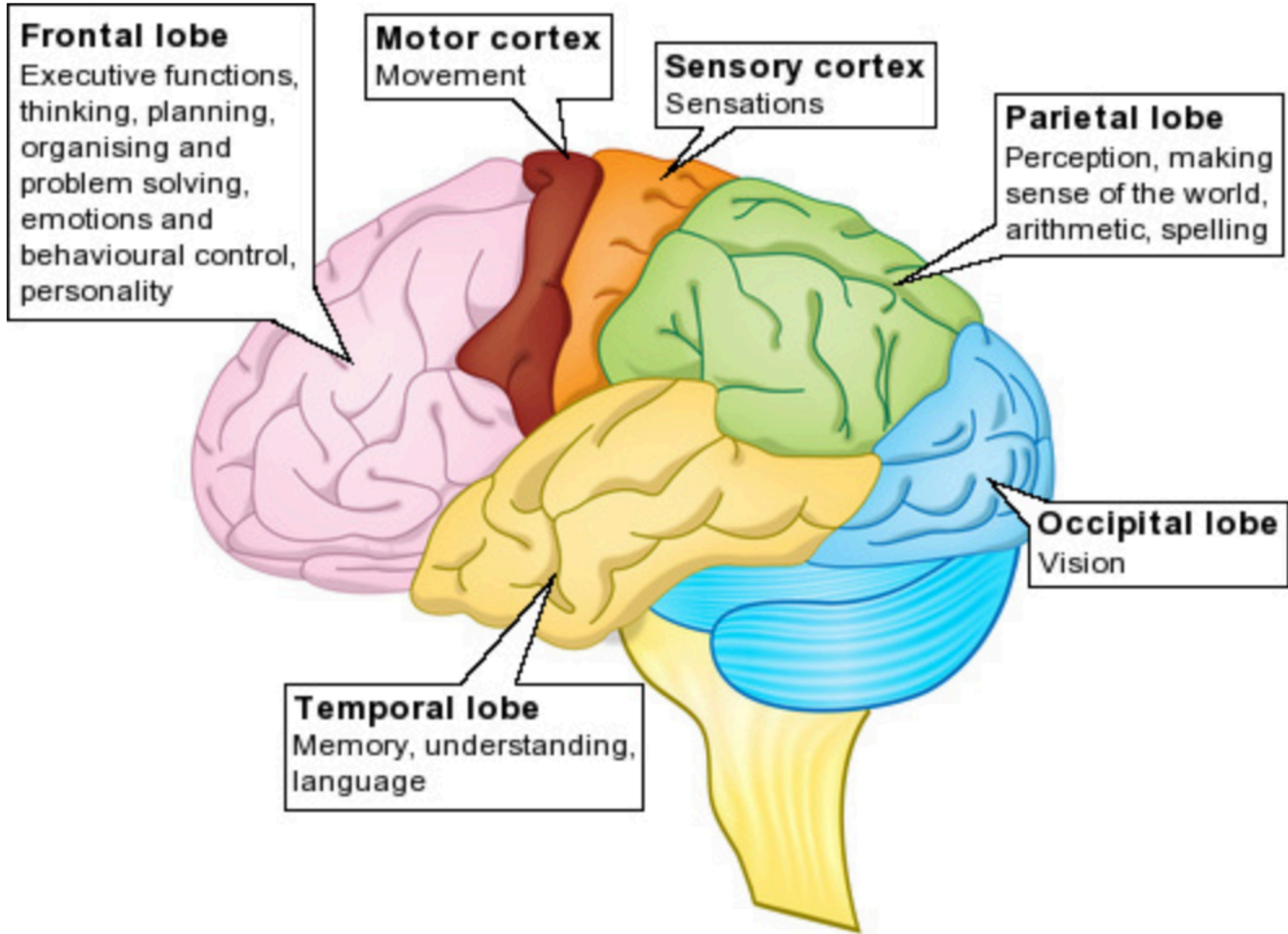
- Ages 0-2-ish
- Ages 16-20-ish

Neural Pruning Quickly Follows

- Neural connections are strengthened or pruned away
- Environment influences pruning
- Choice influences pruning

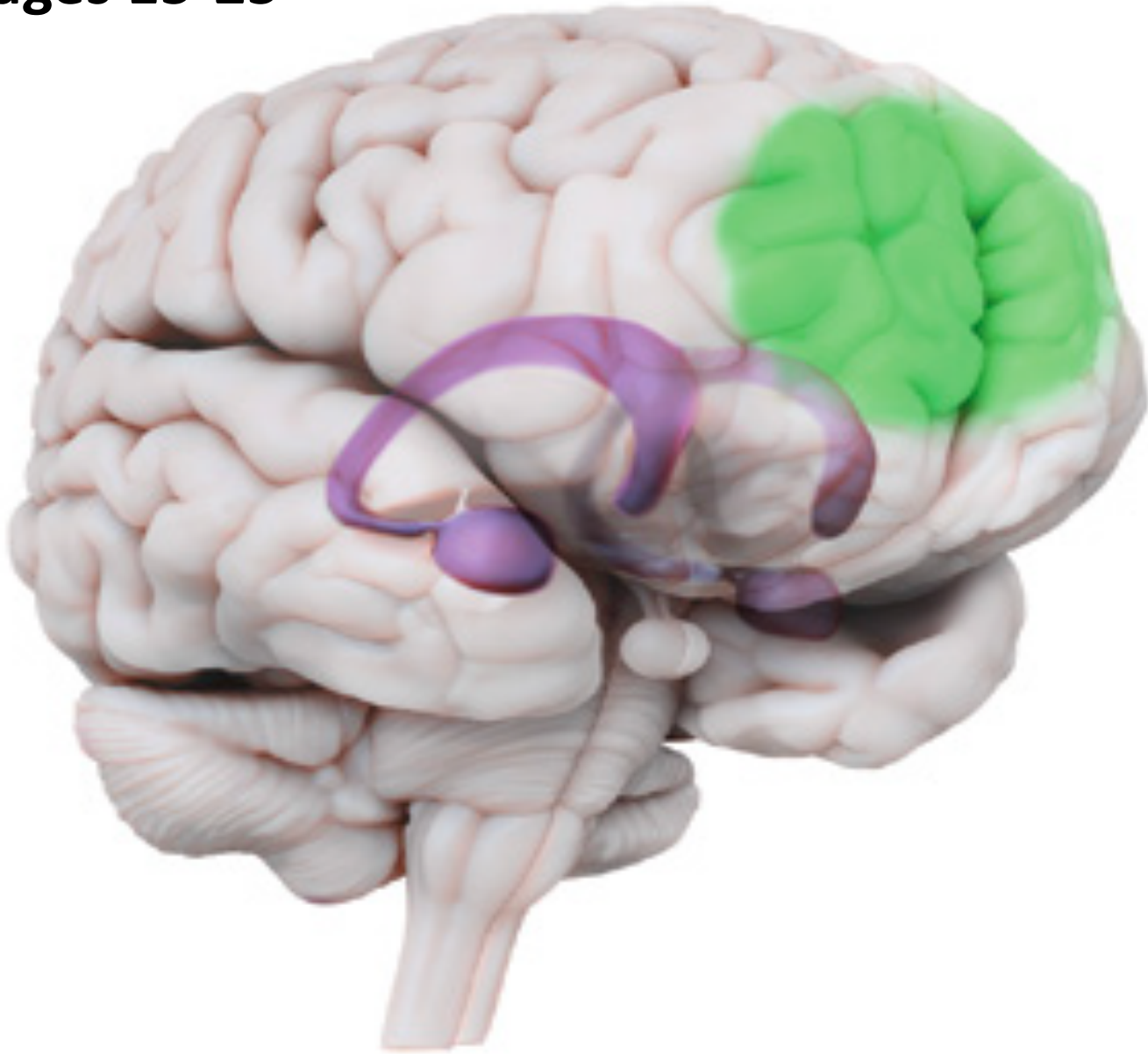
Connectivity and Neural Development





Significant Developmental Mismatch between ages 15-25

(Giedd, 2015)



Deep Breathing or Focused Breathing Exercise



REFLECT

What are
you
noticing
right now?

What is
possible
from here?



Please go to:

www.menti.com

(Open in a separate browser)

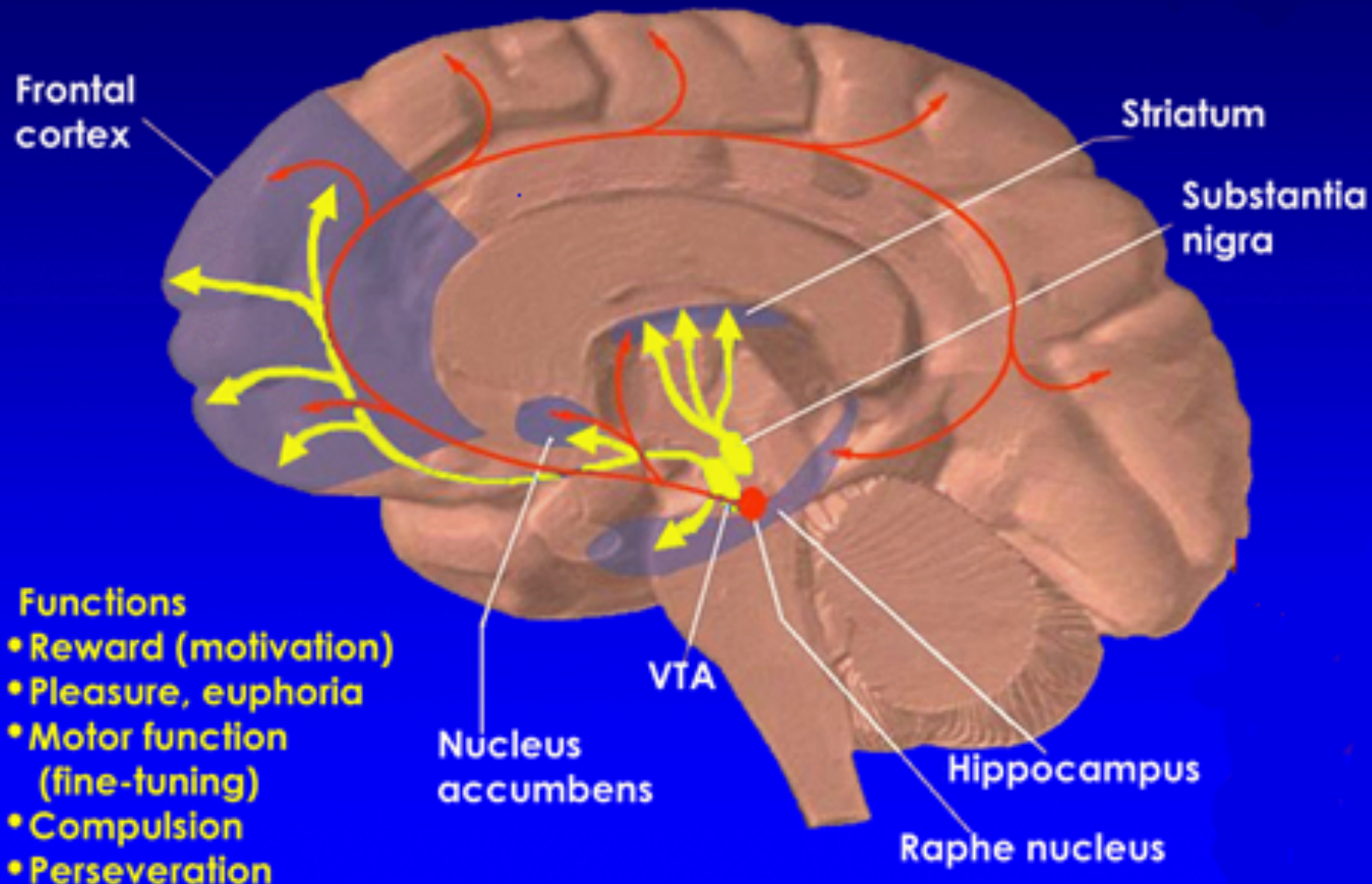
and use the code **59 99 43 1**

Provide Multiple Forms of Healthy Expression

(movement, videos, music,
poetry, art, reflective writing,
2-minute journaling, etc.)

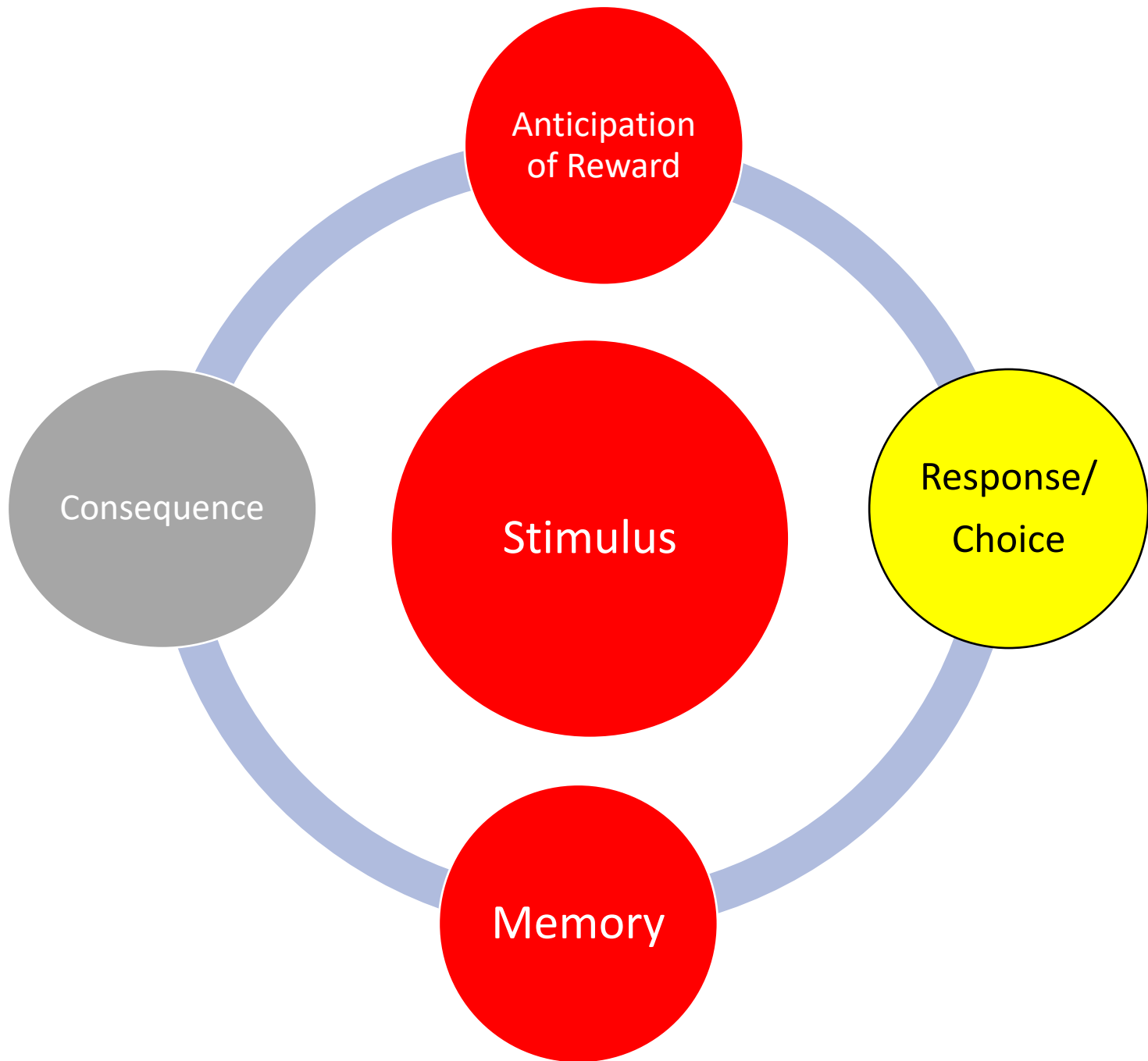


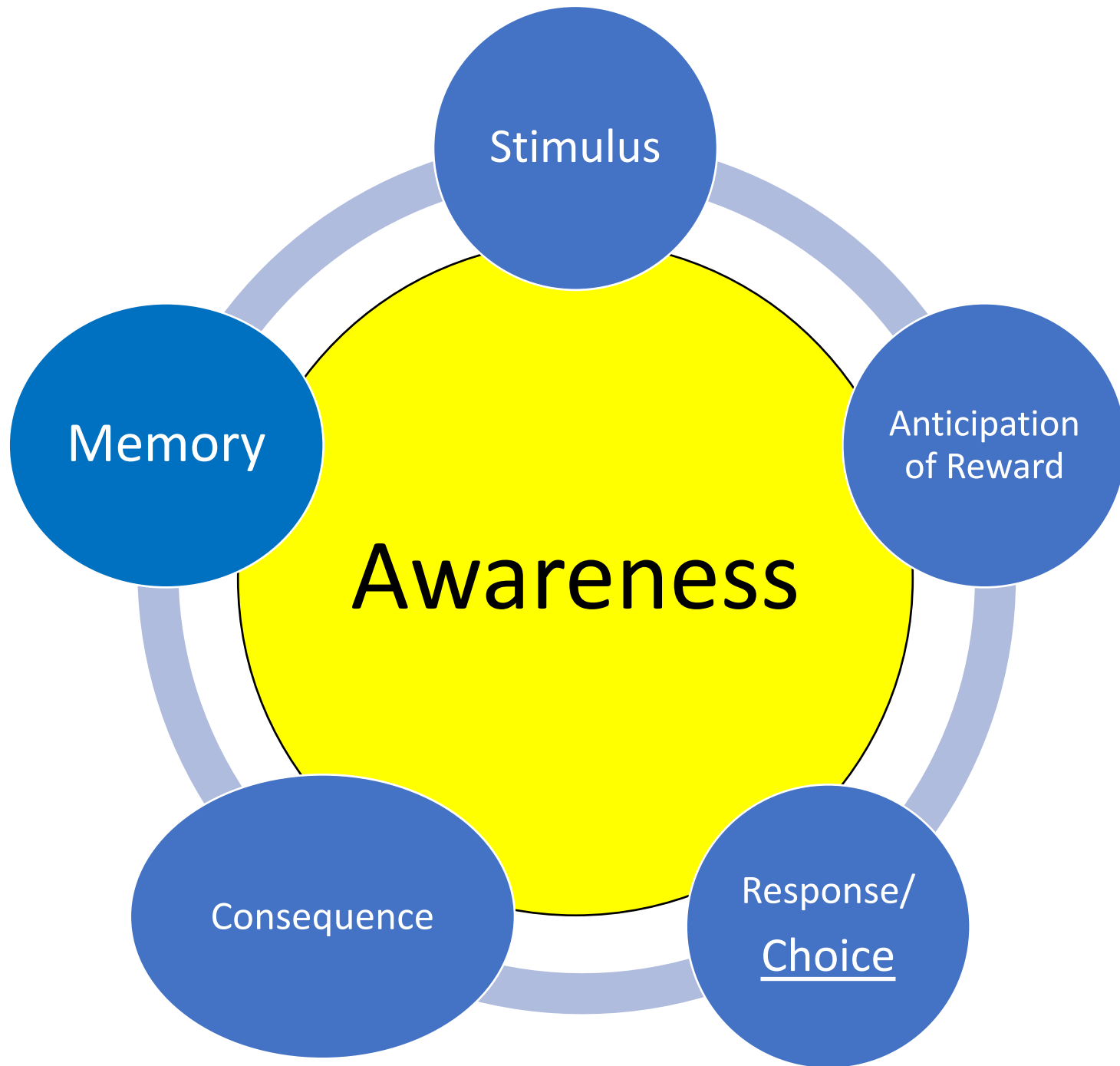
Dopamine Pathways



Functions

- Reward (motivation)
- Pleasure, euphoria
- Motor function (fine-tuning)
- Compulsion
- Perseveration





Stimulus

Anticipation
of Reward

Awareness

Response/
Choice

Consequence

Memory

Guided Reflective Exercises



Environment is Everything



Self-Compassion Steps

- Notice pain and suffering
- Name pain and suffering
- Validate pain and suffering
- Connect with common humanity
- Offer soothing words that you would offer to a best friend
- Offer soothing touch, if appropriate
- Ask, what do I need in this moment?
- Give permission to self to (silently) act on that need -as long as it doesn't harm self or others



- Account
- Dashboard
- Courses
- Calendar
- Inbox
- Commons
- Studio
- Help

Commons Search Shared Imported Updates (2) Favorites

Guides

Edit Resource Remove from Commons

Back to Search

0 Favorites 0 Downloads 8/18/20 Copyrighted

SDSU University Seminar Course

Preview Details Version notes

CANVAS COMMONS

– Search under Marilee Ludvik



- Import/Download
- Add to Favorites
- Copy Resource Link

Please go to:

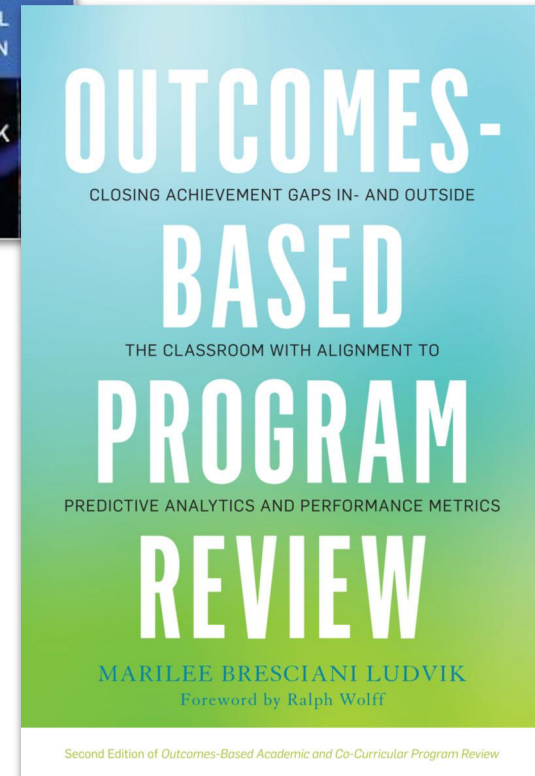
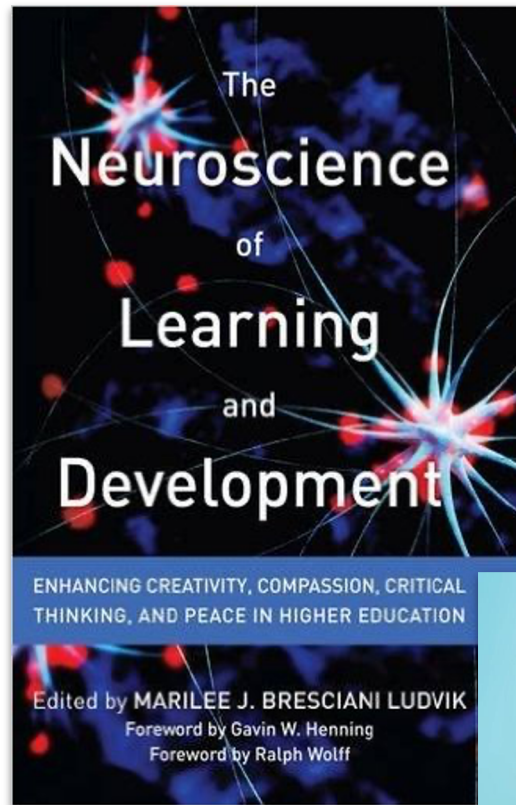
www.menti.com

(Open in a separate browser)

and use the code 59 99 43 1

Look for the
Forthcoming Book
and Interactive Online
Course from
NASPA on the **EQHA**
Inquiry Process

www.naspa.org



FREE Resources

POSITIVELY
TRANSFORMING
MINDS WITHIN
EDUCATIONAL
SYSTEMS

EVIDENCE-BASED
PRACTICES
FOR ADOLESCENTS,
YOUNG ADULTS,
AND THE TEACHERS
WHO SERVE THEM

Mbrescia@sdsu.edu

www.rushingtoyoga.org



Marilee Bresciani Ludvik, Ph.D.

619-733-3278

Mbrescia@sdsu.edu