## The Science Behind Building Strong , Confident, and Resilient Children The Truth About Grit

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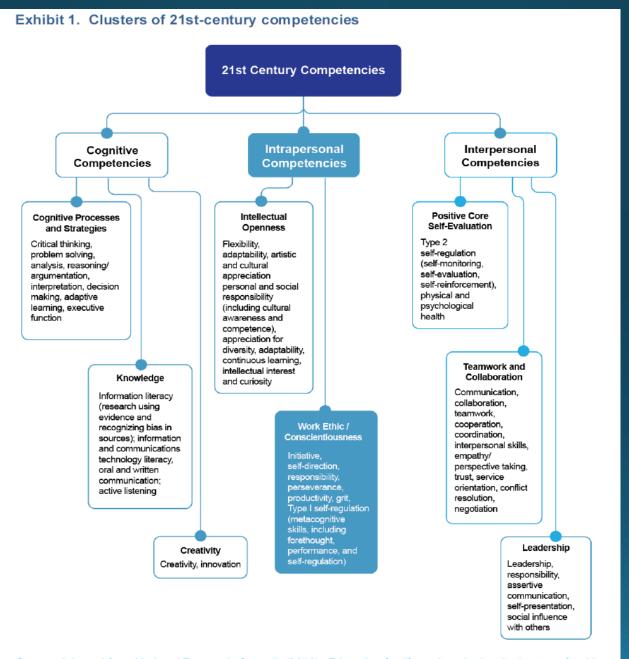
D'Arienzo, J. A. (2008), Hardiness enhancement: a pathway to resilience. In S. S. Fehr (Ed), 101 Interventions in Group Therapy. New York: Haworth Press.



# Preparing Children to Thrive in the 21<sup>st</sup> Century

- Achievement gaps, evolving technology, STEM knowledge, changing workforce needs, economic volatility.
- Intellectual and knowledge content focus is insufficient.
- Noncognitive factors: attributes, dispositions, social skills, attitudes, and interpersonal resources (independent of intellectual ability).





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#### **Marshmallow Test**

- Delaying Gratification--Self Control and Grit
- http://www.cnn.com/videos/tv/2015/07/10/marshmallo w-test-one-dnt-ac.cnn
- Hot and Cool Systems of Thinking and Impulse Control
- Grit can be taught!
- Grit is confidence manifested.
- How Gritty Are the Parents? Let's see....
- Grit: Consistency of Interests and Perseverance of Effort.

### **Grit Terminology**

- Grit (Duckworth et al, 2007)
- Academic Tenacity (Dweck et al., 2011)
- Agency (The Raikes Foundation, 2012)
- Academic Perseverance (Farrington et al., 2012)
- Persistence and Perseverance (Peterson & Seligman, 2004)
- Conscientiousness as a 21<sup>st</sup> Century Competence (NRC, 2012)
- Engagement (Fredricks et al, 2004).
- Resilience (Masten et al., 2009)



# Grit, Resilience, Perseverance, and Tenacity

- Growing research suggesting these factors are just as important as intellectual abilities for success.
- Persistence is now part of Common Core Standards for Mathematics.
- Grit: Perseverance to accomplish long-term or higherorder goals in the face of challenges and setbacks.
  - -Engaging student's psychological resources, such as their academic mindsets, effortful control, and strategies and tactics.



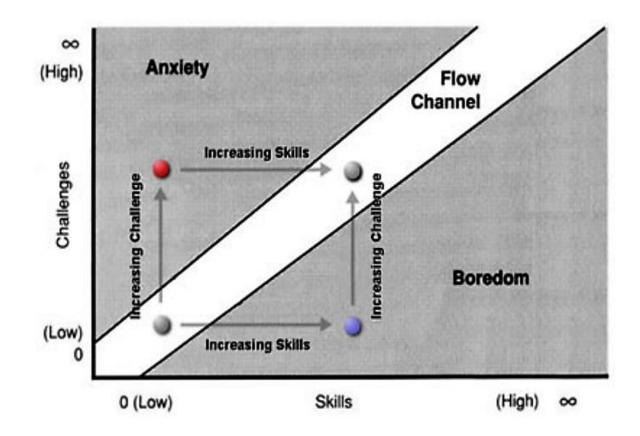
# Grit, Resilience, Perseverance, and Tenacity

- Grit can be detrimental
- Students need optimally challenging goals that they see as worthy to pursue and students need a rigorous and supportive environment to accomplish these goals.
- Students are more likely to persevere when learning environment is fair and respectful, conveys high expectations, emphasizes effort over ability, provides tangible resources such as materials, human, and time.



## Grit, Resilience, Perseverance, and Tenacity

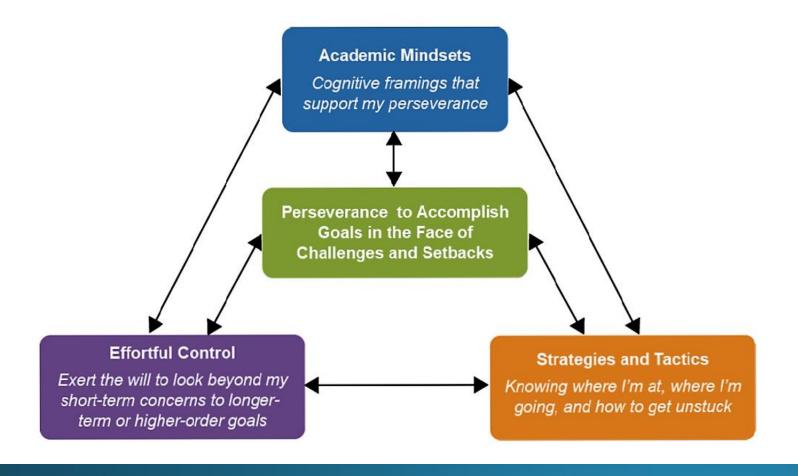
Exhibit 5. Csikszentmihalyi's illustration of flow in the range of optimal challenge





#### Exhibit 3. A broad definition of grit for the purpose of this report

Perseverance to accomplish long-term or higher-order goals in the face of challenges and setbacks, engaging the student's psychological resources, such as their academic mindsets, effortful control, and strategies and tactics.





**Academic Mindsets:** Belief that intelligence is malleable and grows with effort.

- 1. Beliefs about competence
- 2. Values and goals
- 3. Beliefs about social connectedness and belonging



More about Mindsets (Dweck at al., 2011; Yeager & Walton, 2011; Snipes et al., 2012; Farrington et al., 2012).

"I can succeed": Self efficacy beliefs; these beliefs are stronger predictors of success than measured levels of ability and prior performance.

"My ability and competence grow with my effort": Beliefs can be fragile with new challenges; belief that ability is malleable and is gained from effort and learning. When faced with new over routine, those with growth mindset persist more. Students taught about growth mindset over fixed mindset are more academically successful.



More about Mindsets (Dweck at al., 2011; Yeager & Walton, 2011; Snipes et al., 2012; Farrington et al., 2012).

4. "Challenge is inevitable for success": Must learn that challenges are inevitable and not indication of personal failure; Intervention studies show that students can be taught to attribute challenge to external factors that are "bumps in the road" rather than due to their own limitations.

5. "This work is in line with my interests": Kids will persevere more when tasks have value to them, they find them interesting, or see them as serving their short or long terms goals that are important to them.



More about Mindsets (Dweck at al., 2011; Yeager & Walton, 2011; Snipes et al., 2012; Farrington et al., 2012).

6. "I belong to the academic community": When students feel a sense of belonging in their school and classrooms through relationships with peers, teachers and other adults, they are more likely to be engaged in schooling.



Effortful Control...Planning and Managing Behaviors

Example...Deliberate Practice: Duckworth (2010) found that the solitary study of word spellings and their origins was a better predictor of National Spelling Bee performance that being quizzed or engaging in leisure reading. Those ranked higher in grit engaged in more deliberate practice and reported more passion about long term goals for success.

Long terms goals are not always desirable or rewarding in short terms regarding how time is to be spent.

William James asserted, that some school work will be "repulsive and cannot be done without voluntarily jerking back the attention to it every now and then"



Effortful Control (Duckworth, 2011)

- 1. Self Discipline: The ability to marshal willpower to accomplish goals and uphold standard that one personally regards as desirable.
- **2. Self Control:** an executive function...the ability to control and regulate attention in the face of distractions, and the ability to inhibit inferior but strong impulses. Thinking about Thinking -includes delaying gratification.



#### **Strategies and Tactics**

Mindsets and Efforts are more likely to persevere when kids have a psychological resource tool kit to deal with challenges and set backs.

A general theme in the literature of learning strategies that encompass multiphase processes, involving a combination of goal setting, planning, enacting, monitoring progress, and adjusting enactment.



**Strategies and Tactics**— What do I want, Where am I, and How Do I get Unstuck?

- 1. Definition of Task: Define, what is known and not known, consider how difficult it will be to achieve.
- 2. Goals and Plans: Set specific goal, criteria to measure change, actionable plans, tactics for dealing with challenges.
- 3. Enactment & Monitoring: Structure supportive environment, execute plans, manage time, seek new info and organize it, seek assistance from others to help, monitor progress relative to criteria, and adjust course as needed.
- 4. Deliberation & Adaptation: Deliberate on effectiveness of plans and strategies, reformulate tasks, goals, conditions, strategies and plans.



#### **Duckworth (Peterson and Matthews)**

Grit: Perseverance and Passion for Long Terms Goals. Journal of Personality and Social Psychology, 2007.

Looked at Ivy League undergraduates, spelling bee contestants, and West Point cadets in six studies.

Found Grit was not related to IQ, highly correlated with Conscientiousness, demonstrated incremental predictive validity of success measures over and beyond IQ and conscientiousness.

Undergrads w/ more grit had higher GPA's while at the same time had lower SATs. Grittier kids out ranked less grittier ones in Scripps National Spelling Bee



Follow through was leading predictor of about 3500 college students above SAT and high school rank as to whether a student would have a leadership position in college.

Grittier kids out ranked less grittier ones in Scripps National Spelling Bee

Grit increases with age.



What we already knew:

Many non prodigiously gifted people don't end up in the upper echelons of their fields.

Intelligence is best predictor of achievement at this time given that it has been the primary focus of past research. More and more research pointing to the importance of perseverance.



Other study, (Willingham, 1985) found FT single best predictor of significant accomplishment in science, art, sports, communications, organization. FT third behind SAT and HS rank for who would graduate with honors.

Big 5 (Agreeableness, Conscientiousness, Extraversion, Openness to Experience, and Neuroticism)

Conscientiousness more focused on short term, self control and effort but not long term stamina.

Grit (Duckworth), self efficacy (Bandura, 1977), optimistic explanatory style (Seligman & Shulman, 1977), and locus of control (Rotter, 1966) predict achievement in addition to IQ.

#### **Duckworth Recommends:**

- Children who demonstrate exceptional commitment to a particular goal should be supported with as many resources as those identified as gifted/talented.
- 2. We should teach children not only to work with intensity but stamina.
- 3. Teach children to anticipate failures and misfortunes and point out that excellence in anything takes years of time.
- 4. Educators must understand trade-off between breadth and depth as a result of liberal arts education.



## 10 Tips for building resilience in children and teens, American Psychological Association

We idealize childhood as a carefree time, but kids are not immune to abuse, trauma, adapting to new friends and families, changing schools, and bullying.

We can teach children to be resilient by helping them manage stress and feelings of anxiety and uncertainty.

- 1. Make Connections: Teach how to make friends, about empathy, and higher power.
- 2. Help your child by having him/her help others: Those feeling helpless can be empowered by helping others.
- 3. Maintain a daily routine: Routines are comforting to children. Teach kids to have their own routines.

## 10 Tips for building resilience in children and teens, American Psychological Association

- 4. **Take a break:** Endless routines and worrying are counterproductive, teach them how to distract themselves from worrying, take news breaks, build in unstructured time to be creative.
- 5. **Teach your child self-care:** Be a good example, eat properly, exercise, and rest; caring for oneself and having fun will make them better prepared and balanced to handle future problems.
- 6. Move toward your goals: Teach kids to set reasonable goals, praise for each movement, break assignments into segments.
- 7. **Nurture a positive self view:** Help them remember times in the past they successfully handled a bad situation. Teach them to use humor, not to take things so seriously, and laugh at themselves; teach them how their accomplishments contribute to their community, school, or family.

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- 8. **Keep things in perspective and maintain a hopeful outlook:** Help them have the long view and see that there is a future beyond the current challenge. Use history to show that life moves beyond bad events.
- 9. Look for opportunities for self discovery: Tough times are great times to learn. Teach them that what they are facing is an opportunity for them to show what they are made of. Speak to them about what they have learned when facing a tough situation.
- 10. Accept that change is part of living: help them see that change is inevitable and part of life and that new goals can replace old goals.



### Additional Tips for Resilience/Confidence from Dr. D'Arienzo

- 1. Home or your relationship must be a safe haven.
- 2. Attachment, security, comfort, rituals, and conflict resolution.
- 3. Children forgive and accept that parents are not perfect.
  - You lead by example, teach your children not to take things personally and how to apologize so they always have an out when there is a battle of wills.

Thank You!!!

