

**“Education is  
our passport  
to the future,  
for tomorrow  
belongs to the  
people who  
prepare for it  
today.”**

Malcolm X



- How do we help students to value education? To see the relevance? To want to engage in school and learning? To want to put forth effort?

# Promoting Cognitive Engagement

Check & Connect National Conference

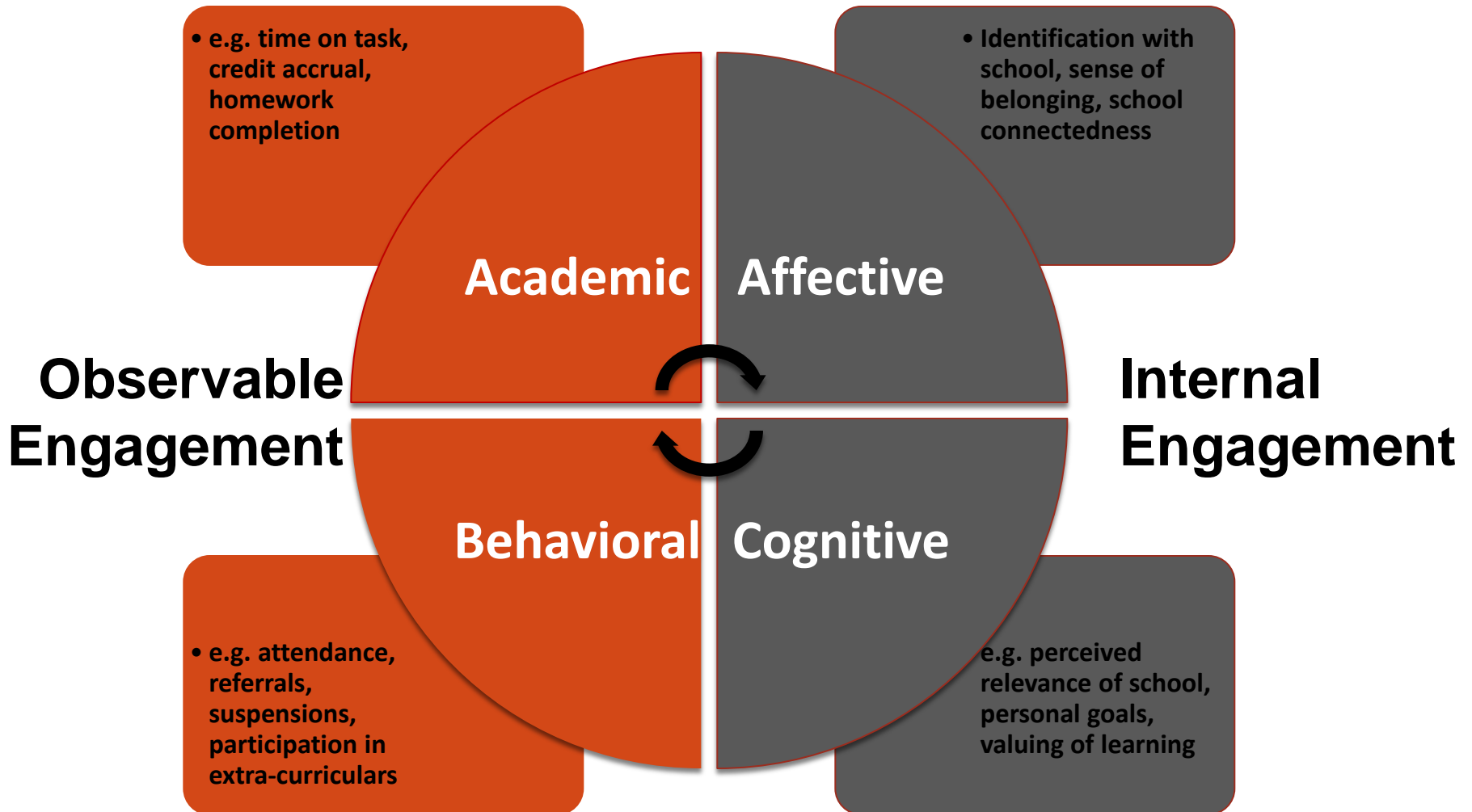
October 8, 2015

Angie Pohl, PhD

# Agenda

- What is Cognitive Engagement?
- Why is it important?
- What are some strategies I can use to promote cognitive engagement?

# Student Engagement



(Appleton, Christenson, Kim, & Reschly, 2006)

# Cognitive Engagement

- Cognitive engagement is students' investment in their learning, valuing of learning, perceiving learning as relevant to their futures, and using cognitive strategies to regulate their learning.
- “I can” and “I want to” and “I value”

(Appleton, Christenson, Kim, & Reschly, 2006)

# Indicators of Cognitive Engagement

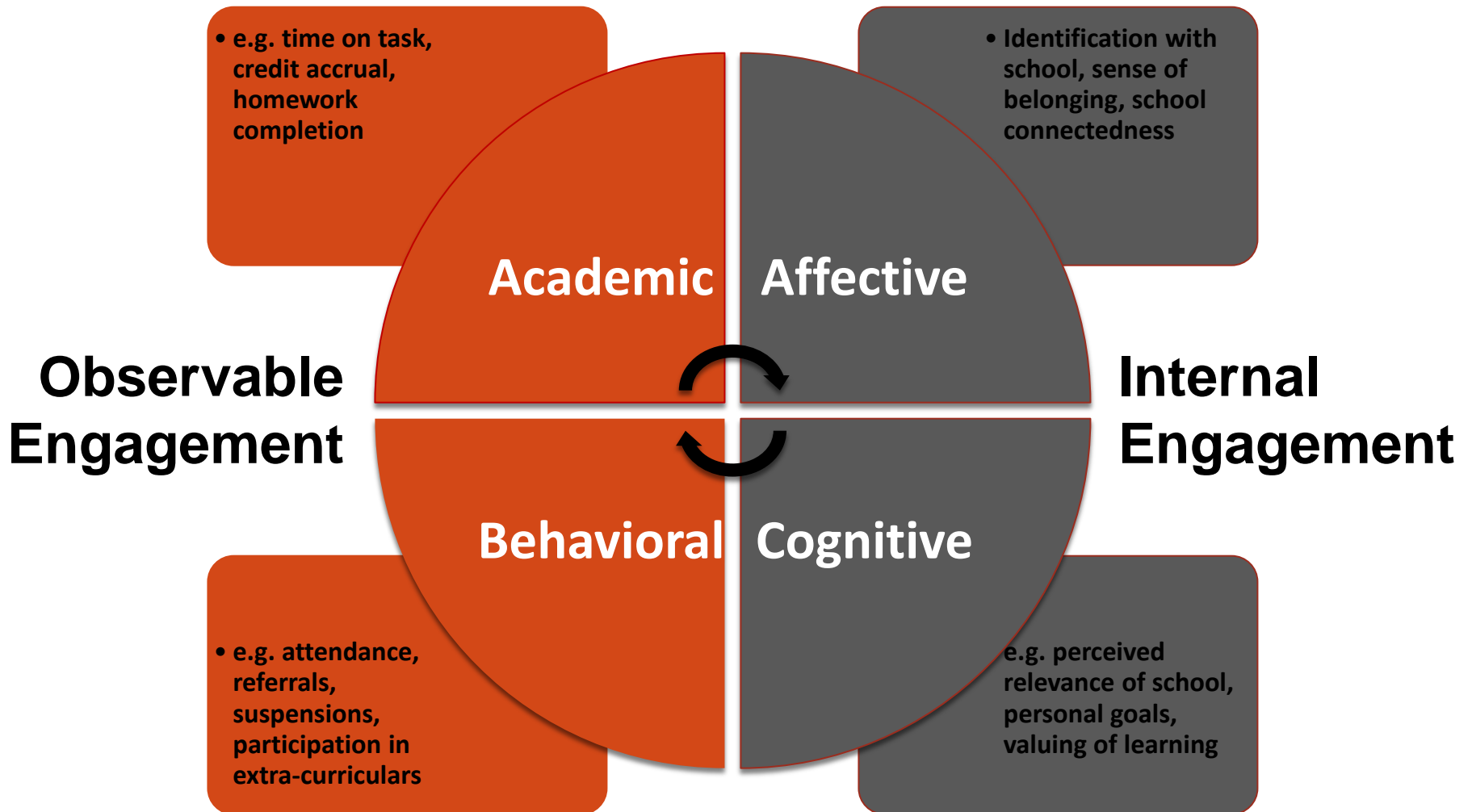
- Read through the indicators and evidence of cognitive engagement.
- As you read...
  - Underline key words
  - Place a star by those indicators you think students struggle with the most
  - Place a check by those you feel comfortable working on with students

# Why is Cognitive Engagement Important?

- Cognitive engagement has been positively related to:
  - Academic achievement
  - Self-efficacy (belief in one's academic ability)
  - Self-motivation
  - Self-esteem
  - Interest in learning
  - Mental health and well-being

(e.g. Cleary, 2006; Schunk & Zimmerman, 1994; Wang & Peck, 2014).

# Impact of Intervention



(Appleton, Christenson, Kim, & Reschly, 2006)



# Metacognitive Dyad

- Form a pair
- Each person has 60 seconds to talk about:
  - “What is cognitive engagement and why should we intervene to promote it?”
  - Only one person may talk at a time
- 30 seconds each
  - “What is one indicator you believe is most challenging for your students and why?”

# Strategies for Promoting Cognitive Engagement

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# Designing Interventions

- Identify the areas of strength for the student
- Identify the areas of growth for the student
- Target interventions to that indicator

# Case Study - Ava

- *Ava is a 16-year-old sophomore at Washington High School in an urban city in the Midwest. Ava is very social and has many friends at school and in her neighborhood. She is involved on the school dance team and teaches a dance class for 4-6 year-olds twice a week at a local dance studio. She hopes to be a professional dancer or a dance teacher someday.*
- *In regard to school performance, Ava has demonstrated proficiency on the state math, reading, and writing exams; however, she failed geometry and English 9 and is currently failing her sophomore biology and Algebra II class. She is behind in credits toward graduation and has a GPA of 1.75.*
- *Ava's teachers describe her as social, friendly, and polite but underachieving and disorganized.*
- *When asked about why she believes she has failed courses, she explains that she is often bored in class, doesn't see the relevance of what she's learning to her future ("why do I need to know geometry to be a dancer?"), and she can't keep track of her homework.*

# Small Group Activity

- Go to the chart paper closest to you.
- Select a recorder and a reporter.
- Divide the paper into 2.
- List strengths and areas for growth.

*Strengths (In what ways is Ava demonstrating engagement?)*

*Areas for growth Ava?*

# Promoting Cognitive Engagement

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Investment in Learning

# Promoting Valuing of Learning

- For students without future goals, help them to discover those goals.
- Help students to connect their current schoolwork and learning to their future goals.
  - For Ava, why is geometry important? Why is school important?
  - How do we structure the conversation to help Ava understand the value of school without telling her the value?

# Promoting Effort and Persistence

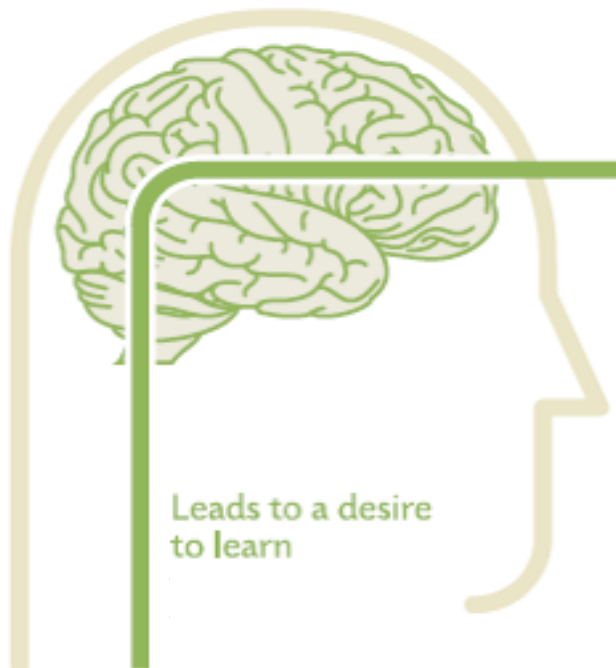
- Use the discussion starters to help students when they are stuck
- Teach strategies for persisting
- Encourage the student!
- Promote a growth mindset

Ava complained about her classwork being boring. What questions might you use to help Ava find the work less boring or at least complete the task despite the boredom?



# Growth Mindset

- Belief that one can change his/her ability and intelligence through hard work, effort, and practice.



**Growth Mind-set**  
Intelligence can be developed

Leads to:

- Embracing challenges
- Persisting when there are challenges
- Seeing effort as the path to mastery
- Using feedback to improve

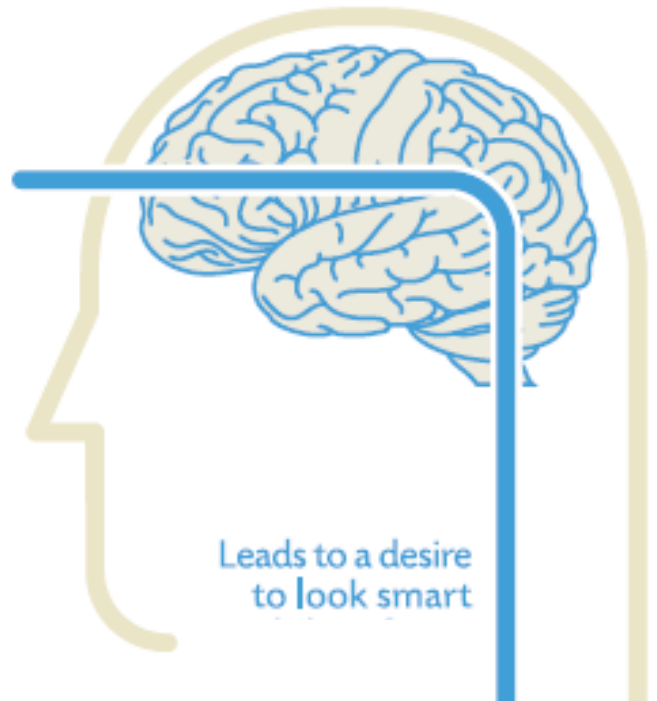
# Fixed Mindset

- Belief that one's abilities and intelligence are fixed and that he/she does not have the power to change them.

Leads to:

- Avoiding challenges
- Giving up easily
- Seeing effort as fruitless
- Ignoring useful negative feedback

**Fixed Mind-set**  
Intelligence is static



# Promoting a Growth Mindset

- Teach a growth mindset
  - Allow the student to reflect on his/her mindset.
    - Use the quiz and reflection provided
  - Dialogue about...
    - their mindset and why they have that mindset.
    - how we can approach failure and learn from it.
    - examples of people who have overcome obstacles and failures to be successful
  - Teach students that the brain is a muscle that must be exercised

# Promoting a Growth Mindset

- Give the right praise and feedback
  - Provide effort-based praise
    - *Wow! You tried all kinds of strategies on that math problem until you got it!*
    - *You really studied hard for your test and your improvement shows it!*
  - Ask questions about their work in a way that admires and appreciates their efforts and choices.
    - *You put so much thought into that essay! How did it feel to turn it in?*
    - *That picture has so many beautiful colors – tell me about them.*
    - *I could tell you put in a lot of practice on that piano piece. How did it feel to perform it?*

# Promoting a Growth Mindset

- When thinking about Ava, in which parts of her life might she have a fixed mindset in any areas?
- How might you help her to develop a growth mindset?

# Promoting Cognitive Engagement

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Use of Self-Regulated Learning Strategies

# Promoting Goal Setting

- Help students to identify:
  - Interests and values
  - Dreams for their future
  - Specific long-term goals and the steps to get there
  - Short-term goals that will help them achieve their long-term goals
    - Motivation to achieve these goals
    - Possible barriers and how to address them
    - Possible supports
- Goal setting tools

# Value of Goal Setting

- Mentors can regularly draw on a student's goals as motivation for the student to engage in school.
  - Ex. "Remember when you told me you wanted to be a professional football player? We've looked up the requirements and found that the best path to the NFL is through college. So how can this physics project help you achieve your goal of being in the NFL?"



# Promoting Goal Setting

- Ava has a long-term goal of becoming a professional dancer.
  - What short-term goals might Ava need to work on to meet her long-term goal?
  - What steps would you take in helping Ava to identify and achieve those short-term goals?

# Promoting Self-regulated Learning

- Self-regulated learning, or SRL, has been defined as **a student strategically directing thoughts, feelings, and behaviors toward attaining personal goals** (Zimmerman, 2000).
- Strategies:
  - Explicitly teach SRL
  - Using guiding questions to help students through appraising the task, planning, engaging in the task, monitoring progress, completing the task, and reflecting

# Explicitly Teach SRL

- Discuss times when students already use SRL
  - Video games
  - Sports
  - Playing an instrument
- Discuss translating those same cognitive processes to educational tasks

# Explicitly Teach SRL

## Before I begin the task:

- Purpose?
- Goal?
- How will I reach my goal?

## When I'm done with the task:

- Did I achieve my goal?
  - Why or why not?
- What will I do differently next time?

## While I work on the task:

- Strategies?
- Effort?
- How am I staying motivated?
- How am I doing in meeting my goal?

# Promoting SRL

- How might you help Ava to understand the SRL process and apply it to her schoolwork?

# Additional Resources

- We just skimmed the surface today!
  - List of resources
  - My top choices:
    - Conducting Student-Driven Interviews – Murphy
    - Mindset - Dweck

# Reflection

- What is one thing that you've learned that you want to take and put into practice right away?
- Write it on your post-it and stick it somewhere you won't lose it!

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