ASSESSING COURSE DESIGN'S INFLUENCE ON STUDENT LEARNING: EXPLORING IT FROM A SOCIAL, EMOTIONAL, AND NEUROCOGNITIVE LENS

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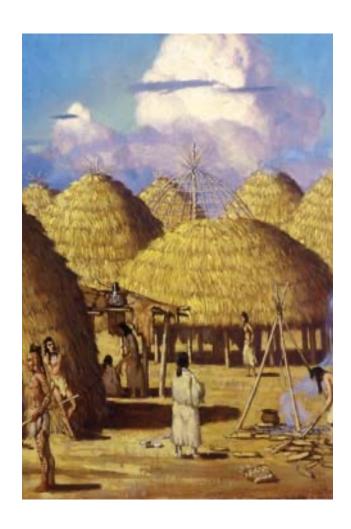
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UTA Land Acknowledgment

- We are all joining in this conference from lands that have been stewarded by indigenous people.
- Please take a moment to name them with honor in a very specific way. For URA, we are sitting on lands that were stolen from the Caddo in 1841 when over 200 of their homes were burned by those colonizing the area.
- Over the next 18 years, surviving members of the Delaware, Chickasaw, Waco, Tawakani, Keechi, Caddo, Anadahkah, Ionie, Biloxi, and Cherokee were pushed into Western Oklahoma.
- Today, descendants have returned to this land to remind us to honor the land on which we live and work;
 - · to be wise stewards of the land; and
 - to carry the wisdom of our ancestors within us.



Student Learning Science
Student Learning Assessment
Connect Learning with Assessment to
Course Design's Influence on Student Learning

Min-Content Reflection Interactive Sharing via Menti.com Resources

OVERVIEW



What do you hope to gain from today?

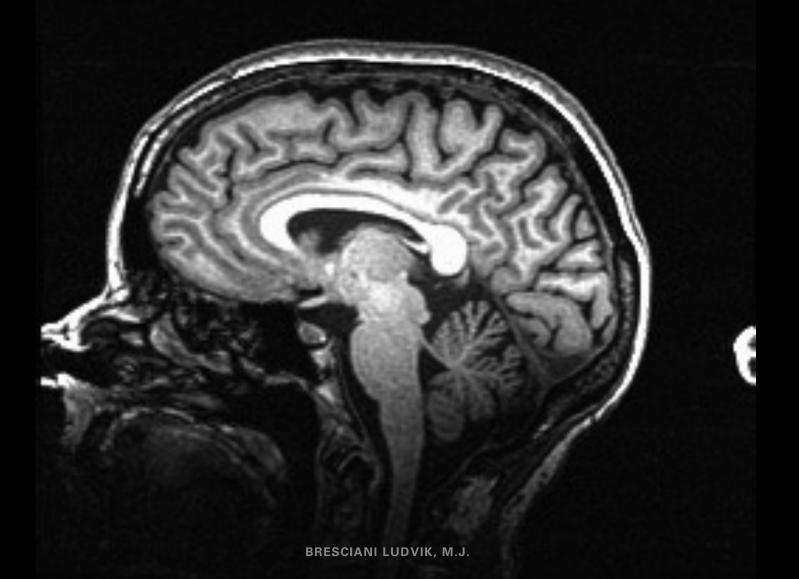
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THEORETICAL CONTEXT SETTING: NEURODIVERSITY

Learning and Development are inextricably intertwined

Student Learning Imperative, 1996

NEUROPLASTICITY





Emotions Play a
Role in
Regulating our
Decisions

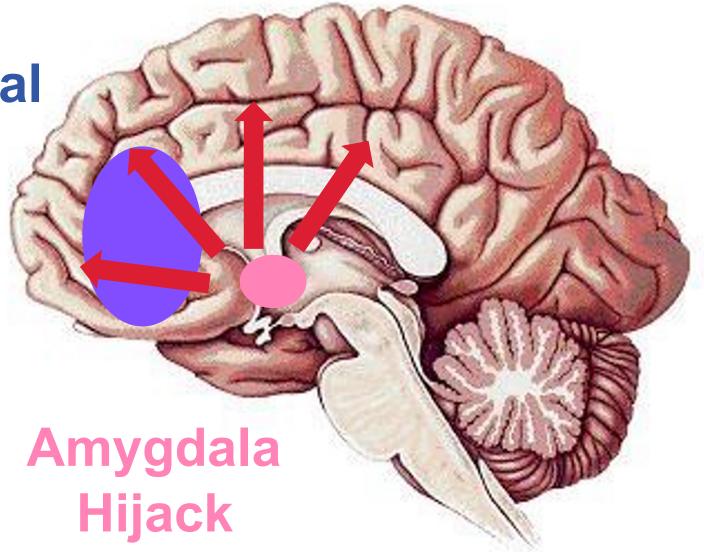
...Whether we are aware of them or not!

- Antonio Damasio

Hijack

Prefrontal

Cortex



Learning and Development as Neurocognitive Skills

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

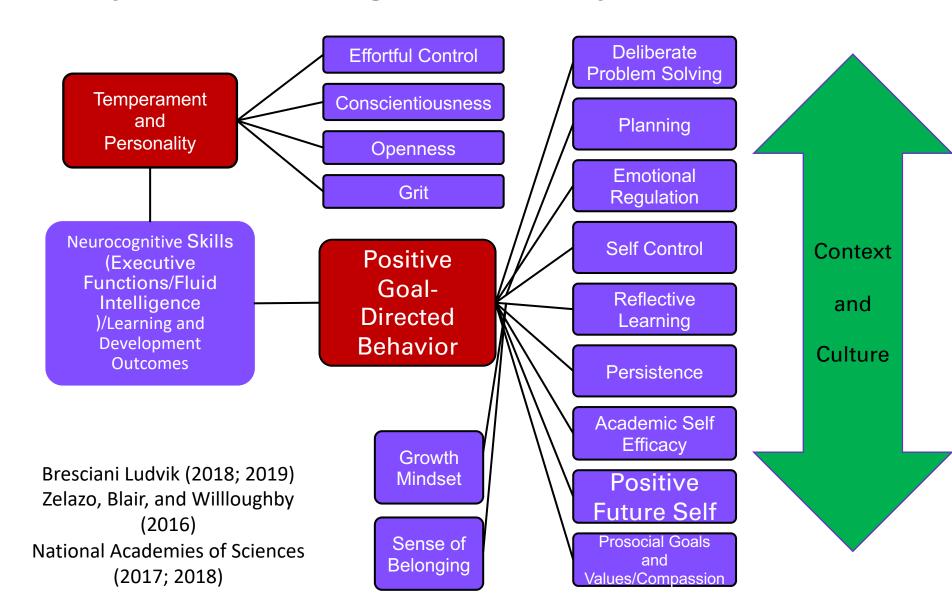
Neurocognitive Skills

Or Learning and
Development Outcomes

Fluid
Intelligence/Executive
Functions/Intrapersonal
Competencies

Crystalized Intelligence

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





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

Not Applicable Here

Generated

Data

(Bresciani Ludvik, 2020)

What does the science of learning mean for course design and assessment?

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Example: Building Blocks of Learning and Skill Development Applied in a FTIC seminar that begins with Orientation or a Summer Bridge

Identifying academic success resources available

Provide lists of resources and what they are used for

- Quiz

Explaining how to access academic resources available

(attention regulation)

Explaining where to find those Resources

- 2-min Reflection Conscientiousness of knowing when academic resources are needed

(reflective practice)

Introducing debugging skills:
Providing scenarios to discern when to access resources

Emotion Regulation Skills

Introducing emotion regulation skills: Providing scenarios that interrupt access to resources and applying skills

- Case study

Environmental Mastery

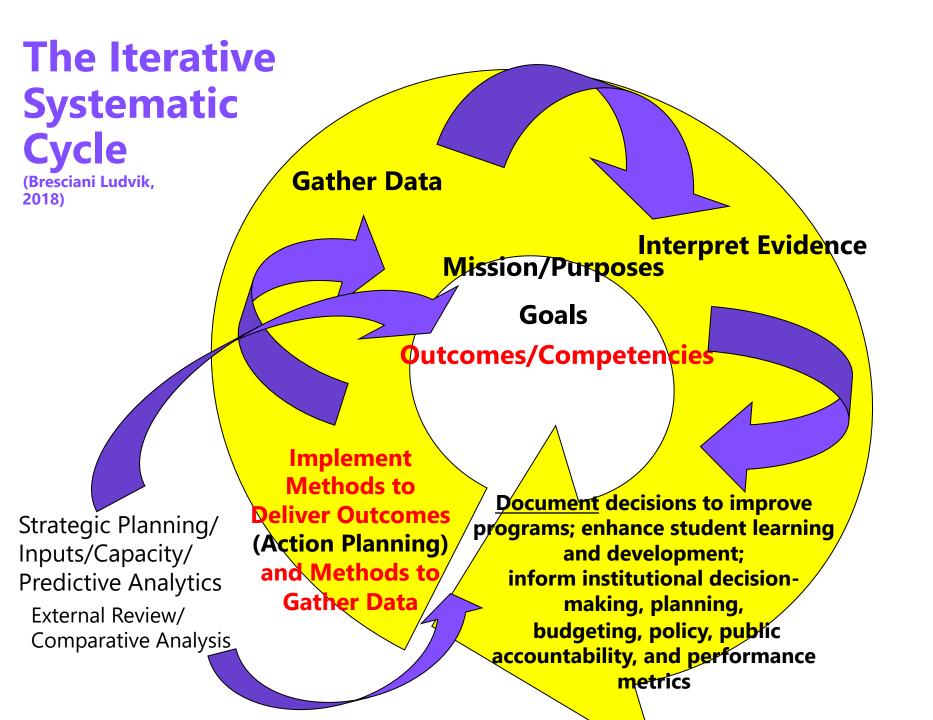
Providing 1:1
Coaching and
Validation to
affirm
application of
skills used in
various
scenarios
So that
resources can
be accessed
when needed

-Observations

Academic Self-Efficacy

Alignment
of skills
assessment
with preand postassessment,
disaggregate,
and run
inferential
analysis
with

-pre- and post-assessments



Types of **Decisions** this Process has Informed

Improved Professional Development for Instructors

Improved First-Year Student Course Design

Improved Summer-Bridge Design

Improved in-between term communications with and support systems for students

Improved communication across the colleges and divisions to change policy and practice to promote success

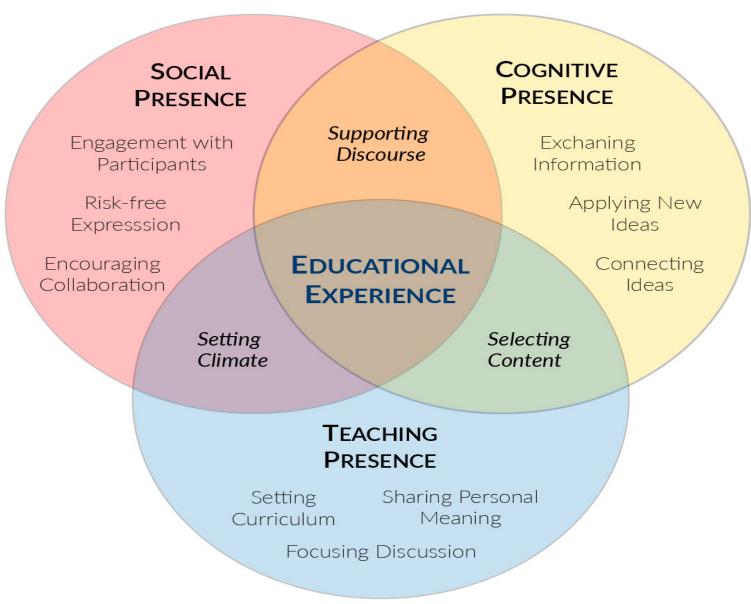
Improved assessments and linkage of those to Instituitional Performance indicators

What of this is applicable to the way you design courses and assess

learning?

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The Community of Inquiry Model



Adapted from Garrison, D.R., Anderson, T., Archer, W. (1999) Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education 2*(2), 87–105

Applying Neuroscience to the Assessment of the Community of Inquiry Model

Teaching Presence

(Curricula Design Evaluation; Peer Observations; LA data; Student Evaluation; Instructor Reflections; Student Reflections; IPC Evaluations)

Social Find Presence/Engagement

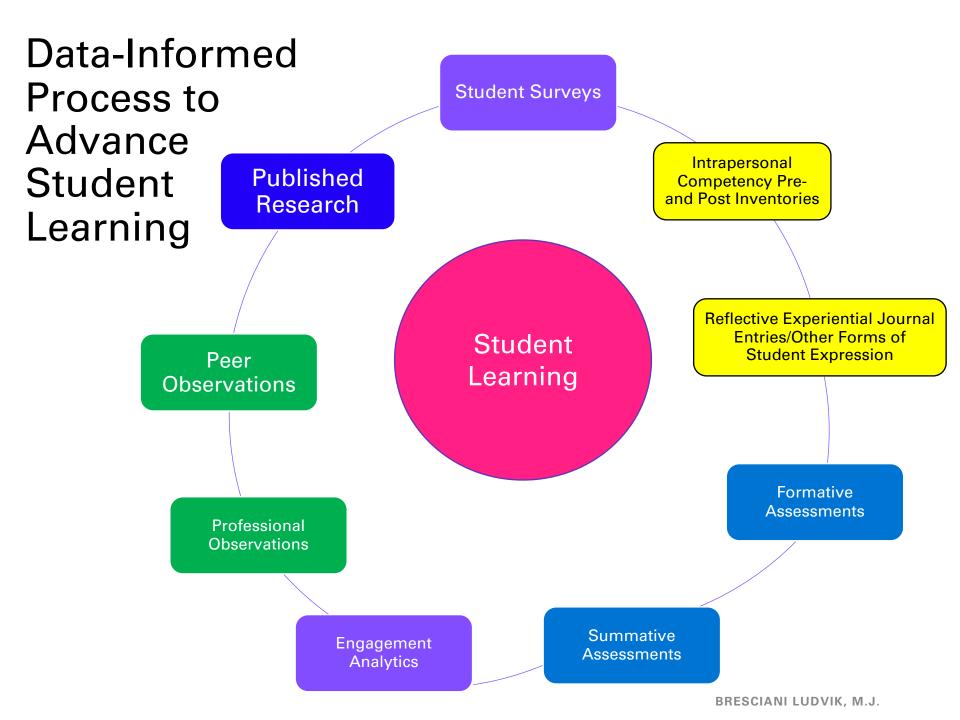
(Curricula Design Evaluation; Peer Observations; LA data; Student Evaluation; Instructor Reflections; Student Reflections; IPC Evaluations)

Student and Instructor First-Person Voice

Cognitive Presence

Assessments: Curricula Design Evaluation; Peer Observations; LA data; Student Evaluation; Instructor Reflections; Student Reflections; IPC Evaluations)

Bresciani Ludvik, MJB



What out of this model are you are already implementing?

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What are your Accepted Limitations?







The evidence may be driving our decision making, but humans are making the decisions.

- Even with evidence, we may not understand how students are learning.
- Humans will be interpreting all of this through their own experience/bias.
 - Even if it is a small improvement, each student is counting on us to prevent and repair negative student success outcomes.
- What else?

What other limitations exist?

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Intrapersonal Competency Cultivation Research Team

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EQUITY-DRIVEN, HIGH ACHIEVEMENT

Assessment of Student Learning and Development

Marilee Bresciani Ludvik

DEEP THANK YOU TO: STEPHEN SCHELLENBERG, **RANDY TIMM, NINA** POTTER, SANDY KAHN, ROGELIO BECERRA SONGOLO, SHIMING ZHANG, **ROBYN SAIKI, REY MONZON (MAY HE REST IN PEACE), CARYL MONTERO** ADAMS, KARA BAUER, LISA GATES, REBECKA HARMATA, JEANNE STRONACH, ANNA **JOST, AND MANY, MANY MORE...**

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CLOSING ACHIEVEMENT GAPS IN- AND OUTSIDE

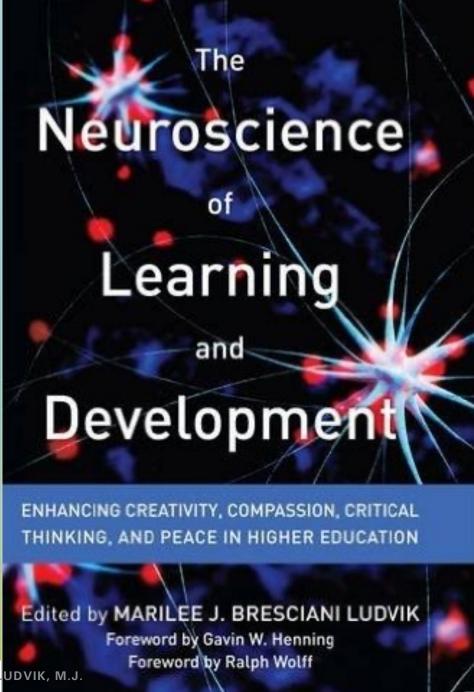
THE CLASSROOM WITH ALIGNMENT TO

PRUGRAM

PREDICTIVE ANALYTICS AND PERFORMANCE METRICS

KEVIEW

MARILEE BRESCIANI LUDVIK Foreword by Ralph Wolff



BRESCIANI LUDVIK, M.J.

Questions and Comments?

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