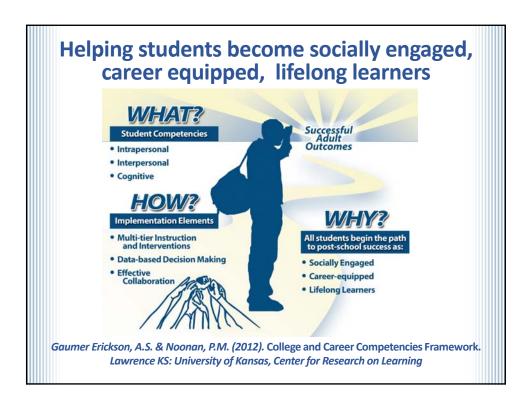# Teaching College & Career Competencies

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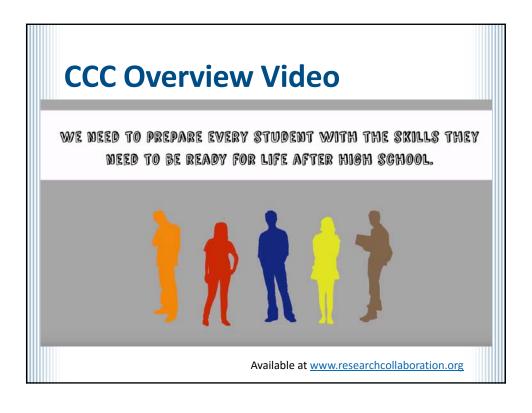
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KSDE Annual Conference
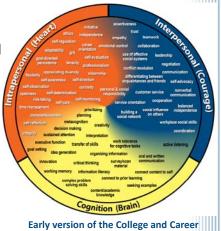
October 2016

Need for College & Career Competencies

Conclusion from Pellegrino's *Education for Life and Work* (2012):

- Coverage of other 21st century competencies—particularly those in the intrapersonal and interpersonal domains—is uneven (p. 140).

- Development of higher-order 21st century competencies within the disciplines will require systematic instruction and sustained practice (p. 140).

Helping students become socially engaged, career equipped, lifelong learners

Gaumer Erickson, A.S. & Noonan, P.M. (2012). College and Career Competencies Framework.
Lawrence KS: University of Kansas, Center for Research on Learning

Who we are, our work, and our mission

www.researchcollaboration.org

CCC Overview Video

WE NEED TO PREPARE EVERY STUDENT WITH THE SKILLS THEY NEED TO BE READY FOR LIFE AFTER HIGH SCHOOL.
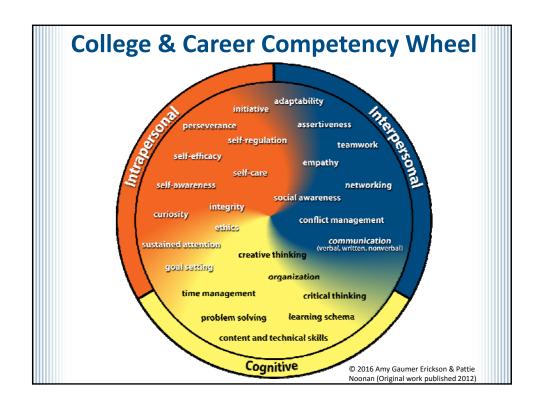
Available at www.researchcollaboration.org

Synthesizing the Competencies

- Research-based
  - Shown to improve in-school & post-school outcomes
  - Distinct
- Teachable
- Measurable
- Generalizable

Early version of the College and Career Competency Wheel

College & Career Competency Wheel

© 2016 Amy Gaumer Erickson & Pattie
Noonan (Original work published 2012)

Why focus on…

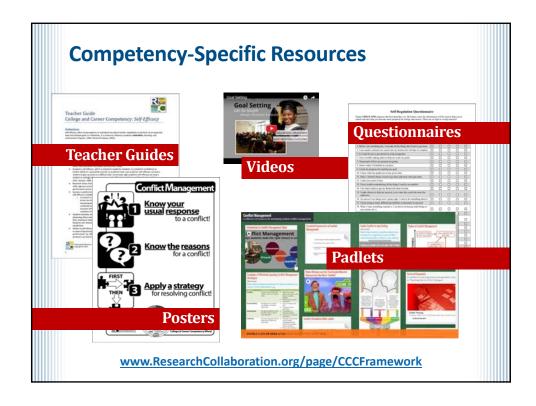| COGNITIVE competencies	INTERPERSONAL competencies	INTRAPERSONAL competencies
• **Effectively solve real-life problems.** • **Understand more course content and retain more information.** • **Generalize information to apply in multiple contexts.**	• **Better physical and mental wellness and social functioning.** • **Improved school attendance.** • **Feel more engaged in school.** • **Spend more time studying.** • **Higher employment rates.** • **Earn better grades and achievement scores.** • **Better able to effectively overcome stressors.**	• **Sustain attention in class better.** • **Improved retention of subject matter.** • **Earn higher salaries and advance further in careers.** • **Better able to avoid drug use.** • **Reduced bullying and victimization.**
(Chang, Wu, Weng, & Sung, 2012; English & Sriraman, 2010; Khemlani, 2000; Kuo, Hwang, & Lee, 2012).	(Dignath et al., 2008; Duckworth et al., 2007; Durlak et al., 2011; Nota, 2004; Ursache, 2012; Ekreis-Winkler et al., 2014).	(Dignath et al., 2008; Duckworth et al., 2007; Durlak et al., 2011; Nota, 2004; Ursache, 2012; Winkler-Eskreis et al., 2014).

Systematic Instruction & Application

- The competencies are not new.
- Educators are already supporting students to learn many of the competencies.
- School initiatives support development of many of the competencies.

The Challenge: Systematically providing instruction and application of the competencies for all students, focusing on the aspects that current research has identified as critical.

Implementation Issues

- Competency development isn't absorbed; **it's learned**.
- Like learning anything else, it takes **practice over time**.
- While relatively simple to define, competencies are **complex** to teach and learn.
- Competencies are addressed in school, but not typically in a **systematic way** for all students.
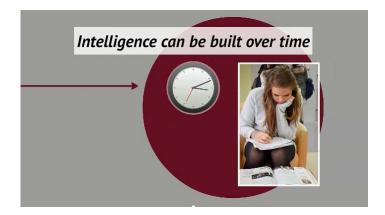
Essential Components

- Essential components "**make up**" the competency.

- Competencies are **complex to teach**.

- Teach the essential components <u>and</u> use the essential components to **shape your instruction**.

- Essential components **provide a checklist** (learning schema) **for our brains**.

Whether you think you can, or think you can't --- you're right.

Henry Ford

Self-Efficacy Overview Video

Video available at www.researchcollaboration.org
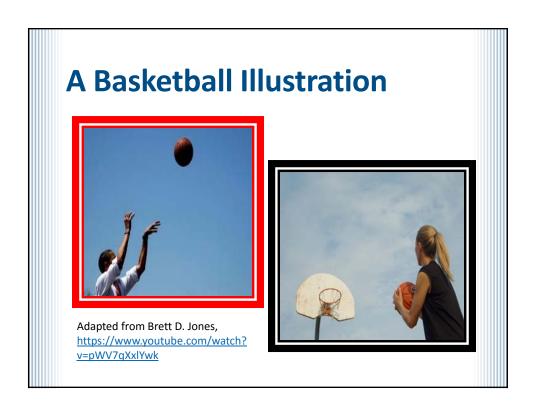
Impact of self-efficacy

"Self-efficacy beliefs touch virtually every aspect of people's lives

- whether they think productively, self-debilitatingly, pessimistically or optimistically;

- how much **effort** they expend on an activity;

- how well they **motivate** themselves and **persevere** in the face of adversities;

- how they **regulate** their thinking and behavior;

- and their vulnerability to stress and depression" (Pajares, 2005, p. 341).

Self-efficacy Student Questionnaire
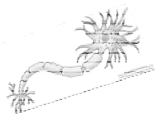
http://is.gd/rcsurveys
Code: 10-263

A Basketball Illustration

Adapted from Brett D. Jones,
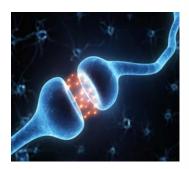https://www.youtube.com/watch?
v=pWV7qXxlYwk

A Crochet Illustration

Teach students some brain basics

- Neuron connections

http://brainconnection.brainhq.com/

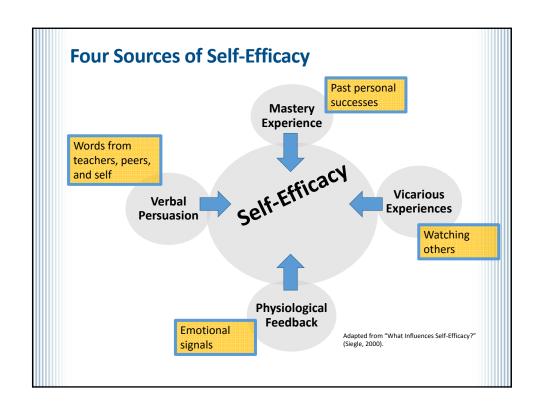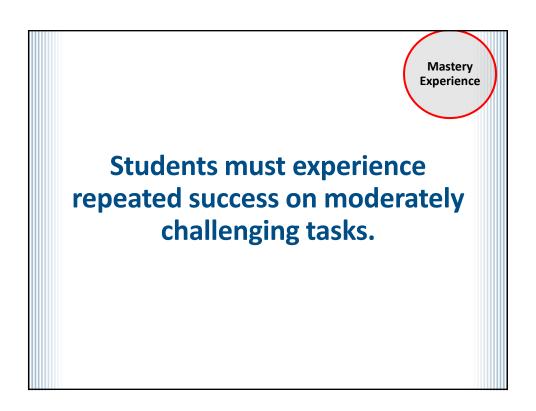https://www.youcubed.org/think-it-up/mistakes-grow-brain/

Fixed vs. growth mindset

FIXED MINDSET		GROWTH MINDSET
• SOMETHING YOU'RE BORN WITH • FIXED	SKILLS	• COME FROM HARD WORK • CAN ALWAYS IMPROVE
• SOMETHING TO AVOID • COULD REVEAL LACK OF SKILL • TEND TO GIVE UP EASILY	CHALLENGES	• SHOULD BE EMBRACED • AN OPPORTUNITY TO GROW • MORE PERSISTENT
• UNNECESSARY • SOMETHING YOU DO WHEN YOU ARE NOT GOOD ENOUGH	EFFORT	• ESSENTIAL • A PATH TO MASTERY
• GET DEFENSIVE • TAKE IT PERSONAL	FEEDBACK	• USEFUL • SOMETHING TO LEARN FROM • IDENTIFY AREAS TO IMPROVE
• BLAME OTHERS • GET DISCOURAGED	SETBACKS	• USE AS A WAKE-UP CALL TO WORK HARDER NEXT TIME

http://trainugly.com/mindset-makers-breakers-pt1/

Self-Efficacy Myths

- Self-efficacy is something you are born with, either you have it or you don't
- Self-efficacy can't be taught
- Self- efficacy and self-esteem are the same
- Self-efficacy has nothing to do with my course content of biology, English, history, etc.
- If you have a high IQ, you are automatically self-efficacious.

Four Sources of Self-Efficacy

Past personal successes

Mastery Experience

Words from teachers, peers, and self

Verbal Persuasion

Self-Efficacy

Vicarious Experiences

Watching others

Physiological Feedback

Emotional signals

Adapted from "What Influences Self-Efficacy?" (Siegle, 2000).

Mastery Experience

Students must experience repeated success on moderately challenging tasks.

Fostering success; creating a history of achievement:

Mastery Experience

- Designing challenging academic tasks and providing the support necessary for the student to succeed.

- Treating student errors as positive contributions leading to subsequent achievement.

Use instruction to help develop students' ability to think about their history of achievement in a specific area.

Mastery Experience

- Victory Log Activity: Think about this past academic school year. List all the things you have done that you are really proud of in your career – be specific. Give a general date for each thing.

- Do video games provide a history of achievement? Many teens have video game self-efficacy because they can see their achievement; this encourages them to work hard and play longer!

Material adapted from: Growing Kids Strong - How To Create Self-Efficacy. (n.d.). Retrieved December 16, 2015, from https://www.youtube.com/watch?v=RG4hINA5kyc

Vicarious Experiences

Seeing others being successful helps me feel successful.

Organize instruction for students to watch and learn specific content, tasks, or coping strategies.
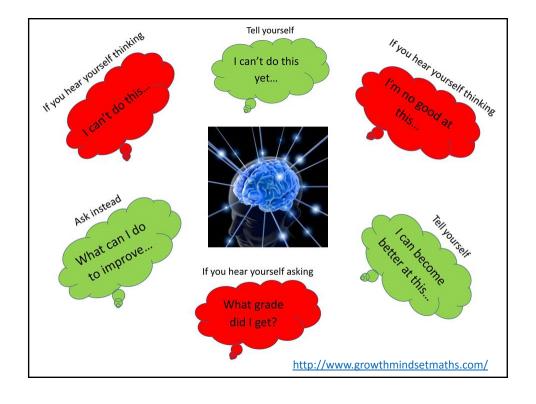
Vicarious Experiences

- Your own modeling (your thinking, your use of strategies, your response to challenge, your reaction to mistakes).

- Prepare students to model for each other (similar ability is best).

- Structure classroom environment to be devoid of competition and stress growth.

Material adapted from: Growing Kids Strong - How To Create Self-Efficacy. (n.d.). Retrieved December 16, 2015, from https://www.youtube.com/watch?v=RG4hINA5kyc

Verbal messages impact students:

Verbal Persuasion

- Helps exert extra effort
- Provides information on student's effectiveness
- Can have a positive or negative effect

http://www.growthmindsetmaths.com/

Teacher and peer communication can support positive self-efficacy beliefs.

Verbal Persuasion

Do this:
- encourage effort
- discuss strategies
- give frequent, focused feedback
- encourage positive self-talk
- help students seek out supportive friends
- encourage accurate attributions of failure (not enough effort, didn't use the strategy)

Don't do this:
- make statements that compare students to each other
- praise unearned effort or use hyperbolic praise
- Use words that have a shaming effect

Body and mind connection:

Physiological Feedback

- Awareness of one's feelings before, during and after engaging in a task.

- Optimism and positive mood enhance self-efficacy.

- Depression, despair and despondency diminish self-efficacy and are associated with negative outcomes and learned helplessness.

- Sense of positive emotional state is also related to academic achievement and positive goal orientation.

Material adapted from: Growing Kids Strong - How To Create Self-Efficacy. (n.d.). Retrieved December 16, 2015, from https://www.youtube.com/watch?v=RG4hINA5kyc

Use instruction to develop students' ability to stay positive in specific situations.

Physiological Feedback

- Help students be aware of their emotional state (stress, anxiety)

- Provide them with some ways to respond
  - big kid recess, deep breath, stretch, brain breaks, assignment organization time, chocolate, or laughter

- Mindfulness training

- Model optimism

- Keep in mind that in some cases you may need to refer students to a counselor or other expert.

Self-efficacy and learning standards

Students construct a viable argument that everyone can learn algebra/statistics/geometry. They then share and critique these arguments.

> **Math.HS.MP.3** Construct viable arguments and critique the reasoning of others.

Students discuss the statement, "I'll never be good at (fill in the blank; examples include math/science/history/painting/singing/basketball)." Is this a fact or opinion? Why?

> **Social Studies.TS.7.C** Distinguish between fact and opinion and analyze sources to recognize bias and points of view.

Students describe how effort and ability are linked and give evidence from their own or others experience.

> **ELA-Literacy.W.1** Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

Try new approaches to student mistakes.

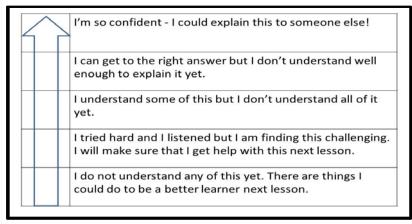# Help students notice that their ability is growing.

My Favorite No
https://youtu.be/uuDjke-p4Co

Try new approaches to student mistakes.

https://youtu.be/uuDjke-p4Co

Document change in students' beliefs over time.

I'm so confident - I could explain this to someone else!

I can get to the right answer but I don't understand well enough to explain it yet.

I understand some of this but I don't understand all of it yet.

I tried hard and I listened but I am finding this challenging. I will make sure that I get help with this next lesson.

I do not understand any of this yet. There are things I could do to be a better learner next lesson.

Material adapted from: Growth Mindset Maths. (n.d.). Retrieved December 16, 2015, from http://www.growthmindsetmaths.com/

Create an environment that supports and reinforces the belief that ability grows with effort

In this class……

We all have different starting points.
We can all learn from one another.
We can all make progress.
We will value our mistakes because we can learn from them.
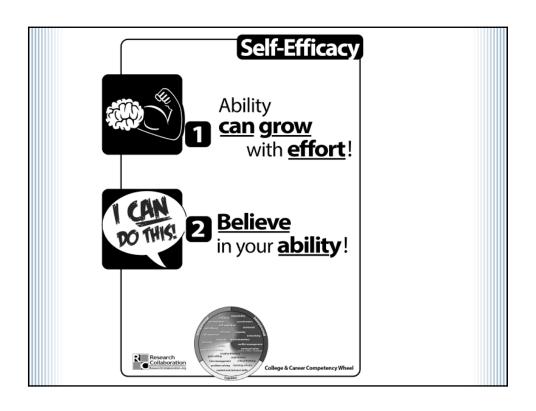We will choose tasks that challenge us because this is how we develop our skills and understanding.
We will keep trying even when we are finding a task difficult because this is how we make progress.
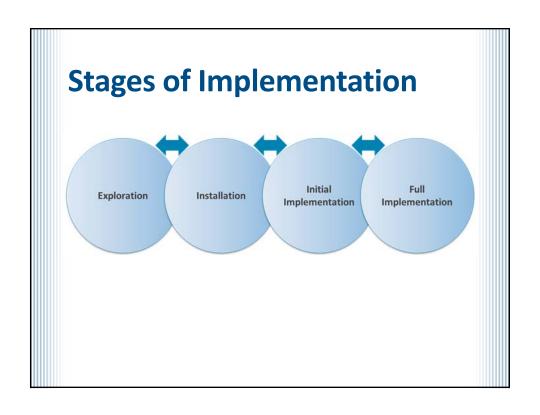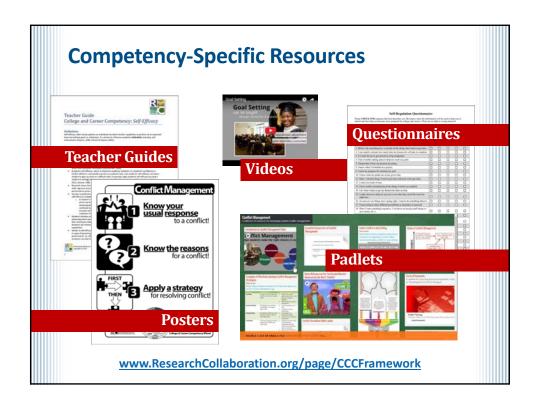
http://www.growthmindsetmaths.com/
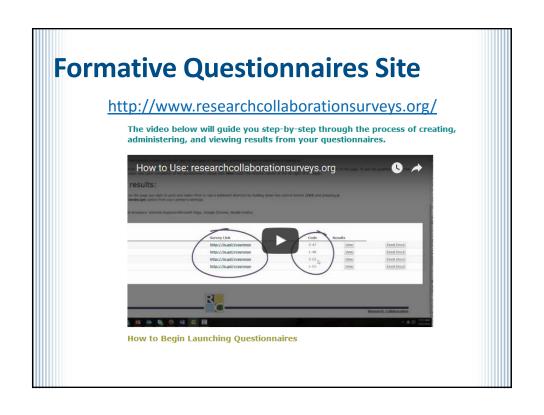
Each One Teach One

- With a partner, stand and do the following:
  - Identify one person in the pair as the learner, the other as the coach.
  - Learner, explain to the coach what self-efficacy is and its first essential component.
  - Coach, give the learner positive feedback, encouragement, and any help that he/she may need.
  - Partners change roles
  - New learner, tell the coach some ways that teachers can help students understand and apply the self-efficacy essential component we've learned so far.
  - Coach, give the learner positive feedback, encouragement, and any help that he/she may need.

How can you help students build self-efficacy?

Stages of Implementation

Exploration | Installation | Initial Implementation | Full Implementation

Competency-Specific Resources

Teacher Guides

Videos

Questionnaires

Padlets

Posters

www.ResearchCollaboration.org/page/CCCFramework

Formative Questionnaires Site

http://www.researchcollaborationsurveys.org/

The video below will guide you step-by-step through the process of creating, administering, and viewing results from your questionnaires.

How to Begin Launching Questionnaires

10 Ways To Prepare Your Teens for College and Work: A Guide for Families

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Thank You

College & Career Competency Framework

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