

Literacy & Argumentation

Empowering Your District & School to Win Big on Assessments



Agenda

- Overview
- Developing a Comprehensive Literacy Program
- Closing the Achievement Gap
- ThinkCERCA Demonstration

The **Experts** Behind ThinkCERCA



Eileen Murphy

Founder and CEO



Doug Buehl

Best-selling IRA author, professor, and veteran teacher



Katherine McKnight

Author and expert in adolescent literacy and CCSS



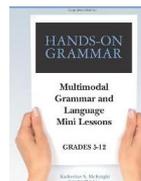
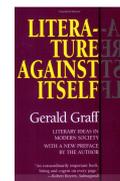
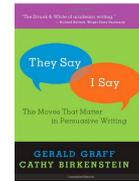
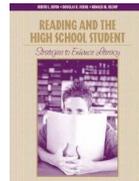
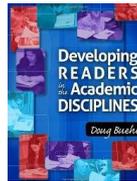
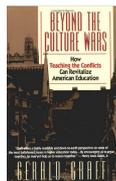
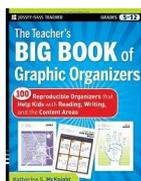
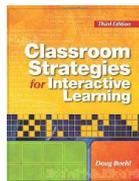
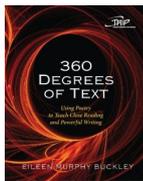
Gerald Graff

Past MLA president, best-selling author, and professor



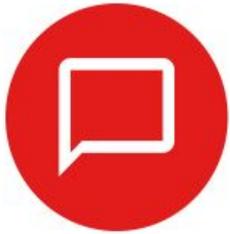
Douglas O'Roark

Executive Director of Math Circles, formerly of Urban Teacher Education Program at U Chicago



An **Academic Writing** Solution

The **CERCA Framework** encourages the development of critical thinking and literacy skills by breaking down critical reading and academic writing into five key components.



Claim



Evidence



Reasoning



Counterargument



Audience

The Value of **Argumentation**

“The Standards put particular emphasis on the students’ **ability to write sound arguments** on substantive topics and issues, as the ability is critical to career and college readiness.”

– *CCSS Appendix A*



Argumentation and Writing Drive Growth



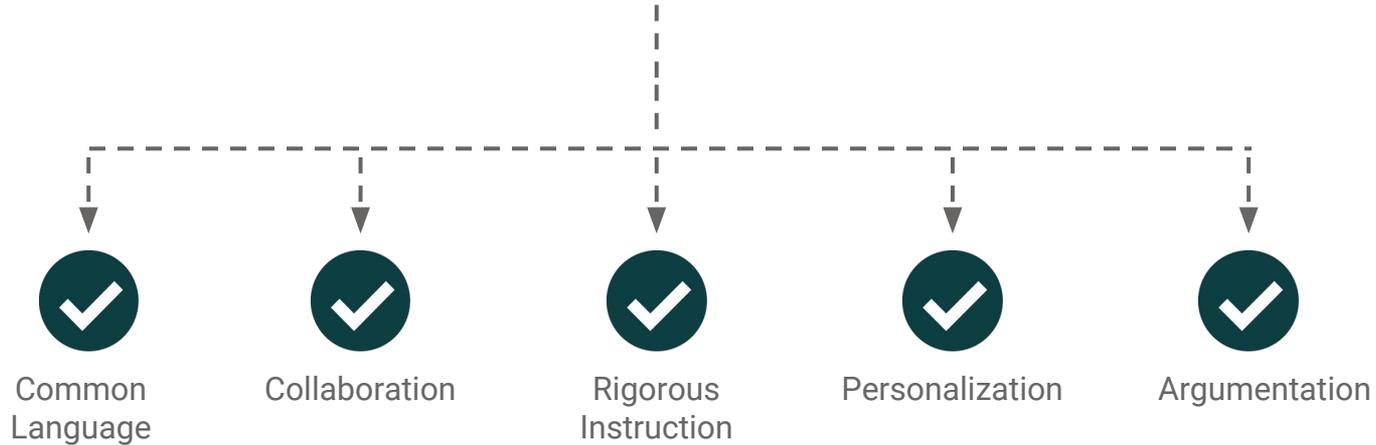
English Class Practice	Rise in English Subtest Score	Applied Using ThinkCERCA
Rewrote a paper or essay in response to comments	0.19	✓
Discussed how culture, time, or place affects an author's writing	0.27	✓
Explained how writers use tools like symbolism	0.35	✓
Improved a piece of writing through collaboration with a class or with partners	0.38	✓
Debated the meaning of reading	0.22	✓
Across all classes, the students wrote papers defending their point of view of ideas 5 or more times (compared to less than 5)	0.39	✓
Discussed how culture, time, or place affects an author's writing	0.19	✓
Math Class Practice	Rise in Reading Subtest Score	Applied Using ThinkCERCA
Discussed possible solutions to problems with other students	0.29	✓
Used a graphing calculator to complete an assignment	0.31	
Science Class Practice	Rise in Science Subtest Score	Applied Using ThinkCERCA
Used laboratory equipment or specimens	0.16	
Wrote lab reports	0.12	✓
Generated their own hypothesis/ claim	0.18	✓
Used evidence /data to support an argument or hypothesis	0.21	✓
Found information from graphs and tables	0.19	✓

A photograph of two young women sitting at a desk in a classroom. The woman on the left is leaning over the desk, pointing at a notebook with a yellow pencil. The woman on the right is sitting upright, looking at the notebook. On the desk, there is a laptop, a pink highlighter, and an open notebook. The background shows classroom shelves with books and a wall with musical notes.

5 Strategies for Developing a Comprehensive Literacy Program

A **Comprehensive** Literacy Program

5 Strategies



Why Common Language?



- Removes silos from content areas
- Builds students' abilities to read critically, evaluated, and synthesize information – regardless of the content area or media
- Not only improves academic rigor with cohesion, but creates collaboration across content or curriculum
- Leads to **an alignment in instructional practice and goals across a school, district, or larger system**

Schooling, Toth, & Marzano

The **CERCA Framework** across content areas

To succeed on new assessments, students must develop discipline-specific language skills for making arguments across subjects.



Claim



Evidence



Reasoning



Counterargument



Audience

Grades 3-5 (ELA): AzMERIT

Finding textual evidence

Online Learning

1 Learning new things is an exciting part of life. Learning can happen anywhere. There are kids who learn at a school, kids who learn at home and some kids who learn online. Students who learn this way use their computers and the Internet to connect to online classrooms. They use a camera connected to their home computer to let the teacher and other students see them. They can see their teacher and classmates on their screens because their classmates and teacher use a camera, too.

2 Before the Internet, children in remote places sometimes had classes over the radio or used the

3

Select two sentences that show how online classrooms and regular classrooms are alike.

3 Today, students who live far away from their teacher have classes on the Internet. In some online classrooms, a classroom full of kids can use a special computer program at the same time as the teacher. The students can live in one country, and the teacher can be located in a different country. Still, it's just like a classroom at your school. The teacher can teach the kids. The kids can ask questions. Everyone can see and hear everything that's being said as it happens.

Grades 7-8 (Math): AzMERIT

Explaining one's reasoning across disciplines

12

An equation is shown.

$$a^b = c$$

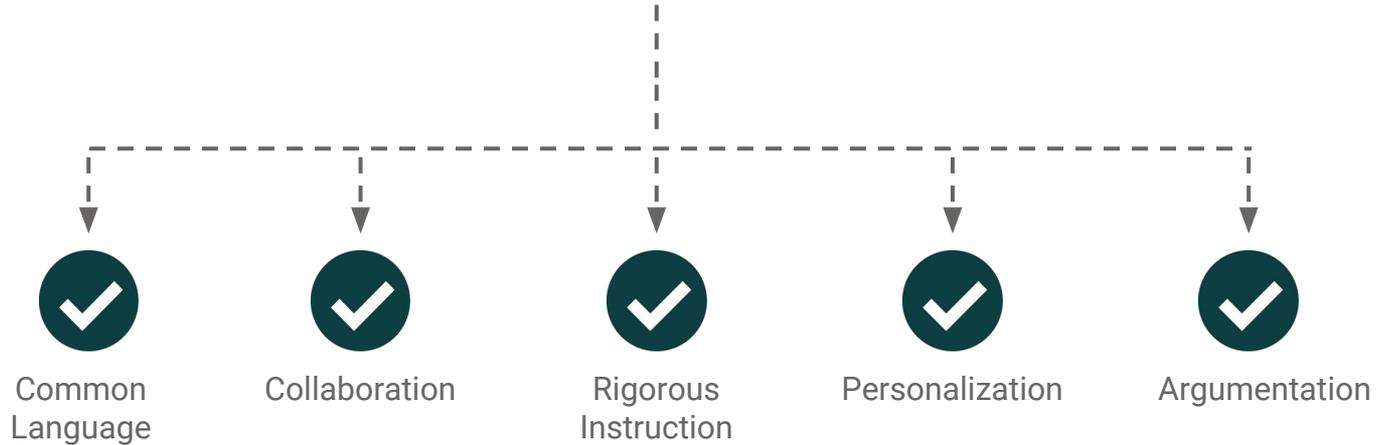
Both a and c are less than 0, and b is a positive integer.

State another fact that must be true about b . Give a complete statement to explain your reasoning.

Type your answer in the space provided.

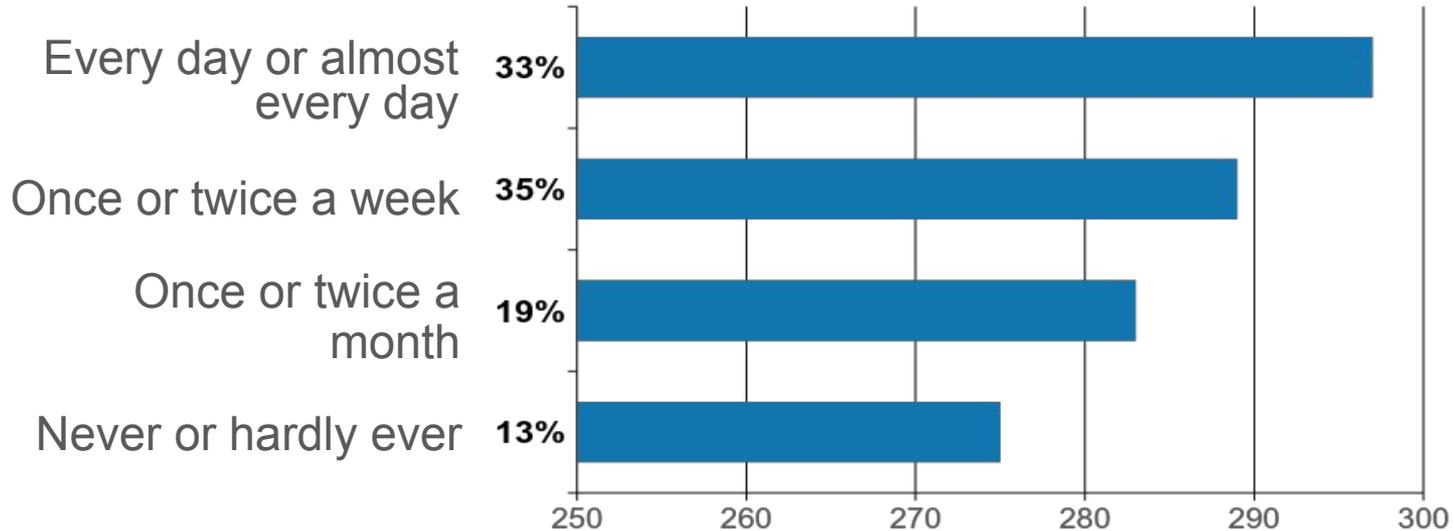
A **Comprehensive** Literacy Program

5 Strategies



Collaboration and NAEP Results

Students who reported that they more frequently **discuss interpretations of what they read** scored higher



The Nation's Report Card: http://www.nationsreportcard.gov/reading_math_g12_2013/#/

What **collaboration** looks like in a school

Administrators

1. Make sure to schedule time
2. If needed, set a budget for the collaborative work if it is outside the bounds of the typical school requirements

Teachers

1. Find at least one colleague to work with
2. Get the resources necessary to work together
3. Expand outside of your partnership and share with more colleagues
4. Continue to update and receive feedback from others
5. Be comfortable in “informal spaces”, such as passing time during classes or while standing at the copier

Strategies for Collaboration

Think-Pair-Share

Collaborating to Find Evidence

Debate

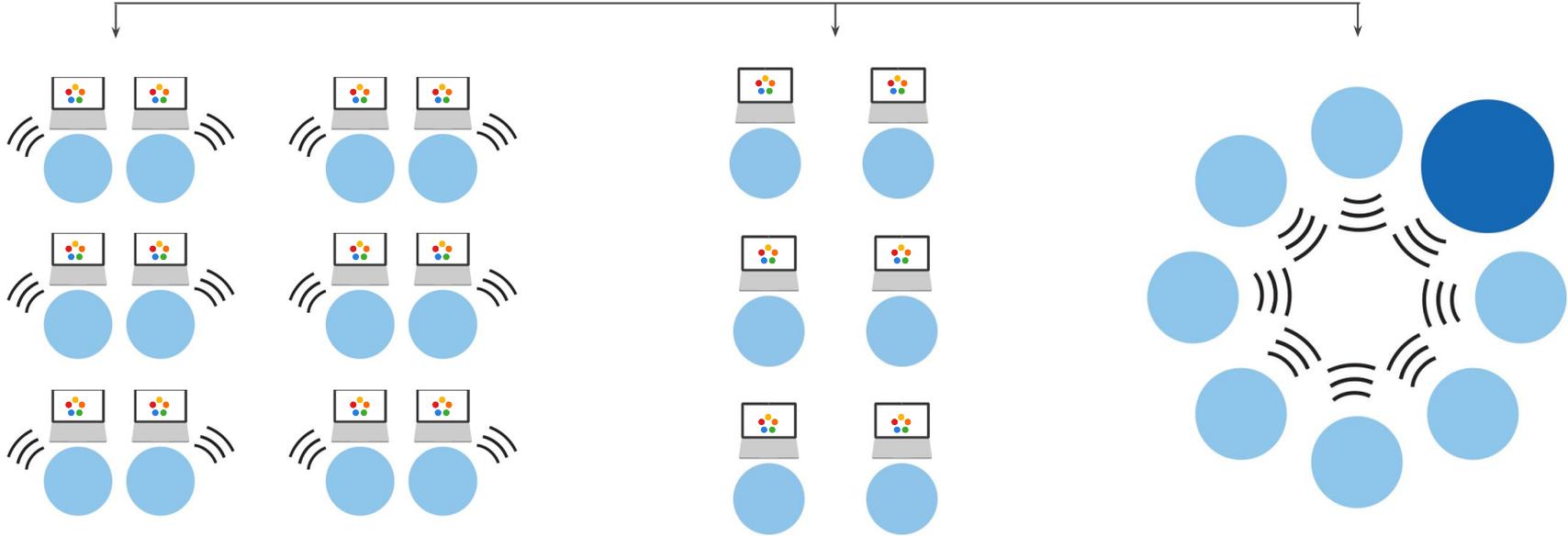
Socratic Discussion

Peer-to-Peer Editing



Creating Spaces for Collaboration

Low-Tech Labs or Carts

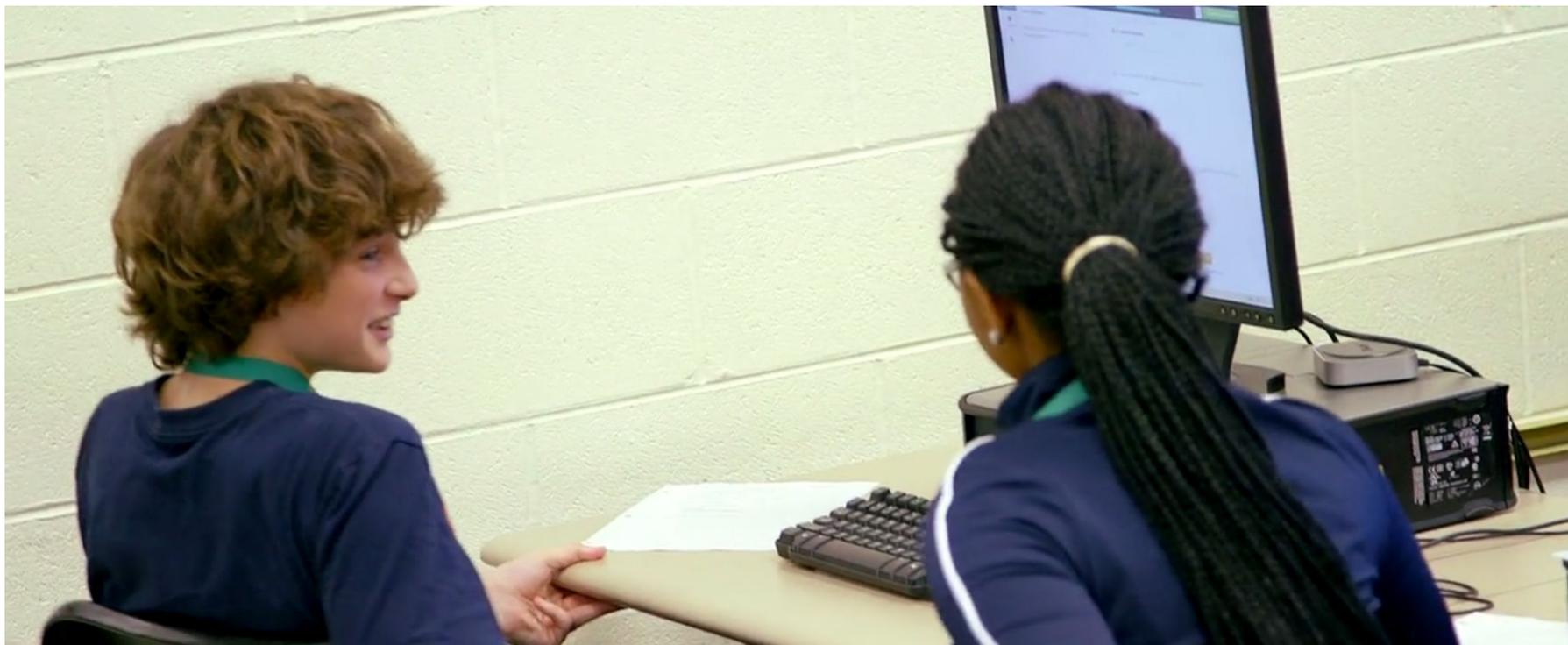


Paired Discussion

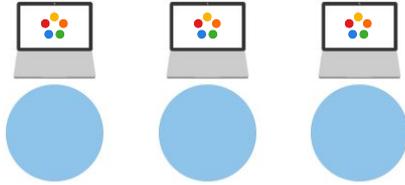
**Self-Paced, Leveled
Reading and Writing**

Teacher/Student Interaction

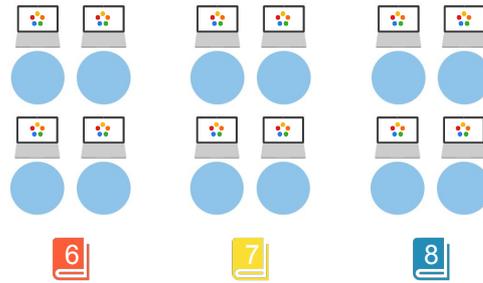
Low-Tech Lab or Carts: **Peer Collaboration**



Low-Tech Centers



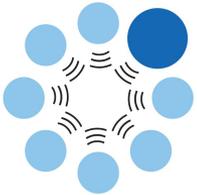
Online Drafting



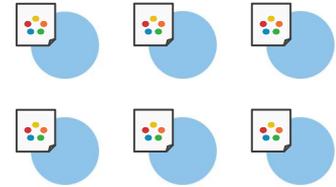
Independent Online Reading
Grouped by Reading Level



Peer Editing



Small-Group Socratic Dialogue



Vocabulary

Low-Tech Centers: **Argumentation Station**



1-to-1: **Leveled Groups**



Collaboration for students

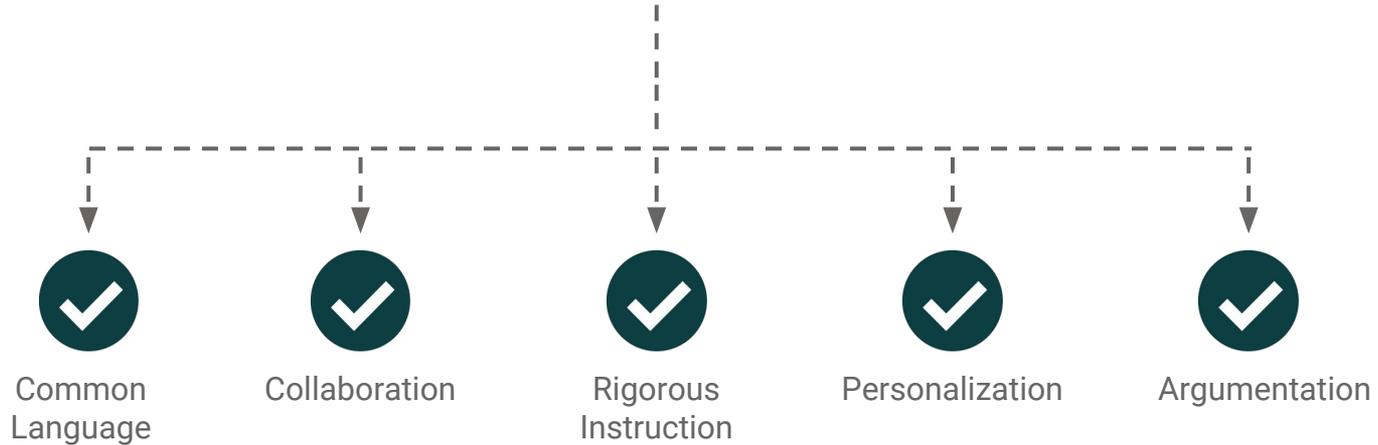


Collaboration for students...

- Encourages students to work with one another.
- Deepens their understanding of a topic by learning from peers.
- Allows students to share their strengths while building in their areas of need with their peers.

A **Comprehensive** Literacy Program

5 Strategies



Why Rigorous Instruction?

What does rigorous instruction look like?

Rigorous instruction asks students to create their own meaning, integrate skills into processes, and use what they have learned to solve real-world problems, even when the "correct" answer is unclear and they are faced with perplexing unknowns.

Jackson, 2011



THE BIPARTISAN BILL TO FIX NO CHILD LEFT BEHIND WILL HELP

ENSURE OPPORTUNITY FOR ALL OF AMERICA'S STUDENTS:

- ✓ Holds all students to high academic standards
- ✓ Prepares all students for success in college and career
- ✓ Provides more kids access to high-quality preschool
- ✓ Guarantees steps are taken to help students, and their schools, improve
- ✓ Reduces the burden of testing while maintaining annual information for parents and students
- ✓ Promotes local innovation and invests in what works

#LeadOnEducation

<http://www.ed.gov/essa>

How to Implement **Rigorous Instruction**

How do we as leaders, create organizations and systems to improve instruction on scale?

Curriculum:

What does a student need to know and be able to do?

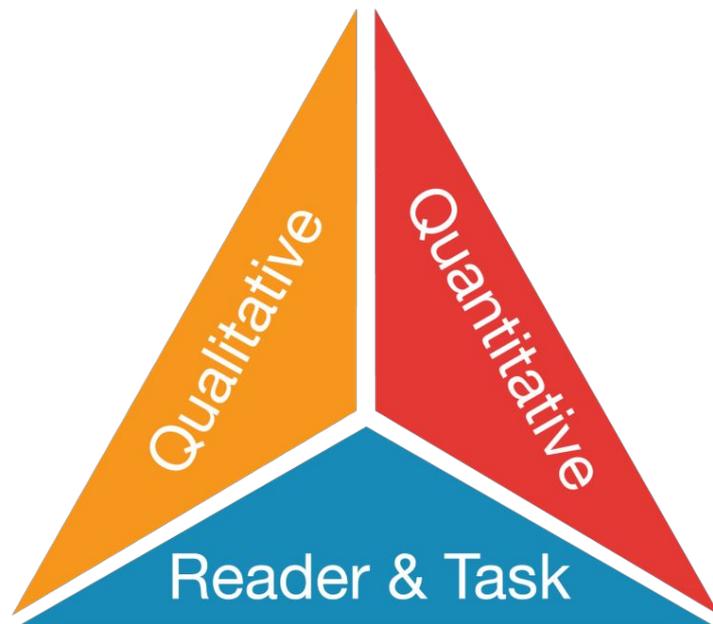
Instruction:

How can we facilitate that learning?

Assessment:

How will we know if they've learned it?

Understanding **Text Complexity**

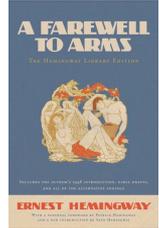
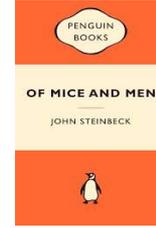
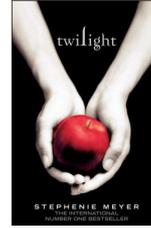
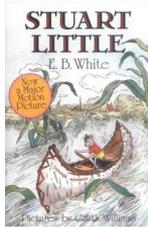


Understanding Text Complexity

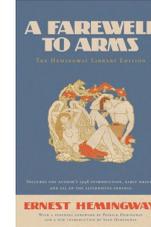
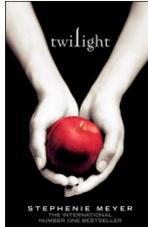
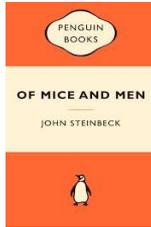
QUANTITATIVE

Why the important job of assigning levels cannot be determined by a quantitative algorithm alone.

Perception



Reality



1
L630

2
L720

3
L730

4
L920

5
L920

What Should **Teachers Consider?**

The **PURPOSE**
of the
TEXT



Does the text align to standards that are being practiced?

Does the text meet the demands of the performance task?

TEXT Elements

Quantitative Measures

Structure
Story structure or form of piece

Levels of Meaning or Purpose

Language Clarity and Conventions
Including vocabulary load

Knowledge Demands
Life, content, cultural/literary

Continuum of Knowledge and Skills



Students must be given the opportunity to “build a meaningful continuum of knowledge in content areas, while introducing increasingly complex key skills and concepts” (Murphy, 2016)

Paired Texts

✍ CURRICULUM INTEGRATION RESOURCES

Leveled Literacy Lessons Featuring Multitext Sets



Part of being career and college ready includes being able to analyze and compare and contrast multiple texts. In fact, new assessments like PARCC, Smarter Balanced, and ACT Aspire ask students to make sound written arguments about multiple texts. ThinkCERCA helps students practice this skill with leveled lessons featuring paired written and visual texts as well as direct instruction Minilessons that teach students how to analyze multiple perspectives, explore ideas across texts, and much more. These ThinkCERCA lessons feature multitext sets:

[Sign up for an account to view these lessons >>](#)

English Language Arts

- **Image and Impact:** How can a powerful image create change? (written and visual texts)
- **Character and Risk:** When are tempting rewards worth the risk? (comparing similar themes and genres in literature across cultures and time periods)
- **Social Responsibility:** How do individuals stand up and take responsibility for changing their societies? (paired informational texts)



Grades 6 (ELA): AzMERIT

Using CERCA skills across subjects

Goofs and Great Inventions

Lost Cities, Lost Treasure

- 1 In 1871, an adventurer named Heinrich Schliemann started digging in the ground of a Turkish city, seeking the lost land of Troy. Schliemann, a businessman and scholar, was born in Germany in 1822. As a young man he dreamed of discovering the treasures of the ancient world, and even made a plan for it when he was nine years old.
- 2 His youthful sense of adventure eventually brought him to California, where he made a fortune in the gold rush. With his profits, he began his second career in archaeology.
- 3 Archaeology was still a young science in the 1800s. In fact, it was hardly a science at all. The promise of treasure and adventure in foreign lands attracted people like Schliemann. Like a lot of treasure hunters, Schliemann was smart, curious—and hungry for gold or fame. On the other hand, he loved ancient cultures, especially Greek culture. He loved learning and traveling. By the end of his life, he spoke 13 languages, including his native German. He loved Greek history and culture so much that he and his wife Sophia named their children

1

It's no secret that sometimes great discoveries come as a result of really big mistakes. But are they always worth the problems they cause? Sometimes the mistakes lead to greatness, and sometimes they lead to disaster. Are mistakes key to making discoveries?

Write an essay for your science class web site arguing whether or not mistakes are a key part of discovery. Your essay must be based on ideas, concepts, and information from the "Goofs and Great Inventions" passage set.

Manage your time carefully so you can

- plan your essay;
- write your essay; and
- revise and edit your essay.

Be sure to

- include a claim;
- use evidence from multiple sources.

Do not over rely on one source. Type your answer in the space provided.



- Keyboarding
- Structure
- Organization
- Text-based evidence

High School (ELA): AzMERIT

What Comes Next

1 "You need to get your mind off things," my friend Cassie announced. "And whenever I need to get *my* mind off things, this is where I go."

2 "Have I ever told you that the ocean kind of creeps me out?"

3 "I believe you may have mentioned it once or twice, yes."

4 We were halfway to the edge of the water, burdened down with piles of snorkeling equipment that Cassie accumulated in startling quantities. During the entire trip to the beach, I had been replaying the conversation I'd had with my father that morning about what I was going to do after graduation. That event was over a year away, but my father had a tendency to plan for everything eons in advance, and he expected the rest of his family to do the same. If we didn't, he was more than happy to step in and offer plans of his own.

5 "I think it would do you good to go on a trip like he had said. "Out of your comfort zone, or even travel overseas, is something that young people do that before deciding to get married."

5

Part A
Which is a central idea of the passage?

A) The sea is a place of danger.
B) Adolescence is a difficult transition into a new life.
C) Parents usually know what is best for their children.
D) It is better to trust your own feeling than to trust friends.

Part B
Select the detail from the passage that supports the central idea.

16 At one point during that snorkeling expedition, as I was paddling around through the murk, it suddenly seemed as if the bottom fell out of the ocean floor. I could feel a corresponding drop in the pit of my stomach as the water around me turned colder, and deepened to where I could no longer see the bottom at all. The fact that both my parents were there didn't help: I was certain that I had passed some boundary and that I did not belong.

Identifying claims and central ideas

Providing evidence and supporting details

High School (Math): AzMERIT

Analyzing and interpreting
discipline-specific concepts into
writing

27



An equation is shown.

$$a \times b = c$$

Let c be an irrational number.

What can be said about a and b ?

Type your answer in the space provided.

Strategy 3: **Rigorous Instruction**

The 5 Essentials, *University of Chicago CCSR*

Systems level language for leading literacy instruction

1. Effective Leadership Insight

2. Collaborative Teachers

Common language for collaboration, reinforcement, personalizing strategically

5. Rigorous Instruction

A framework that promotes critical thinking through reading, writing, listening, and speaking in school and out of school

4. Supportive, Collaborative Environment

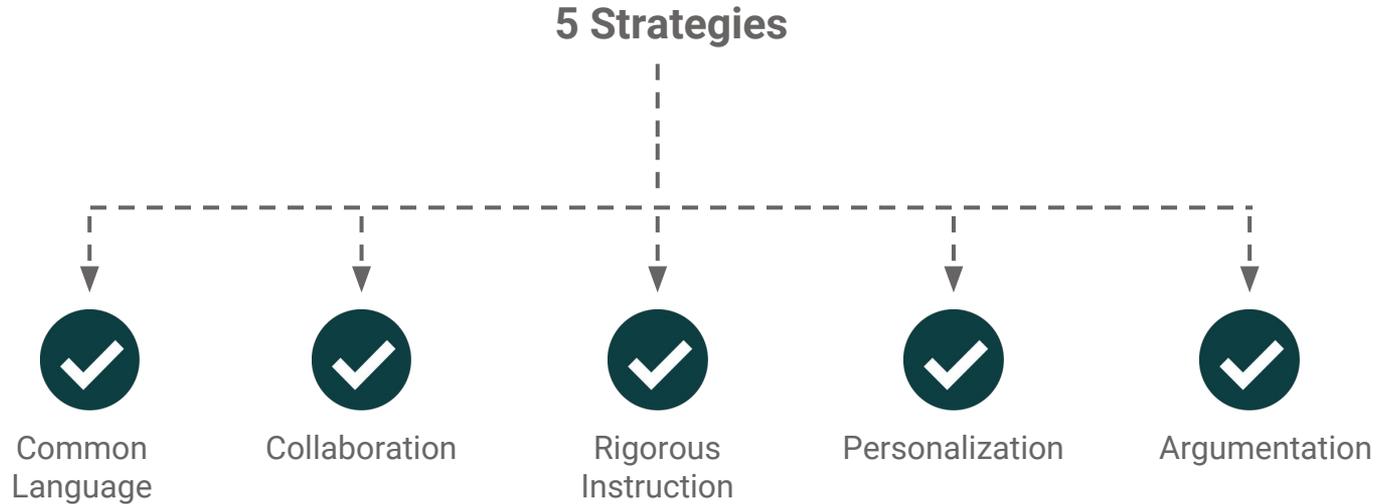
3. Involved Families

A school-wide language every family can understand

Strategy 3: **Rigorous Instruction**

Instructional environments should support students' capacity to understand complex, challenging, and ambiguous information.

A **Comprehensive** Literacy Program



What is **Personalized Learning**?



Personalized learning is “intended to facilitate the academic success of each student by first determining the learning needs, interests, and aspirations of individual students, and then providing learning experiences that are customized—to a greater or lesser extent—for each student.”

Abbott, 2014



“Students’ learning experiences – what they learn, and how, when, and where they learn it – are tailored to their individual needs, skills, and interests, and enable them to take ownership of their learning. Although where, when, and how they learn might vary according to their needs, students also develop deep connections to each other, their teachers and other adults.”

National Center for Learning Disabilities, 2015

Examples of Personalized Learning

Provide Multiple Means of Engagement

Purposeful, motivated learners

Provide options for self-regulation

- + Promote expectations and beliefs that optimize motivation
- + Facilitate personal coping skills and strategies
- + Develop self-assessment and reflection

Provide options for sustaining effort and persistence

- + Heighten salience of goals and objectives
- + Vary demands and resources to

Provide Multiple Means of Representation

Resourceful, knowledgeable learners

Provide options for comprehension

- + Activate or supply background knowledge
- + Highlight patterns, critical features, big ideas, and relationships
- + Guide information processing, visualization, and manipulation
- + Maximize transfer and generalization

Provide options for language, mathematical expressions, and symbols

- + Clarify vocabulary and symbols
- + Clarify syntax and structure

Provide Multiple Means of Action & Expression

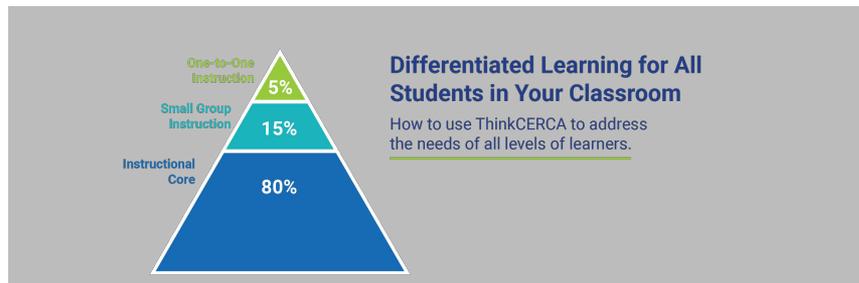
Strategic, goal-directed learners

Provide options for executive functions

- + Guide appropriate goal-setting
- + Support planning and strategy development
- + Enhance capacity for monitoring progress

Provide options for expression and communication

- + Use multiple media for communication
- + Use multiple tools for construction



A framework for curriculum development to gives all students the opportunity to learn, that considers

- Goals
- Methods
- Materials
- Assessments

as they relate to engagement, representation, and action and expression

Evidence-based practices that use data-based progress monitoring to make instructional decisions to respond to academic and behavioural needs



High School (ELA): AzMERIT

The screenshot displays the AzMERIT assessment interface. At the top, it shows 'Questions: 10 - 12', 'HS ELA Reading (0 out of 18)', and 'GUEST, GUEST (SAISID: GUEST) GUEST SESSION'. Below this is a navigation bar with icons for Back, Next, Save, Pause, and End Test. The main content area is divided into two sections. The left section contains the instruction 'Listen to classmates Samantha and Orlando prepare for a project.' and a video player with a play button and a progress bar. The right section contains a question labeled '10' with the text 'Based on the discussion, how does Samantha feel about cartoon characters on cereals?' and four multiple-choice options: (A) They are specifically targeted at adults, (B) They are an interesting subject to research, (C) They manipulate kids into wanting the cereal, and (D) They are a useful tool to engage children in healthy eating.

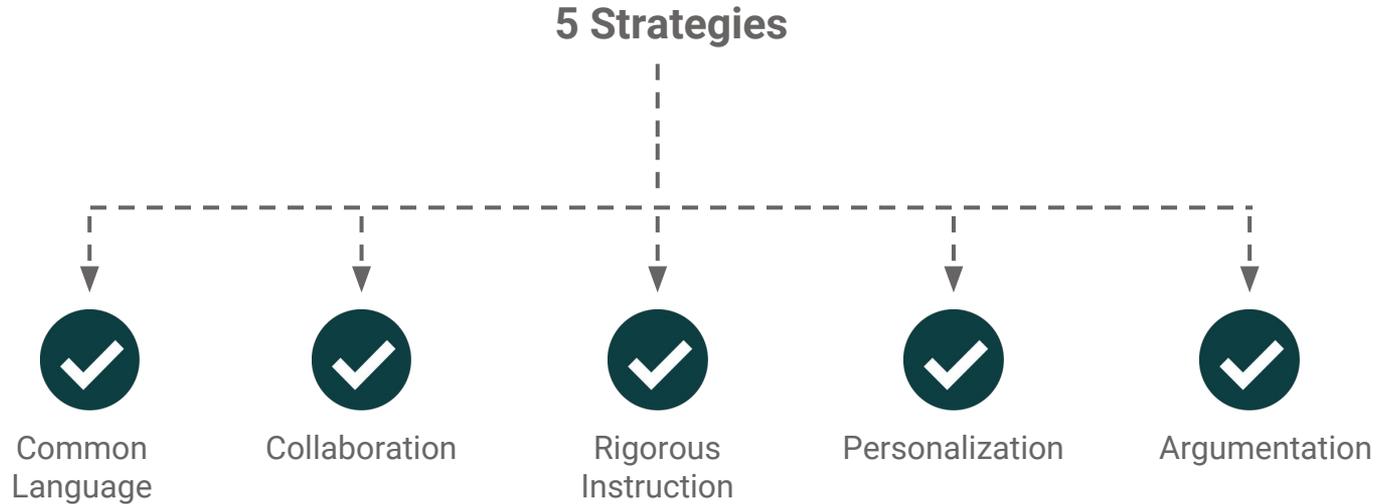
Critiquing the reasoning of others

- Speaking and listening
- Peer collaboration

Strategy 4: **Personalized Learning**

Consider the needs of all students as they relate to content and curriculum when planning, teaching, and assessing.

A **Comprehensive** Literacy Program



Why **Argumentation**

What does the research say?

- Judgement skills
- Relevance of argumentation
- Demystifying writing
- Overall skill development
- Multiple viewpoints
- Communication
- Academic discourse
- College and career

What is the **Argument** of this Image?



Claim



Evidence



Reasoning



Counterargument



Audience

Lively classrooms that instill foundational literacy skills



Grades 6 (ELA): AzMERIT

Using CERCA skills across subjects

Goofs and Great Inventions

Lost Cities, Lost Treasure

- 1 In 1871, an adventurer named Heinrich Schliemann started digging in the ground of a Turkish city, seeking the lost land of Troy. Schliemann, a businessman and scholar, was born in Germany in 1822. As a young man he dreamed of discovering the treasures of the ancient world, and even made a plan for it when he was nine years old.
- 2 His youthful sense of adventure eventually brought him to California, where he made a fortune in the gold rush. With his profits, he began his second career in archaeology.
- 3 Archaeology was still a young science in the 1800s. In fact, it was hardly a science at all. The promise of treasure and adventure in foreign lands attracted people like Schliemann. Like a lot of treasure hunters, Schliemann was smart, curious—and hungry for gold or fame. On the other hand, he loved ancient cultures, especially Greek culture. He loved learning and traveling. By the end of his life, he spoke 13 languages, including his native German. He loved Greek history and culture so much that he and his wife Sophia named their children

1

It's no secret that sometimes great discoveries come as a result of really big mistakes. But are they always worth the problems they cause? Sometimes the mistakes lead to greatness, and sometimes they lead to disaster. Are mistakes key to making discoveries?

Write an essay for your science class web site arguing whether or not mistakes are a key part of discovery. Your essay must be based on ideas, concepts, and information from the "Goofs and Great Inventions" passage set.

Manage your time carefully so you can

- plan your essay;
- write your essay; and
- revise and edit your essay.

Be sure to

- include a claim;
- use evidence from multiple sources.

Do not over rely on one source. Type your answer in the space provided.



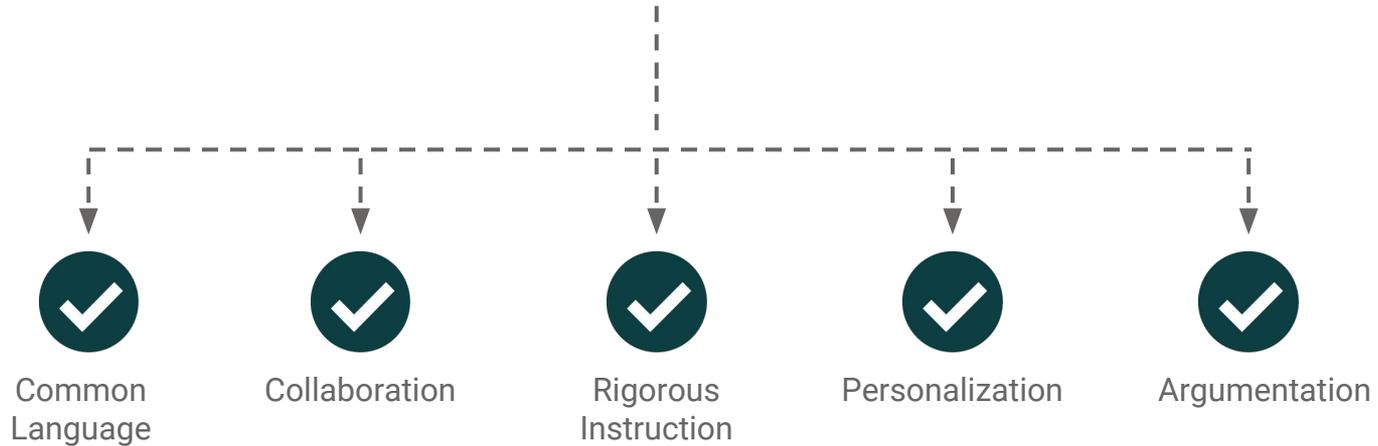
- Keyboarding
- Structure
- Organization
- Text-based evidence

Strategy 5: **Argumentation**

Include more debate in your classroom - it's the original gamification!

A **Comprehensive** Literacy Program

5 Strategies





Closing the Achievement Gap

Argumentation & Writing Drive Growth



English Class Practice	Rise in English Subtest Score	Applied Using ThinkCERCA
Rewrote a paper or essay in response to comments	0.19	✓
Discussed how culture, time, or place affects an author's writing	0.27	✓
Explained how writers use tools like symbolism	0.35	✓
Improved a piece of writing through collaboration with a class or with partners	0.38	✓
Debated the meaning of reading	0.22	✓
Across all classes, the students wrote papers defending their point of view of ideas 5 or more times (compared to less than 5)	0.39	✓
Discussed how culture, time, or place affects an author's writing	0.19	✓
Math Class Practice	Rise in Reading Subtest Score	Applied Using ThinkCERCA
Discussed possible solutions to problems with other students	0.29	✓
Used a graphing calculator to complete an assignment	0.31	
Science Class Practice	Rise in Science Subtest Score	Applied Using ThinkCERCA
Used laboratory equipment or specimens	0.16	
Wrote lab reports	0.12	✓
Generated their own hypothesis/ claim	0.18	✓
Used evidence /data to support an argument or hypothesis	0.21	✓
Found information from graphs and tables	0.19	✓



What kind of growth can schools expect?

“[ThinkCERCA] was found to have an **extremely large impact**, producing gains equivalent to roughly an extra year’s worth of **academic growth**.” - EdWeek



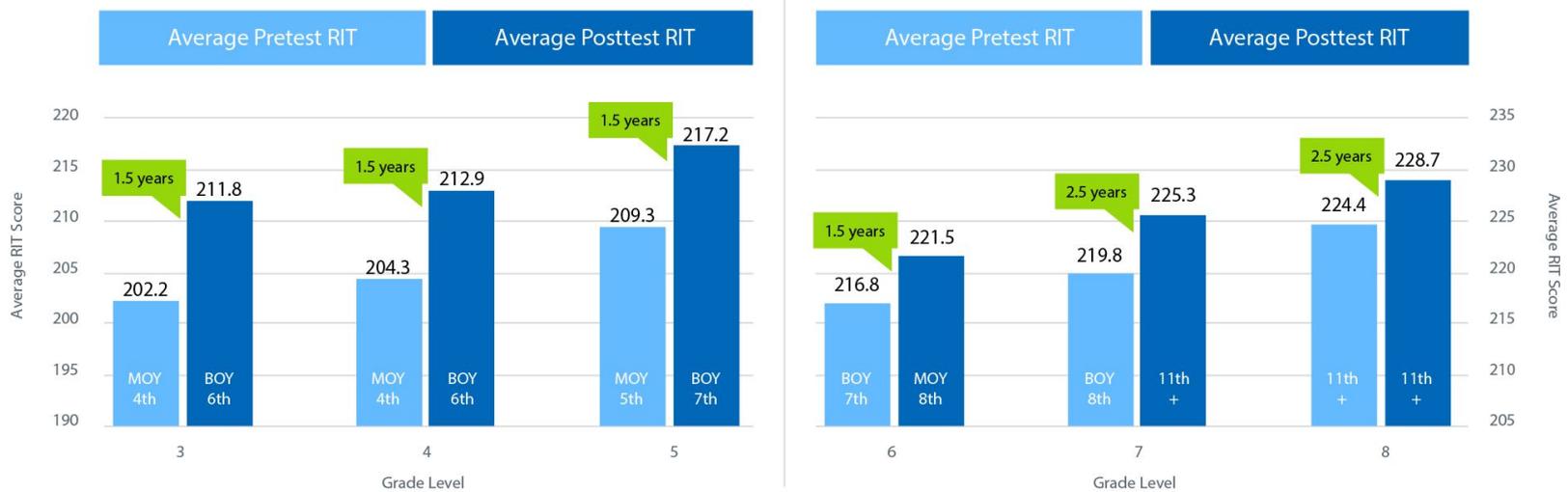
Students using ThinkCERCA gained an **additional 6.29 test-score points** (NWEA Map test) above what the control group gained.

This is equivalent to **closing the achievement gap** by:

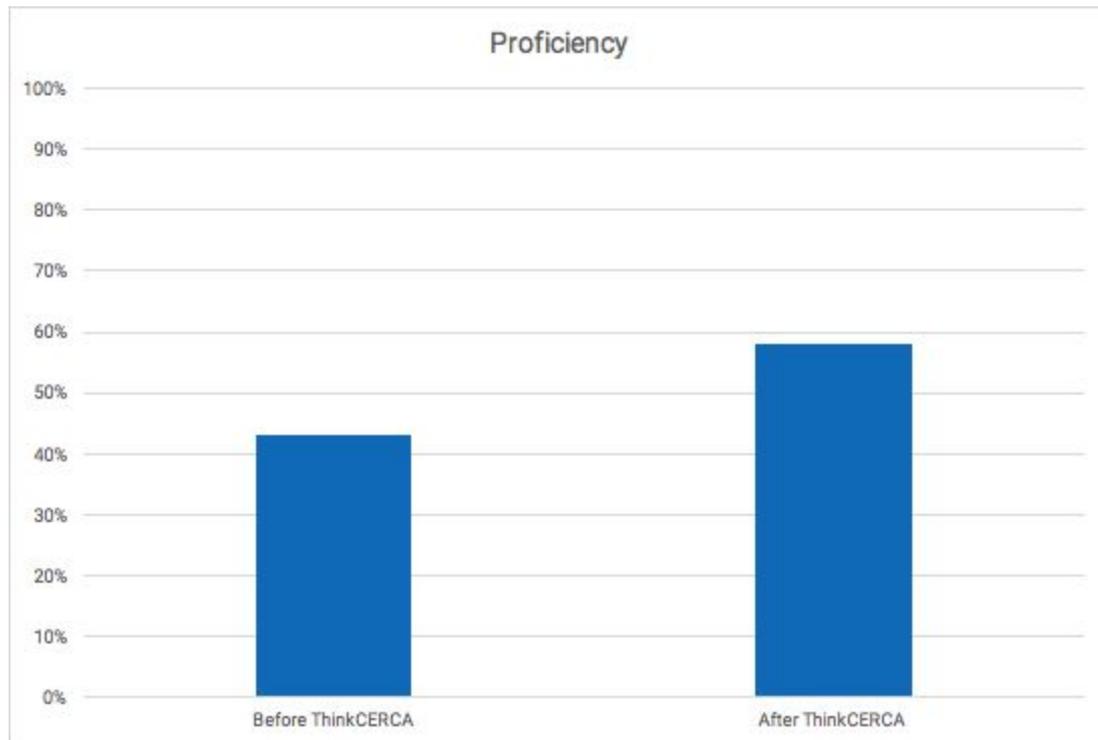
- 264% for low-income students
- 456% for black students
- 749% for Hispanic students

Atlantic Research Partners Study Results

“Students in grade levels with significant use of ThinkCERCA **outperformed their peers nationally on NWEA growth** at different attainment levels in the academic year 2014-15.”

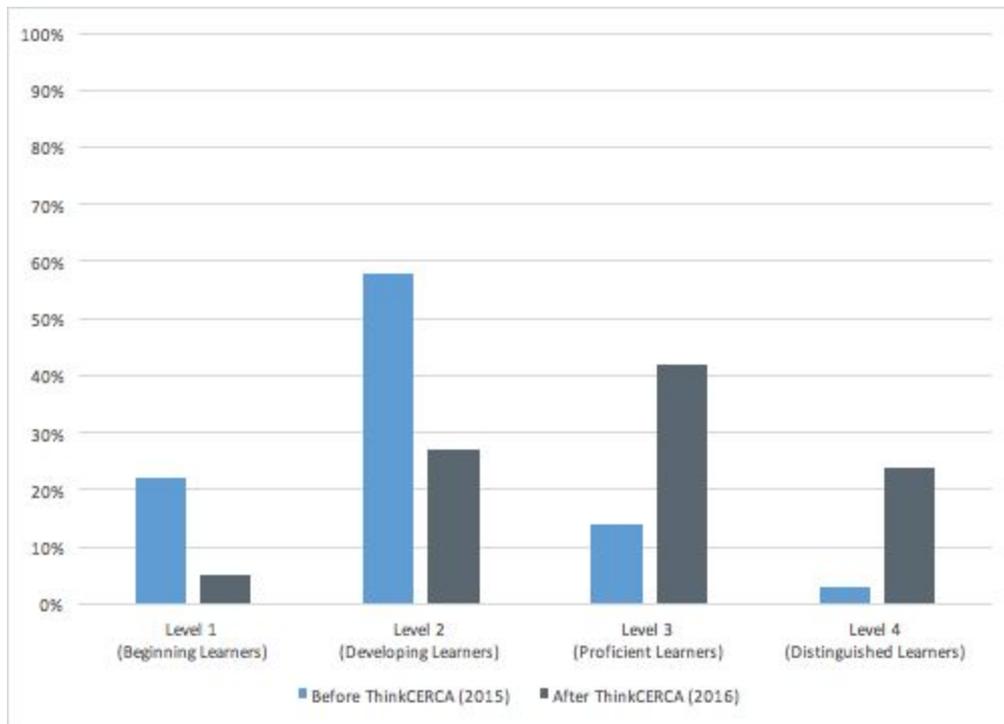


Growth with ThinkCERCA on the Georgia Milestones



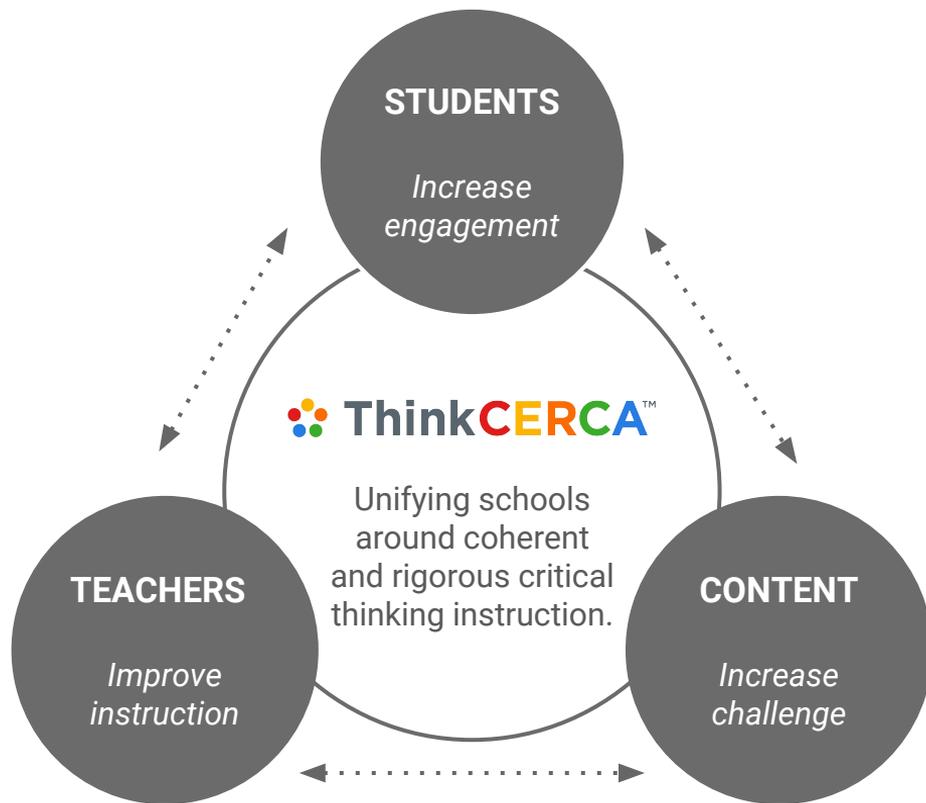
Growth with ThinkCERCA on the Georgia Milestones

Writing Tasks: Constructed Response, Grade 7



The Instructional Core

**Transforming
education
where it
matters most**



“ThinkCERCA was our missing link, the piece that tied everything together for both our teachers and our students. It was the tool and resource needed to meet the needs of ALL our learners. It enabled teachers to use flexible groupings, differentiate instruction, level texts, support the implementation of argumentative writing, and provide topics of high interest.”

- Principal at Garvy Elementary School

Awards & Recognitions

BILL & MELINDA
GATES *foundation*

*Literacy Courseware Challenge
grant winner, 2013*

//CODiE//
2016 SIIA CODiE FINALIST

*Finalist in two categories,
winners announced May
2016*



*2015 50 on Fire
"Chicago Education
Winner"*



*2015 CEC Momentum
Award nominee*



*"Best Startup
Co-Founders"*



*Featured as a "Literacy
Resource and Practice
with Special Promise"*



"Best EdTech of 2014"



*Accepted into 2012
inaugural cohort*

Thank You



Spark Courageous Thinking in Every Subject

Personalized Literacy Platform for Grades 4-12