



Non-Cognitive Factors Session

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March 10, 2015

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WELCOME

AGENDA OVERVIEW

- Goals:
 - Briefly review what non-cognitive factors are, their importance, and the developing consensus/ innovation in the sector
 - Learn from one another & share expertise in the room
1. Introductions
 2. Non-cognitive factors overview presentation
 3. Small Group discussions
 4. Share out and Q&A



“Cognitive science tells us that 30 percent or more of learning performance comes from motivation. But we are badly in need of practical, scalable guidance for what teachers, parents, school leaders, and students themselves can do to boost student motivation.

And we are barely in the infancy of developing meaningful and easy-to-administer assessments that help us understand whether we are in fact teaching these critical non-cognitive skills.

When my sister and I ran an ‘I Have a Dream’ program on the South Side of Chicago for six years in the 1990s, we spent a lot of time and energy trying to help our children gain these skills. But to this day, I still cannot honestly tell you whether we succeeded or not.”

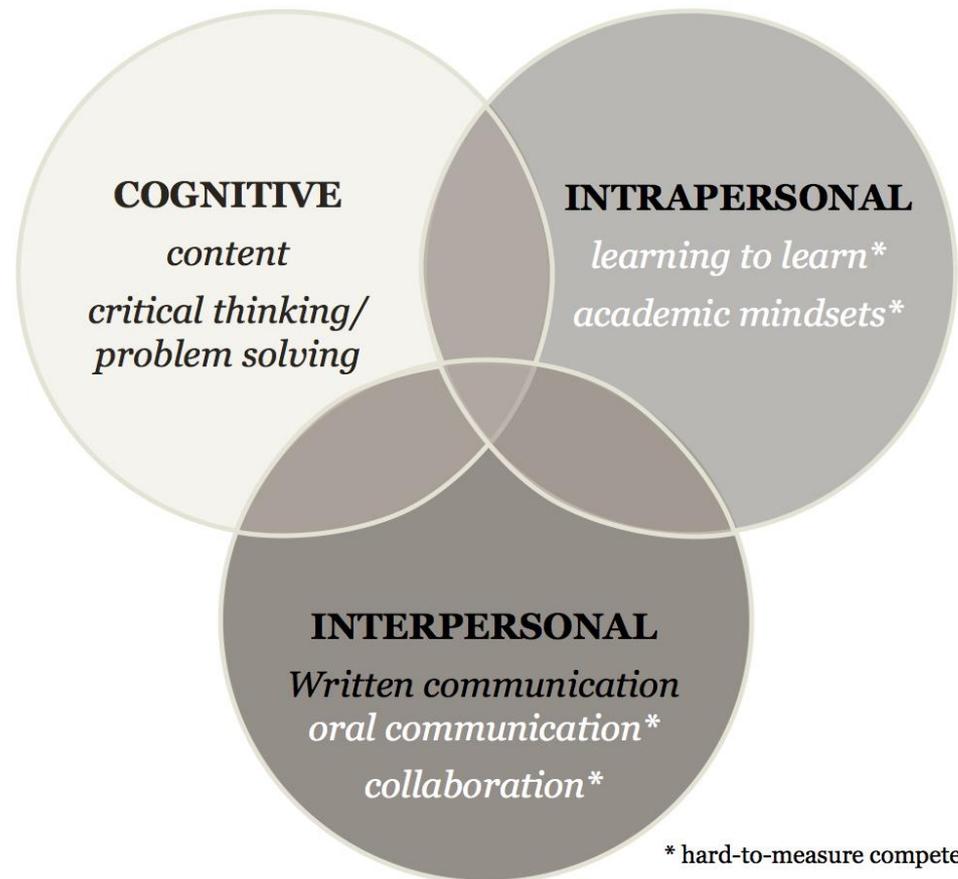
Secretary Arne Duncan's remarks to the National Alliance for Public Charter Schools 2013 "Delivering On the Dream" conference.



THREE CLUSTERS OF SKILLS ALLOW SUCCESSFUL TRANSFER OF WHAT IS LEARNED IN SCHOOL

In 2012, the **National Research Council** examined the research literature to identify the competencies required for success in college, career, civic and everyday life, and identified three overlapping clusters: **cognitive**, **intrapersonal** and **interpersonal**.

This combination of competencies enable students to transfer what is learned in the context of school to solve the types of unstructured, complex problems they will face throughout life.



* hard-to-measure competencies

A ROSE BY ANY OTHER NAME . . .

- Depending on the organization or community of practice, different subsets of interpersonal and intrapersonal competencies will be bound together and called by a different name (e.g. 21st century skills, student agency, deeper learning, character, social and emotional learning, etc.)
- The Department uses the term “non-cognitive factors”



NON-COGNITIVE FACTORS INCLUDE A RANGE OF BEHAVIORS, STRATEGIES, ATTITUDES

- Academic mindsets (e.g., sense of belonging in the academic community, believing academic achievement improves with effort)
- Approaches toward learning strategies (e.g., executive functions, attention, goal-setting, curiosity, problem solving, self-regulation, study skills)
- Perseverance (e.g., tenacity, self-discipline)
- Academic behaviors (e.g., attendance, homework completion)
- Social and emotional skills (e.g., cooperation, empathy, adaptability)



LEADING ORGANIZATIONS PRIORITIZE DIFFERENT TERMS AND CONSTRUCTS

Strategies/ Skills	Attitudes	Behaviors
<p>Relationship Skills (CASEL)/ Interpersonal Skills (CCSR) Social-Awareness (CASEL) Empathy (CCSR) Cooperation (CCSR) Assertion (CCSR) Responsibility (CCSR) Coping and Resilience (RTI)</p>	<p>Self-Awareness (CASEL) Grit, Tenacity (CCSR) Self-Discipline (CCSR) Self-Control (CCSR) Academic Mindsets (CCSR) Academic Self-Concept (RTI) Motivation (RTI) Self-Efficacy (RTI) Coping and Resilience (RTI)</p>	<p>Responsible Decision Making (CASEL) Self-Management (CASEL) Going to Class (CCSR) Doing Homework (CCSR) Organizing Materials (CCSR) Participating (CCSR) Studying (CCSR) Delayed Gratification (CCSR) Study Skills (CCSR) Metacognitive Strategies (CCSR) Self-regulated Learning (CCSR and RTI) Goal Setting (CCSR) Anti-Social and Prosocial Behavior (RTI) Effort (RTI) Coping and Resilience (RTI)</p>



NON-COGNITIVE FACTORS ARE IMPORTANT TO COLLEGE AND CAREER READINESS

- Today's global economy calls for skills like adaptability, collaboration, problem solving and creativity.
- A promising body of research suggests that non-cognitive factors play an important role in students' academic, career and life outcomes.
- Nascent research indicates that these behaviors, strategies and attitudes can be learned throughout a student's educational career

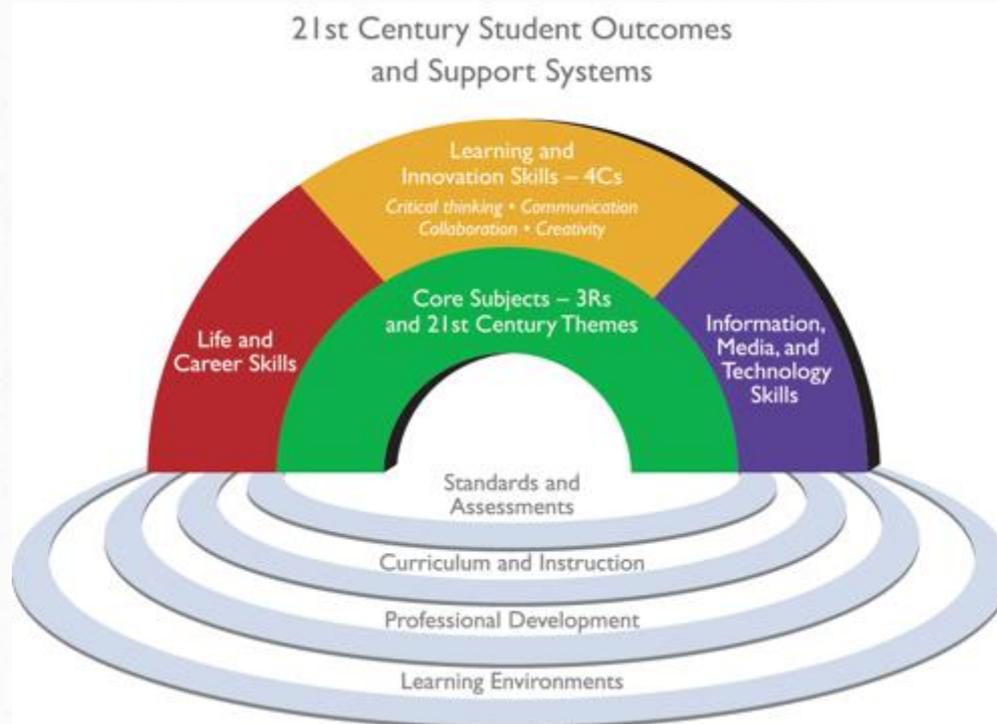


THERE IS A STRONG CASE FOR INVESTING IN NON-COGNITIVE FACTORS

- Starting in 2006, economist James Heckman published a series of studies demonstrating the importance of both cognitive and non-cognitive skills (persistence, dependability, etc.) in determining socioeconomic success.
- A meta-analysis of over 200 programs showed that students who receive non-cognitive learning supports have achievement scores the equivalent of 11 percentage points higher on average.
- Columbia's Teachers' College just published *The Economic Value of Social Emotional Learning* – a study of 6 SEL programs that found an average return of \$11 for every one dollar invested.

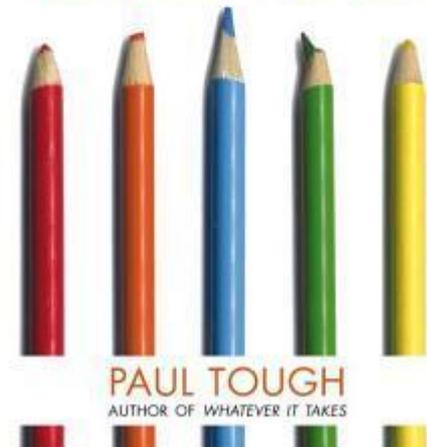


THERE IS GROWING DIALOGUE ON THE IMPORTANCE OF THESE SKILLS



HOW CHILDREN SUCCEED

GRIT, CURIOSITY AND THE HIDDEN POWER OF CHARACTER



NON-COGNITIVE SKILLS HAVE BEEN INCLUDED IN STATE/ DISTRICT SYSTEMS

- In 2004, Illinois became the first state to adopt learning standards for social and emotional learning.
 - In 2011, New York adopted a set of guidelines to support programming in social and emotional learning.
 - In 2012, Kansas adopted Social, Emotional, and Character Development Standards. Pennsylvania also adopted Student Interpersonal Skills Standards.
- The California Office to Reform Education (CORE) school districts have constructed accountability frameworks which base 40 percent of a school's score on school climate and student non-cognitive indicators.
- The Collaborative for Academic, Social and Emotional Learning (CASEL) has conducted a national teacher survey about the experience and perceptions of teaching and developing non-cognitive factors in students.

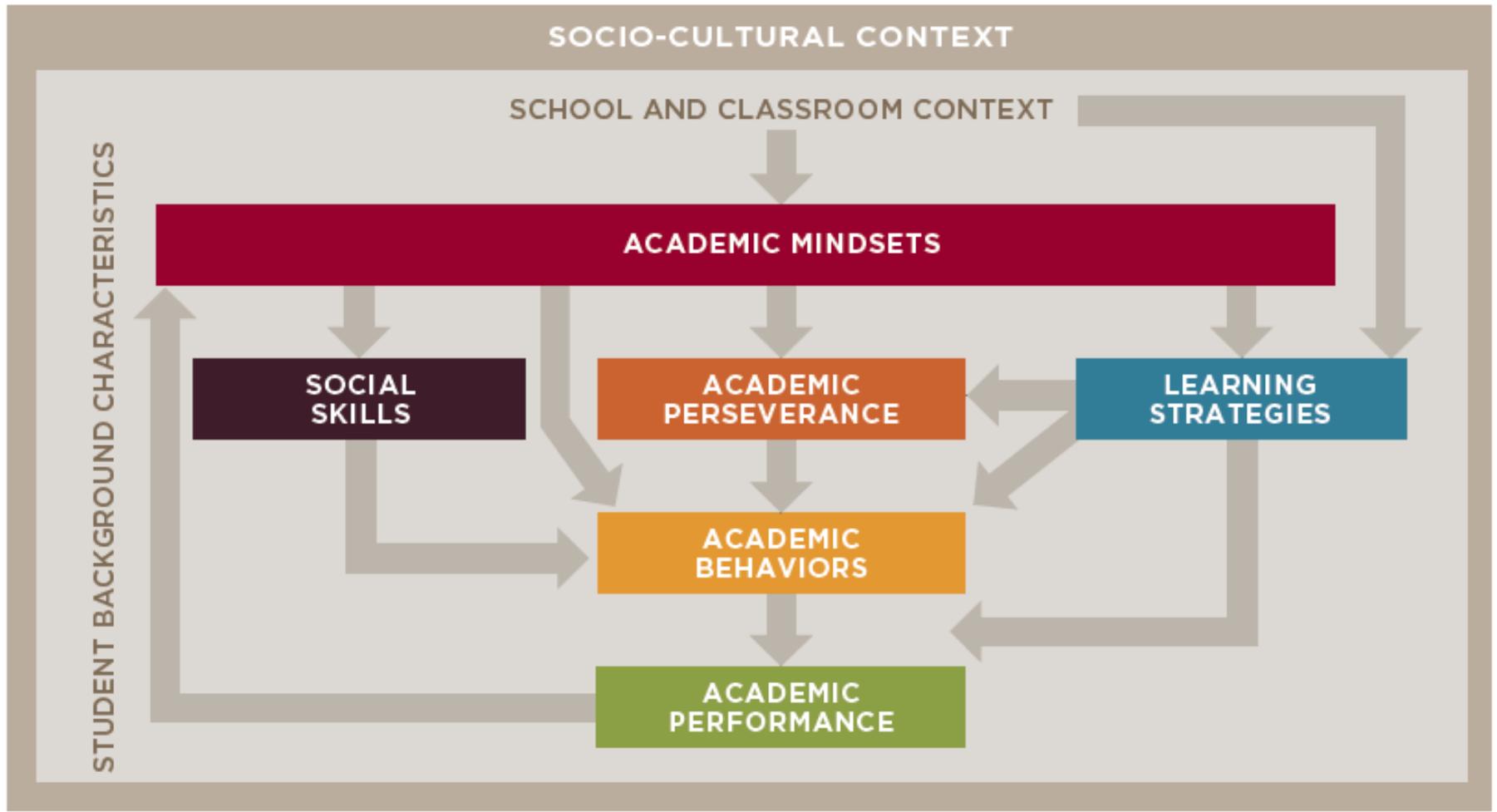


KEY QUESTIONS GUIDE RESEARCH AND INNOVATION IN NON-COGNITIVE FACTORS ACROSS THE SECTOR

- Which non-cognitive factors are most important to student success?
- How can these skills, attitudes and behaviors be taught? What is the role of school and classroom environments, and out-of-school activities?
- What practices or tools can help develop these factors in students?
- Which interventions or supports work best for whom and under what conditions?
- How do we measure non-cognitive factors and their development?



A THEORIZED MODEL OF HOW NON-COGNITIVE FACTORS AFFECT ACADEMIC PERFORMANCE



The University of Chicago Consortium of Chicago School Research (June 2012). Teaching Adolescents to Become Learners: The Role of Noncognitive Factors in Shaping School Performance.



LATEST RESEARCH AND INNOVATIONS IN ACADEMIC MINDSETS ARE FOCUSED ON THE INTERACTION BETWEEN STUDENTS AND THE LEARNING CONTEXT

Aim:
Students continue to put forth effort during challenges and when they do so they use effective strategies.

Students believe they are capable of learning math.

Students feel socially tied to peers, faculty, and the course.

Students believe the course has value.

Students have skills, habits and know-how to succeed in college setting.

Faculty and college support students' skills and mindsets.



LOTS OF RESOURCES FOR EDUCATORS ARE RAPIDLY GROWING ACROSS THE SECTOR

- Research
- Technology-enabled tools
- Teacher training
 - Resources mentioned:
 - [PERTS](#)
 - [Transforming Education](#)
 - [Character Lab](#)
 - [CASEL](#)
 - [Consortium on Chicago School Research](#)
 - [Carnegie Foundation for the Advancement of Teaching](#)
 - [Center for Great Teachers and Leaders](#)
 - [Mindset Works](#)
 - [Panorama Education](#)

SHARING OUR EXPERTISE

QUICK-WRITE: PLEASE TAKE 5 MINUTES TO REFLECT

- Which non-cognitive skills or constructs should schools prioritize?
- Which non-cognitive construct(s) do you currently see being taught or believe teachers are most invested in teaching?



SHARING OUR EXPERTISE

PAIR AND SHARE (10 MINUTES)

- What structures or systems currently capture the non-cognitive efforts underway at your school?
- How are your schools and teachers measuring progress?
- How are your school communities/ your stakeholders learning from the work you are doing?



SHARING OUR EXPERTISE

SMALL GROUPS (10 MINUTES)

- Are there best practices or programs emerging from the work in your schools?
- What could be key accelerators for building the capacity and effectiveness of this work in your schools?



SHARE OUT Q&A



THANK YOU



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