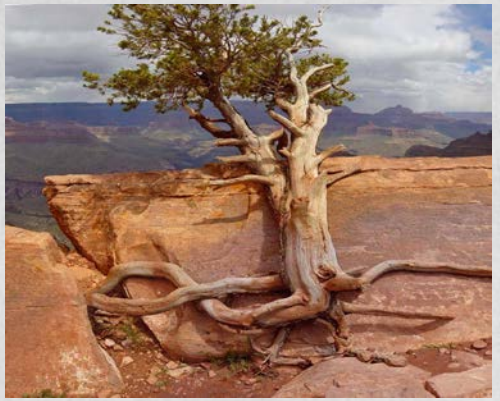
Growth Mindset and Habits of Mind

Gavilan College August 14th-16th

Miguel Powers, Fullerton College
Scott Sandler, Gavilan College

Applying Learning to Personal Practice

- Will add intelligent practice in first class orientation.
- Will Introduce Neuroplasticity
- Will award points for asking questions.



- Will use learning to deal with current challenges in a different way in my personal life.

Applying Learning to Personal Practice

- Will use “power of YET” personally and encourage students to use it.
- Will Use Habits of Mind to be more aware of my thinking.
- Will roll out information to our Math PLC (professional learning communities)
- Will include more productive play in the classroom
- Will put “The Real Work” up in my classroom
- Will put up poster *(Intelligence = effort + good strategies + help from others*)

“I would use the activities presented today to think about changing the way we set up classroom culture and to continue to be a model and push my own edges and comfort level.”

Questions

- How do you tell the difference between positive and negative persistence?

- When would be the best time to introduce GM/HoM concepts to students?

- Can you share online resources: Ted talks, activities, books, etc.? Can you share your PowerPoint?

Questions

- How do you find the time to teach Growth Mindset along with course content?
- How does GM strategies work for special education students or students with learning challenges?
- How can I help get GM/HoM concepts over to ESL students or low-level language learners?

EQUITY ≠ EQUALITY

≠ DIVERSITY

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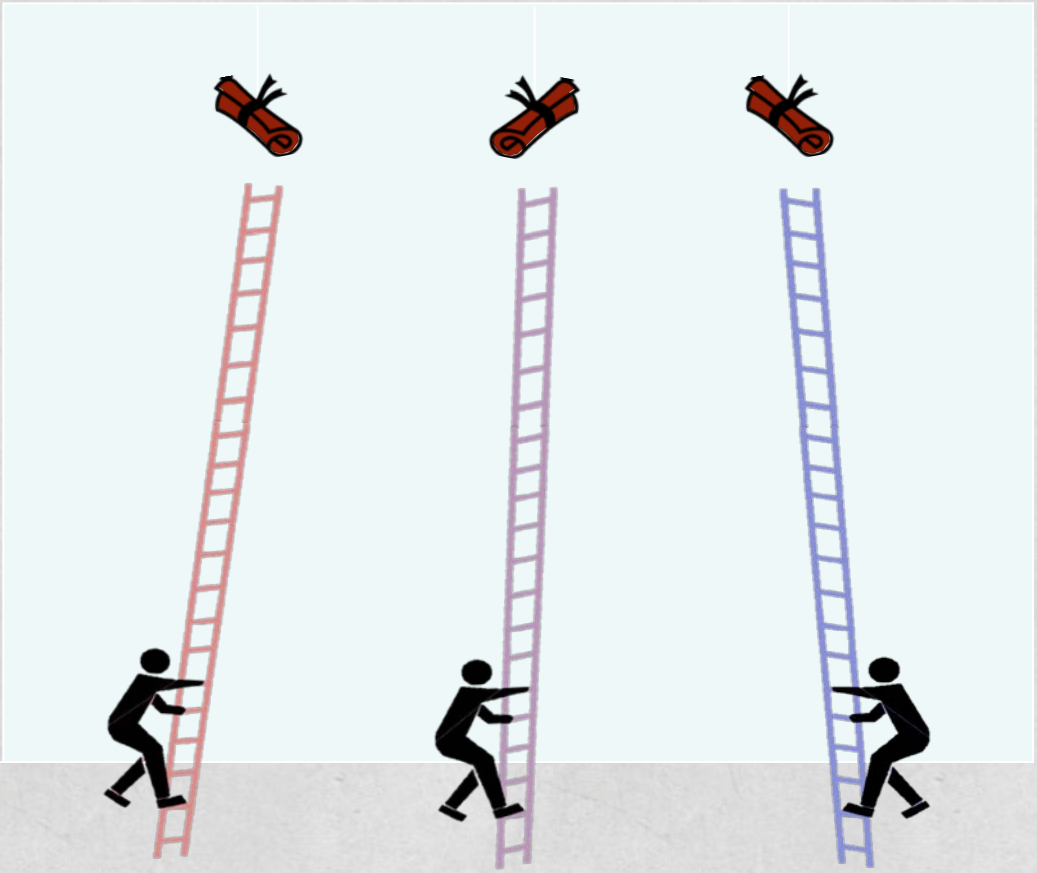
EQUALITY
imagines an equal world.

"I treat everyone equally"



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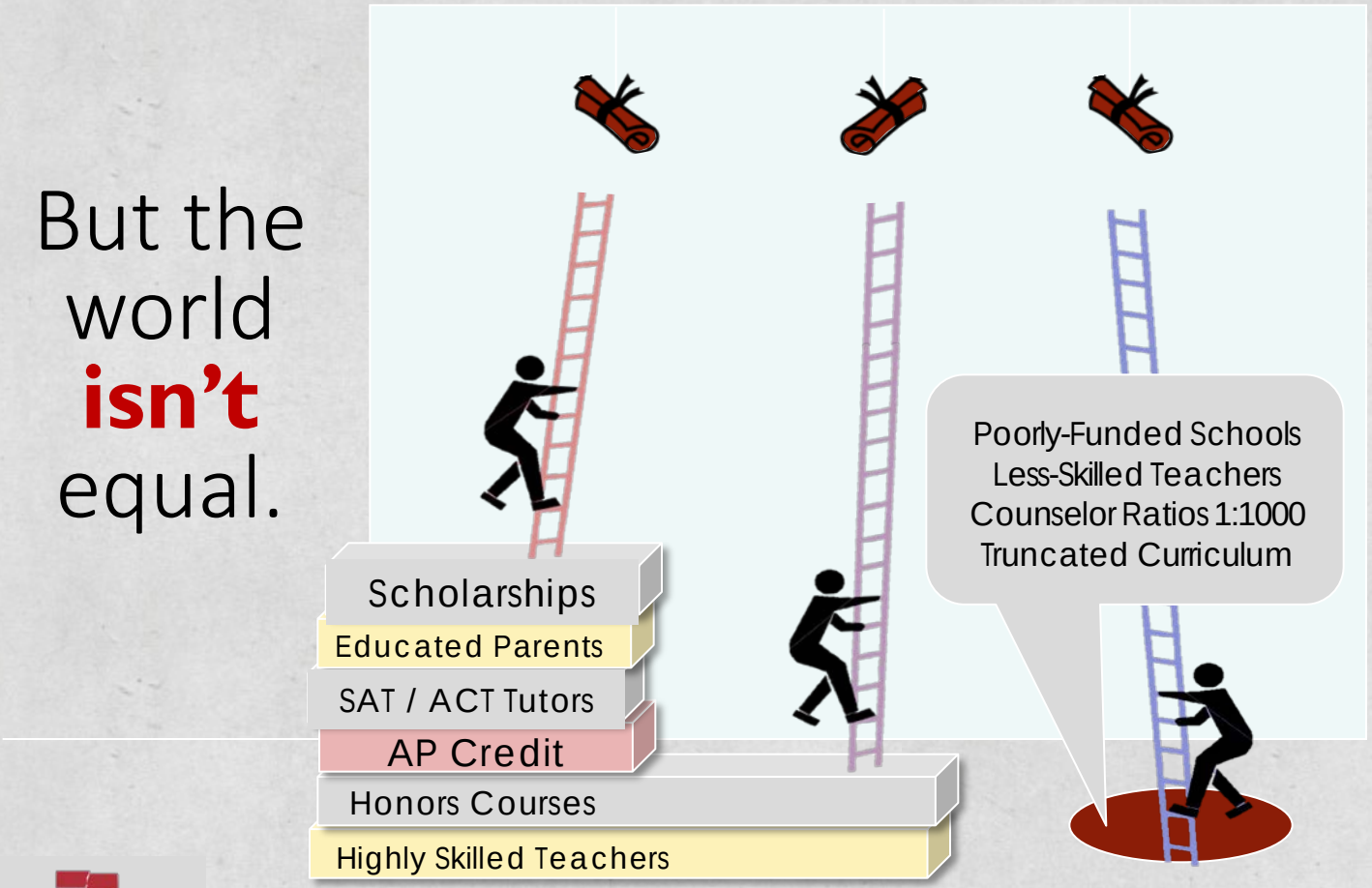
But the world **isn't** equal.



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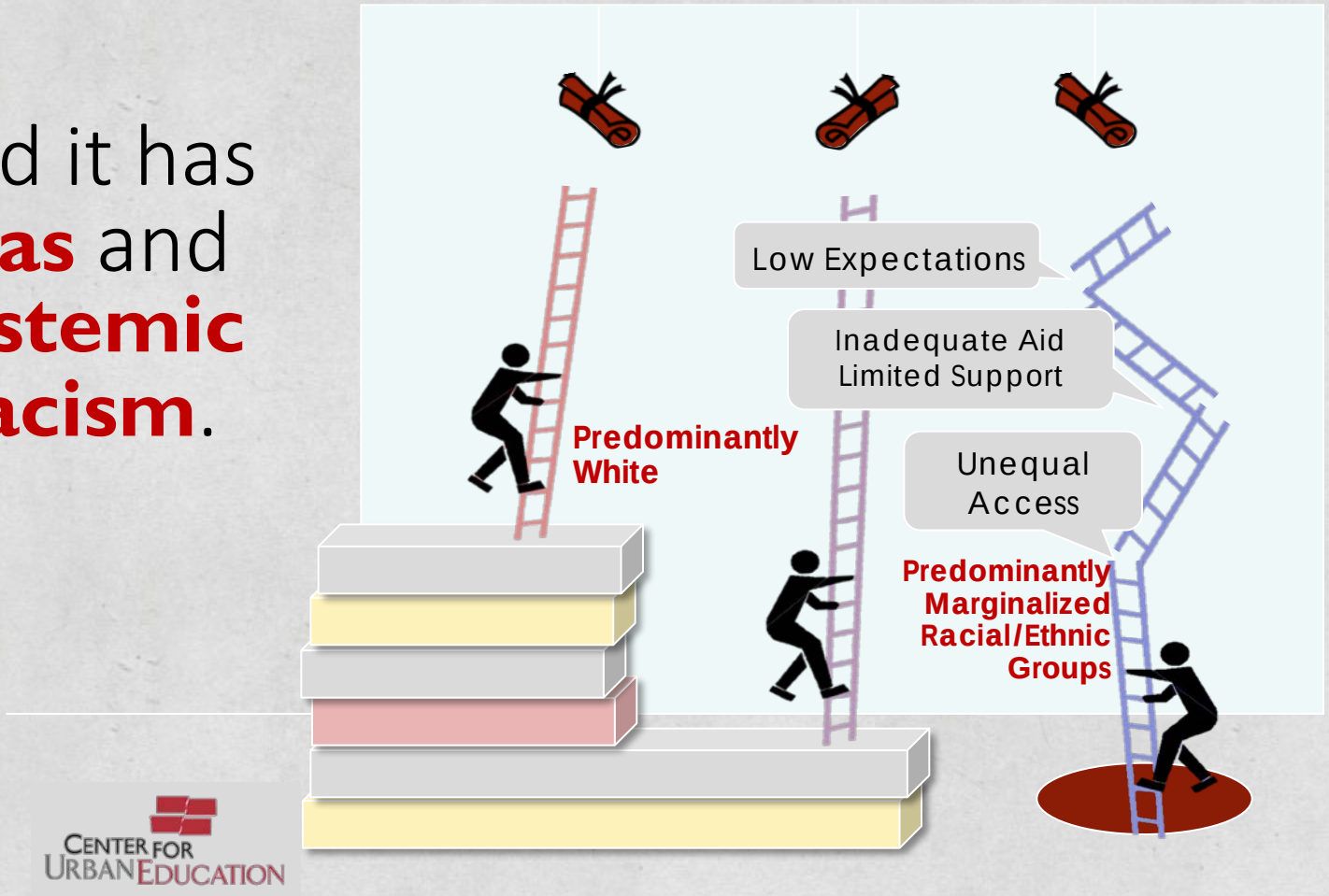
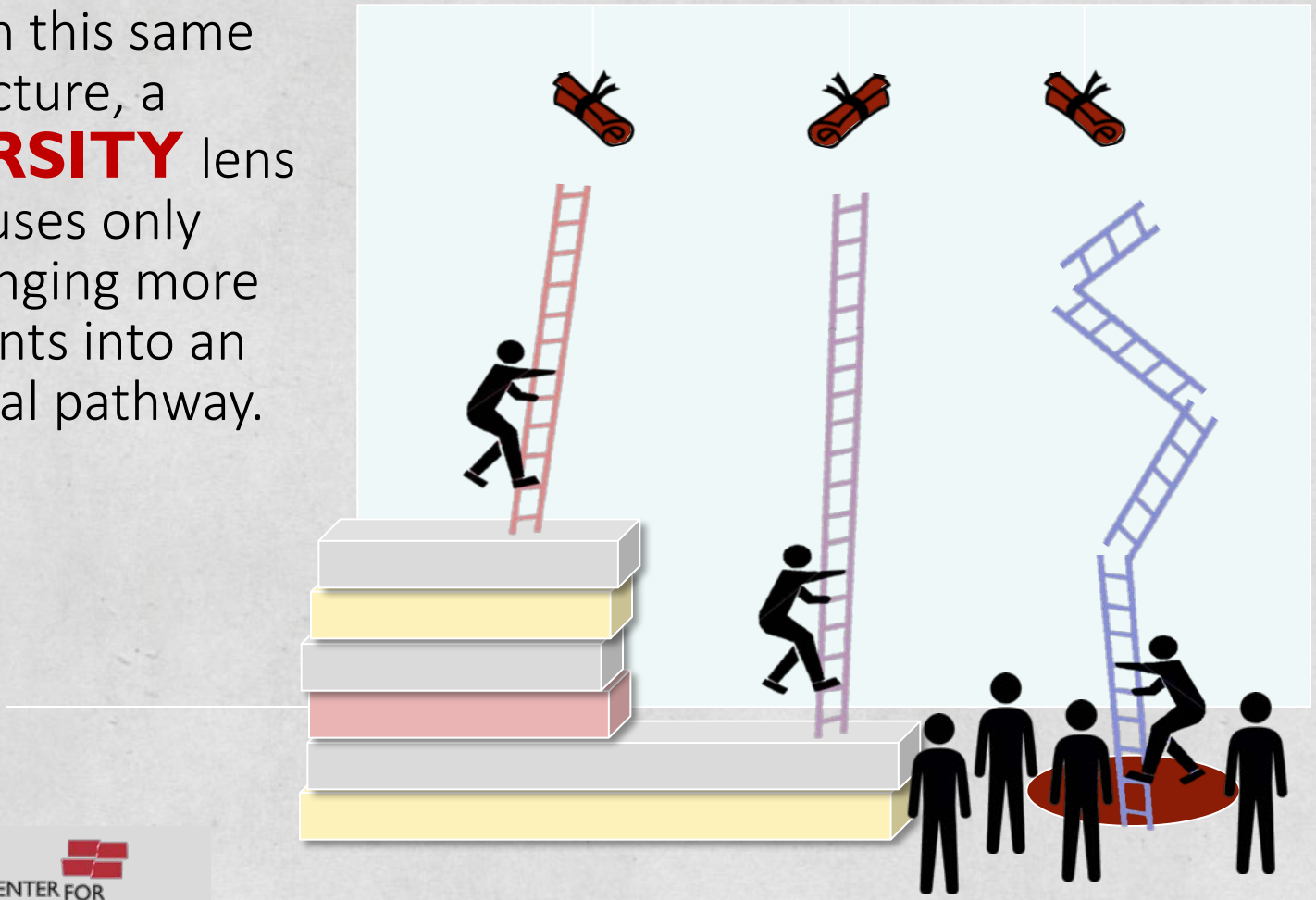
And it has **bias** and **systemic racism**.



Within this same picture, a **DIVERSITY** lens focuses only on bringing more students into an unequal pathway.



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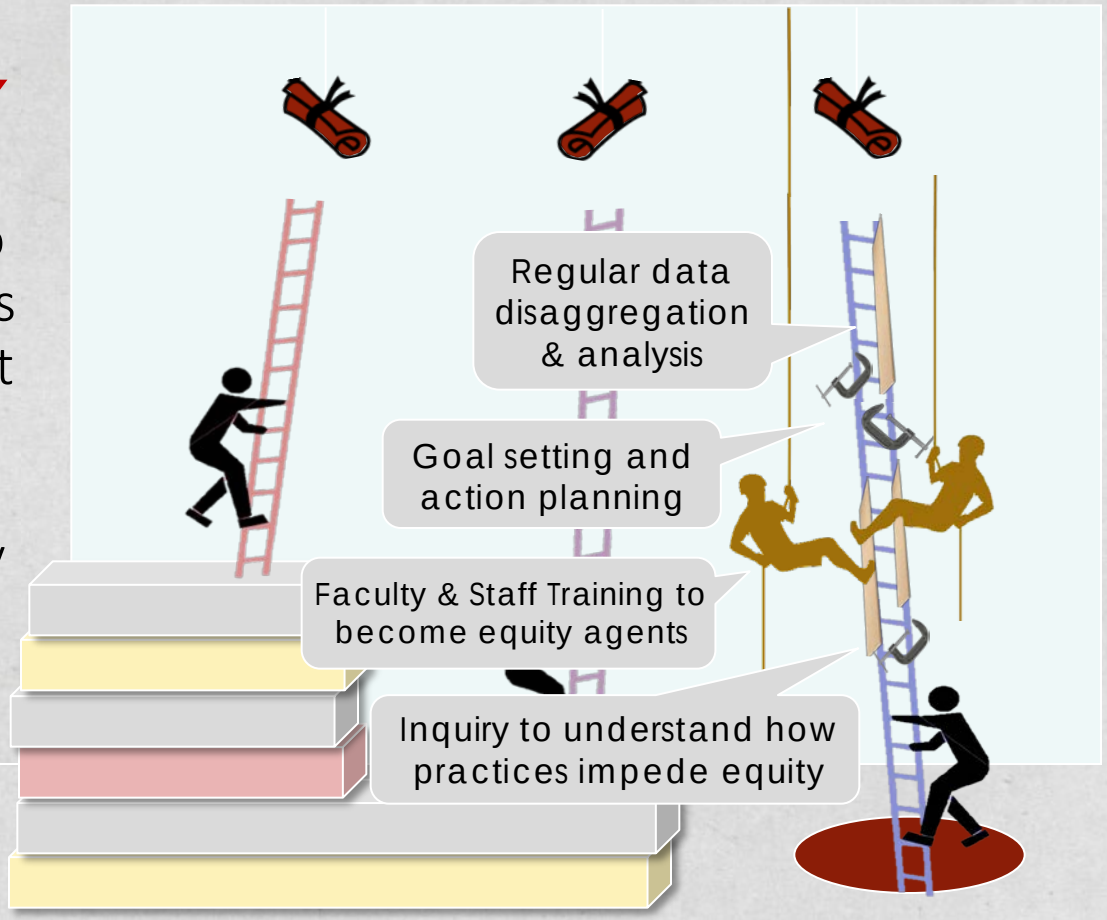
In contrast, **EQUITY** redirects resources to the pathways with greatest need to fix barriers and intentionally provide support.



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Becoming an Equity-Minded Practitioner

Create equity by building your capacity and knowledge in order to…

1. Talk about race by naming where there are gaps by race and ethnicity and where there are no gaps – so you gain focus ! BUT DON'T STOP THERE…

2. Focus on what you can change – your classroom, department and campus.

3. Ground recommendations and solutions in data, your learning about yourself and your unique context.

4. Understand that you are doing "the good" even when it feels uncomfortable.

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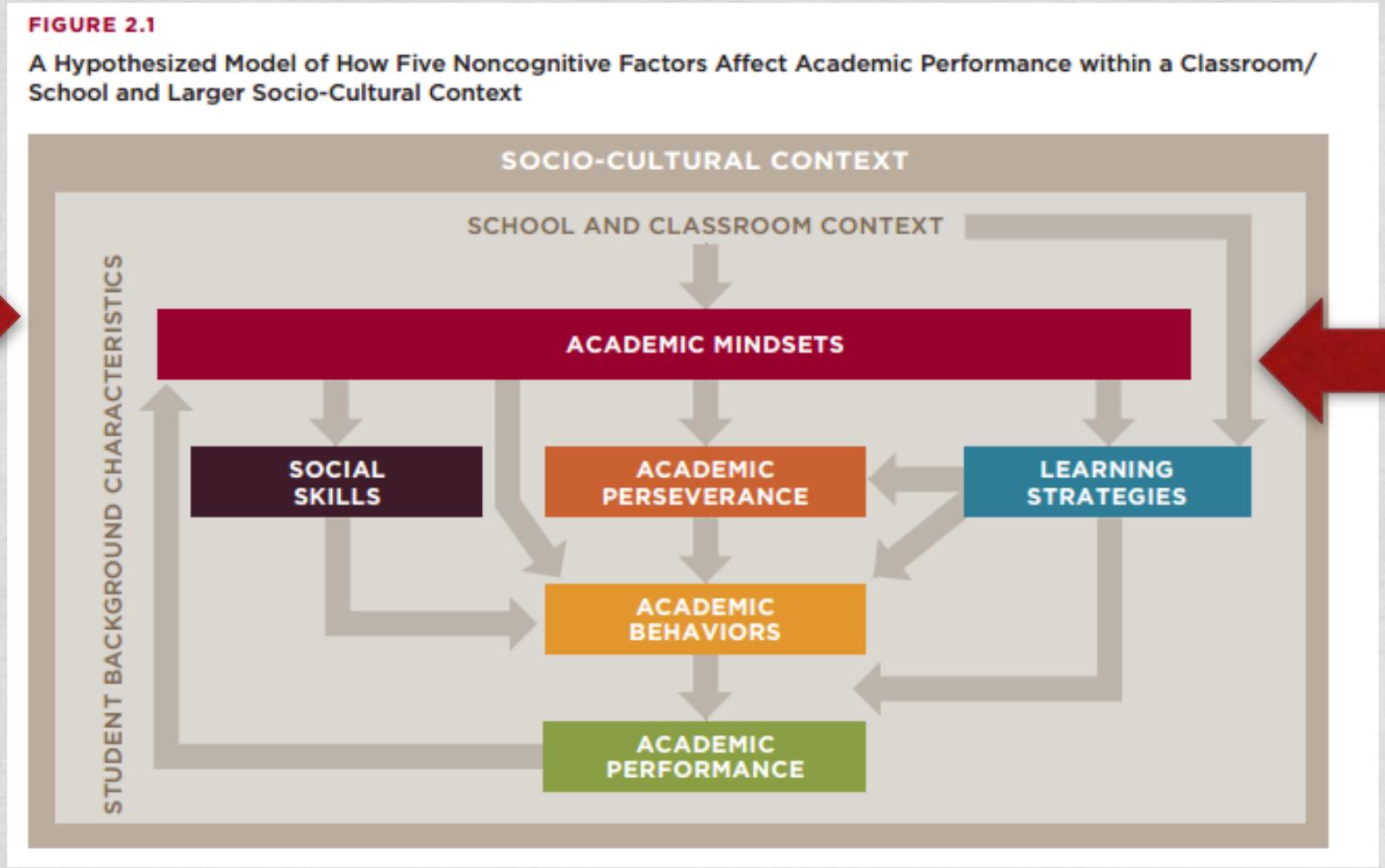
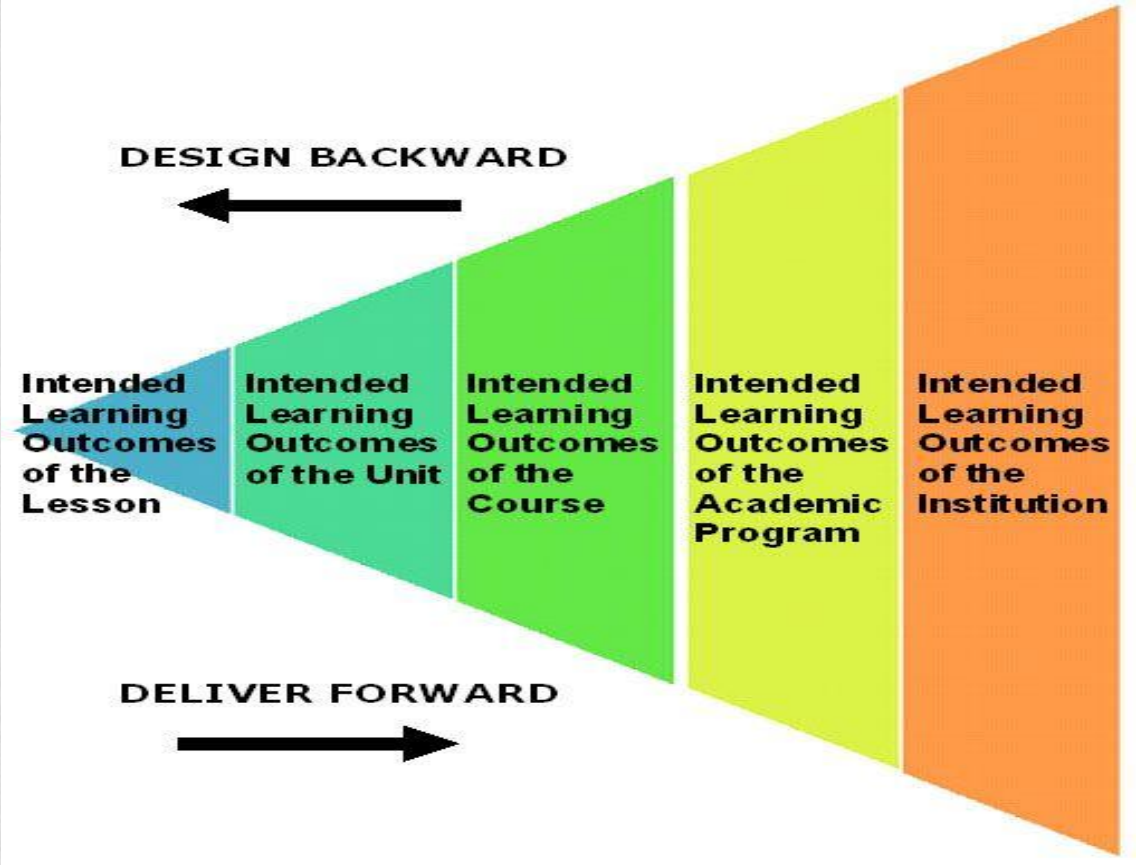
Academic Mindsets



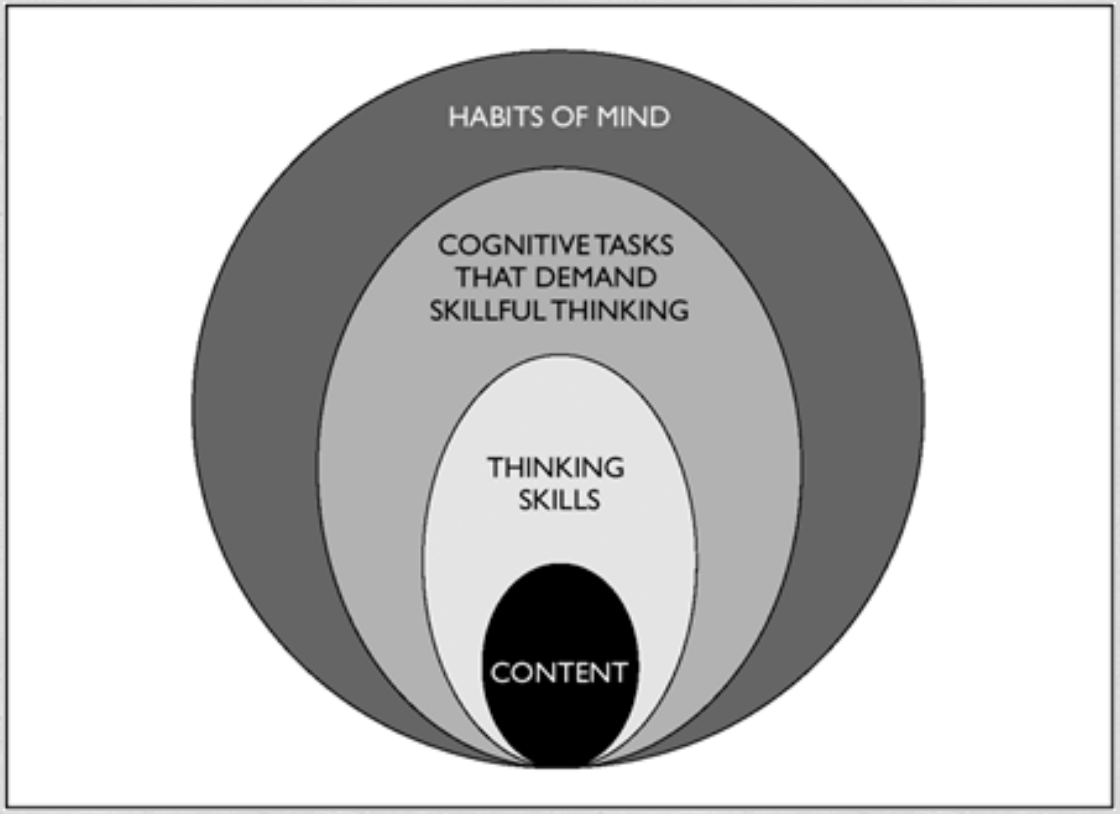
Farrington, Roderick, Allensworth, Nagaoka, Keyes, Johnson, & Beechum, 2012

Individual Reflection
&
Group Sharing

Backwards Design and Habits of Mind

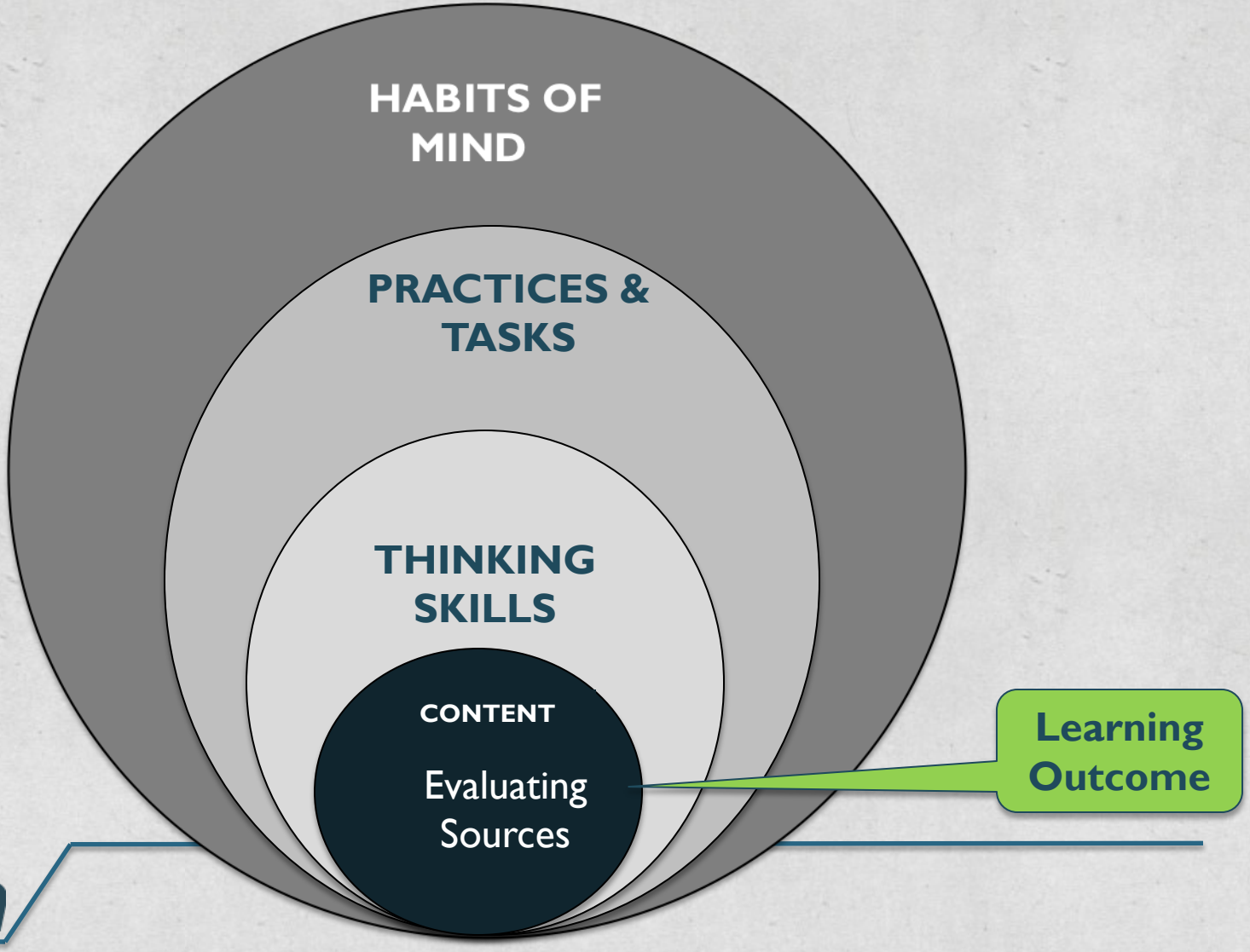


Designing with Habits



Learning and Leading with Habits of Mind (48-58)

Design Nesting (Instruction)



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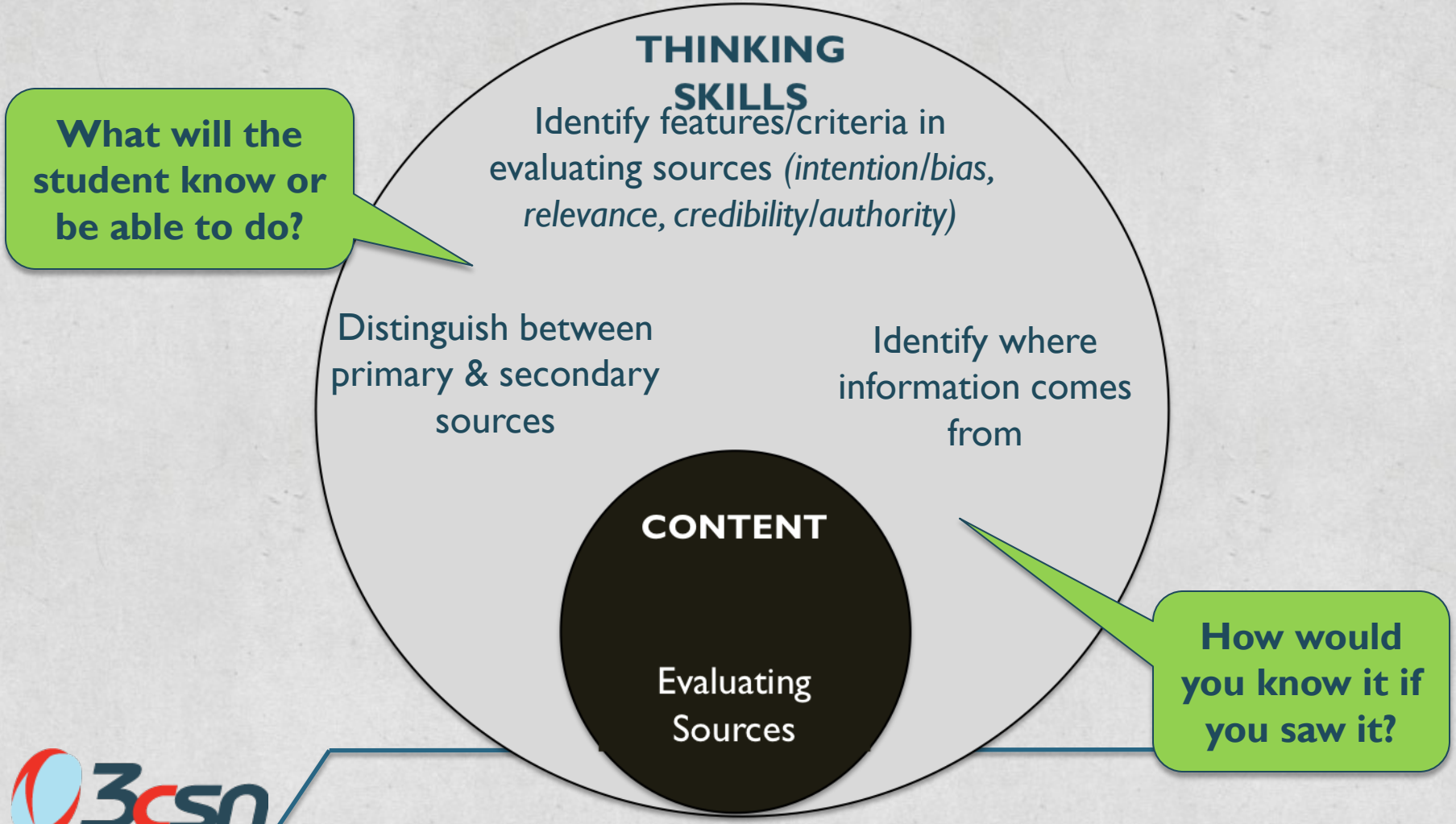

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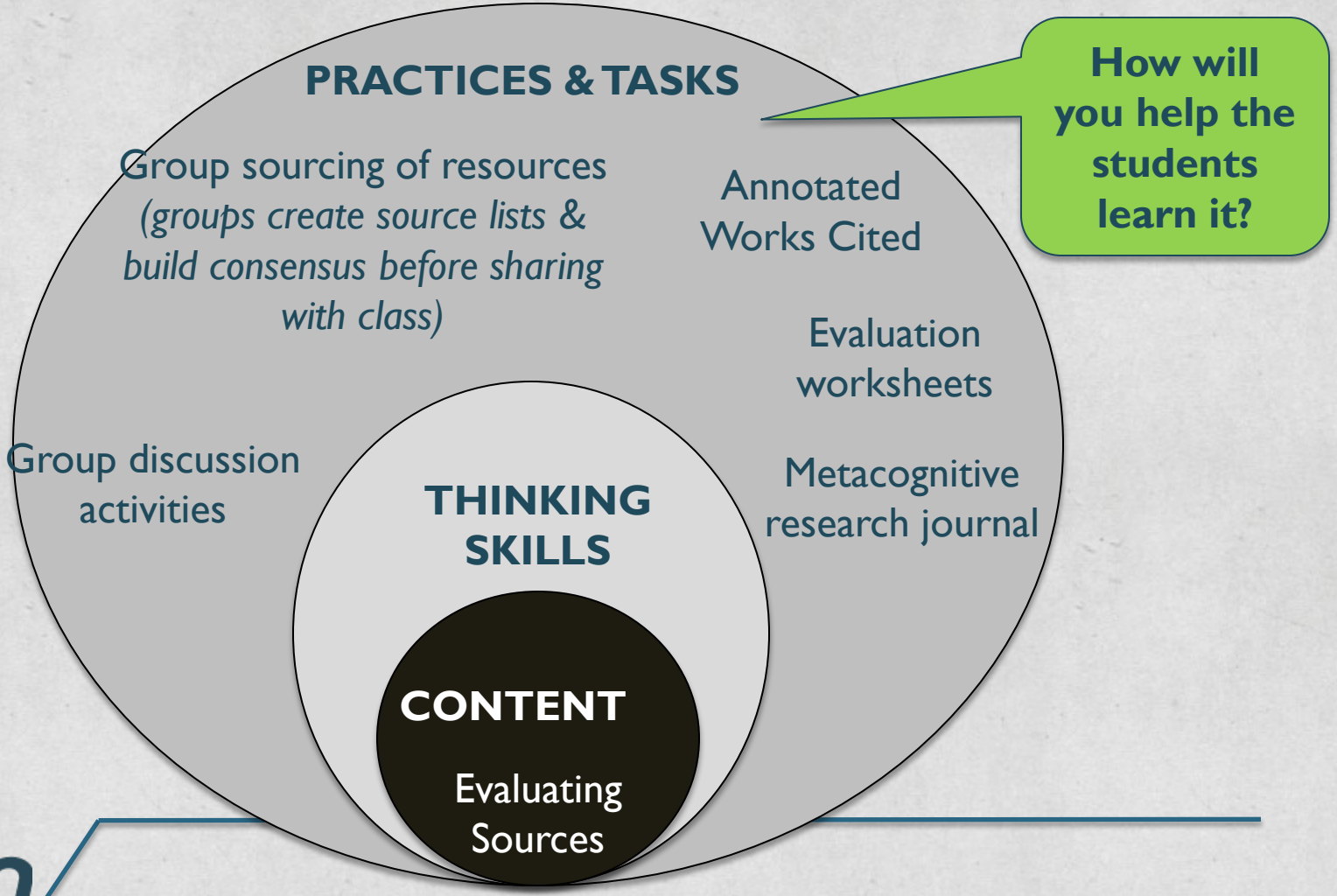
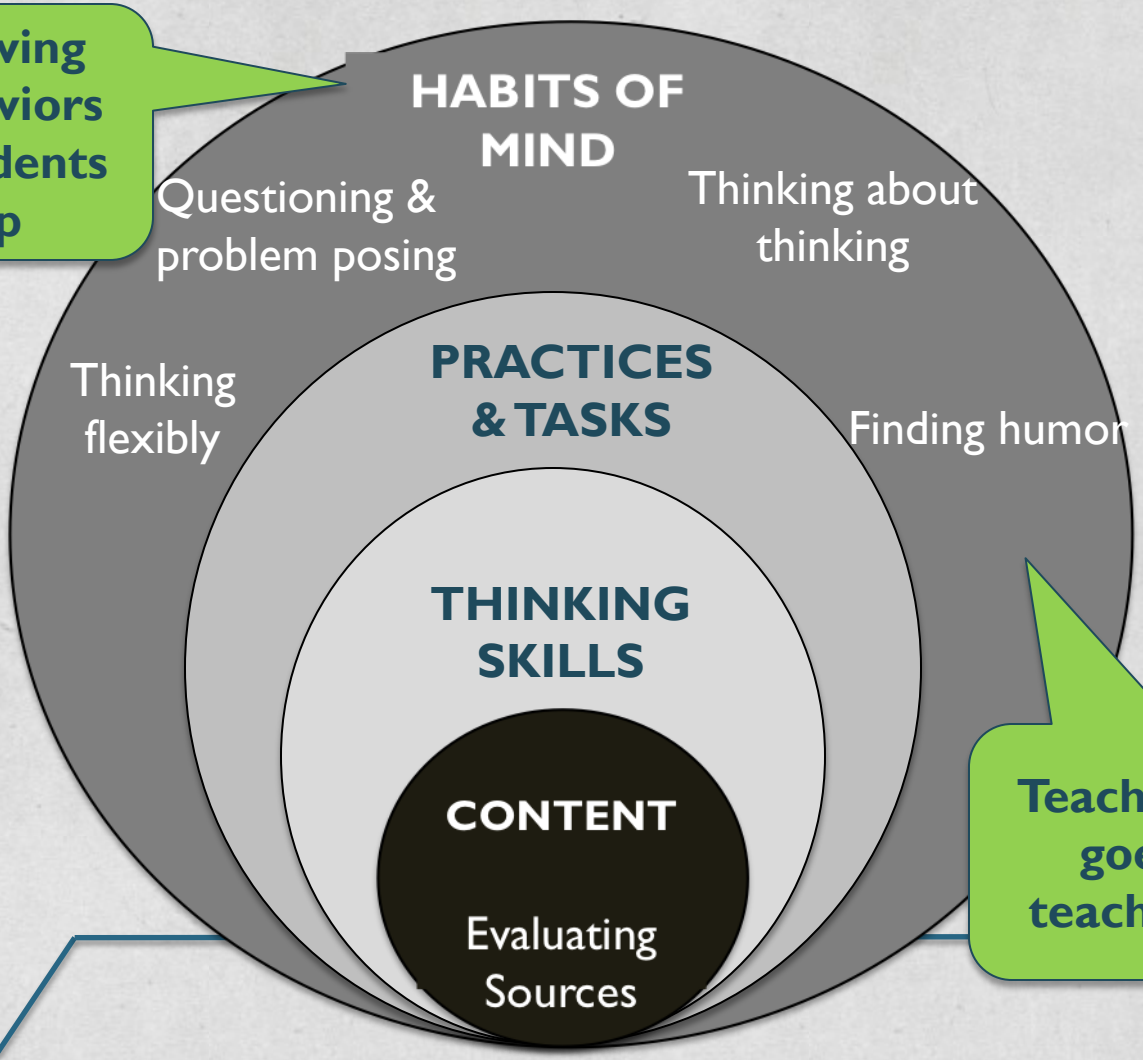


Design Nesting (Instruction)

Problem-solving skills or behaviors you want students to develop



Teaching students goes beyond teaching content

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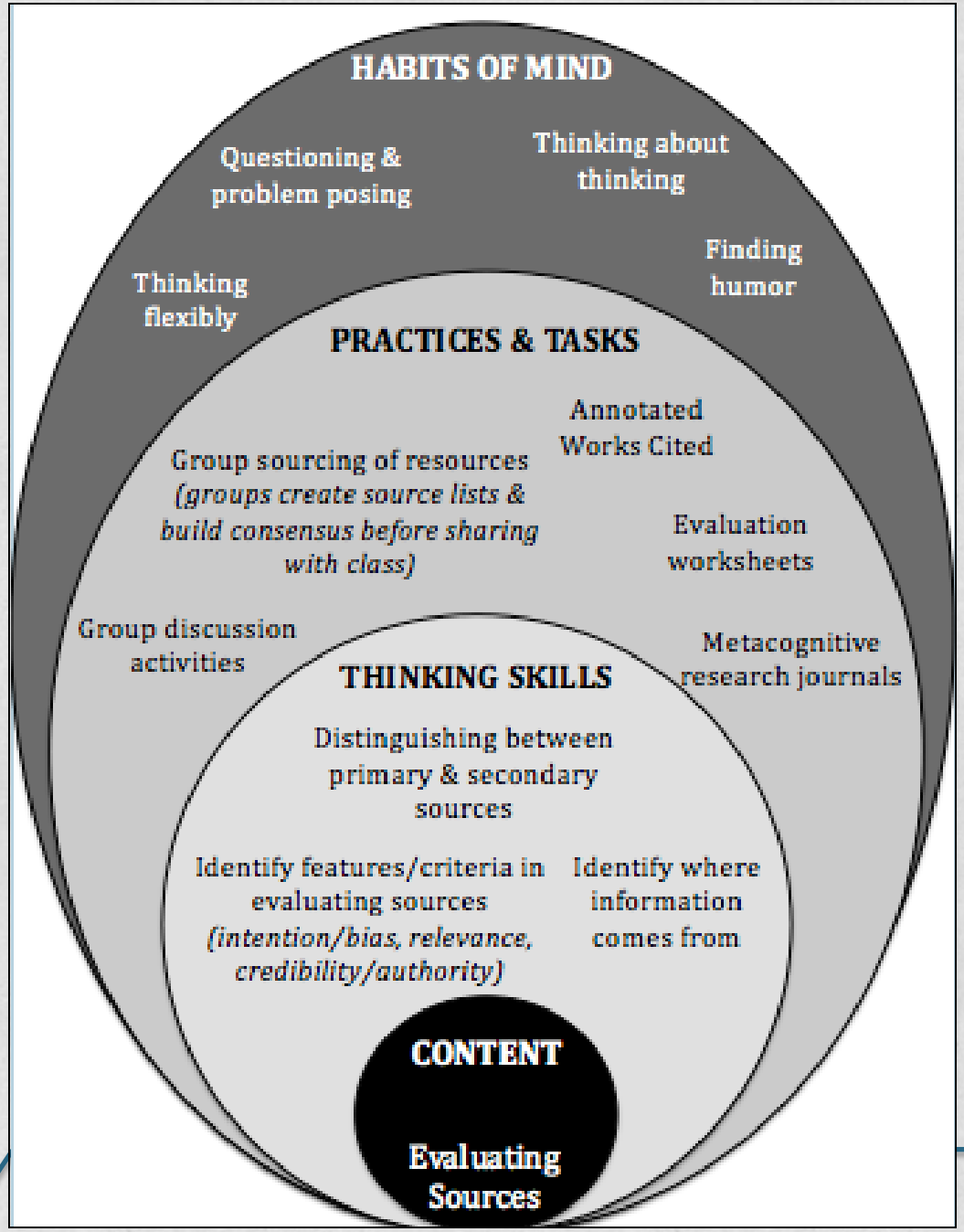
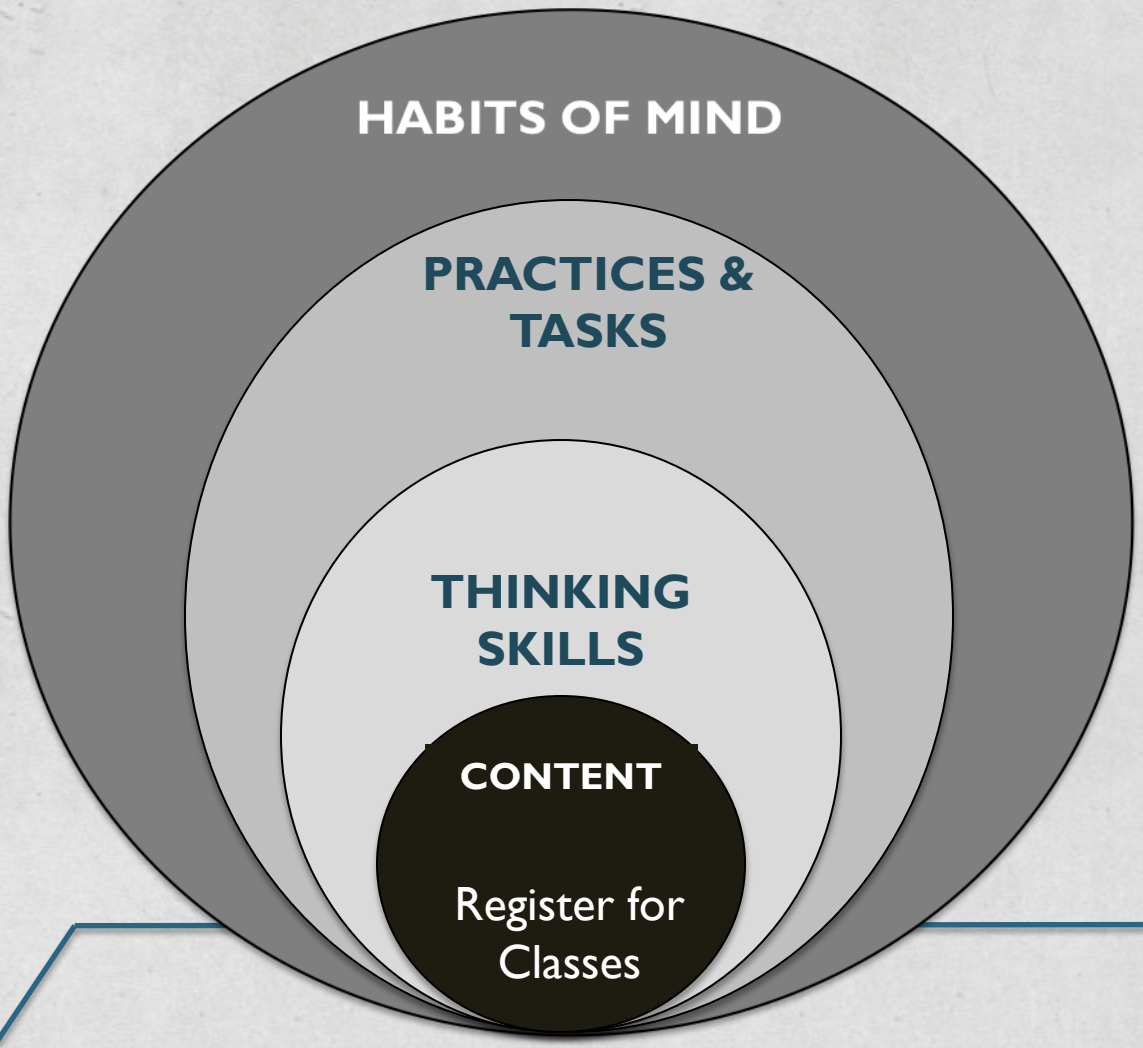

HABITS OF MIND
Questioning & problem posing
Thinking about thinking
Finding humor
Thinking flexibly
PRACTICES & TASKS
Annotated Works Cited
Group sourcing of resources (groups create source lists & build consensus before sharing with class)
Evaluation worksheets
Group discussion activities
Metacognitive research journals
THINKING SKILLS
Distinguishing between primary & secondary sources
Identify features/criteria in evaluating sources (intention/bias, relevance, credibility/authority)
Identify where information comes from
CONTENT
Evaluating Sources

Design Nesting (Student Services)



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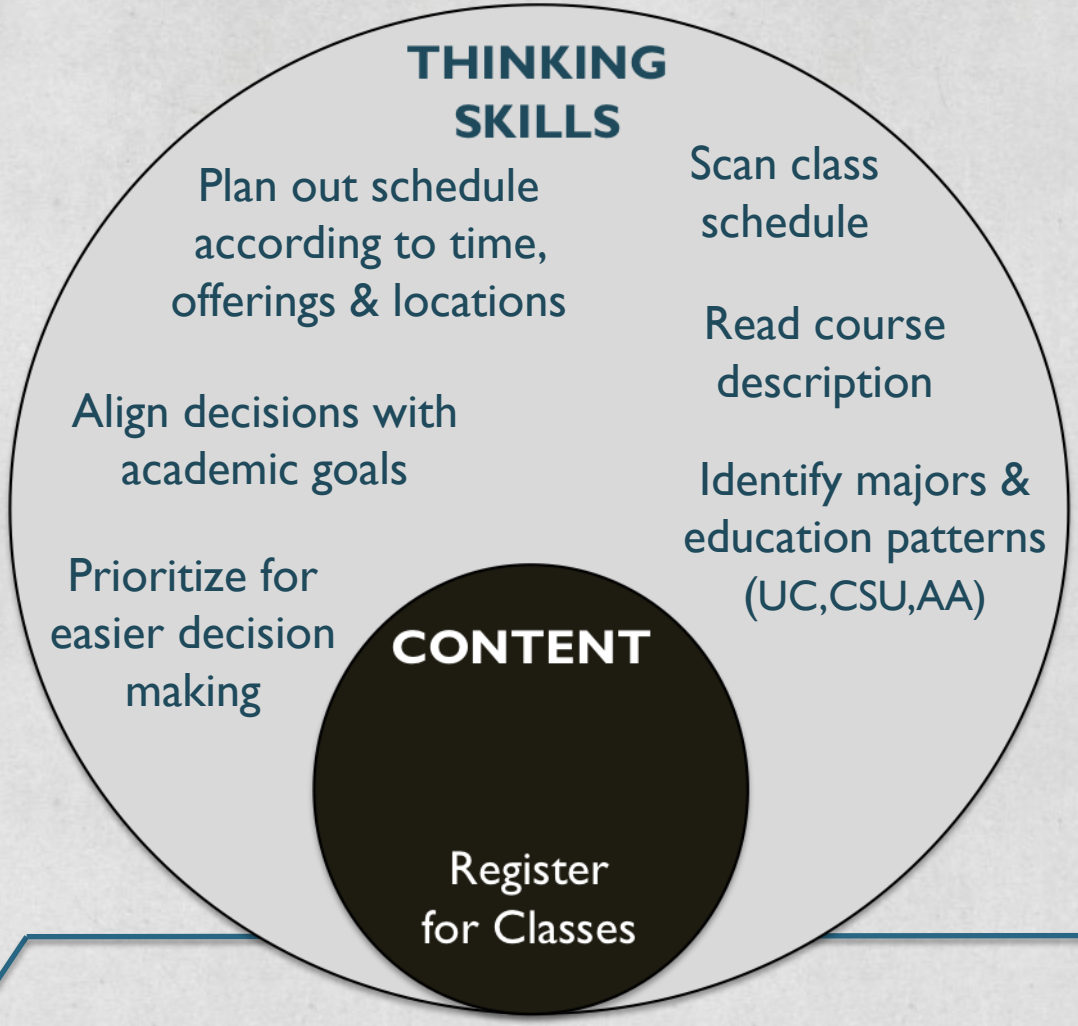

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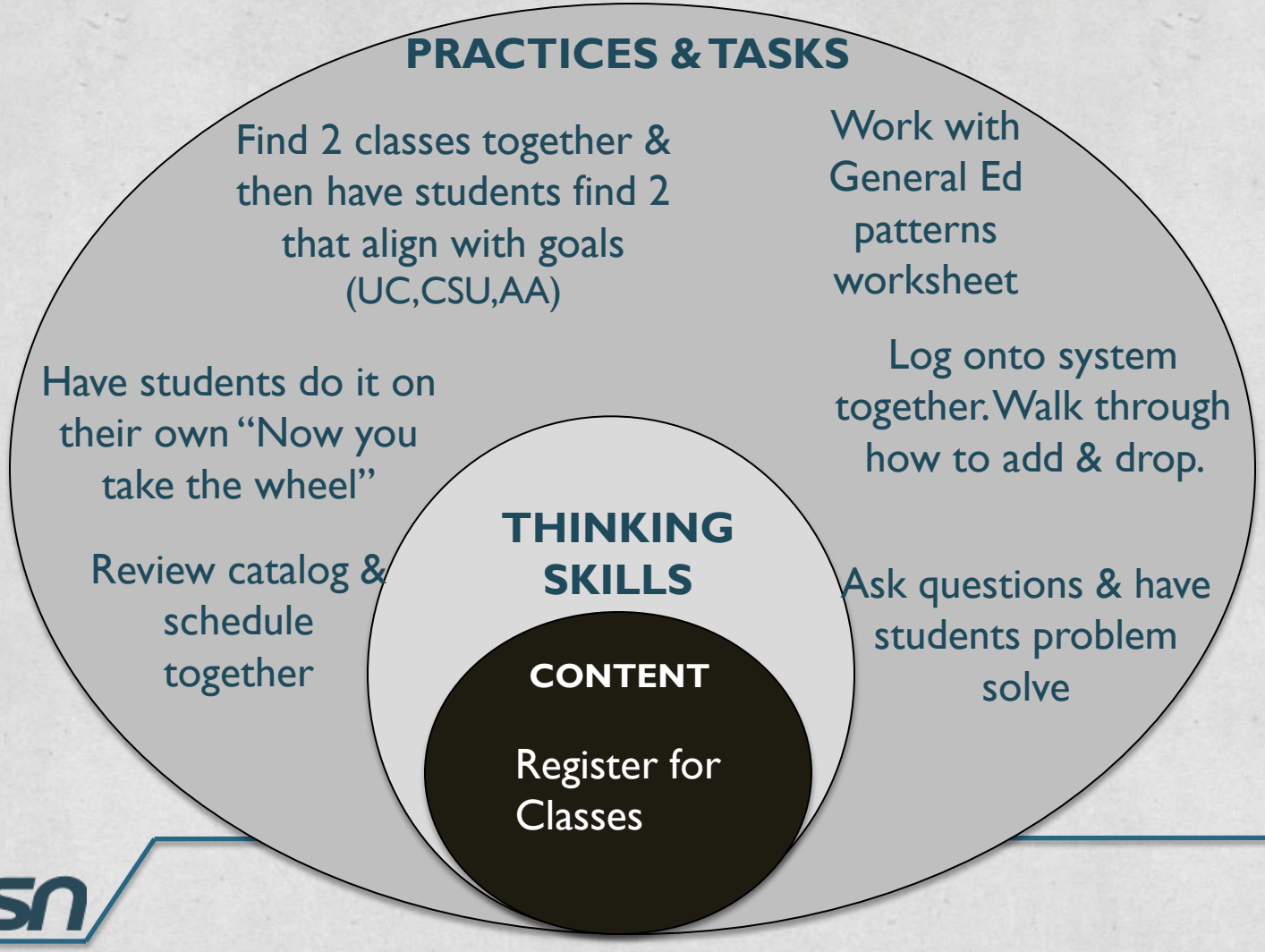

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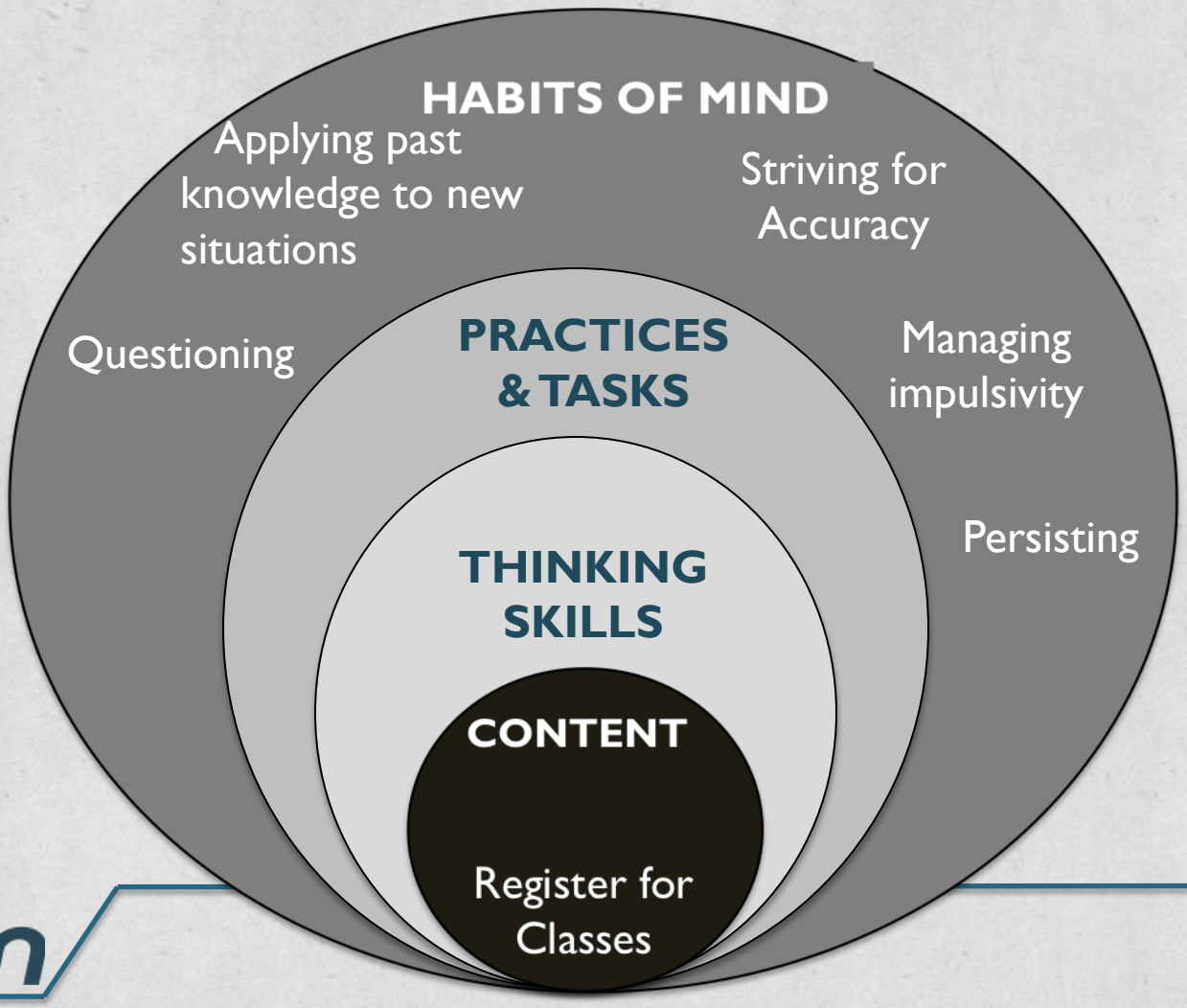
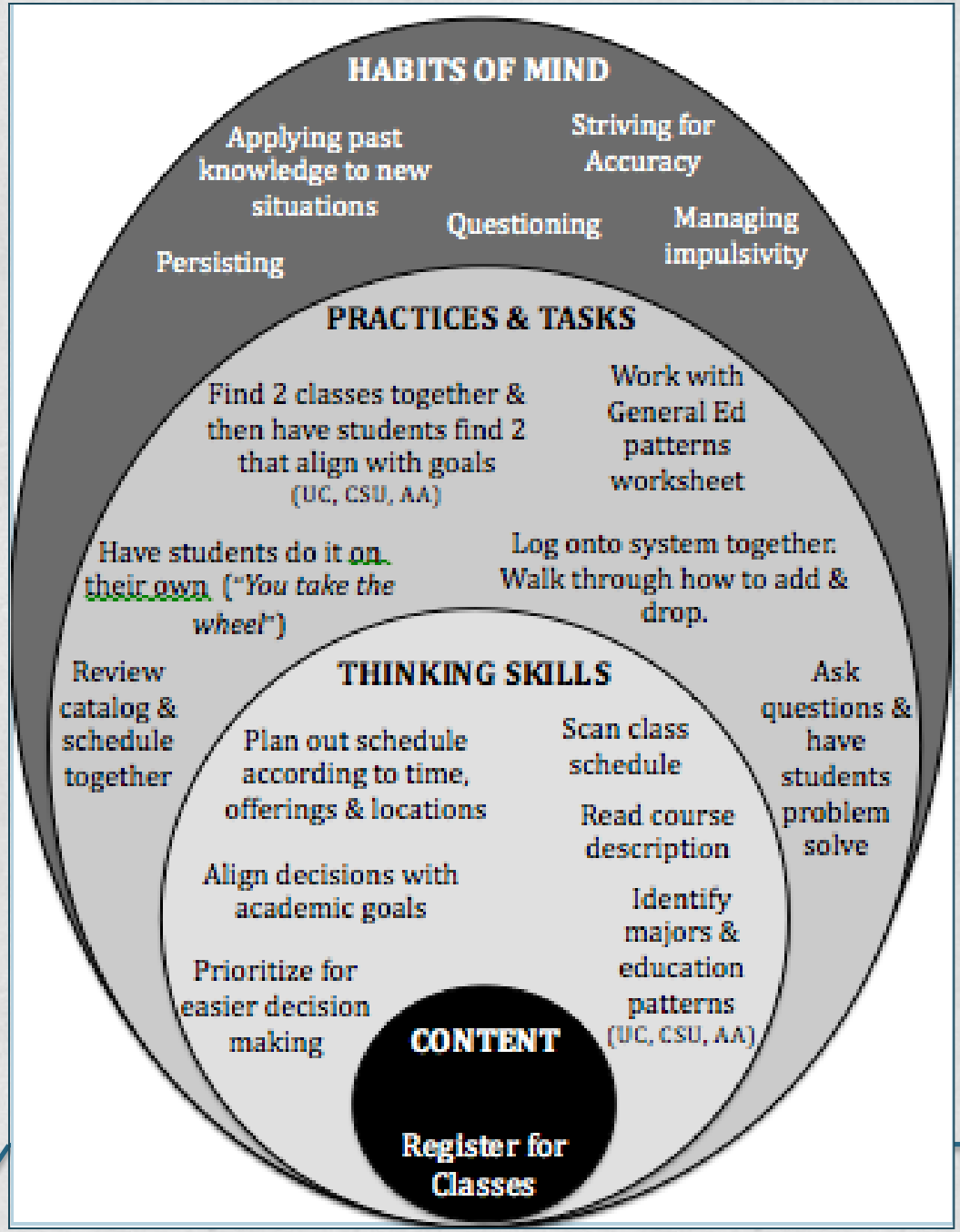



HABITS OF MIND
Applying past knowledge to new situations
Striving for Accuracy
Questioning
Managing impulsivity
Persisting
PRACTICES & TASKS
Find 2 classes together & then have students find 2 that align with goals
(UC, CSU, AA)
Work with General Ed patterns worksheet
Have students do it on their own ("You take the wheel")
Log onto system together. Walk through how to add & drop.
Review catalog & schedule together
THINKING SKILLS
Ask questions & have students problem solve
Plan out schedule according to time, offerings & locations
Scan class schedule
Read course description
Align decisions with academic goals
Identify majors & education patterns
(UC, CSU, AA)
Prioritize for easier decision making
CONTENT
Register for Classes

Developing a sense of Belonging

- **Growth Mindset**

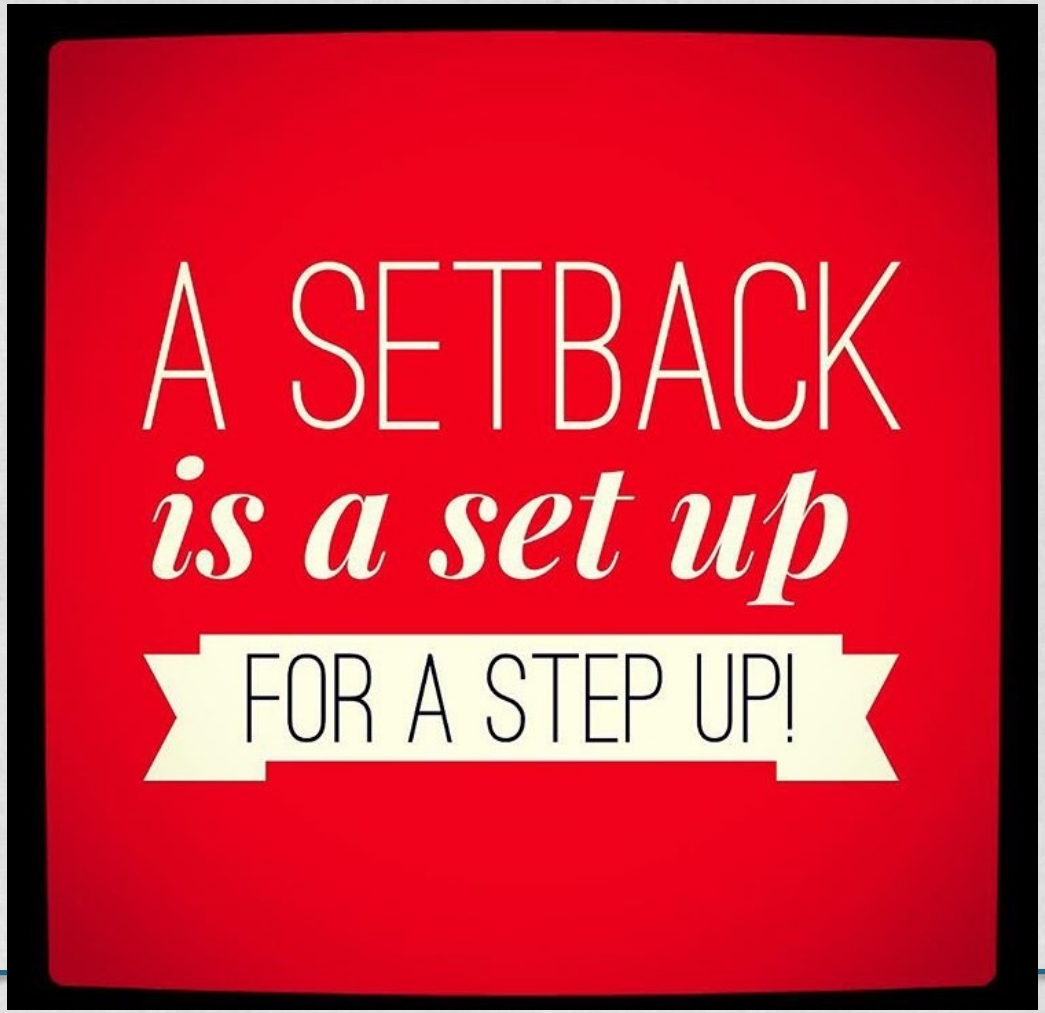
  I believe I can change and improve
  - I learn from challenges.
  - I recognize my power to shape my future and make wise choices that prioritize my learning.
  - I have experienced success and know I can learn new things.

- **Belonging**

  I am a learner and a contributor to this community
  - I belong in this learning community.
  - I am willing and able to speak up to get what I need to learn.
  - I take pride in contributing to my learning community both as a teacher and as a student.
- **Purpose**

  I am motivated to learn
  - I have a passion or a purpose that drives me to learn.
  - I enjoy learning new things.

Empathy and Belonging



Paper Activity

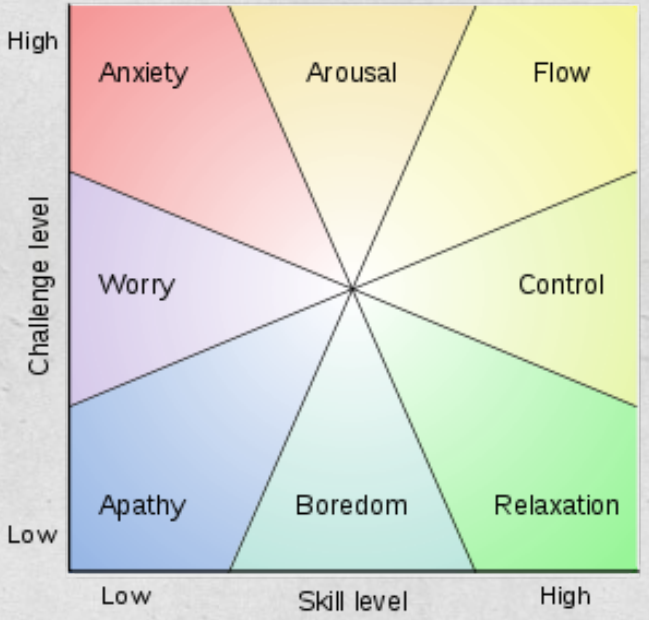
The

STRUGGLE

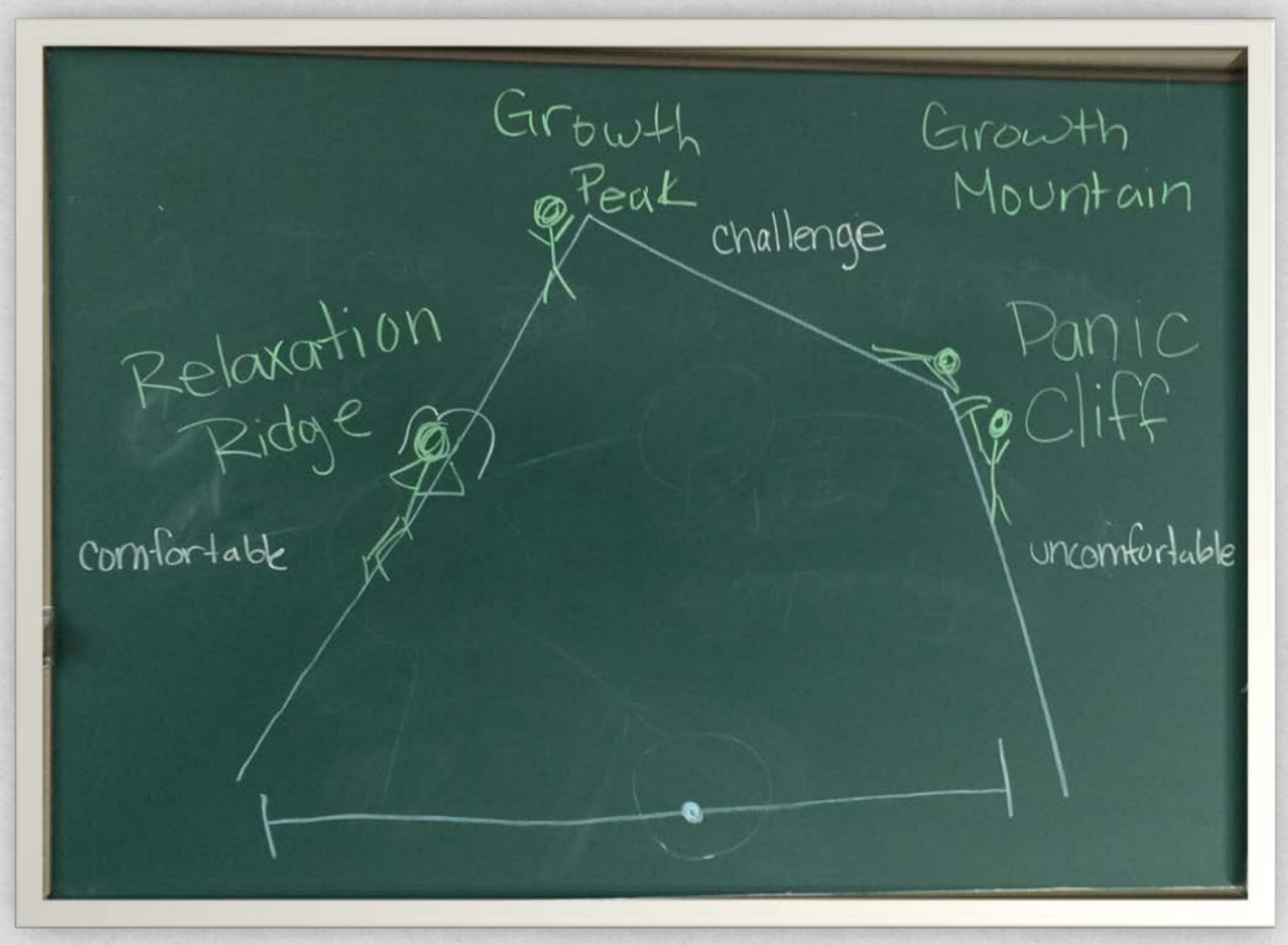
is where the learning takes place!

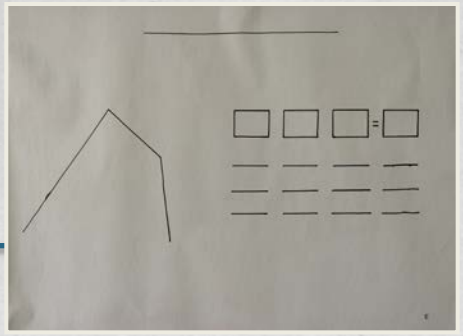
Purpose adds energy, resilience, and fulfillment (Damon 41)

- "Flow"
  - Mihaly Csikzentmihalyi (32)



Growth Mountain





Who will you help as you grow?

Empathy and Equity Activity

- Reflect on a time when someone mistreated you.
- Briefly write about the experience and how it makes you feel.

Empathy Teaching

Often, we start with **skills**

- What skills do I have and what do I need to develop?
- What skills do my students have and what skills do they need to develop?

But mindset and identity influence our skill development, both as teachers and as students.

Window – Looking out to recognize what students know about their own mindset and identity

Mirror – Looking in towards our own biases and how they impact our ability to see and help students

Empathy Teaching

Start with identity and mindset, then move towards the actions of skill building.

Build a learning community of trust

- Examine bias
- Examine the messages

"They don't care how much you know, until they know how much you care."

Empathy Teaching

Addressing Bias

- Our brains are wired for bias
- Bias exists for all, not some.

- We categorize information based on lived experience, and the images and messages we receive over time.

Empathy Teaching

- Espoused belief: All students can learn.
    - Do our actions demonstrate our espoused belief?

- Espoused belief: All students are valued members of our learning community.
    - Do our actions demonstrate our espoused belief?

Empathy Study

- **Hypothesis: School discipline problems often stem from student teacher mindsets, especially for men of color.**
  - Students often feel disrespected and excluded, which leads to disengagement
  - Teachers often feel disrespected, which leads to increased punishment
    - These behaviors contribute to an increasing cycle, and high rates of discipline and suspension

(Okonofua, Paunesku, Walton,– under review Proceedings of the National Academy of Sciences)

Empathy Study

- **All math teachers were given a brief message on the value of empathy in teaching.**
  - This message changed teacher mindsets and reactions to misbehavior.

    Teachers were

    - less likely to label students as trouble makers
    - less likely to use punishment
    - and more likely to adapt (i.e. move waste basket closer to students)

(Okonofua, Paunesku, Walton,
Proceedings of the National Academy of Sciences, 2016)

Empathy Study

- After one year there was a dramatic decrease in school discipline
    - 5 middle schools across 3 districts
- Students were 50% less likely to be suspended
- Suspensions decreased across all gender and racial groups
- The biggest decreases were for African American and Latino males

(Okonofua, Paunesku, Walton,
Proceedings of the National Academy of Sciences, 2016)

Empathy Study

- Only math teachers were given the message, but the changes reflected the school wide suspension rates.
- Having one teacher with a good empathetic mindset decreases suspension rates.
- Lessons:
  - A brief intervention with some of the teachers can be the beginning of transformational change.
  - Teacher mindsets matter and influence student learning
  - Students who feel respected and engaged are better able to learn.

(Okonofua, Paunesku, Walton,
Proceedings of the National Academy of Sciences, 2016)

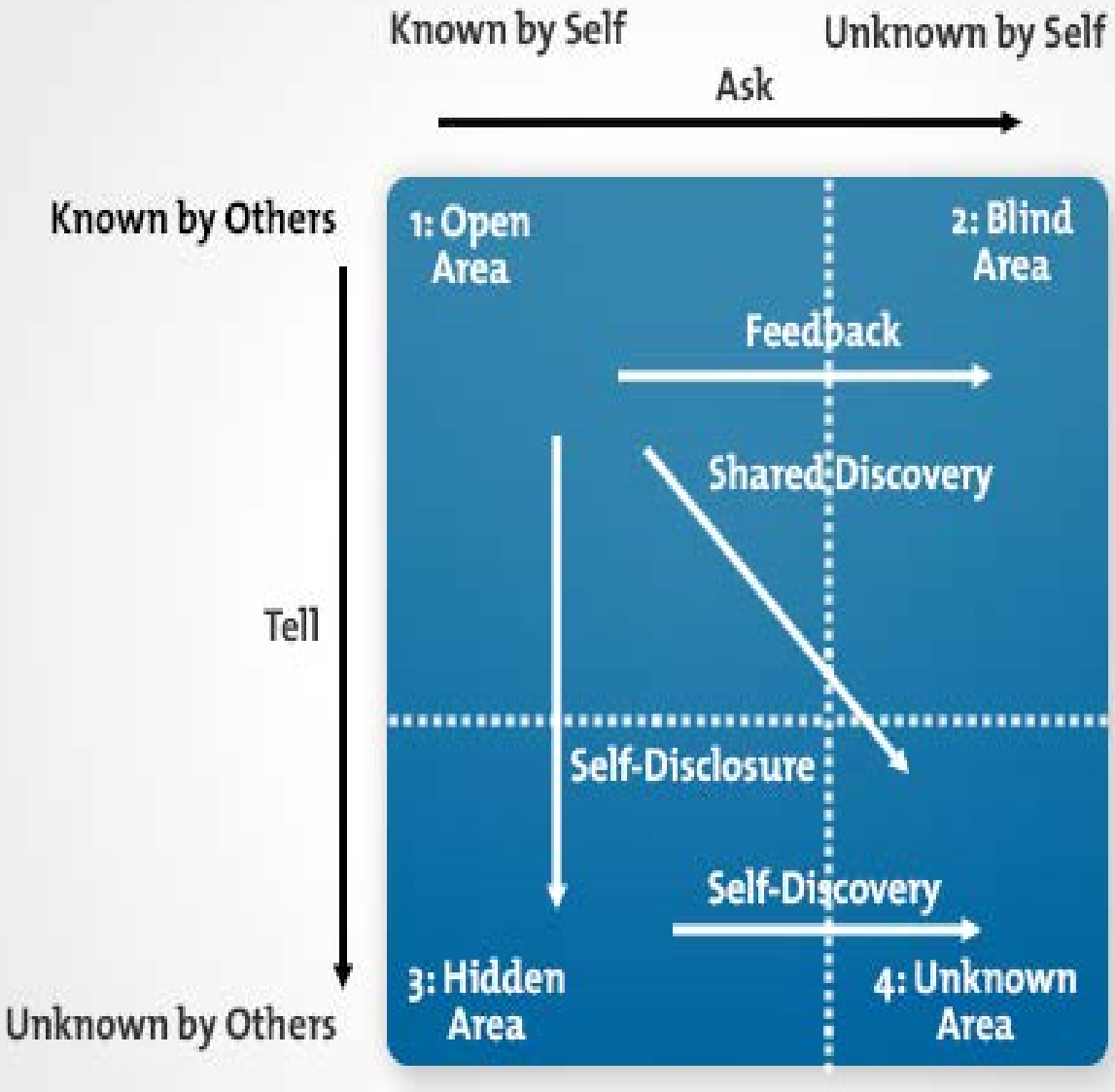
Big Questions

Which resources do students already know about and are widely using?

Which resources may students need, but do not know about?

How can we help to promote campus resources?

What resources might students need that we do not have on our campus?


Known by Self
Unknown by Self
Ask
Known by Others
1: Open Area
2: Blind Area
Feedback
Shared Discovery
Tell
Self-Disclosure
Self-Discovery
3: Hidden Area
4: Unknown Area
Unknown by Others

INQUIRY WINDOWS: CAMPUS RESOURCES
RESOURCES: PEOPLE, PLACES, GROUPS, PROGRAMS, TOOLS, ETC

OPEN : Resources you know about and believe are widely known by others

- Admissions and Records
- Financial Aid
- Counseling
- Child Care
- Library

HIDDEN: Resources on campus that you may have heard of, but know very little about

- CARE
- Cosmetology: getting hair and nails done
- MESA
- TRIO

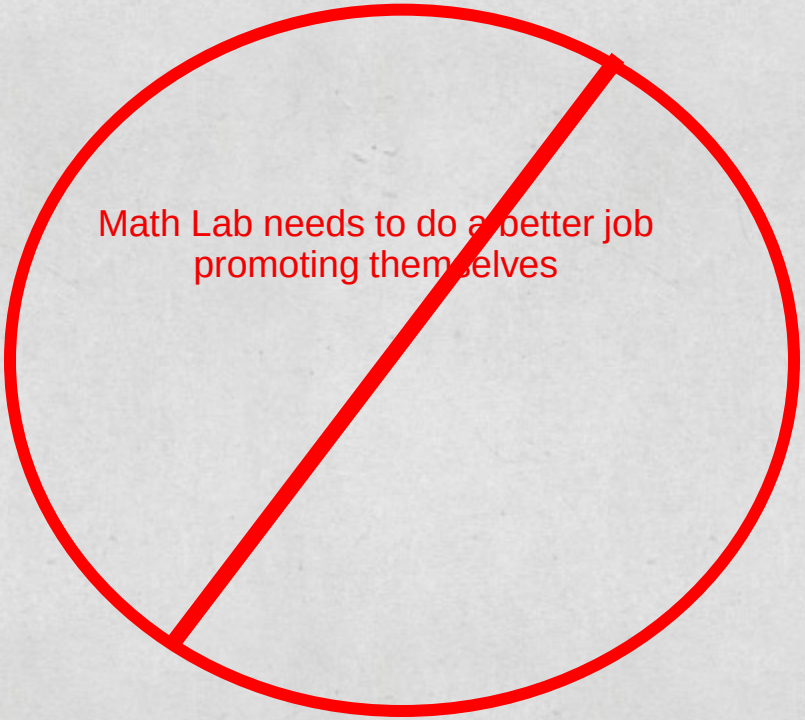
SECRET: Resources you may know about, but which you think may be unknown to others.

- Writing Center
- DRC
- High Tech Center
- Student Success Center
- EOPS
- CARE
- Veteran's Council

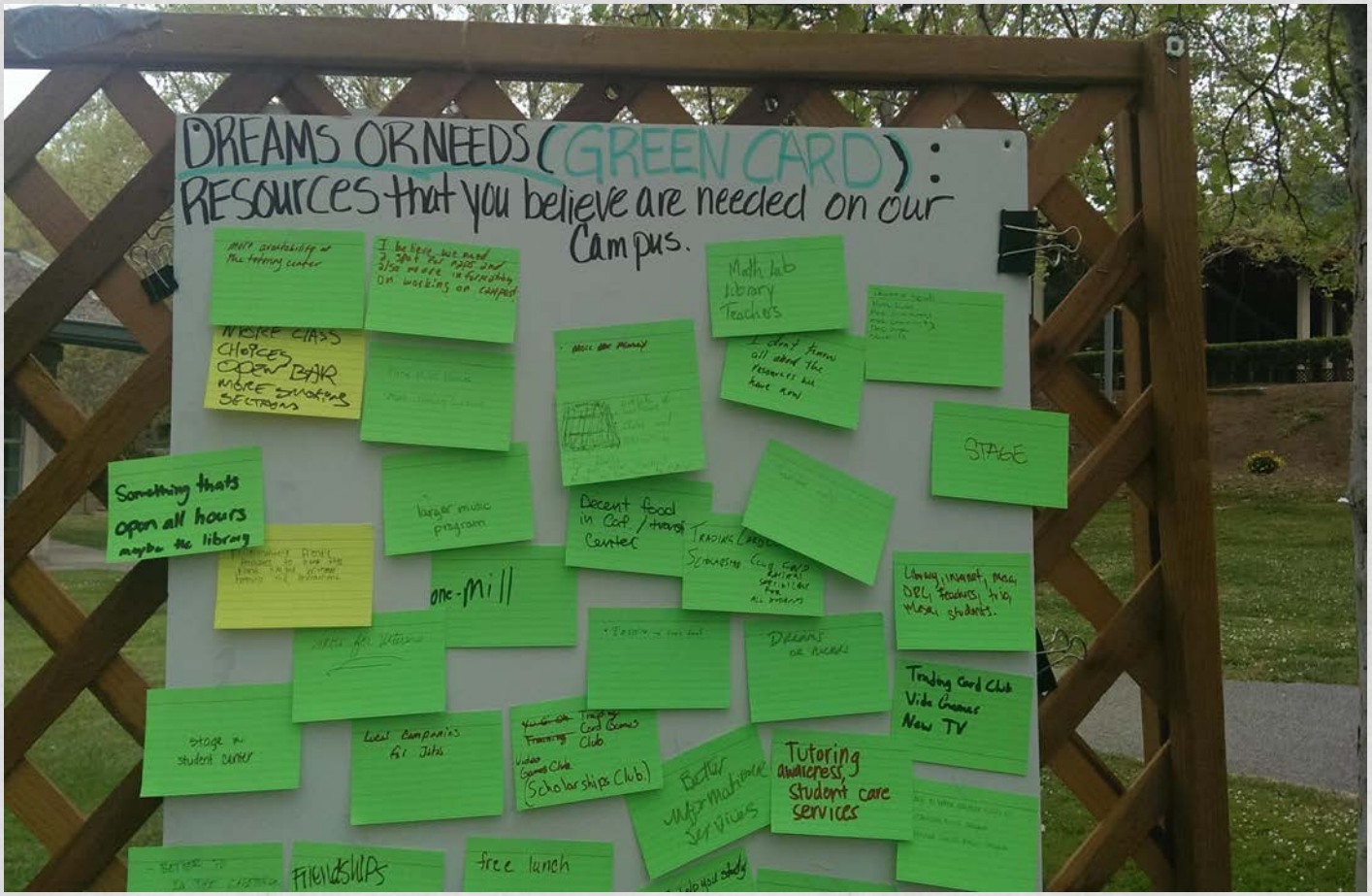
DREAMS AND NEEDS: Resources on campus that you believe are needed

- Puente
- Math Lab
- Firefighting Dept.
- Army Recruiting Station
- Parenting Classes
- Police Academy
- Field Trips to Colleges for Transfer
- American Sign Language Class

Discussions: Shared Ownership

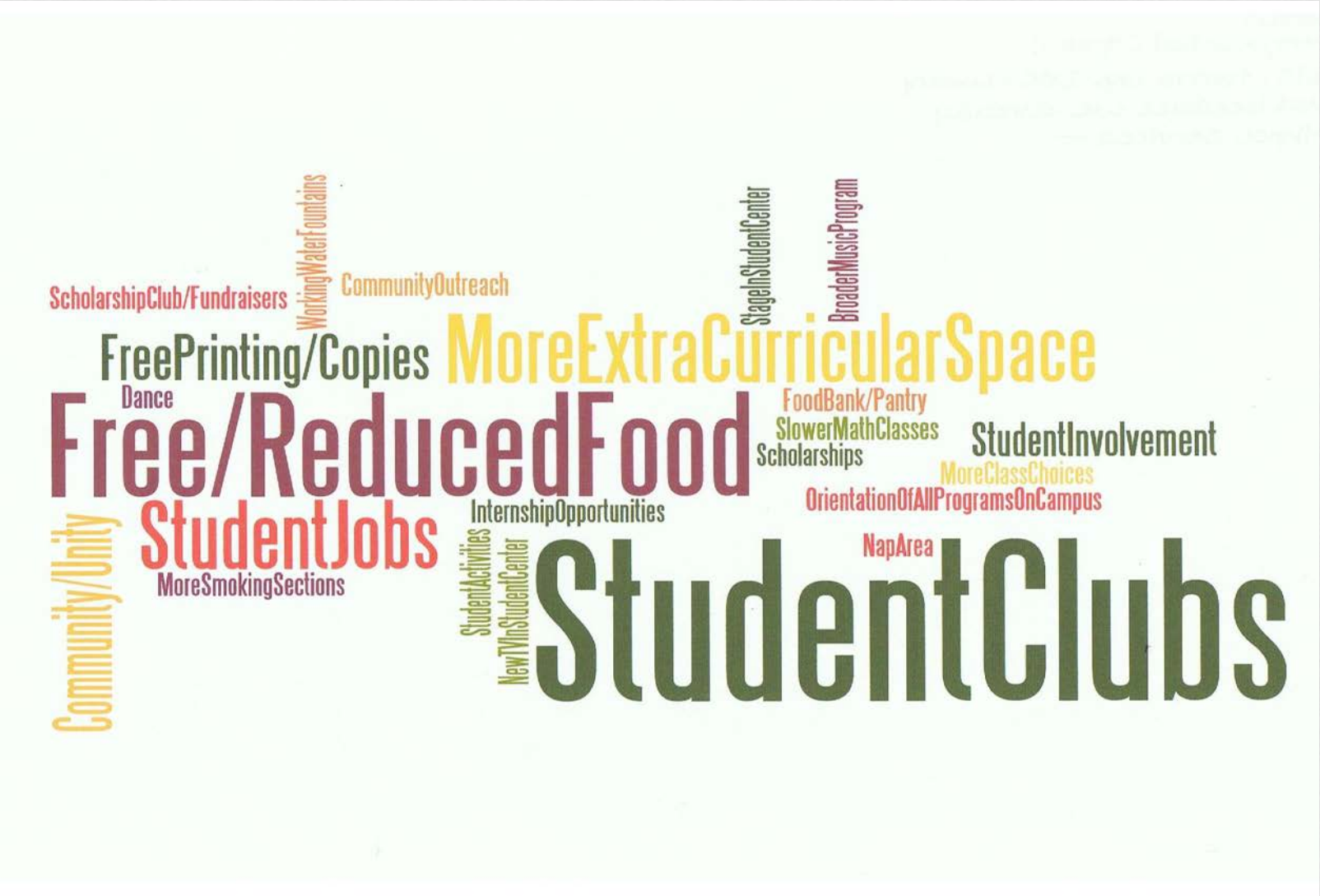


How can WE all work to promote the Math Lab?)


DREAMS OR NEEDS (GREEN CARD):
RESOURCES that you believe are needed on our Campus.
Math lab
Library
Teachers
MORE CLASS CHOICES
OPEN BAR
MORE SMOKING SECTIONS
STAGE
Something thats open all hours maybe the library
larger music program
Decent food in Cafe / transit Center
one-mill
Trading Card Club
Vide Games
New TV
stage in student center
Local Companies for Jobs
Trading Card Games Club
Video Games Club
(Scholarships Club)
Better Information Services
Tutoring awareness, Student care services
FRIENDSHIPS
free lunch

FOR TRASH WITH
FOOD WASTE ONLY

Student Dreams/Needs



HoM through a Professional Development Lens

Adaptation of the “Who Map”

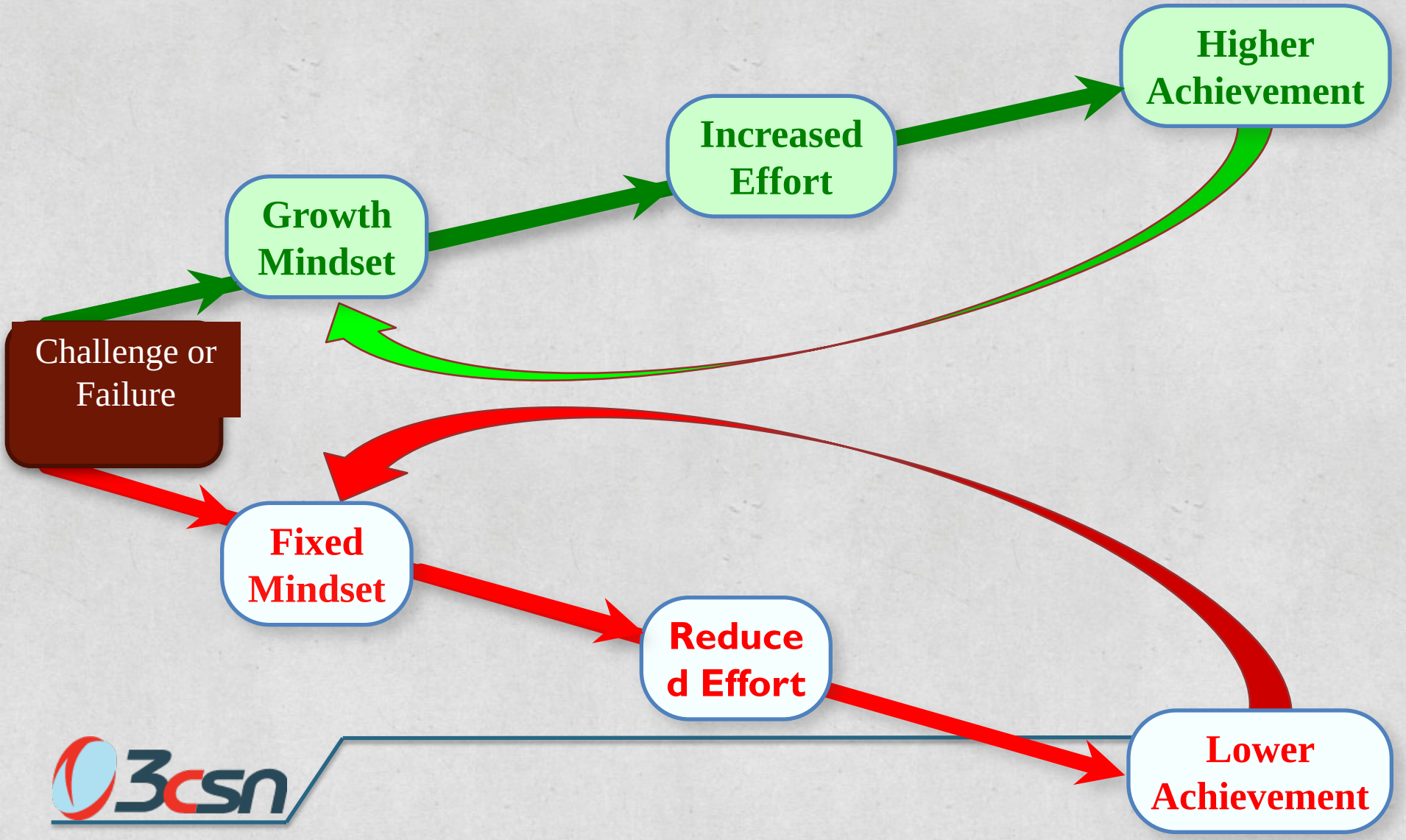
- Who do we reach out to?
- Who needs to be involved in the conversation? Individuals? Groups? Existing FIGS?
- What is already taking place on our campus?

What Makes Us Feel Good About Our Work

What am I doing to promote a meaningful condition for students or others I work with?

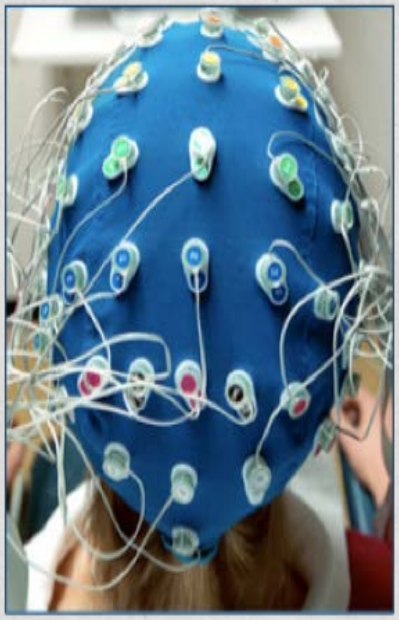
What are others doing to promote a meaningful condition for me in my position?

Recursive Processes



Growth Mindset – Research

- How does Growth Mindset Affect Learning?



Mangels, Butterfield, Lamb, Good, & Dweck, 2006

Growth Mindset – Research

1. Participants asked a question.
2. Participants type their answer.
3. Participants are told whether they are right or wrong.
4. Brain activation is recorded.
5. Participants are told the correct answer.
6. Brain activation is recorded.
7. Surprise Retest

WRONG

Growth Mindset – Research

The Growth Mindset Students Outperformed the Fixed Mindset Students

- "These results suggest that beliefs can influence learning success through top–down biasing of attention and conceptual processing toward goal-congruent information" (*Abstract*).

Mangels, Butterfield, Lamb, Good, & Dweck, 2006

ASSESSMENT AND FEEDBACK FROM A GROWTH MINDSET PERSPECTIVE

How would you grade your grading or feedback?

Assessment OF Learning
Assessment FOR Learning

PTK Student Focus Group

https://youtu.be/eBPNS9r_6VA

Reflection

- What is the purpose of grading in your professional or learning context?
- What is the difference between grading and feedback in your professional or learning context?

Growth Mindset Changes for Faculty

1. A Growth Mindset Grading Process
2. A Growth Mindset “Failure isn’t Permanent” Feedback Process
3. Student Self-Reflection or Self Evaluation
4. Revision for Full or Partial Credit
5. Growth Mindset as a Component of the Course

Growth Mindset Changes for Faculty

A Growth Mindset Grading Process

- Progressive Grade Scale
- Low or No Stakes Assignments

High Stakes Assignments

- Capstone Assignments with Embedded Skills

Growth Mindset Changes for Faculty

A Growth Mindset "Failure isn't Permanent" Feedback Process

- Feedback that encourages learning from failure
- Recognizing errors as temporary setbacks creating learning opportunities
- Adopting new strategies

Growth Mindset Changes for Faculty

Student Self-Reflection or Self Evaluation

- Encourage individual process based learning
- Identify concept mastery and new strategies
- Students select best work for submission and explain their decision
- Post Exam Review
- Student Teacher Dialogue on Strategies

Growth Mindset Changes for Faculty

- Self and Peer Assessment
  - 7th grade physics study
  - Video - Jo Boaler, Stanford Professor PERTS
- Direct Link to Video
  - https://www.mindsetkit.org/topics/assessments-growth-mindset-math/using-self-peer-feedback-assessments-learning

Growth Mindset Changes for Faculty

Revision for Full or Partial Credit

- Revision Based on Feedback
- Portfolio Grading
- Retest for Mastery

Growth Mindset Changes for Faculty

Growth Mindset as a Component of the Course

- Explicitly Promote Growth Mindset
- Time Growth Mindset Discussion with Feedback/Grading
- Assign students to teach Growth Mindset Concepts

Growth Mindset Changes for Faculty

Growth Mindset Grading and Feedback Activity

Select one of the 5 Strategies

A. If you already use this strategy, outline how you could build on your practice.

B. Or, select a new strategy and outline how you can include this strategy in your practice.

1. A Growth Mindset Grading Process
2. A Growth Mindset "Failure isn't Permanent" Feedback Process
3. Student Self-Reflection or Self Evaluation
4. Revision for Full or Partial Credit
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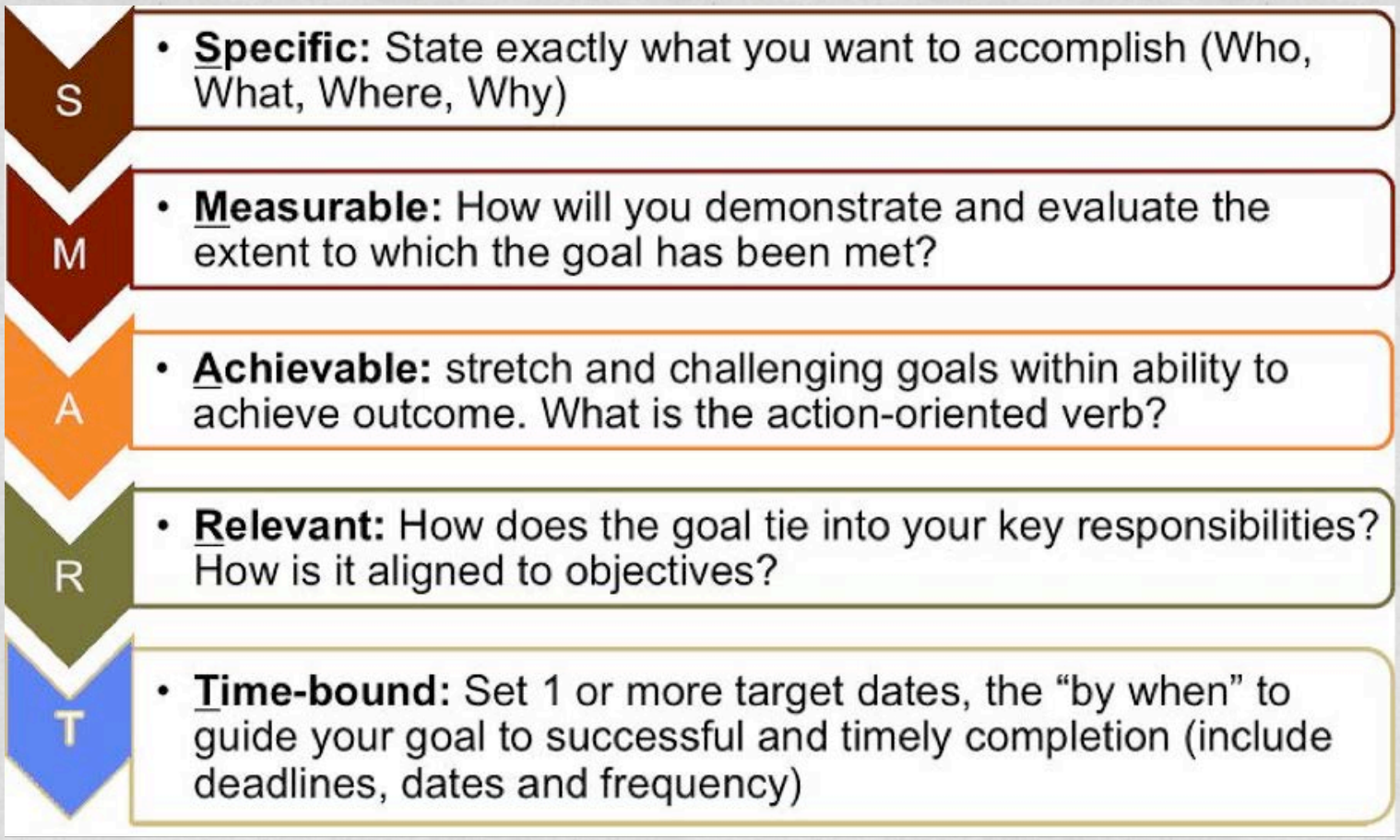
Growth Mindset Changes for Faculty

Poster Discussion

- Identify Your Poster (1-5)
- Share your strategies with your poster team
- As a team, prepare a poster to present to the whole group on your team's grading and feedback approach

SMART Goals


S
• Specific: State exactly what you want to accomplish (Who, What, Where, Why)
M
• Measurable: How will you demonstrate and evaluate the extent to which the goal has been met?
A
• Achievable: stretch and challenging goals within ability to achieve outcome. What is the action-oriented verb?
R
• Relevant: How does the goal tie into your key responsibilities? How is it aligned to objectives?
T
• Time-bound: Set 1 or more target dates, the "by when" to guide your goal to successful and timely completion (include deadlines, dates and frequency)

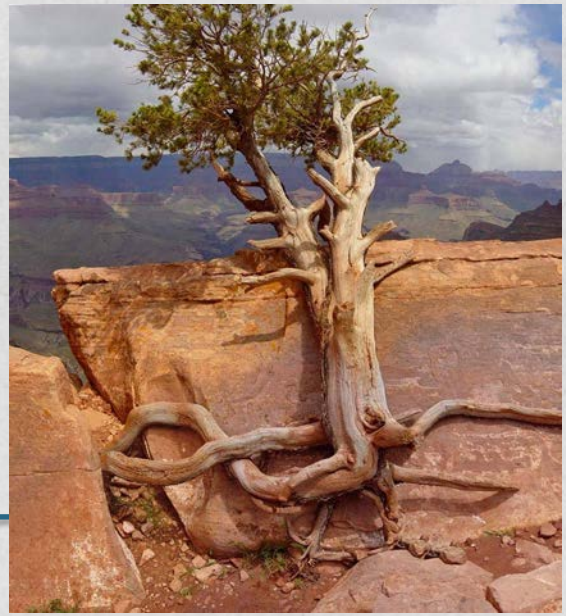
Growth Mindset and Resilience in Math

- 1 Offer Revision
- 2 Measure Revision Submissions
- 3 Survey Students about Revision Behaviors
- 4 Create new Revision Options and Incentives
  - Repeat 2 – 3
- Examine Assumptions – Loop Back
- Change Revision Options with New Understanding and repeat cycl

Result: The percent of eligible students who submit revisions improved from 20% to 80% over the semester.

Reflection

- How might you apply today's learning to your personal practice?
- What questions do you have at this time?



The Summit of Mt. Everest
29,035'
The Hillary Step
28,800'
The South Summit
28,700'
The Balcony
27,500'
The
Triangular
Face
The South Col
26,000'

Meaning Gap

- BREAKING NEWS -

Everest Climber **FAILS** to Summit

- BREAKING NEWS -

Everest
Climber
SAVES
Two Lives

The Path to Purpose: How Young People Find Their Calling in Life

William Damon, 2008

Term	Percentage
Disengaged	25%
Dreamers	25%
Dabblers	31%
Purposeful	20%

Relaxation Ridge

Growth Peak

Panic Cliff