Sifting Through the Essentials of Gifted Education for Talent Cultivation: Separating the Wheat from the Chaff

Del Siegle, Ph.D.

Director, National Center for Research on Gifted Education

UCONN | UNIVERSITY OF CONNECTICUT

RENZULLI CENTER FOR CREATIVITY, GIFTED EDUCATION, AND TALENT DEVELOPMENT

EACH OF US HAS

3

OBLIGATIONS


Develop
the
talents
you were
given.


Pass on
what
you have
learned.

Leave the world better than you found it.

1. Three essential types of services needed in gifted education
2. Important of understanding students' attitudes toward achievement
3. Guiding principles for talent development

Talent Development is a Two Step Process—

1. We must provide opportunities for talent to surface
2. Then we must provide services that develop students' talents

Talent Scout

SEARCHING FOR POINTS OF PROMISE

We do this by providing opportunities and

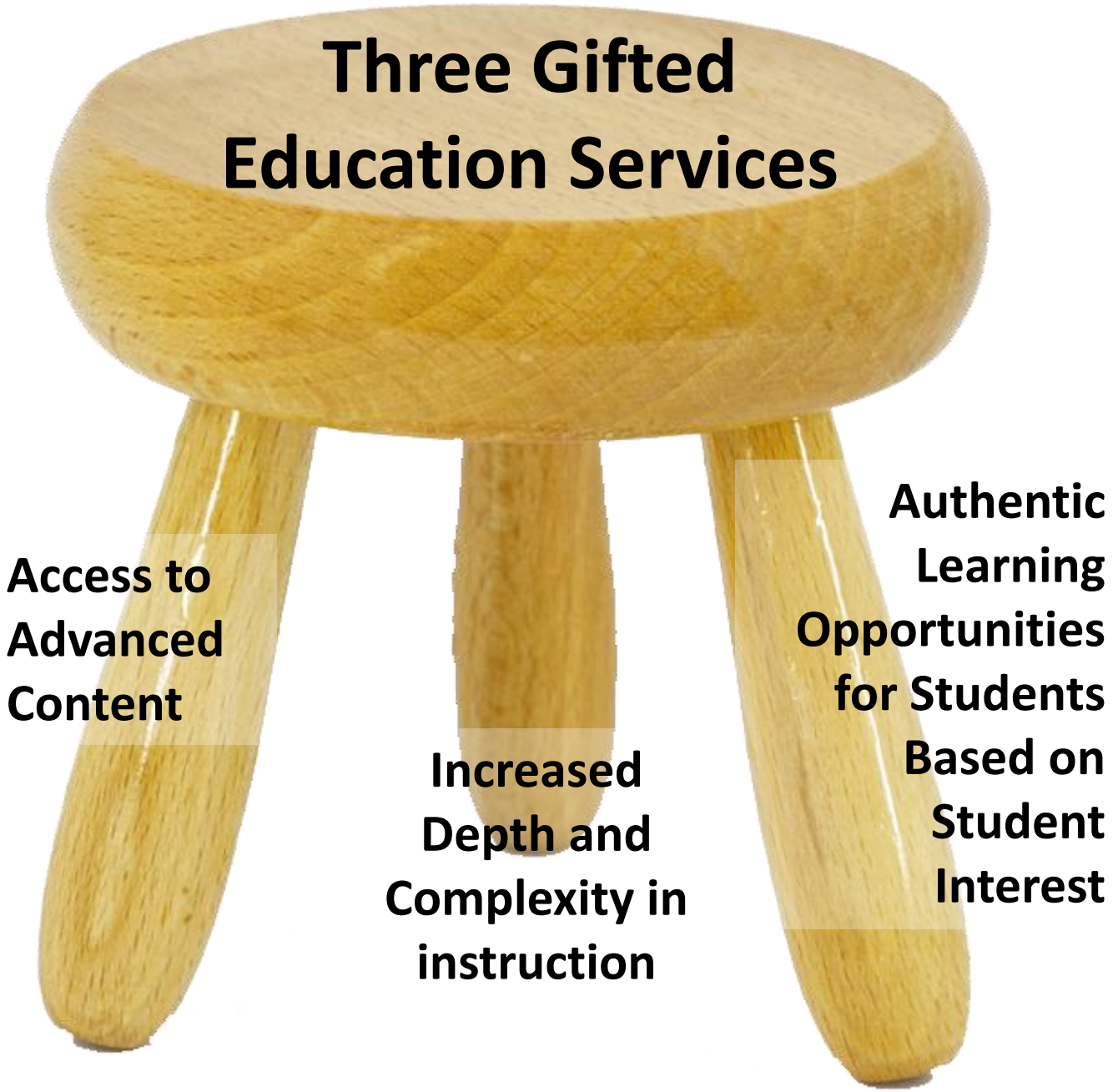
Recognizing Students' Strengths and Interests

Identify students as gifted

Develop students' gifts

It is the servicing of the gifts and talents that makes the difference in children's lives in the benefits it brings to them and to society.

3 services necessary for developing students' gifts



Addressing Challenges in Gifted Education with Three Legs of Gifted Education Services

Gifted Children's Bill of Rights

You have a right . . .

. . . to know about your giftedness.

. . . to learn something new every day.

. . . to learn something new every day.

. . . to have multiple peer groups and a variety of friends.

. . . to choose which of your talent areas you wish to pursue.

. . . not to be gifted at everything.

—Del Siegle
2007–2009 NAGC President

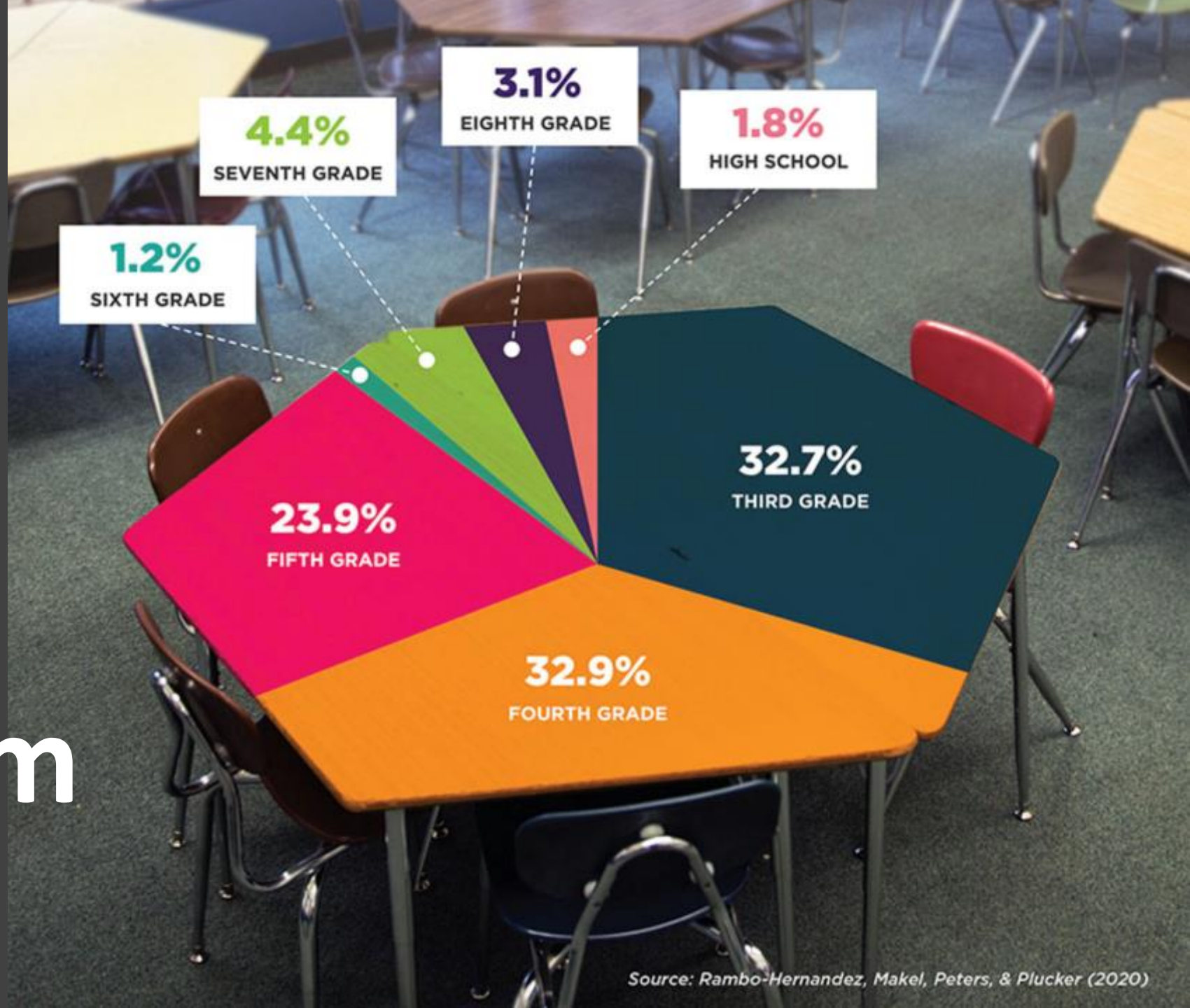
NATIONAL ASSOCIATION FOR Gifted Children

Provided as a service of
the National Association for Gifted Children & Prufrock Press Inc.
Copies are available online at http://www.nagc.org

PRUFROCK PRESS

Classrooms are very diverse places, and every school has kids who are a year or more above grade level

Typical Fifth-Grade Classroom



3

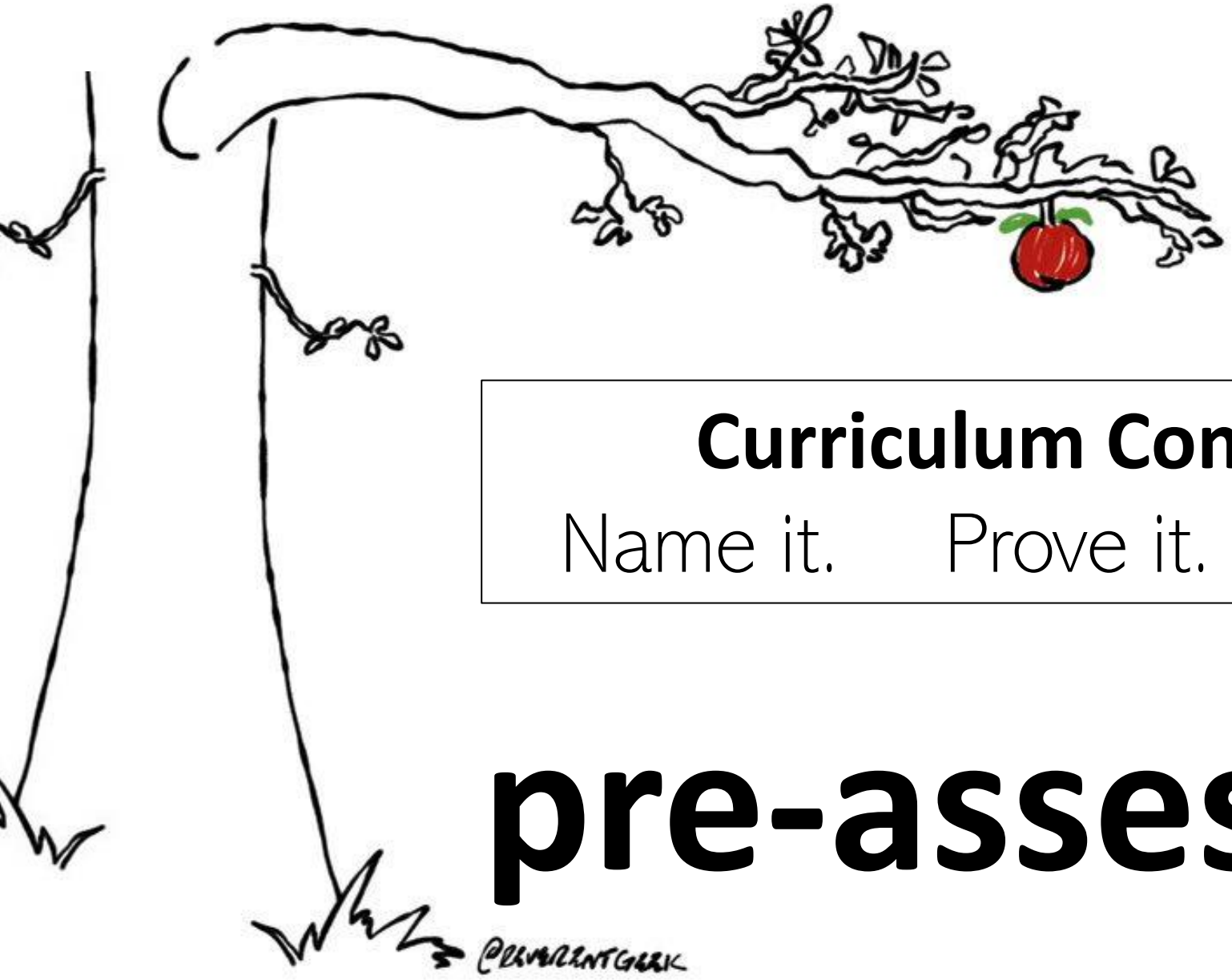
Options to ensure access to advanced content

Curriculum Compacting

Subject-Specific Acceleration

Whole-Grade Acceleration

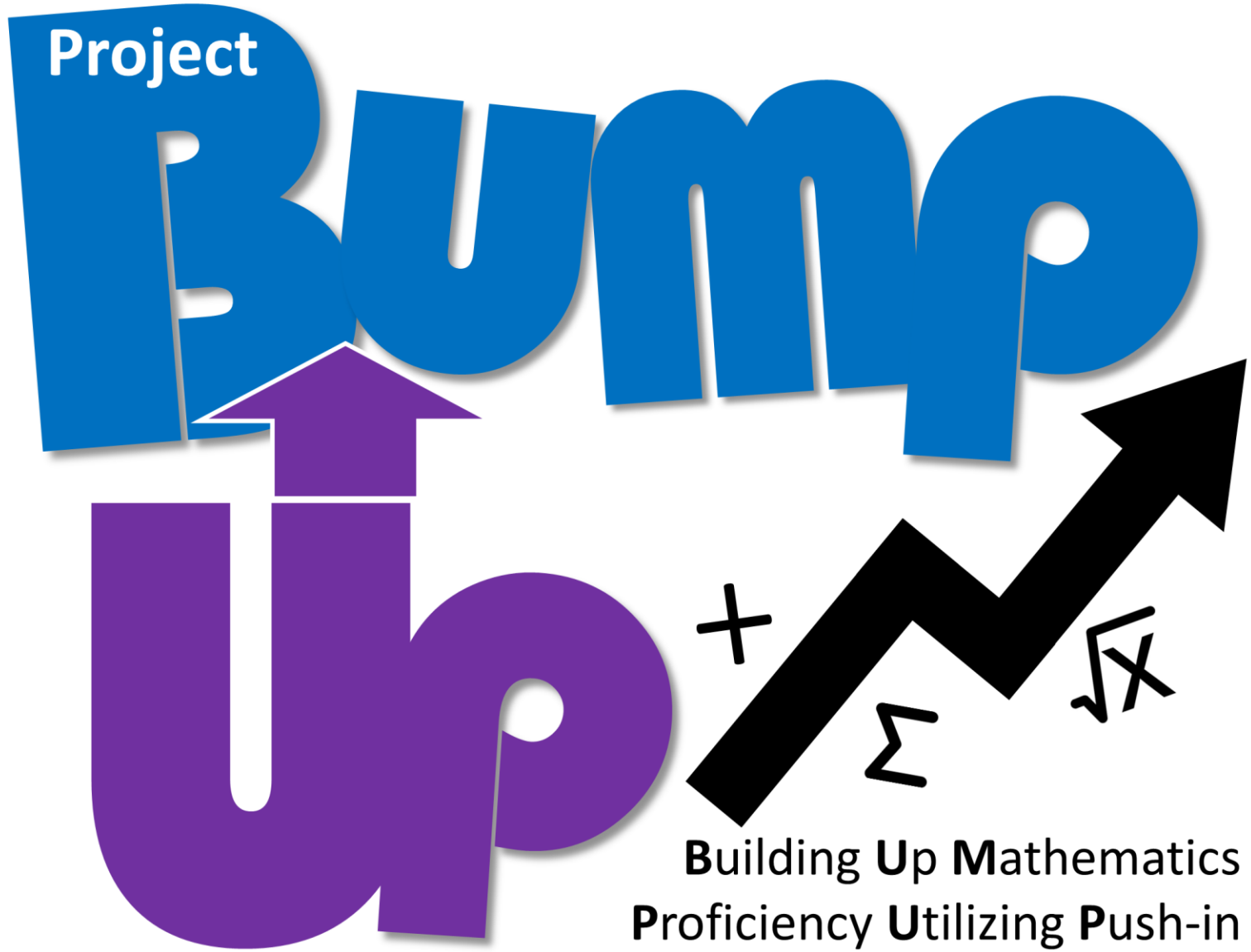
What is the most underused strategy in gifted education?



Curriculum Compacting

Name it. Prove it. Change it.

pre-assessment



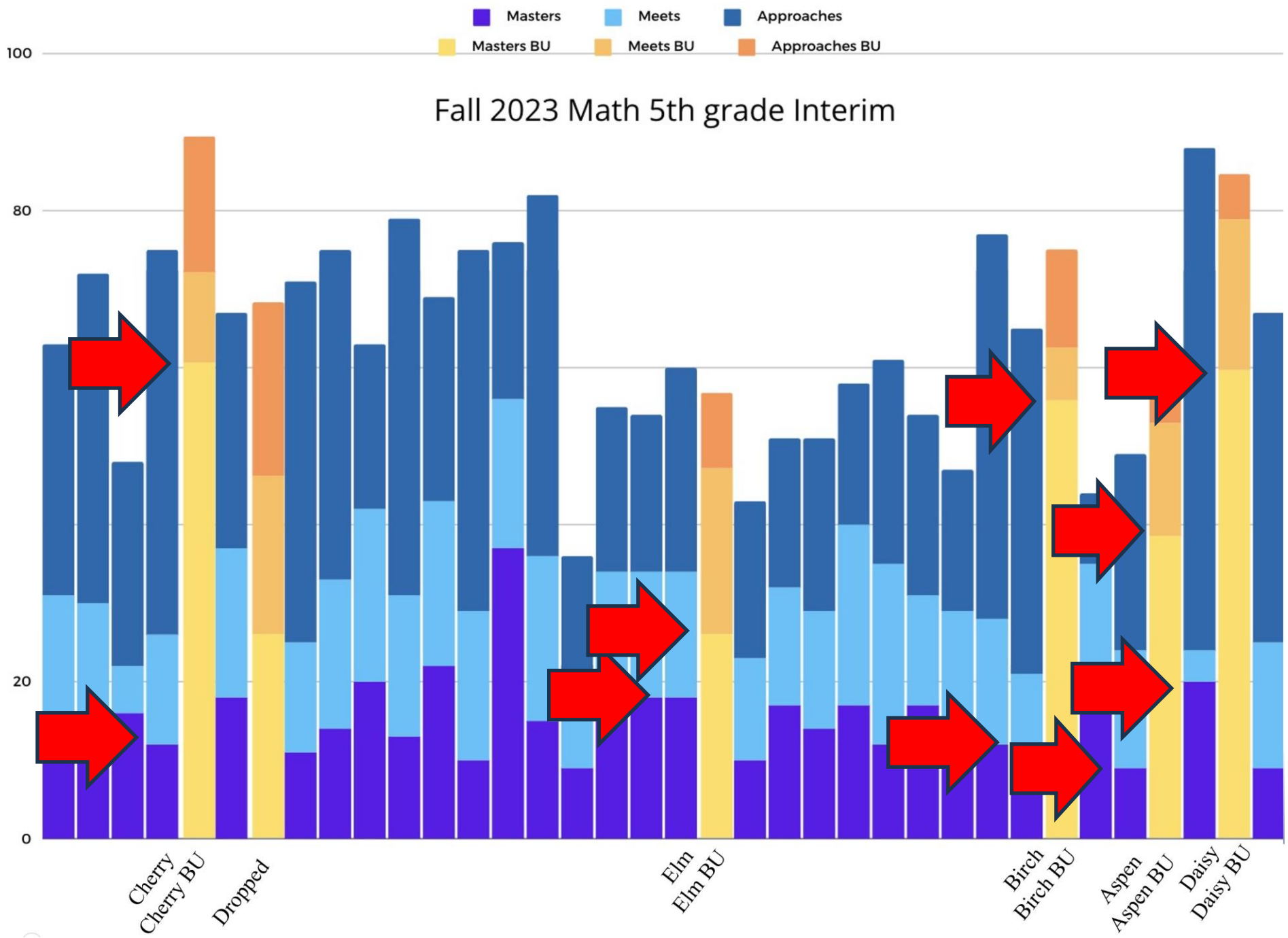
Building **U**p **M**athematics
Proficiency **U**tilizing **P**ush-in

Projectbumpup.education.uconn.edu

Project Bump Up

Building Up Mathematics Proficiency Utilizing Push-in

Projectbumpup.education.uconn.edu



projectbumpup.education.uconn.edu

UCONN | UNIVERSITY OF CONNECTICUT

A-Z

FUNDED BY JACOB K. JAVITS GIFTED AND TALENTED STUDENTS EDUCATION PROGRAM, U.S. DEPARTMENT OF EDUCATION PR/AWARD # S206A190028

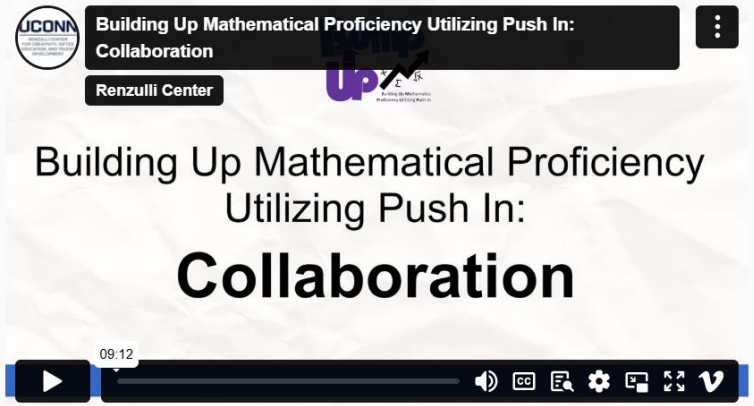
Search this site...

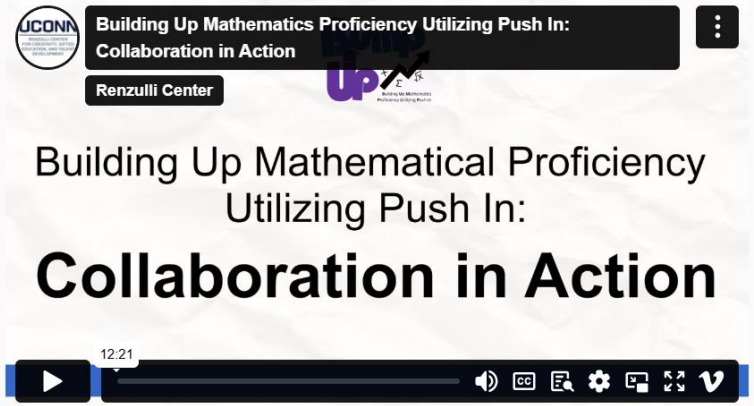
Project BUMP UP

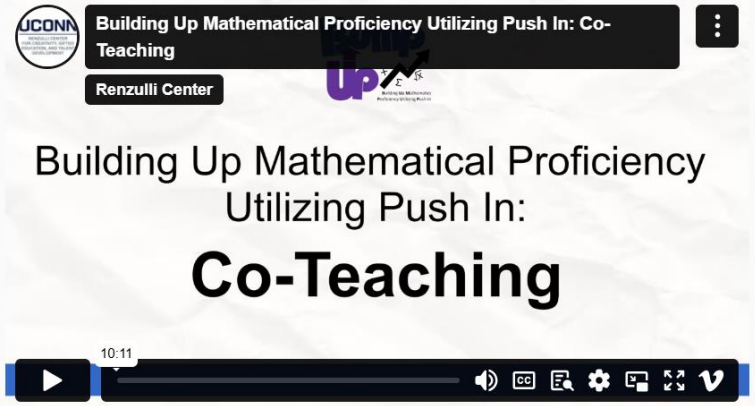
projectbumpup.education.uconn.edu

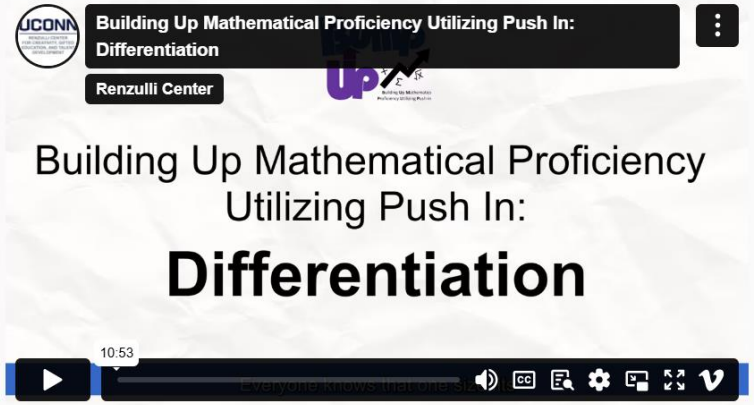
Home Rationale for the Project Theory of Change About us Blog Contact Information Collaborative Teaching Models

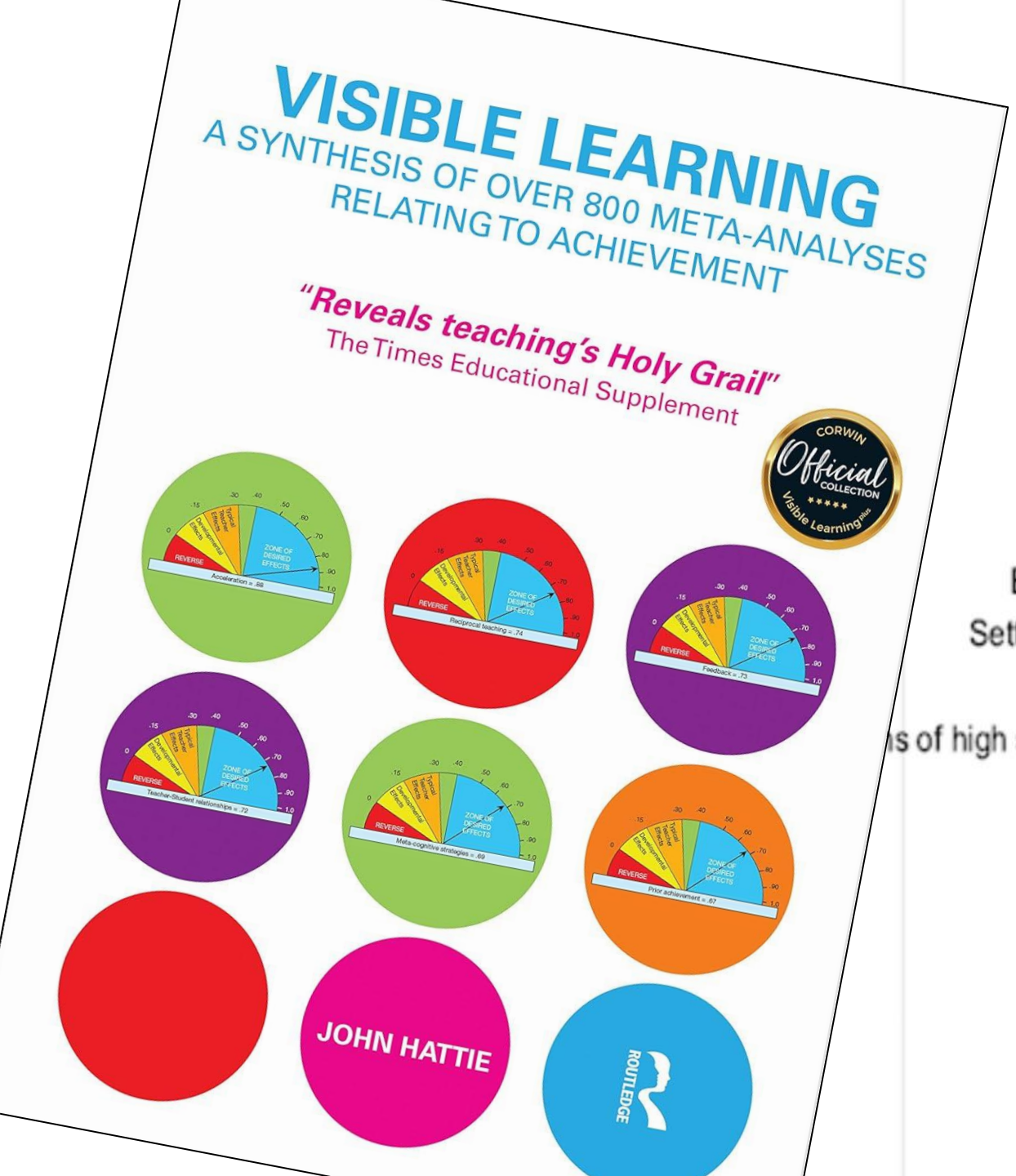
BUMPing UP: A 3-Step Method to Increase Cognitive Complexity for Advanced Learners Teacher Resources 2024-25 Differentiation Resources



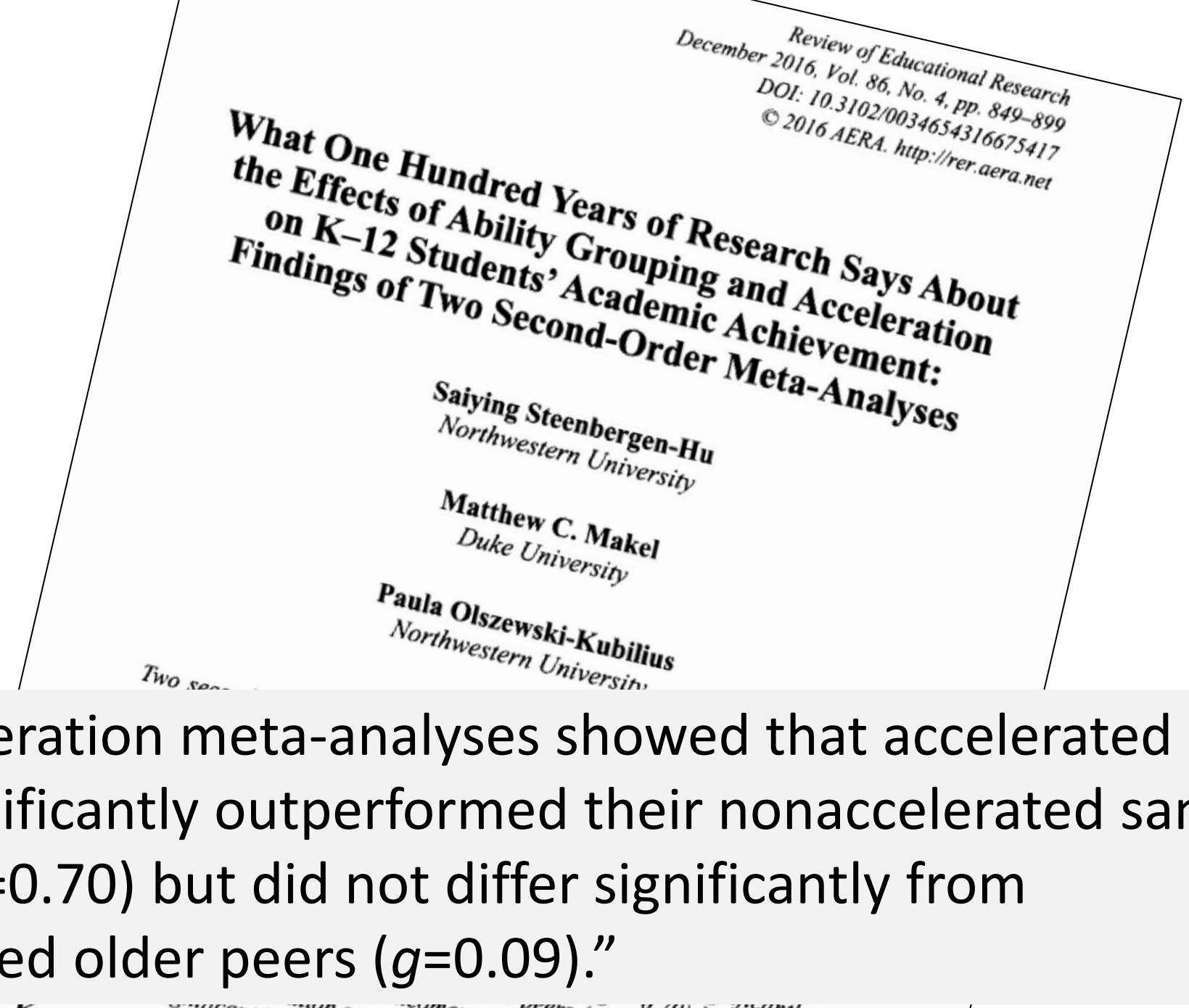








Phonics instruction	0,70
Feedback	0,70
Deep motivation and approach	0,69
Field independence	0,68
Acceleration programs	0,68
Learning goals vs. no goals	0,68
Problem-solving teaching	0,68
Outlining and transforming	0,66
Concept mapping	0,64
Vocabulary programs	0,62
Creativity programs	0,62
Behavioral intervention programs	0,62
Setting standards for self-judgement	0,62
Teachers not labeling students	0,61
s of high school to university achievement	0,60
Meta-cognitive strategies	0,60
Spaced vs. mass practice	0,60
Direct instruction	0,60
Mathematics programs	0,59
Appropriately challenging goals	0,59
Spelling programs	0,58
Tactile stimulation programs	0,58
Strategy monitoring	0,58



Review of Educational Research
December 2016, Vol. 86, No. 4, pp. 849–899
DOI: 10.3102/0034654316675417

What One Hundred Years of Research Says About the Effects of Ability Grouping and Acceleration on K–12 Students' Academic Achievement: Findings of Two Second-Order Meta-Analyses

Saiying Steenbergen-Hu
Northwestern University

Matthew C. Makel
Duke University

Paula Olszewski-Kubilius
Northwestern University

"Three acceleration meta-analyses showed that accelerated students significantly outperformed their nonaccelerated same-age peers (*g*=0.70) but did not differ significantly from nonaccelerated older peers (*g*=0.09)."

Subject-Specific Acceleration

Universally screen students to determine who has

- local reading achievement scores in the top 10%
- local math achievement scores in the top 10%

National Center for Research on Gifted Education (NCRGE). (2024). *Supporting academic acceleration in schools.* National Center for Research on Gifted Education. https://ncrge.uconn.edu/acceleration/

Whole-Grade Acceleration

Universally screen students to determine who has

- cognitive scores above 120 and
- above average reading and math achievement scores two grade levels ahead

National Center for Research on Gifted Education (NCRGE). (2024). *Supporting academic acceleration in schools.* National Center for Research on Gifted Education. https://ncrge.uconn.edu/acceleration/

Grade skipping works!

Not only was academic achievement more positive for the grade skipped learners, but also their social adjustment and academic self-esteem were more positive.

Karen B. Rogers
University of St Thomas (Minnesota)

Acceleration isn’t about doing things faster…

…it is about matching instruction to students’ learning needs

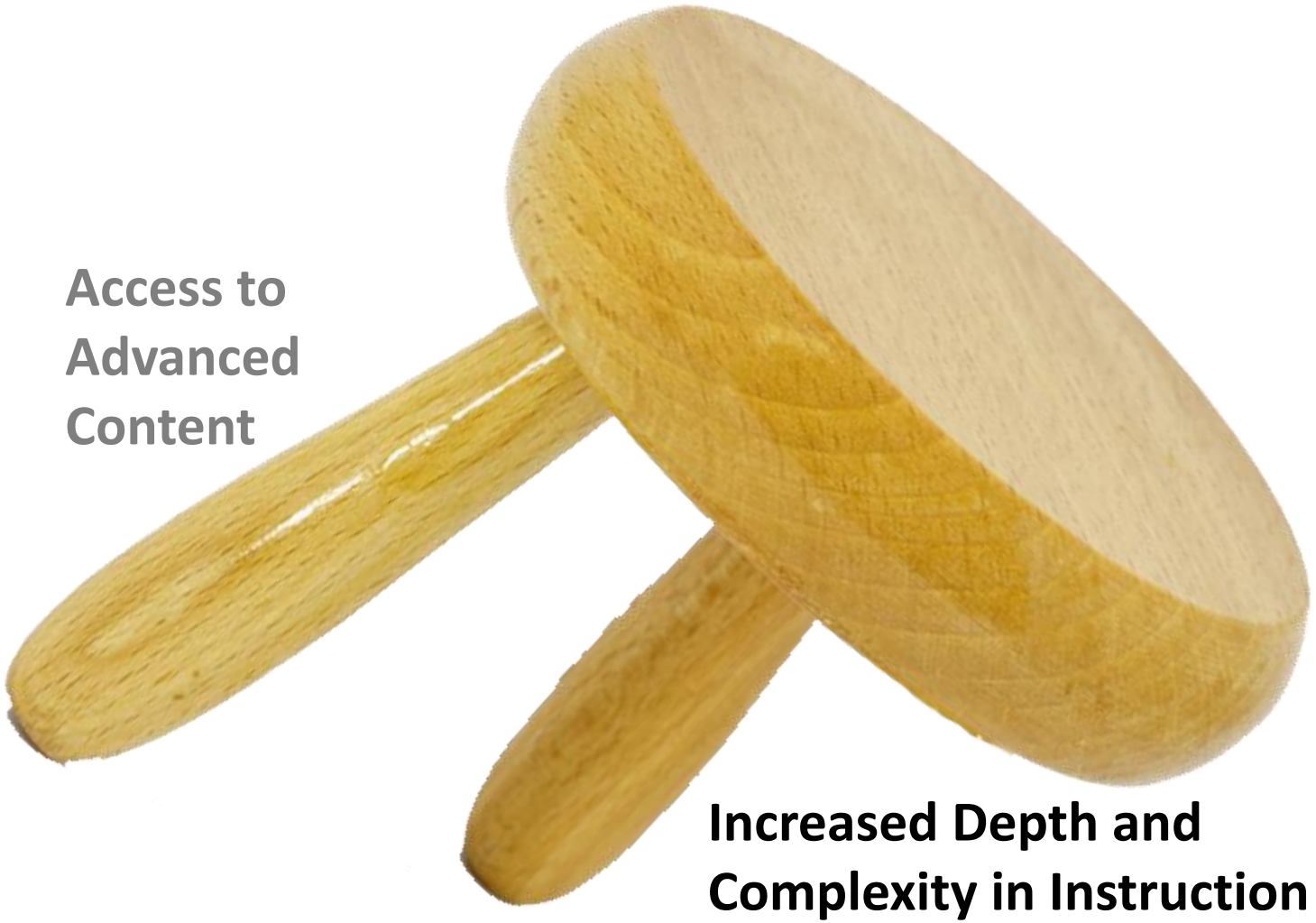
NATIONAL CENTER FOR RESEARCH ON GIFTED EDUCATION

Is your school interested in doing acceleration with confidence?

NCRGE is seeking schools serving grades 2-5 interested in ***FREE PROFESSIONAL LEARNING OPPORTUNITIES*** and ***assistance in making acceleration decisions***.

ncrge.uconn.edu/acceleration

Addressing Challenges in Gifted Education with Three Legs of Gifted Education Services



Academic Challenge

Academic Challenge

"I don't want to be academically challenged…

Academic Challenge

“I don’t want to be academically challenged... I want to be intellectually stimulated.”

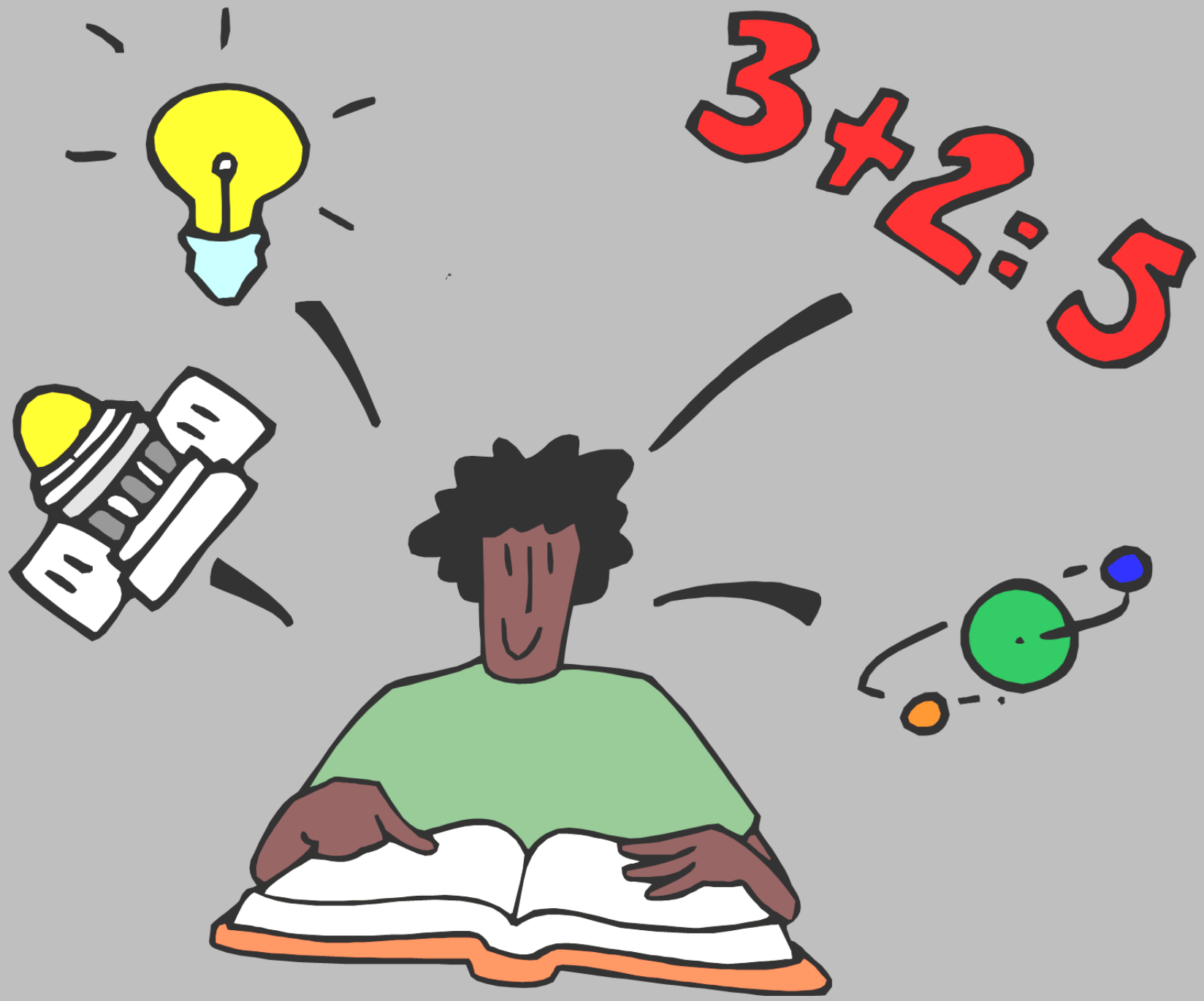
Academic Challenge

quest for mastery

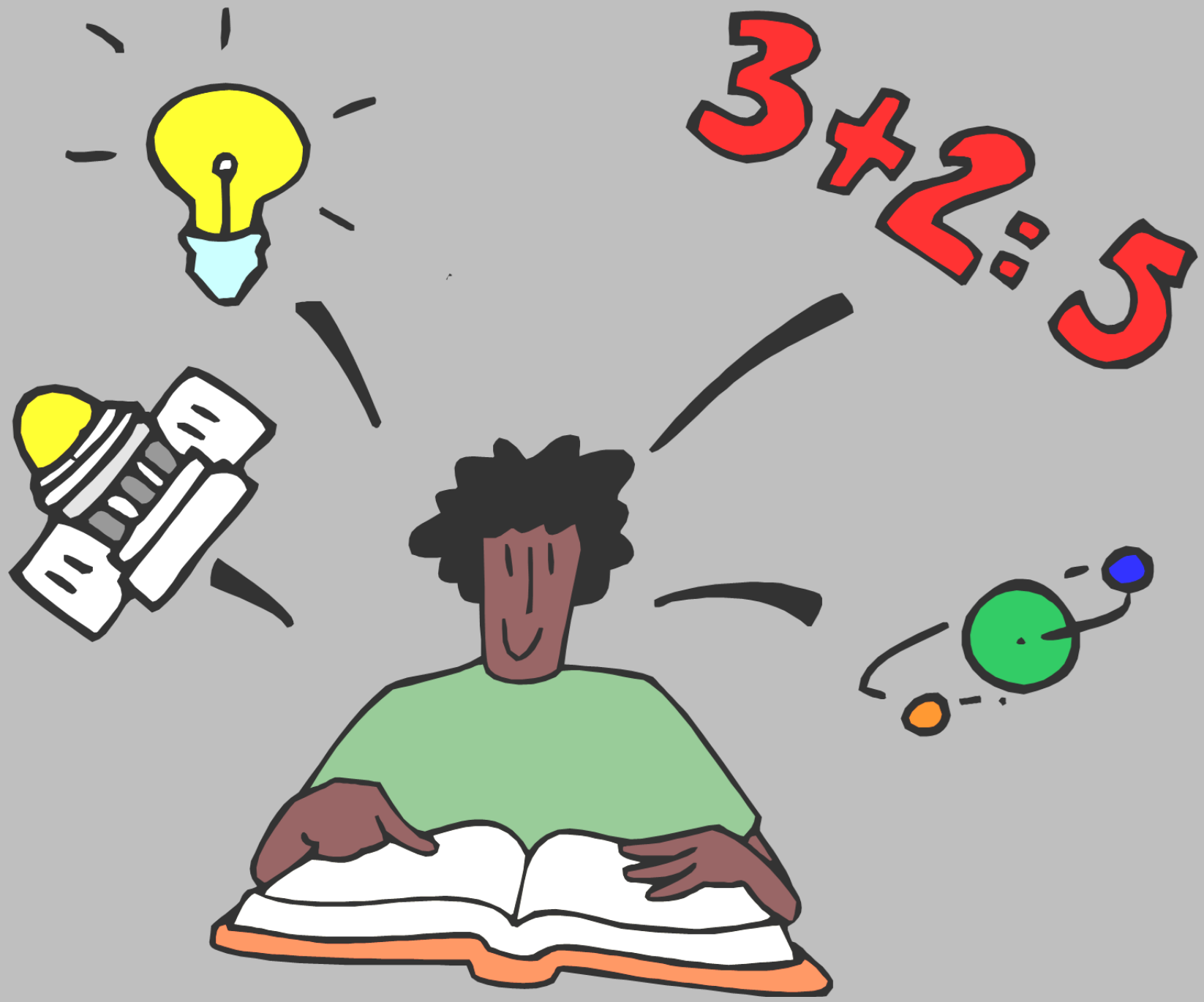
Intellectual Stimulation

search for meaning

What is the relationship between academic challenge and intellectual stimulation?



Because content is academically challenging does not guarantee that students will find it intellectually stimulating.



Because content is academically challenging does not guarantee that students will find it intellectually stimulating.

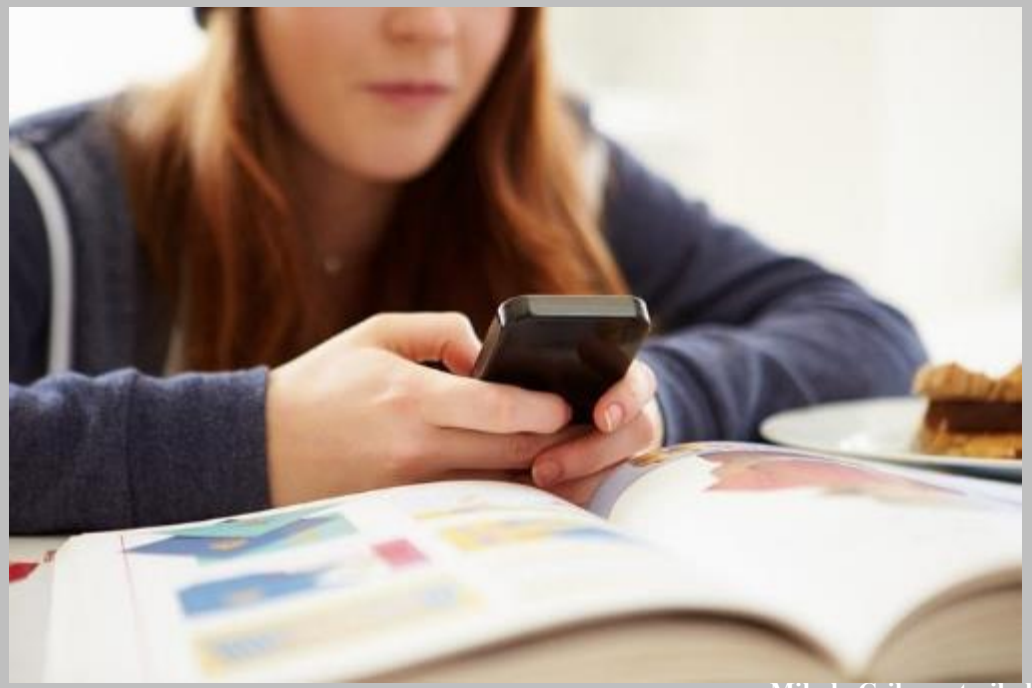
Too little academic challenge, too little intellectual stimulation produces bored students.

Mihaly Csikszentmihalyi coined the term “flow”

Because content is academically challenging does not guarantee that students will find it intellectually stimulating.

Too little academic challenge, too little intellectual stimulation produces bored students.

Too much academic challenge, too little intellectual stimulation produces "turned off" students.



Mihaly Csikszentmihalyi coined the term "flow"

Because content is academically challenging does not guarantee that students will find it intellectually stimulating.

Too much academic challenge with adequate intellectual stimulation produces frustrated students.

Mihaly Csikszentmihalyi coined the term “flow”

Because content is academically challenging does not guarantee that students will find it intellectually stimulating.

Optimal challenge combined with intellectual stimulation produces students in a state of "flow".

Mihaly Csikszentmihalyi coined the term "flow"

Too little academic challenge, too little intellectual stimulation produces bored students.

Too much academic challenge, too little intellectual stimulation produces “turned off” students.

Too much academic challenge with adequate intellectual stimulation produces frustrated students.

Optimal challenge combined with intellectual stimulation produces students in a state of “flow”.

Mihaly Csikszentmihalyi coined the term “flow”

Is what I am asking students to do sufficiently challenging AND intellectually stimulating?

If not, how can I make it?

Too little academic challenge, too little intellectual stimulation produces bored students.

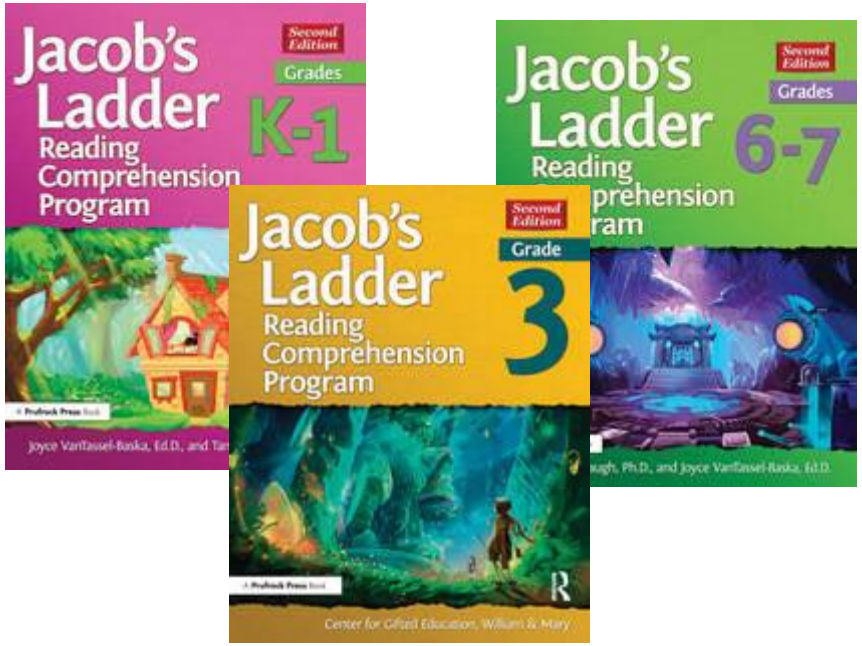
Too much academic challenge, too little intellectual stimulation produces "turned off" students.

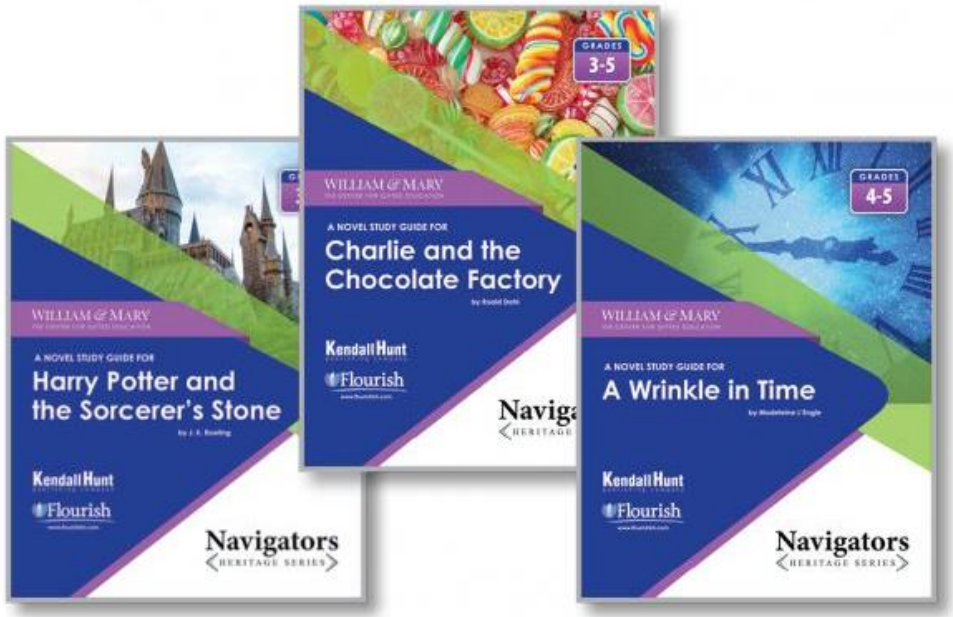
Too much academic challenge with adequate intellectual stimulation produces frustrated students.

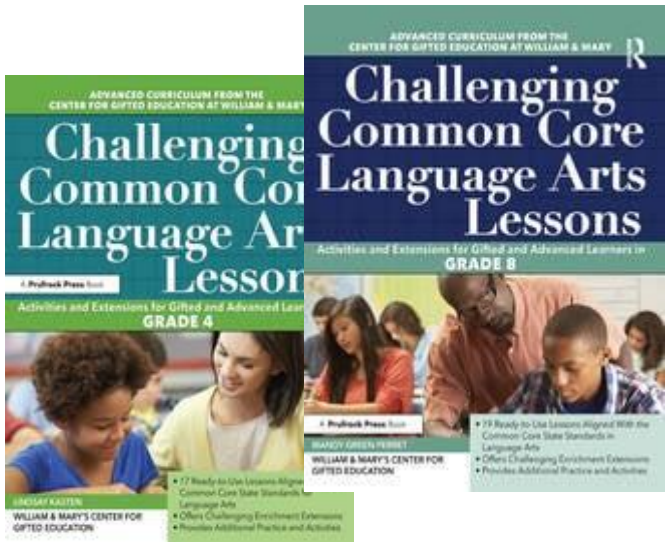
Optimal challenge combined with intellectual stimulation produces students in a state of "flow".

Mihaly Csikszentmihalyi coined the term "flow"

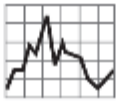

Student Mathematician's Journal
How Big Is Big?
PROJECT A3
AWESOME ADVANCED ACTIVITIES
for Mentoring Mathematical Minds
TEACHER GUIDE


Jacob's Ladder
Reading Comprehension Program
Second Edition
Grades K-1
Grades 6-7
Grade 3
Center for Gifted Education, William & Mary

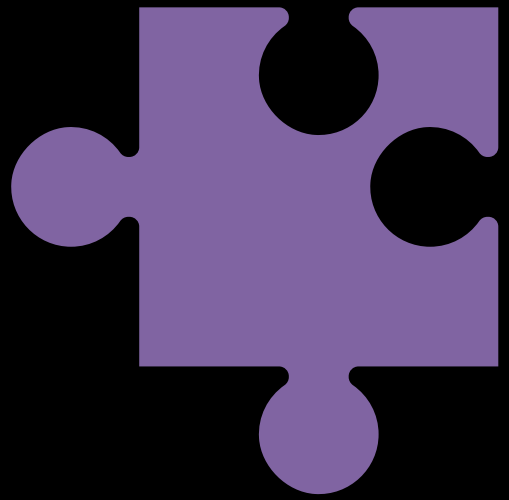

WILLIAM & MARY
A NOVEL STUDY GUIDE FOR
Harry Potter and the Sorcerer's Stone
Charlie and the Chocolate Factory
A Wrinkle in Time
GRADES 3-5
GRADES 4-5
Kendall Hunt
Flourish
Navigators
HERITAGE SERIES

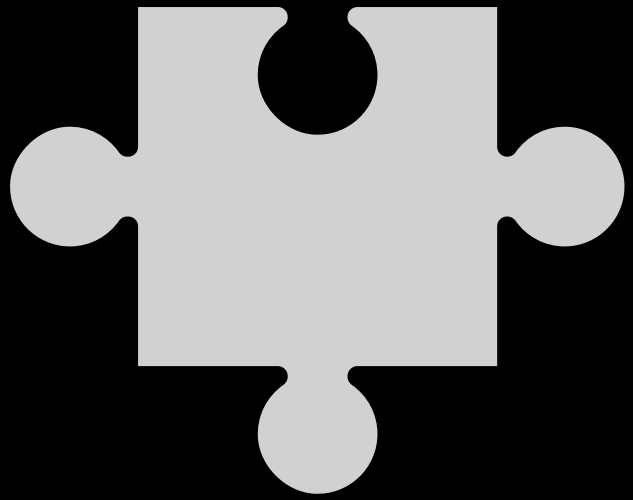

ADVANCED CURRICULUM FROM THE CENTER FOR GIFTED EDUCATION AT WILLIAM & MARY
Challenging Common Core Language Arts Lessons
Activities and Extensions for Gifted and Advanced Learners in
GRADE 4
GRADE 8
WILLIAM & MARY'S CENTER FOR GIFTED EDUCATION

Provide Depth and Complexity

Prompt	Icons	Definitions	Key Questions to Explain the Prompt
LANGUAGE OF THE DISCIPLINES		Nomenclature, lexicon, or vocabulary of the study	What terms or words are specific to the work of the _____ (disciplinarian)? What tools does the _____ (disciplinarian) use?
DETAILS		Traits, attributes, characteristics to describe something	What are its attributes? What features characterize this? What specific elements define this? What distinguishes this from other things?
PATTERNS		Reoccurring events	What are the reoccurring events? What elements, events, and ideas are repeated over time? What was the order of events? How can we predict what will come next?
TRENDS		Influences or forces that shape ideas	What ongoing factors have influenced this study? What factors have contributed to this study?
UNANSWERED QUESTIONS		Unknown areas of a discipline	What is still not understood about this area, topic, study, or discipline? What is yet unknown about this area, topic, study, or discipline? In what ways is the information incomplete or lacking in explanation?
RULES		Stated or unstated reasons or explanations	How is this structured? What are the stated and unstated causes related to the description or explanation of what we are studying?
ETHICS		Dilemmas, controversies, issues	What dilemmas or controversies are involved in this area, topic, study, or discipline? What elements can be identified that reflect bias, prejudice, and discrimination?
BIG IDEAS		Generalizations, principles, theories	What overarching statement best describes what is being studied? What general statement includes what is being studied?
OVERTIME		Past, present, future happenings	How are ideas related between the past, present, and future? How are these ideas related within or during a particular time period? How has time affected the information? How and why do things change or remain the same?
POINTS OF VIEW		Perspective, opinion	What are the opposing viewpoints? How do different people and characters see this event or situation?
INTER-DISCIPLINARY		Connections between and across disciplines	How are these ideas related or connected?

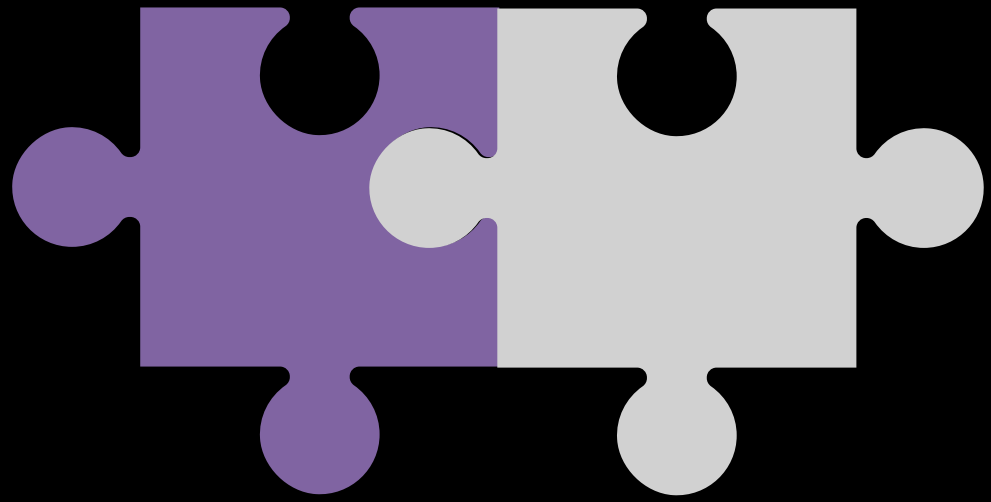
connections





Prompt	Icons	Definitions	Key Questions to Explain the Prompt
LANGUAGE OF THE DISCIPLINES		Nomenclature, lexicon, or vocabulary of the study	What terms or words are specific to the work of the _____ (disciplinarian)? What tools does the _____ (disciplinarian) use?
DETAILS		Traits, attributes, characteristics to describe something	What are its attributes? What features characterize this? What specific elements define this? What distinguishes this from other things?
PATTERNS		Reoccurring events	What are the reoccurring events? What elements, events, and ideas are repeated over time? What is the order of events? How can we predict what will come next?
TRENDS		Influences or forces that shape ideas	What ongoing factors have influenced this study? What factors have contributed to this study?
UNANSWERED QUESTIONS		Unknown areas of a discipline	What is still not understood about this area, topic, study, or discipline? What is yet unknown about this area, topic, study, or discipline? In what ways is the information incomplete or lacking in explanation?
RULES		Stated or undated reasons or explanations	How is this structured? What are the stated and unstated causes related to the description or explanation of what we are studying?
ETHICS		Dilemmas, controversies, issues	What dilemmas or controversies are involved in this area, topic, study, or discipline? What elements can be identified that reflect bias, prejudice, and discrimination?
BIG IDEAS		Generalizations, principles, theories	What overarching statement best describes what is being studied? What general statement includes what is being studied?
OVERTIME		Past, present, future happenings	How are ideas related between the past, present, and future? How are these ideas related within or during a particular time period? How has time affected the information? How and why do things change or remain the same?
POINTS OF VIEW		Perspective, opinion	What are the opposing viewpoints? How do different people and characters see this event or situation?
INTER-DISCIPLINARY		Connections between and across disciplines	How are these ideas related or connected?

connections



Prompt	Icons	Definitions	Key Questions to Explain the Prompt
LANGUAGE OF THE DISCIPLINES		Nomenclature, lexicon, or vocabulary of the study	What terms or words are specific to the work of the _____ (disciplinarian)? What tools does the _____ (disciplinarian) use?
DETAILS		Traits, attributes, characteristics to describe something	What are its attributes? What features characterize this? What specific elements define this? What distinguishes this from other things?
PATTERNS		Reoccurring events	What are the reoccurring events? What elements, events, and ideas are repeated over time? What is the order of events? How can we predict what will come next?
TRENDS		Influences or forces that shape ideas	What ongoing factors have influenced this study? What factors have contributed to this study?
UNANSWERED QUESTIONS		Unknown areas of a discipline	What is still not understood about this area, topic, study, or discipline? What is yet unknown about this area, topic, study, or discipline? In what ways is the information incomplete or lacking in explanation?
RULES		Stated or undated reasons or explanations	How is this structured? What are the stated and unstated causes related to the description or explanation of what we are studying?
ETHICS		Dilemmas, controversies, issues	What dilemmas or controversies are involved in this area, topic, study, or discipline? What elements can be identified that reflect bias, prejudice, and discrimination?
BIG IDEAS		Generalizations, principles, theories	What overarching statement best describes what is being studied? What general statement includes what is being studied?
OVERTIME		Past, present, future happenings	How are ideas related between the past, present, and future? How are these ideas related within or during a particular time period? How has time affected the information? How and why do things change or remain the same?
POINTS OF VIEW		Perspective, opinion	What are the opposing viewpoints? How do different people and characters see this event or situation?
INTER-DISCIPLINARY		Connections between and across disciplines	How are these ideas related or connected?

Sandra Kaplan's Depth and Complexity https://www.youtube.com/watch?v=McEldMETSnw

Google → **Introduction to the Prompts of Depth and Complexity – Project Linking Learning**

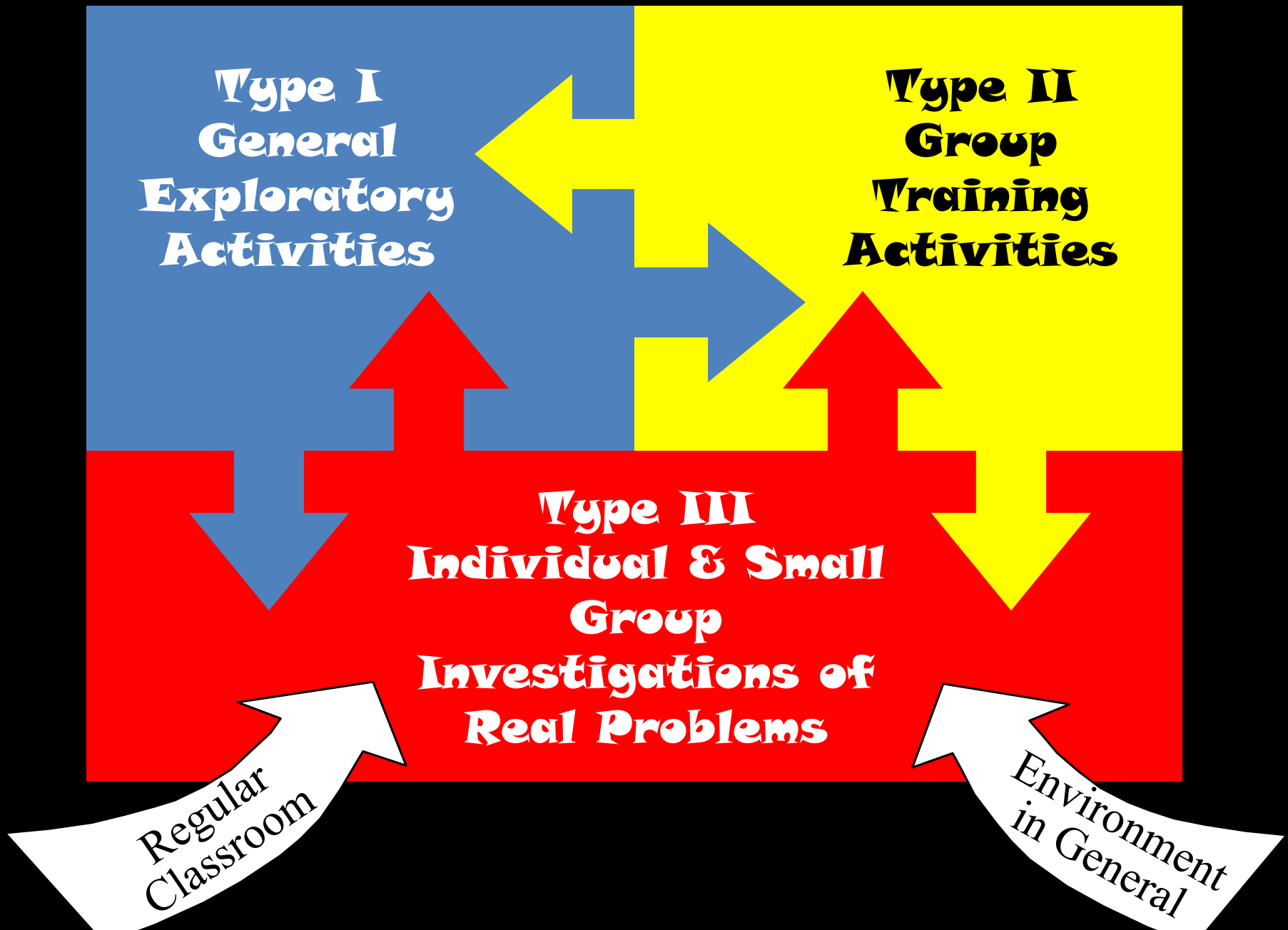
Addressing Challenges in Gifted Education with Three Legs of Gifted Education Services

Never underestimate the power of student interest in making learning meaningful

Relationship Between Perceived Level of Talent and Belief in an Entity Theory of Intelligence, the Importance of Natural Ability in High Performance Levels, the Important of Personal Effort in High Performance Levels, and Interest in Each of 15 Talent Areas

Talent Area	Entity Belief	Role of Ability	Role of Effort	Personal Interest
Musical Skills	-0.093	0.019	0.36**	0.601**
Art Skills	-0.123	-0.053	0.16	0.629**
Mathematical Skills	0.027	0.263**	0.059	0.550**
Athletic Skills	0.003	0.124	0.116	0.726**
Writing Skills	0.082	0.259**	0.064	0.598**
Spelling Skills	-0.052	0.162	0.089	0.350**
Dance Skills	0.008	0.109	0.18*	0.691**
Inter-Personal Skills	-0.191*	0.15	0.11	0.453**
Logical/Reasoning Skills	-0.052	0.26**	-0.069	0.514**
Visual/Spatial Skills	-0.126	0.137	0.086	0.513**
Language Acquisition Skills	-0.029	0.063	0.095	0.496**
Verbal Skills	-0.034	0.237**	0.066	0.485**
Leadership Skills	-0.185*	0.186*	0.213*	0.613**
Science Skills	-0.072	0.064	0.05	0.688**
Overall Academic Skills	-0.002	0.093	0.038	.222**

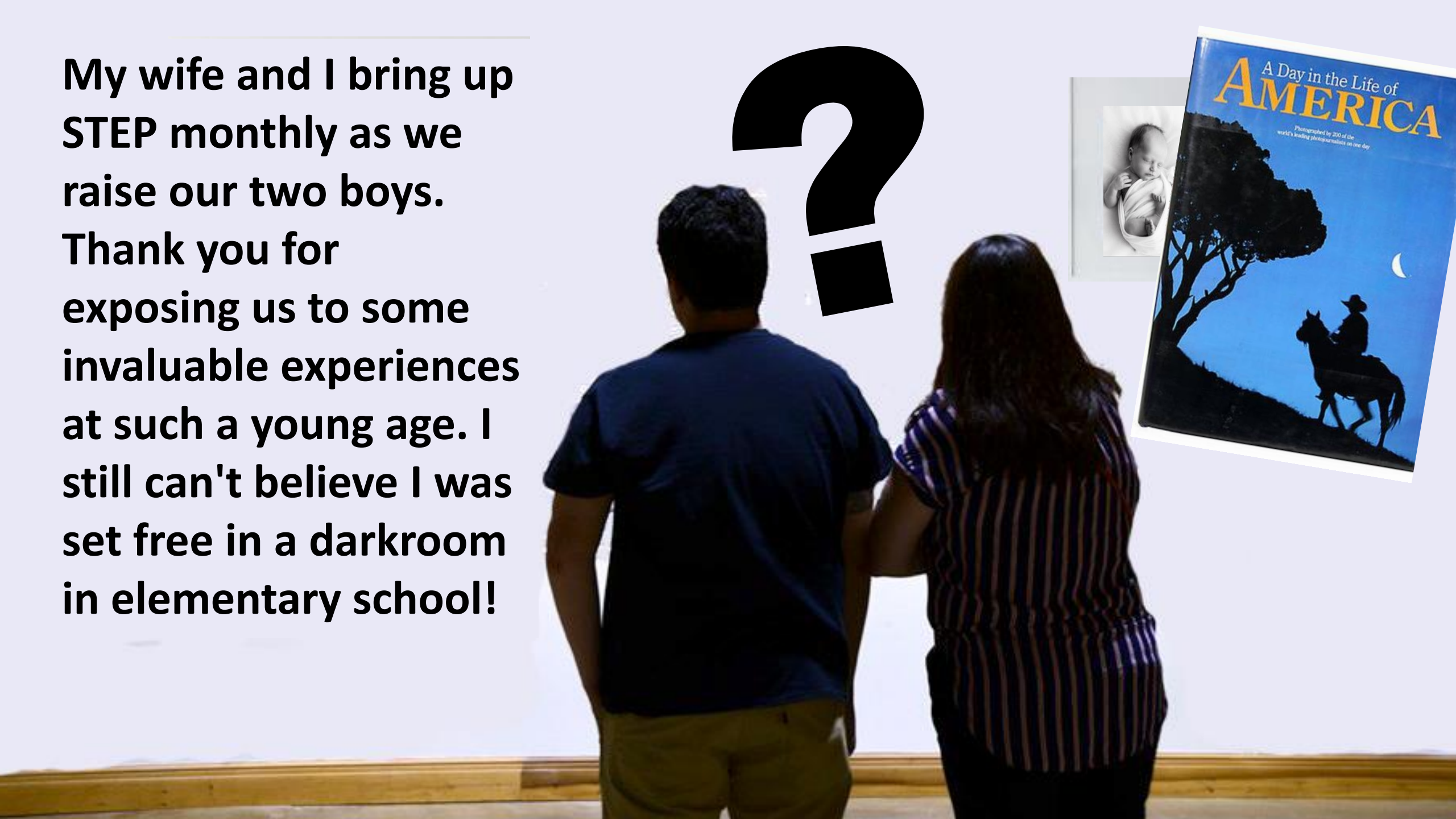
The Enrichment Triad Model



authentic methods & products

authentic audiences

My wife and I bring up STEP monthly as we raise our two boys. Thank you for exposing us to some invaluable experiences at such a young age. I still can't believe I was set free in a darkroom in elementary school!



choice

Our children are growing up in a world built around choice...

...having choices contributes to a sense of control and ownership.

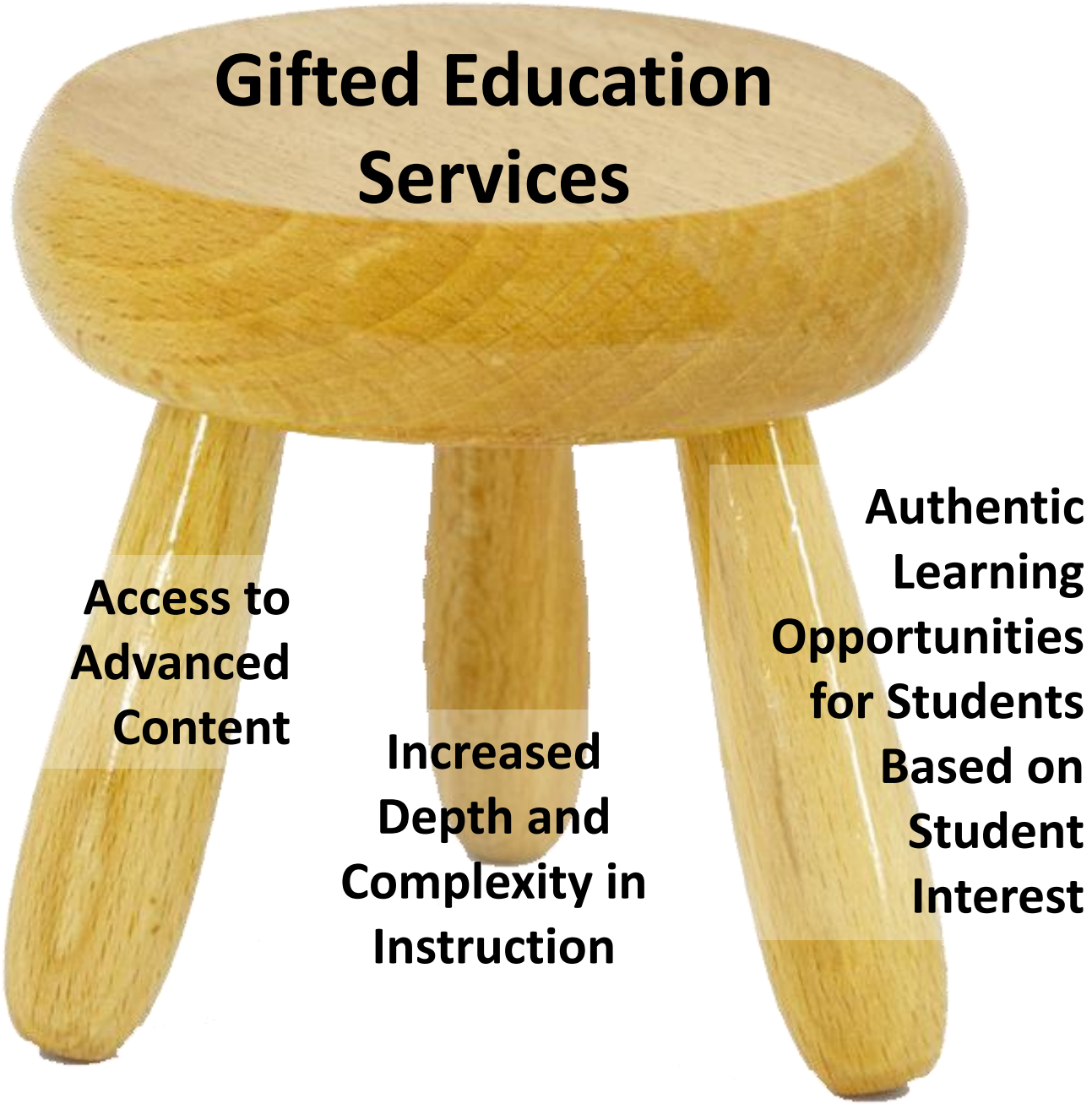
Unfortunately

choice

is absent or limited during most of the school day for many students

Enrichment Clusters

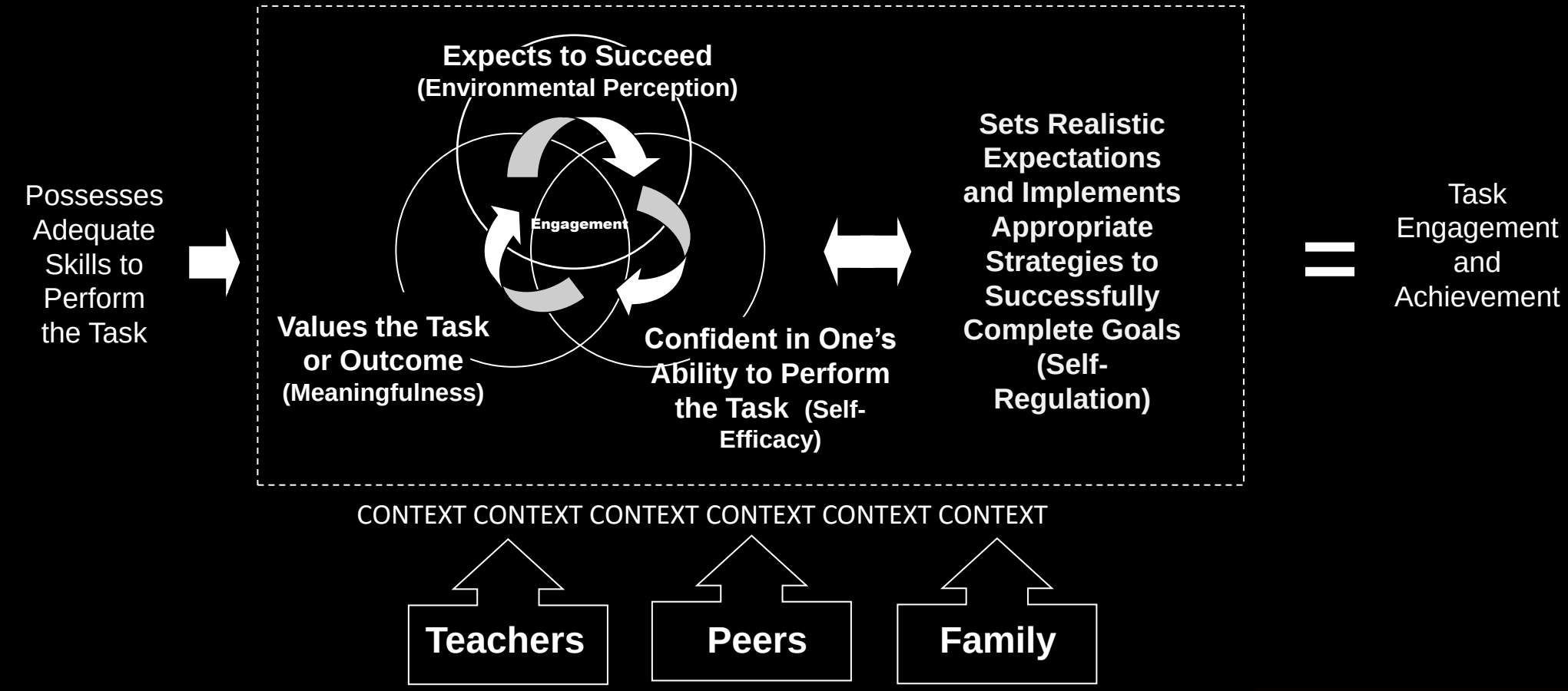
Addressing Challenges in Gifted Education with Three Legs of Gifted Education Services



What beliefs do students need to have about themselves and tasks before they are ready to learn?

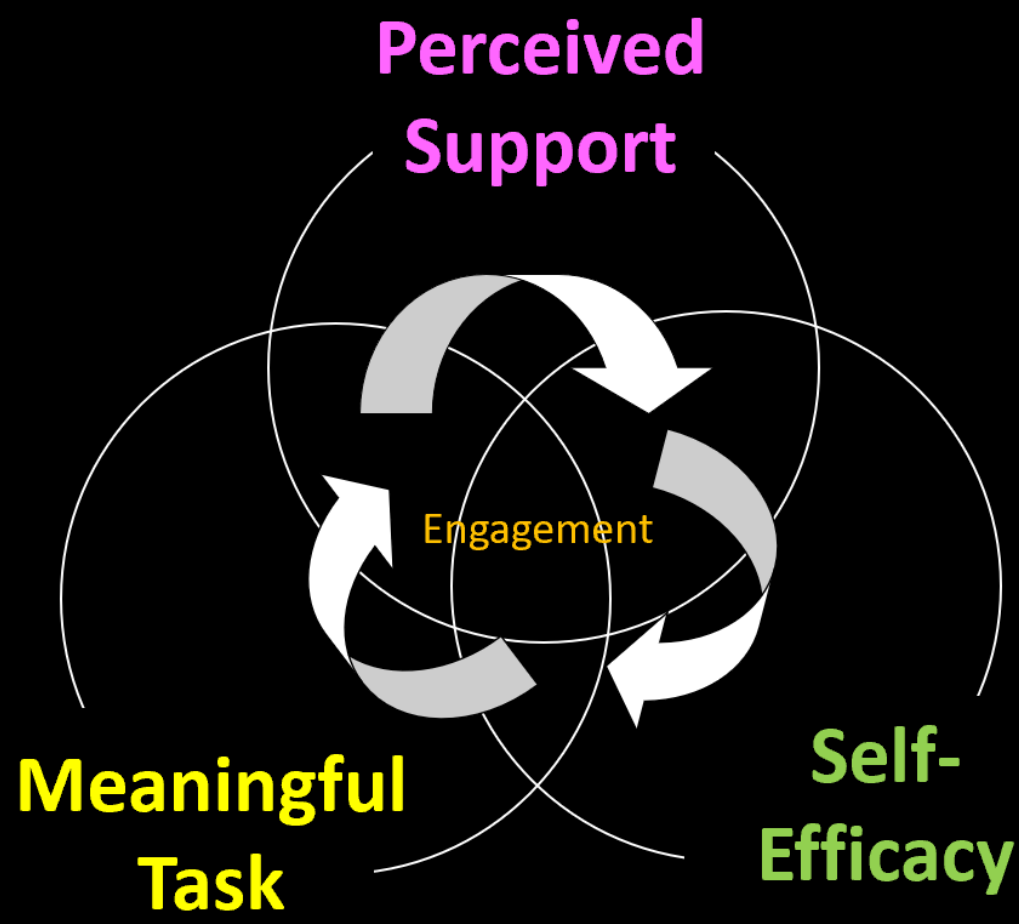
Siegle, D., McCoach, D. B., & Roberts, A. (2017). Why I achieve determines whether I achieve. *High Ability Studies, 28,* 59-72. https://doi.org/10.1080/13598139.2017.1302873

Achievement Orientation Model



Each of the four elements of the model (Meaningfulness, Self-Efficacy, Environmental Perception, and Self-Regulation) is usually present in individuals who achieve at a level commensurate with their abilities. Some of these factors may be stronger than others, but overall, achievement-oriented individuals display a combination of all four traits. Remediation can be based on diagnosing which element or elements are deficit and addressing them. Two individuals might have very different remediation programs based on their achievement-orientation profiles.

UCONN
UNIVERSITY OF CONNECTICUT



Confidence: I am capable!

Interest: It's important to me!

Trust: I have what I need and feel supported!

Engage: I am ready to do it!

Confidence

Interest

Trust

leads to

Engagement

When students value a task or outcome and have positive perceptions of their skills and their opportunities for success, they are more likely to implement self-regulatory behavior and apply appropriate strategies for success.

Three key principles to guide talent development…

1. **Recognize and Value Individual Differences**
   - -Remove Limitations on what students can learn and how quickly
   - -Provide Freedom to Explore Passions
2. **Support Intellectual Curiosity**
   - -Encourage and Model Creativity and Risk Taking
   - -Help Students Understand They Can Learn and Grow
3. **Provide Life-Long Thinking and Learning Tools**
   - -Provide Meaningful, Relevant Learning Experiences
   - -Encourage Problem Solving


When placed in appropriate environments, all living things flourish.
-Del Siegle

The only way our country will reach its potential is if we help all our children reach their potential.