



# Unlocking Student Talent

Gene Kerns, EdD  
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# RAPSA

REACHING AT+PROMISE STUDENTS® ASSOCIATION

## Welcome!

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Please use the chat box for questions.  
Trouble? Email [info@rapsa.org](mailto:info@rapsa.org) with questions.

# Presenter: Gene Kerns, EdD

- Chief Academic Officer at Renaissance
- Third-generation educator
- Co-author of *Unlocking Student Talent: The New Science of Developing Expertise*, published by Teachers College Press



# A moment for reflection...

1. Brainstorm a list of talented people—any field, any time period.
2. In your opinion, what made them talented?



# Things we say...

- “Born to be...”
- “Destined to be...”
- “A natural”



# CHAT QUESTION #1

**What percentage of overall success can likely be attributed to innate talent?**

**More than 75%**

**More than 50%**

**More than 25%**

**Less than 25%**

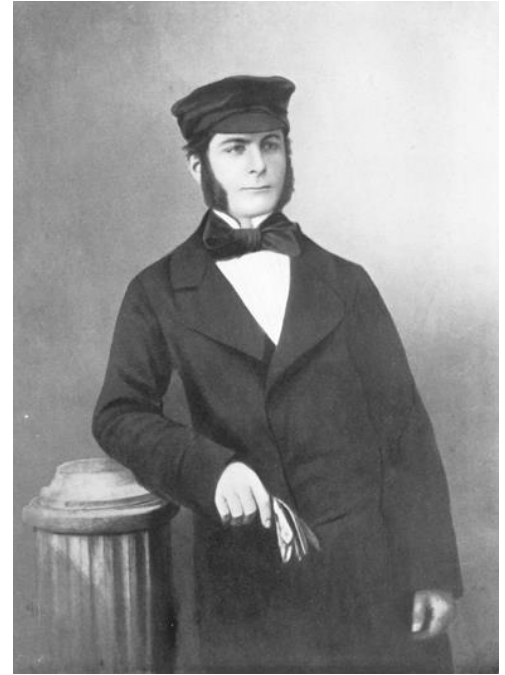
# Ericsson, Prietula, and Cokely (2007)

“You’ve got to forget *the folklore about genius* that makes many people think they cannot take *a scientific approach to developing expertise.*”



# Sir Francis Galton

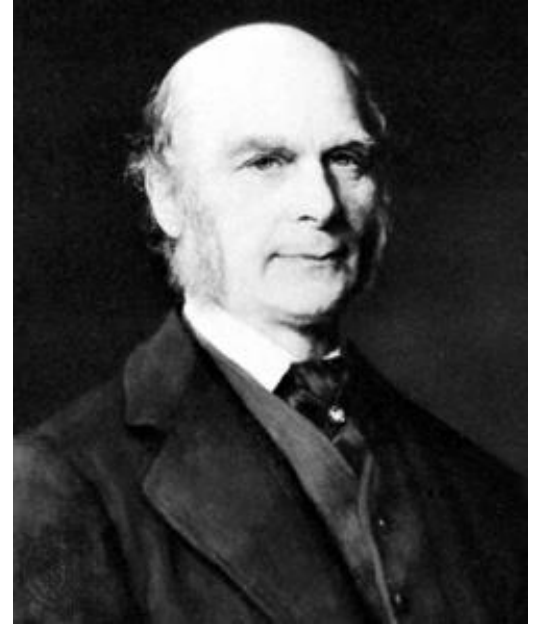
- *Inquiries into Human Faculty*
- *Hereditary Genius*
- *Natural Inheritance*





# Sir Francis Galton

- “Nature vs. nurture”
- “Novel statistical concepts” like correlation and regression



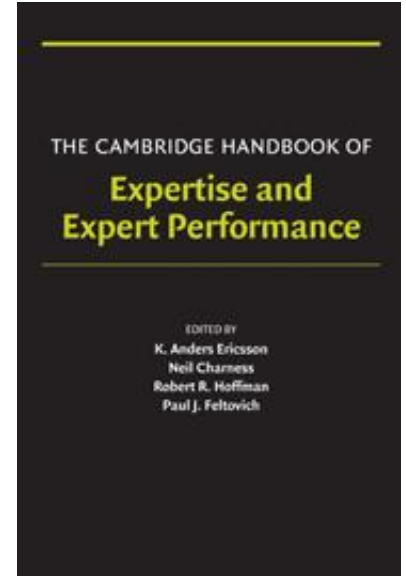
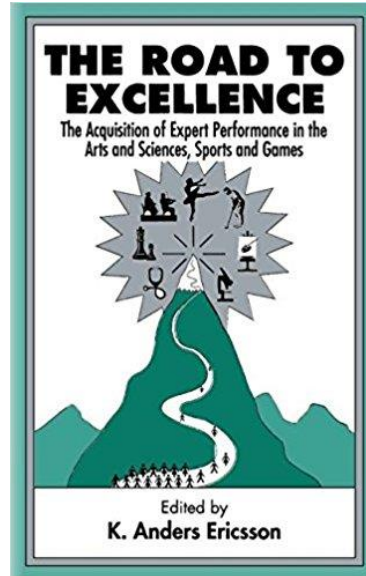
# K. Anders Ericsson

Conradi Eminent Scholar and Professor of  
Psychology at Florida State University

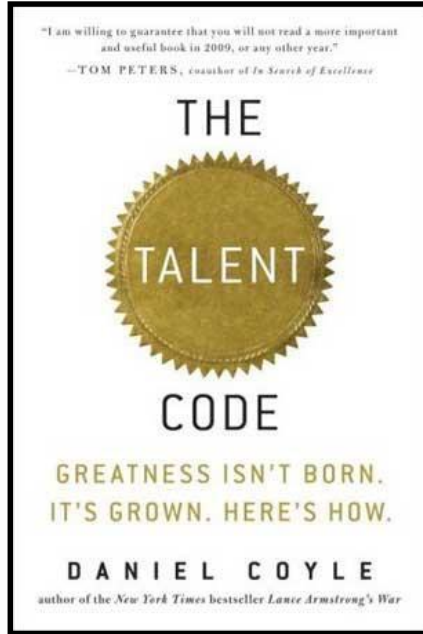


# Ericsson, Prietula, and Cokely (2007)

“Consistently and overwhelmingly, the evidence showed that experts are always made, not born.”



# Coyle (2009)

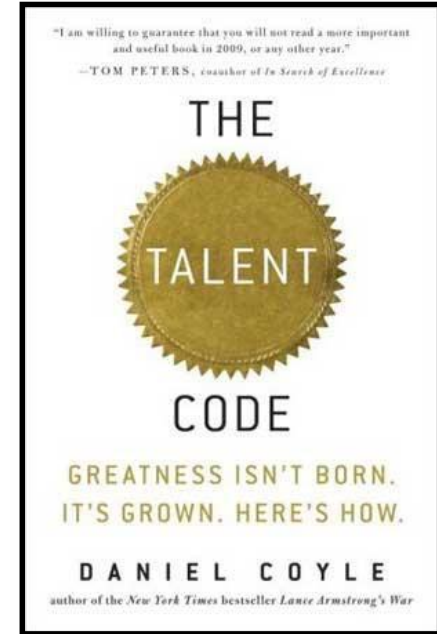


# “Hotbeds of talent”

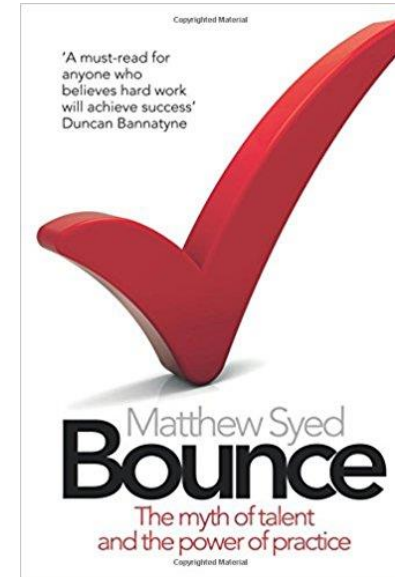
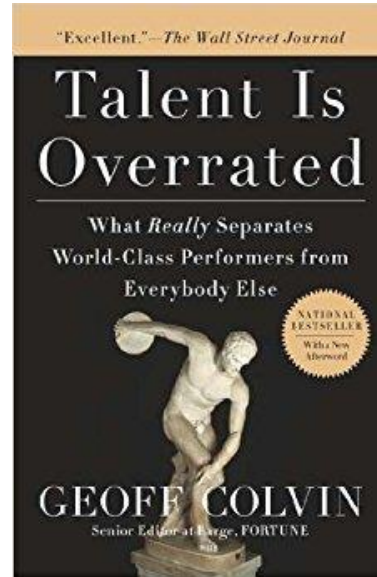
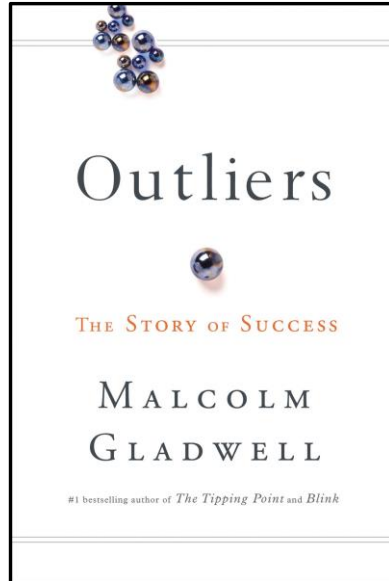
- The Brontë sisters (Victorian literature)
- The Z-Boys (extreme skateboarders from California)
- Spartak Tennis Club (Russia)
- Brazil (soccer)
- Curaçao (baseball)
- Meadowmount School (classical music)
- Septien School of Music (vocal)

# Coyle's three key points

- Deep practice
- Ignition
- Master coaching



# Other resources

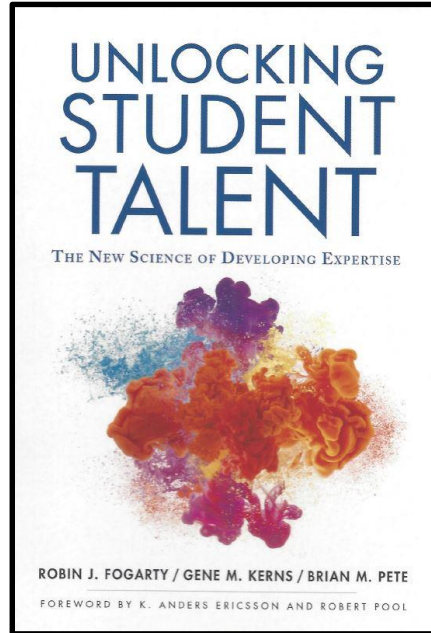


# **CHAT QUESTION #2**

**Have you read any of the books mentioned?**



# A new book on student talent



# Agenda

## 1. Motivation

What are its two main forms?

## 2. Deliberate practice

Are your students practicing like experts practice?

## 3. Coaching

How do you coach for maximum growth?

## 4. The impact of sharing this

Does it make a difference?

# Motivation

What are its two main forms?

# An inspiring commercial

Super Bowl 2016



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# Motivation—two forms



# A “vision of future self” is critical

- A field trip
- An assembly





# Passion and persistence (Coyle, 2009)

**Q:** Why are these essential?

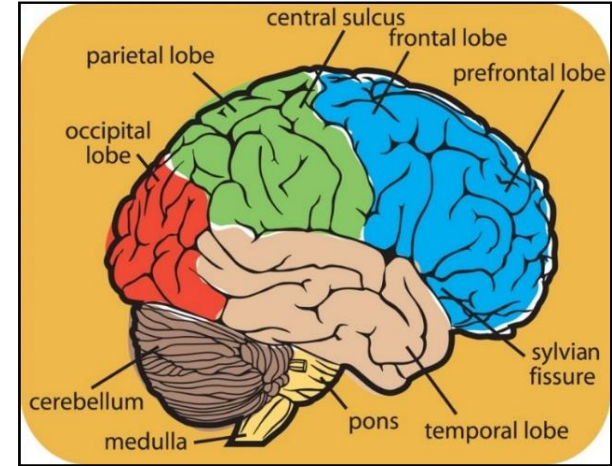
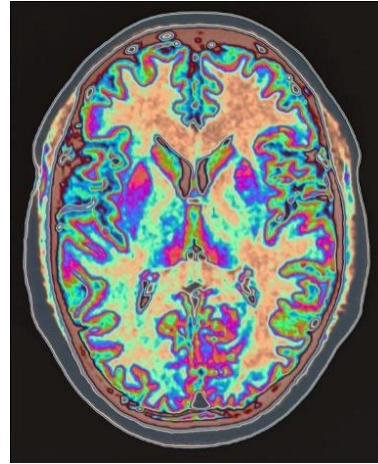
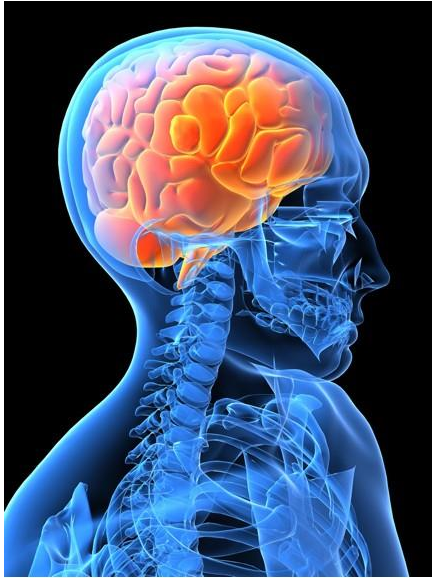
**A:** Because wrapping myelin around a big circuit requires immense energy and time. If you don't love it, you'll never work hard enough to be great.



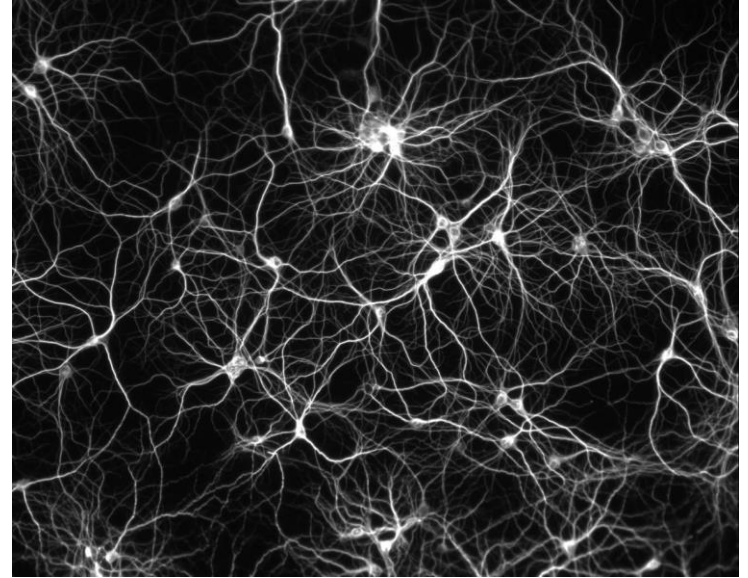
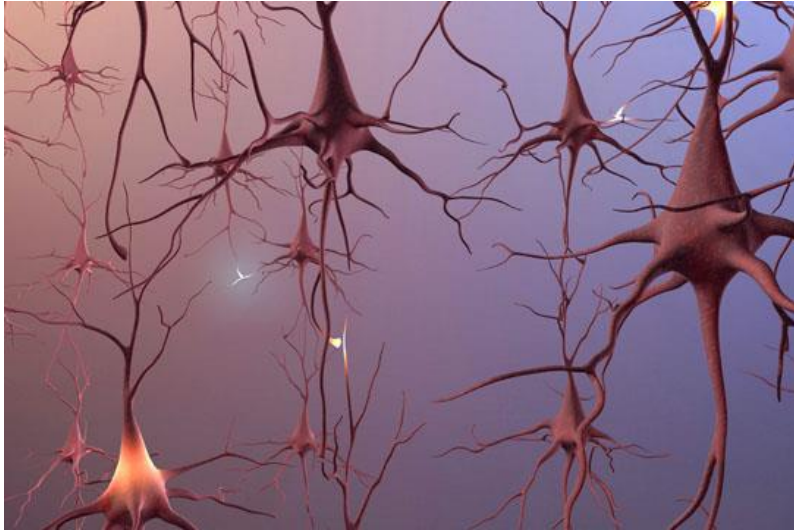
# Deliberate practice

Are your students practicing like experts practice?

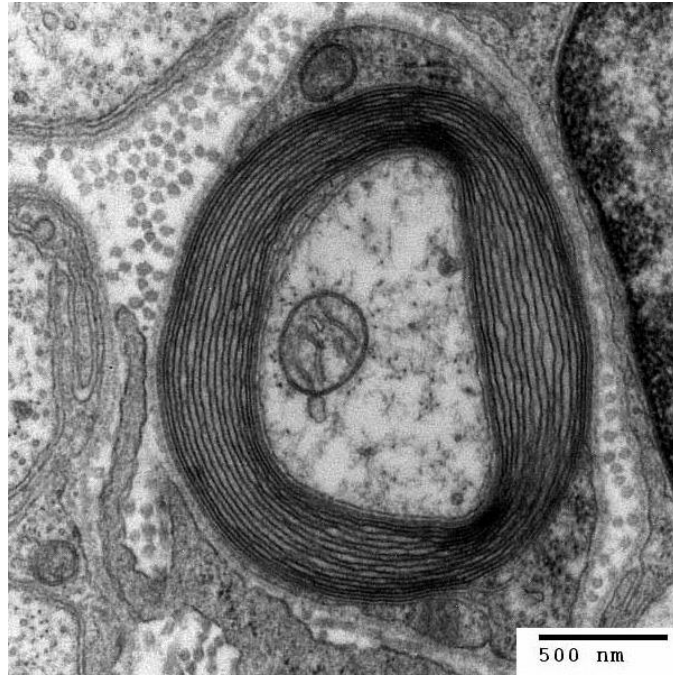
# Practice and the brain



# Myelin



# Myelin was thought to be inert



# An essential idea

- The role of practice (in building myelin) is vitally important.
- Myelin can increase speed significantly!
- “The story of skill and talent is the story of myelin.” (Coyle, 2009)



# Deliberate practice

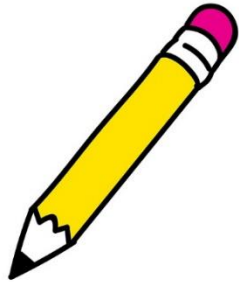
“The most powerful approach to learning that has yet been discovered...”

(Ericsson and Pool, 2016)

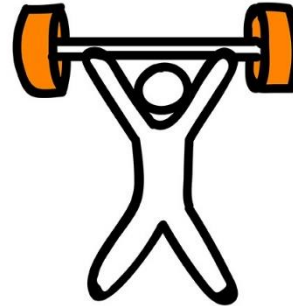


# Practice

Why is deliberate practice fundamentally different?



**Practice**



**Deliberate Practice**

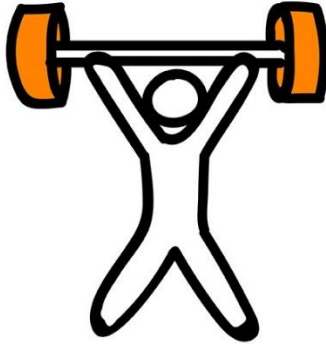


## **POLL QUESTION #3**

**What do you think contributes most to practice being more deliberate?**

- **Challenge**
- **Repetitions**
- **Results/Formative Feedback**

# What makes practice more deliberate?



# Ericsson, Krampe, and Tesch-Römer (1993)

Define deliberate practice as “activities that have been specially designed to improve the current level of performance” and that are crafted in consideration of the following:

1. The design of the task should take into account **the preexisting knowledge of the learners** so that the task can be correctly understood after a brief period of instruction.
2. The subjects should receive **immediate informative feedback** and knowledge of results of their performance.
3. The subjects should **repeatedly perform** the same or similar tasks.

# Deliberate practice requires:



## **REPS**

Myelin is built through repetition.



## **RESISTANCE**

Growth is maximized by appropriate challenge.



## **RESULTS**

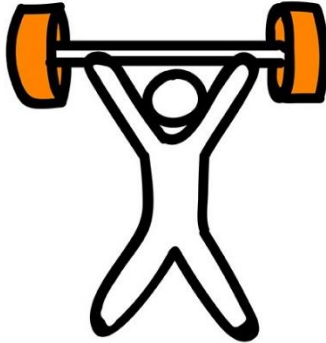
A lot of reps are required and often are not fun. Seeing your results improve is.



## **RECOVERY**

True deliberate practice is exhausting.

# What's the effect of making practice more deliberate?



# Topping (1999)

- “Simply increasing time devoted to reading practice might not be sufficient to raise achievement.”
- “A literature review on the practice of allocating classroom time for Sustained Silent Reading (SSR) revealed mixed results, with six studies noting a positive effect on reading scores and five noting no effect.”
- “Of twelve studies of Accelerated Reader® that cite substantial outcome data, only one failed to find evidence of the program's impact.”

# Coaching

How do you coach for maximum growth?

# How is assessment related to deliberate practice?





# Chappius (2009)

In seeking to meet key motivational needs, Chappius adapted the work of Australian professor Royce Sadler, resulting in **3 paramount questions** students must always be able to sufficiently answer to maintain and maximize motivation:

1. Where am I going?
2. Where am I now?
3. How can I close the gap?

## Where am I going?

Strategy 1: Provide students with a clear and understandable vision of learning targets.

Strategy 2: Use examples and models of strong and weak work

## Where am I now?

Strategy 3: Offer regular descriptive feedback.

Strategy 4: Teach students to self-assess and set goals.

## How can I close the gap?

Strategy 5: Design lessons to focus on one learning target or aspect of quality at a time.

Strategy 6: Teach students focused revision

Strategy 7: Engage students in self-reflection, and let them keep track of and share their learning.

# “My students are lazy”

Academic pursuits often lack the tangibility offered in sports and other fields.



# Ericsson, Krampe, and Tesch-Römer (1993)

“We claim that deliberate practice requires effort and is not inherently enjoyable. Individuals are motivated to practice because practice improves performance.”



# The impact of sharing this

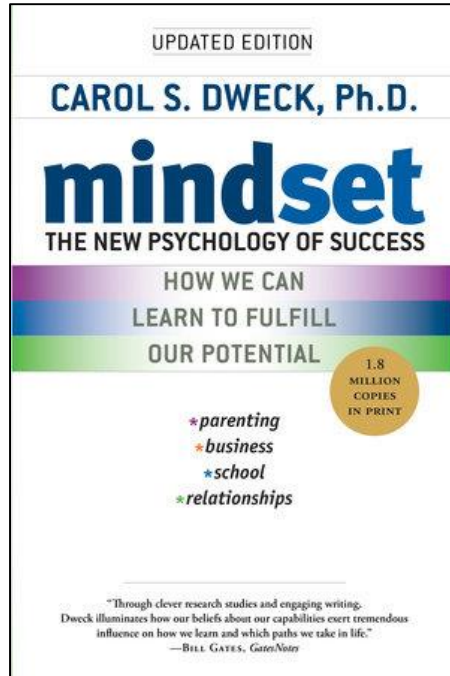
Does it make a difference?

# Mindset

What can we achieve when we change our mindset about talent and communicate this to our students, thereby changing their mindsets?



# Dweck (2006)



# Dweck's research

- New York City junior high school
- Struggling students, falling grades
- “Developed an eight-session workshop in which both the control group and the growth-mindset group learned study skills, time management techniques, and memory strategies.”



# Dweck's research

Experimental group “also learned about their brains and what they could do to make their intelligence grow:”

- i. The brain is like a muscle
- ii. The more they exercise it, the stronger it becomes
- iii. When you try hard and learn something new, the brain forms new connections that, over time, make you smarter

# Dweck's research

- “They learned that intellectual development is not the natural unfolding of intelligence, but rather the formation of new connections brought about through effort and learning.”
- “You mean I don't have to be dumb?”



# The results

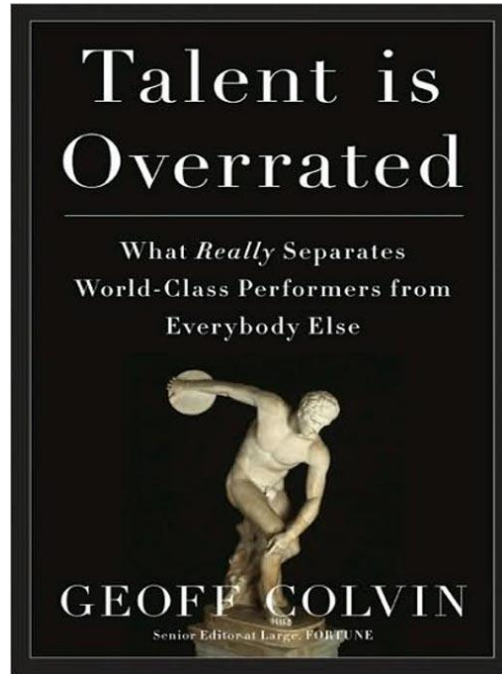
- “Both groups had experienced a steep decline in their math grades.”
- The growth-mindset intervention **showed a significant rebound.**
- The teachers singled out **three times as many students** in the growth-mindset intervention as showing **marked changes in motivation.**

# Really?!

- What about talent?
- You're telling me there's no such thing as raw talent?

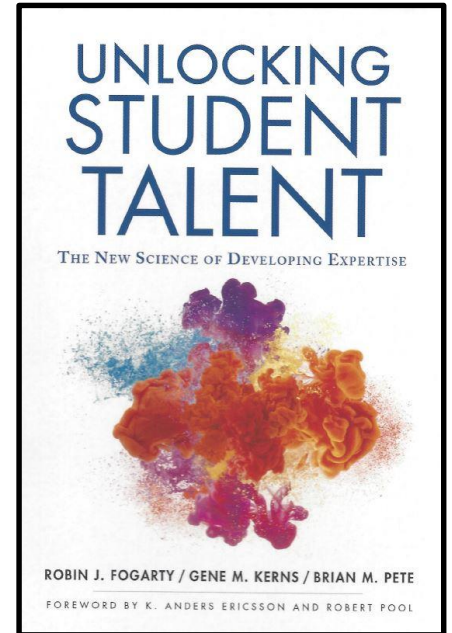


# Colvin (2008)



# Fogarty, Kerns, and Pete (2018)

- “Guided by the inaccurate folklore around talent, we may unconsciously limit the aspirations of our students and ourselves and fail to align our schools and classrooms for optimal growth.”
- “You can promote expertise systematically and consistently, and research documents this.”



# Q&A

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RAPSA provides ongoing webinars and other professional development opportunities for leaders serving opportunity youth.

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