

How Learning Science Influences the Assessment of Learning and Development

- Marilee Bresciani Ludvik, Ph.D.
- She/Her/Hers
- <u>Honoring Native Land</u>: Kiikaapoi, Jumanos, Tawakoni, Wichita, Comanche
- Professor and Chair, Educational Leadership and Policy Studies
- Director, Intrapersonal Competency Cultivation Research Team
- University of Texas Arlington
- Marilee.Ludvik@uta.edu
- <u>https://competencycultivation.uta.edu</u>

What drew you To this session?

Please go to: www.menti.com (Open in a separate browser) and use the code 2210 0823

THEORETICAL CONTEXT SETTING: NEURODIVERSITY

Learning and Development are inextricably intertwined

Student Learning Imperative, 1996

Learning and Development as Neurocognitive Skills

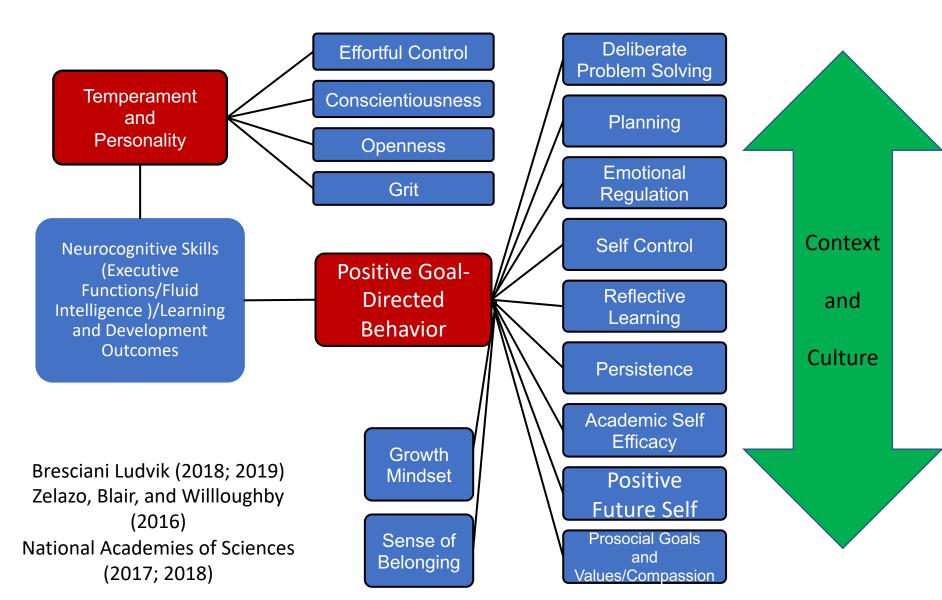
(Bresciani Ludvik, 2018; Zelazo, Blair, and Willloughby, 2016)

Neurocognitive Skills <u>Or</u>Learning and Development Outcomes

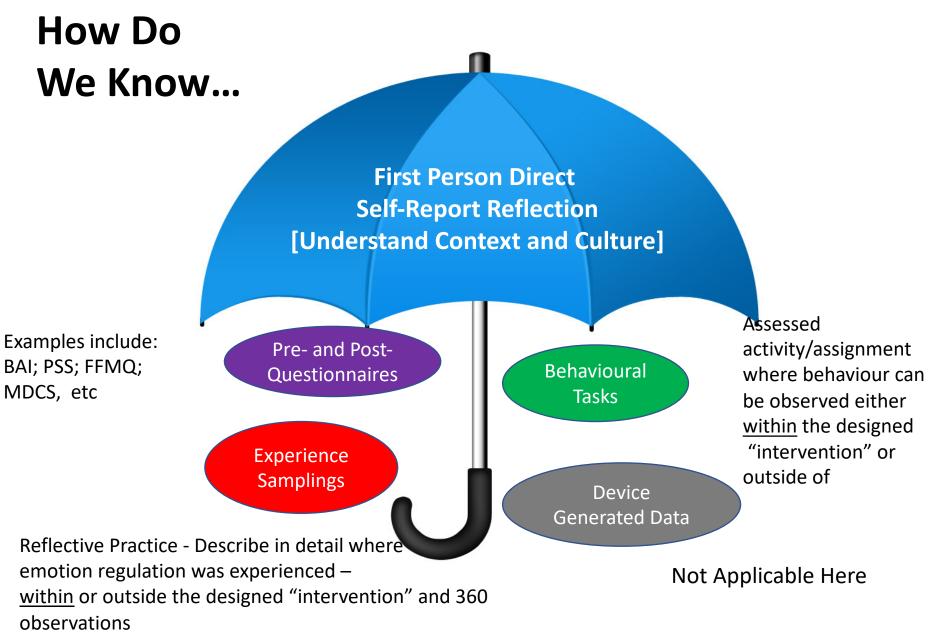
Fluid Intelligence/Executive Functions/Intrapersonal Competencies

Crystalized Intelligence

Malleable Fluid Intelligence/Executive Functions/IPC to Specific Learning and Development Outcomes



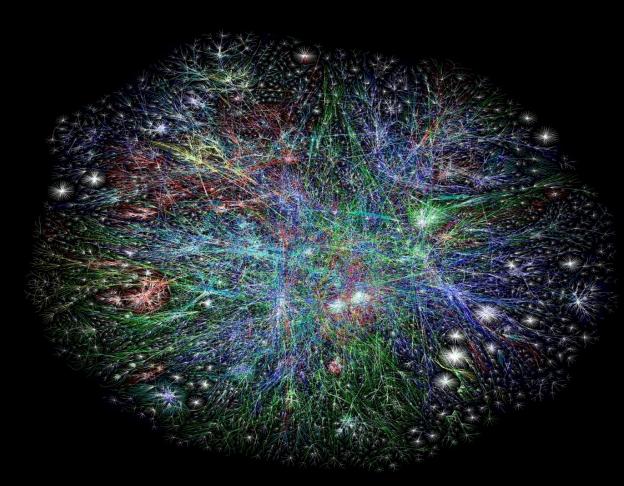
NEUROPLASTICITY

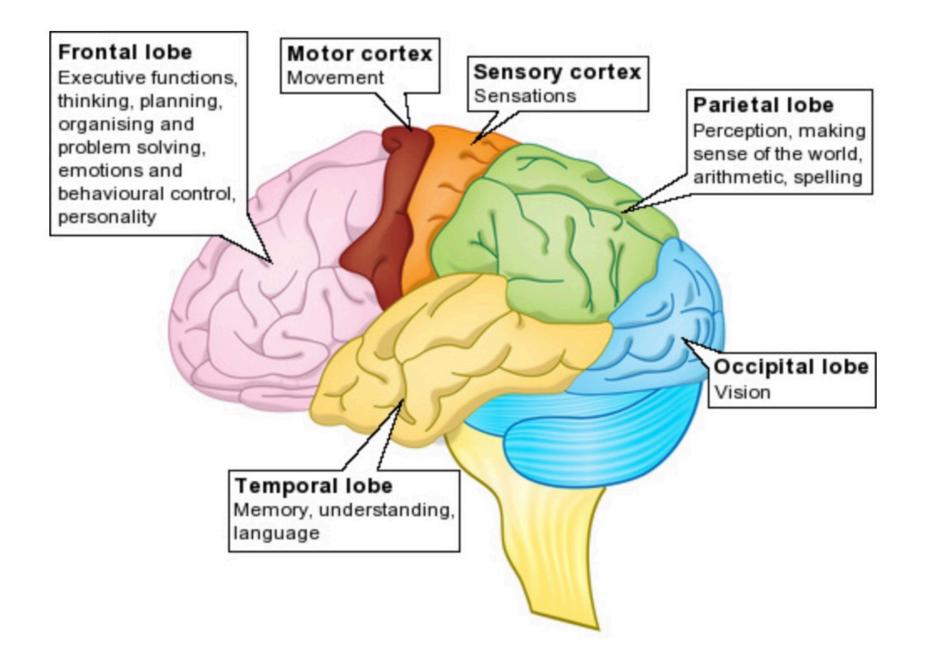


(Bresciani Ludvik 2020)

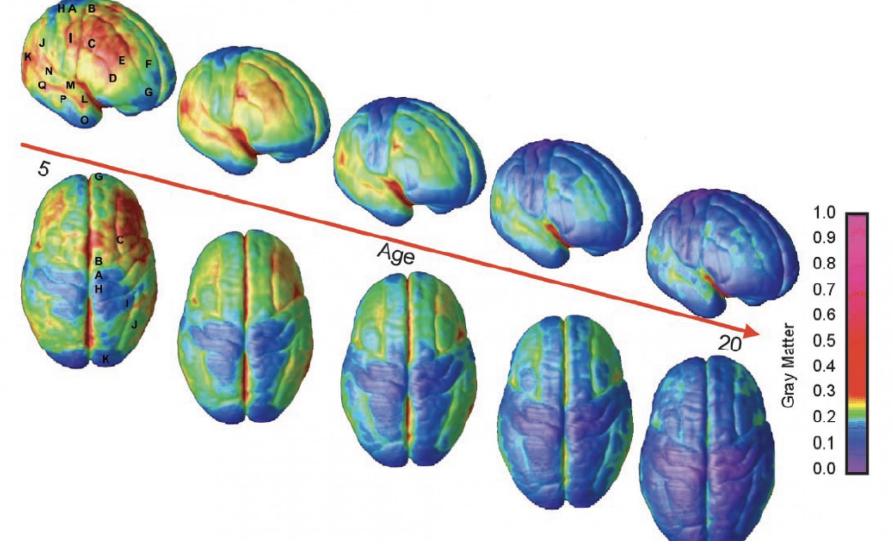
"When we try to pick out anything by itself, we find it hitched to everything else in the universe."

- John Muir





Connectivity and Neural Development of a Typically Developing Brain



Typical Developing Brain Keys

Optimal Neural Development

Neural Pruning Quickly Follows

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

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

Typically Significant Developmental Mismatch between ages 15-25

(Giedd, 2015)



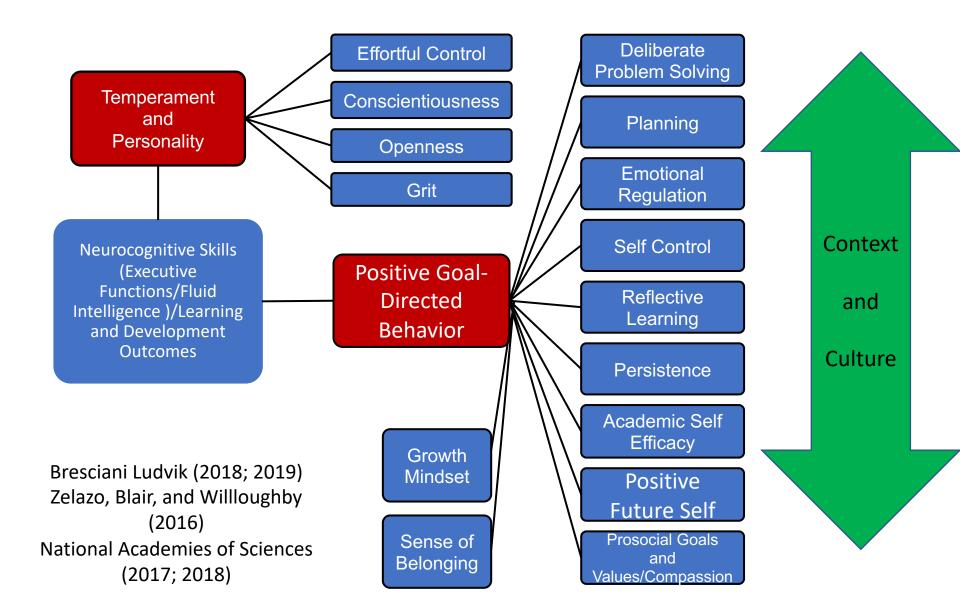
The Global Pandemic... (Bresciani Ludvik et al, In Press)

наs messed with everyone's typical brain development

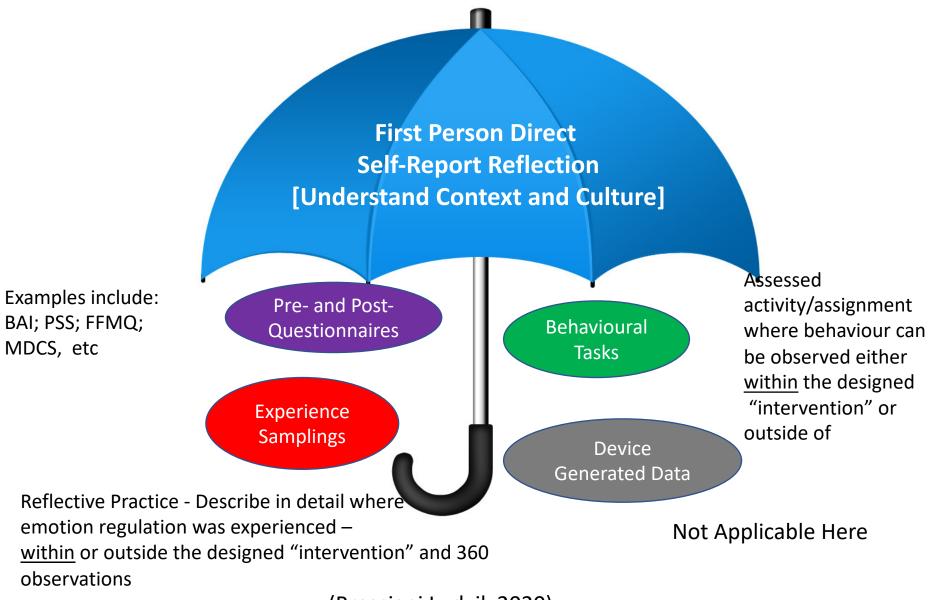
Culture and Context are still everything and now, even more So

Students want more just in time, on demand support (regardless of the age)

Assessing these Has Become Much More Important

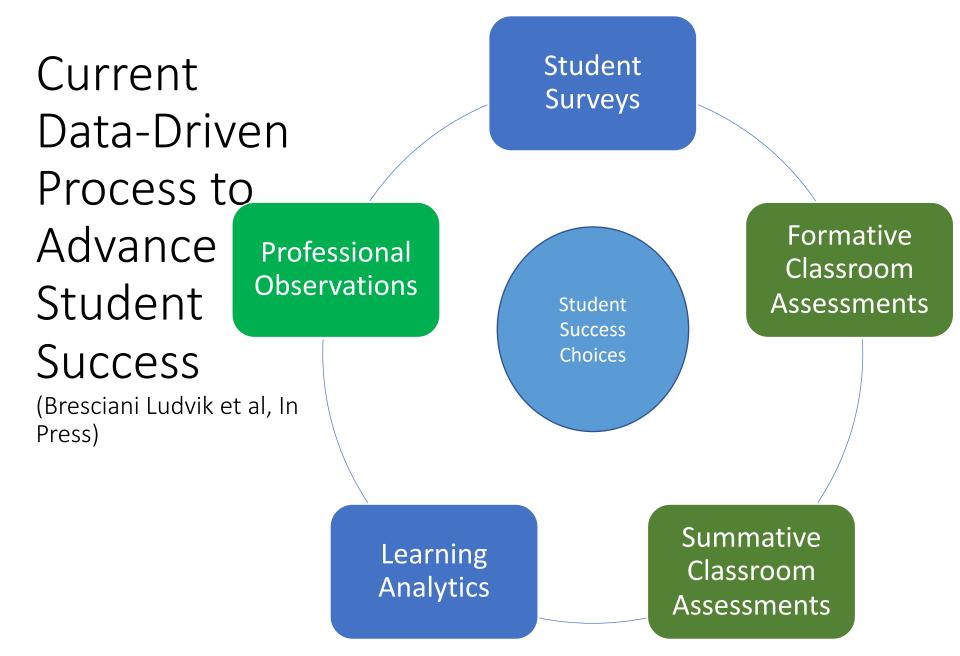


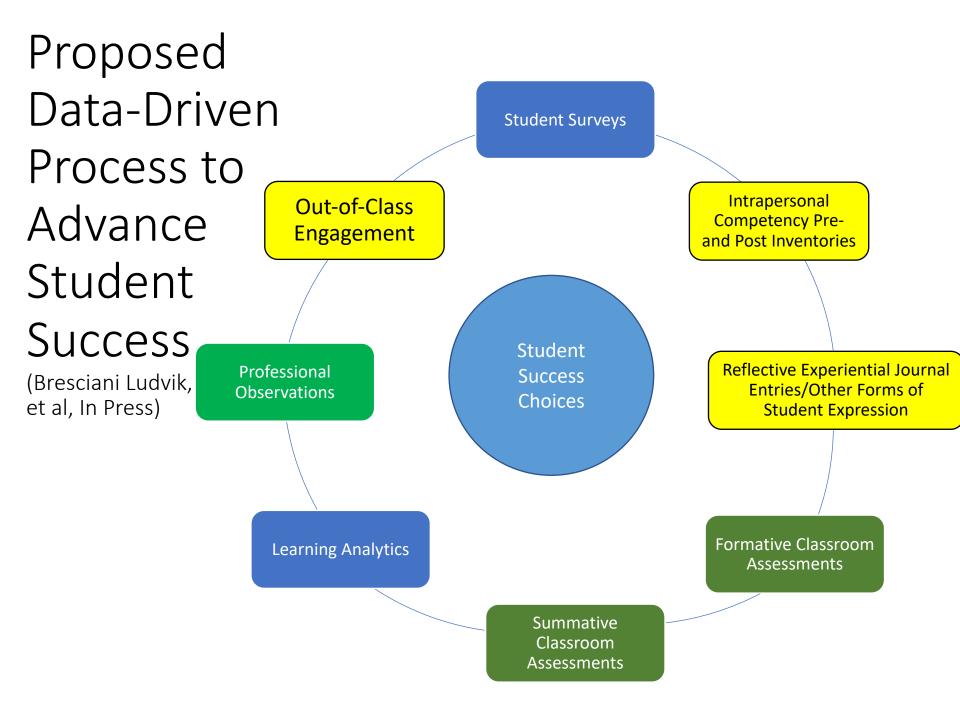
Collecting First-Person Direct Self-Report!!!



(Bresciani Ludvik 2020)

Teaching and Assessing: Provide Multiple Forms of Healthy Expression (movement, videos, music, poetry, art, reflective writing, 2-minute journaling, etc.)





Learning Analytic Data Example

(Bresciani Ludvik, et al, In Press)

Engagement (LMS)	Academic Progress	Academic Performance	Area of Study			
Custom	Enrollment	Standardized Tests	Background Demographics			
Financial Aid						

Adding Out-of-Class Engagement and Professional Observations to Learning Analytics

(Bresciani Ludvik, et al, In Press)

Type of Out-of-Class Student Engagement/Activity	Frequency of Out-Class Student Engagement Activity	Type of HIP	Frequency of HIP
Type of Advising	Frequency of Advising	Outcomes of Advising	Student Survey Results
Appointment/Student	Appointment/Student	Appointment/Student	
Success Coaching	Success Coaching	Success Coaching	
Appointment	Appointment	Appointment	

Adding Emotive Student Voice to Learning Analytics via NLP

(Bresciani Ludvik, et al, In Press)

Pre- and Post-Intrapersonal Competency Inventory Scores Weekly Reflective Journal Prompts about the Provided Experience

Open-Ended Survey Question Responses

Various Analytical Approaches

(Bresciani Ludvik, et al, In Press)



MANOVA SEM	MLM with Interactions	Psychometric Analysis on Inventories	NLP
------------	--------------------------	--	-----

Questions and Comments?

Please go to: www.menti.com (Open in a separate browser) and use the code 2210 0823



EQUITY-DRIVEN, HIGHACHIEVEMENT Assessment of Student Learning and Development

Marilee Bresciani Ludvik

With contributions from Marjorie Dorimé-Williams, Lara Evans, Mari Guillermo, Brianna Lynn Kuhn, Valerie Nye, Bill Sayre, Caren Sax, Charlene Teters, Andrea Vonny Lee, Stephen Wall, and Felix Wao



Neuroscience

of

The

Learning

Development

ENHANCING CREATIVITY, COMPASSION, CRITICAL THINKING, AND PEACE IN HIGHER EDUCATION

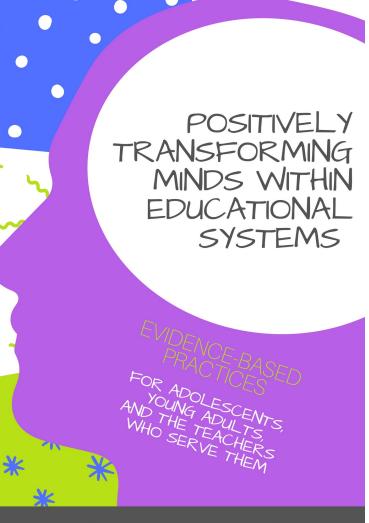
Edited by MARILEE J. BRESCIANI LUDV Foreword by Gavin W. Henning Foreword by Ralph Wolff

OUTCOMES-CLOSING ACHIEVEMENT GAPS IN- AND OUTSIDE BASSED THE CLASSROOM WITH ALIGNMENT TO BROGGRAAD PREDICTIVE ANALYTICS AND PERFORMANCE METRICS REVERSE

MARILEE BRESCIANI LUDVIK Foreword by Ralph Wolff

FREE Resources

www.rushingtoyoga.org



Marilee J. Bresciani Ludvik, Ph.D.

THANK YOU to the TEAM!!!

Marilee Bresciani Ludvik Kimshi Hickman **Catherine Robert** Danielle Klein Amanda Olsen Mitch Strahlman Ashley Purgason Denisse Avila



Pete Smith Elizabeth Caden Clinton Powers

Henry Isaac Anderson

Farhan Fahim Afshan Boodhwani Shiming Zhang From San Diego State University:

Stephen Schellenberg Sandy Kahn Nina Potter Lisa Gates



Marilee Bresciani Ludvik, Ph.D.

619-733-3278 Marilee.Ludvik@uta.edu

https://competencycultivation.uta.edu/