“Teaching is the only profession on this planet whose job it is to change the human brain, every single day.”

--David A. Sousa
Learning from the Inside Out:
How Non-Cognitive Pedagogy Supports Belonging and Why it Matters
Communicate Learning Objectives: Be Transparent

After completing this workshop participants will be able to...

1. Broadly define and apply non-cognitive learning.
2. Understand the relationship between non-cognitive learning, belonging, and student success and equity.
3. Leave the workshop with non-cognitive tools and strategies that can be immediately applied in the classroom and campus programs.
Let’s begin with a simple test of your college readiness...

1. No looking at other’s work
2. No talking
3. No looking answers up on your phone
4. Stand up once you complete answering ALL of the clues
What is non-cognitive?

Foundational social, emotional, and mindset skills and knowledge a student needs to have in place for cognitive/content learning.
What is Belonging?

-Feeling part of a community and cared about

-Feeling “personally accepted, respected, included and supported by others in the school environment.” (Goodenow, 1993)

Two types of Belonging

-Academic Belonging

-Social Belonging
Research shows that students who believe they belong

- Earn higher grades and test scores
- Attend class regularly
- Stay in school longer/persist

- Less likely to smoke, drink alcohol, or have sexual intercourse.
- Less likely to carry weapons, become involved in violence, or be injured from dangerous activities such as drinking and driving.
- Less likely to have emotional problems, suffer from eating disorders, or experience suicidal thoughts or attempts.

Why does this matter at an HSI?

Students of color are more likely to enter college believing that they do not belong socially, culturally, and academically. This belief that they do not belong leads to lower grades and persistence rates. (Murphy and Zirkel, in press)

Research documents a low sense of self and the belief that one does not belong in higher education to be among the greatest inhibitors to success for Hispanic college students. (Przymus, 2012)
Dollar Bill
Dice
Tricycle
Four Leaf Clover
Hand
Six-Pack
Seven-Up
Octopus
Cat Lives
Bowling Pins
Football Team
Dozen Eggs
Unlucky Friday
Valentine’s Day
Quarter Hour
Diagram showing the structure of neurons, including:
- Axon of previous neuron
- Neuron cell body
- Synapse
- Axon
- Nucleus
- Dendrites of next neuron
- Electrical signal
Whether you think you can or think you can’t, you’re right.

~Henry Ford
**Fixed Mindset**

Carol Dweck

Intelligence is static. Leads to a desire to LOOK SMART and therefore a tendency to:

- Avoid challenges
- Give up easily due to obstacles
- See effort as fruitless
- Ignore useful feedback
- Be threatened by others’ success

**Growth Mindset**

Intelligence can be developed. Leads to a desire to LEARN and therefore a tendency to:

- Embrace challenges
- Persist despite obstacles
- See effort as path to mastery
- Learn from criticism
- Be inspired by others’ success

[Source](http://langwitches.org/blog/2015/12/03/looking-for-learning-through-the-lens-of-growth-mindset/)
7 Strategies to Make Content Stick

developed from the research
Make It Stick: The Science of Successful Learning

StudEnt Tip #1
Form a Habit of Self-Quizzing

StudEnt Tip #2
Space Out Your Retrieval Practice

StudEnt Tip #3
Mix Together Different Types of Problems

StudEnt Tip #4
Reinforce with Other Research-Based Strategies

TeAcher Tip #1
Explain to Students How Learning Works

TeAcher Tip #2
Teach Students How to Study

TeAcher Tip #3
Create Desirable Difficulties in the Classroom

Inspired by the work of Peter C. Brown, Henry L. Roediger III, and Mark A. McDaniel.
Cultural Relevance
Does every student have the opportunity to see self in your course content?

Community Cultural Wealth (Yosso, 2005)

Social Capital: Networks of people and community resources that provide support to navigate society’s institutions

Familial Capital: The extended familial and kinship relationships that provide connections to community history and memory and models of consciousness such as morality.
THE HERO’S JOURNEY:
SHARING OUR STORIES
Why Take the Hero’s Journey?

- Honors each student’s story and legitimizes it in the academic setting.
- Promotes self-efficacy by identifying each student as a hero.
- Demonstrates that struggle and failure are normal and part of the journey to success.
- Demonstrates that it is OK to ask for help.
- Students see relevance of course material to their own experiences and see themselves in course content.
- Builds Community and Belonging.
- Students will amaze and inspire you!
Who is at risk and why? What should you do about it?

Instructor Perceptions
Week 3

Student #1
- Gender: Female
- Race: LatinX
- Absences: 0
- Writing: Very Good
- Voluntary Participation: 1
- Missing Assignments: 0
- Attitude: Shy but smiles

Student #2
- Gender: Male
- Race: Caucasian
- Absences: 0
- Writing: Good
- Voluntary Participation: 0
- Missing Assignments: 1
- Attitude: Silent/ Disinterested
Struggle Stories
Whip Around!

Directions:

1. The question may only be answered in one word.
2. It is best to use the first answer that comes to mind.
3. Please answer quickly.
4. Everyone gets a turn in order and anyone may pass.
5. At the end anyone who passed has the opportunity to answer.

The way I feel about belonging on my campus is ____________.
Why Whip Around?

1. Everyone is included.
2. “I want to hear from you.”
3. Formative assessment
4. Critical thinking
5. Mood change
Belonging in Basic Skills at SBCC
Percentage of Students Completing Intermediate Algebra

Starting Term

- Starting in Math 001
- Starting in Math 041 ALEKS

<table>
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<tr>
<th>Term</th>
<th>Percentage</th>
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<tr>
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<td>Spring 2015</td>
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Belonging in General Education at SBCC

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<th>Grade C or Better</th>
<th>Total Enrolled</th>
<th>% Pass</th>
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<tbody>
<tr>
<td>SS 101</td>
<td>Fall 2015</td>
<td>27</td>
<td>34</td>
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<tr>
<td>SS 101</td>
<td>Spring 2016</td>
<td>24</td>
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SS101 Grade Distribution

- Fall 2015
- Spring 2016

Social Science 101
Belonging in STEM at SBCC

REMOVING BARRIERS TO STEM SUCCESS

AFFECTIVE LEARNING INSTITUTE
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Title for a conference workshop on non-cognitive pedagogy and belonging
Pam Guenther
Professor of Mathematics

Elizabeth Imhof, PhD
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Co-Director Title III: Removing Barriers to STEM Success
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Professor of Mathematics
Co-Director Title III: Removing Barriers to STEM Success