Lifting Lives, Voices, and Minds in the Disciplines through Reading Apprenticeship

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Strategic Literacy Initiative
WestEd

www.wested.org/readingapprenticeship

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Strategic Literacy Initiative at WestEd

A program of research and development focusing on improving academic literacy across subject areas

Mission: To work with communities of educators to support the development of high level academic literacy skills among diverse populations of students, especially academically underperforming youth

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Strategic Literacy Initiative Program of Research and Development

How can we provide diverse students with the means to participate successfully in the complex literacy practices they encounter in school and beyond?

Strategic Literacy Initiative Program of Research and Development

- Reading Apprenticeship Instructional Framework
- Inquiry-based designs for teacher professional development
- Ongoing R&D in discipline-specific literacy instruction
- Ongoing studies to refine and improve program impact for teachers and students
  - •Investing in Innovation (RAISE, iRAISE)
  - •Reading for Understanding (READI)

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Raising Our Sights

The nation must reach for high level literacy skills (Heller & Greenleaf, 2007).

We need to move beyond a generalist notion of literacy learning, to identify and explore how to teach high level literacies in the disciplines (Shanahan & Shanahan, 2008).

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Common Core Literacy Standards

Students who are college and career ready

- demonstrate independence
- build strong content knowledge
- value, cite, and use evidence
  - » know different disciplines call for different types of evidence
- comprehend as well as critique
  - » work diligently to understand precisely what an author or speaker is saying
  - » question an author's assumptions and premises
  - » assess the veracity of claims and the soundness of reasoning

Common Core Literacy Standards

Through wide and deep reading … of steadily increasing sophistication, students gain

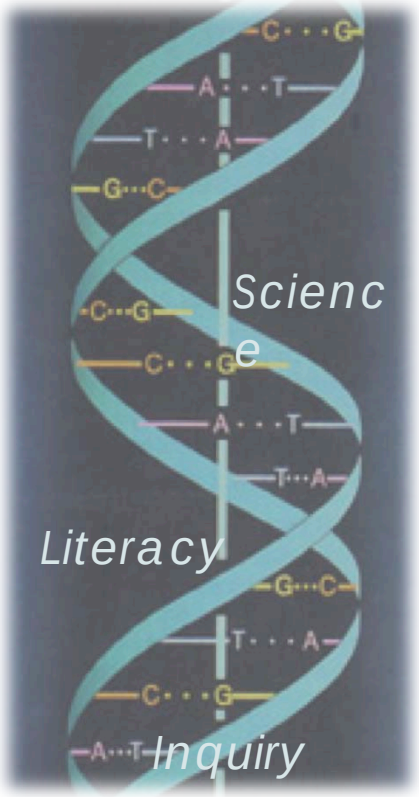
- a reservoir of … knowledge, references, and images
- the ability to evaluate intricate arguments
- the capacity to surmount the challenges posed by complex texts

Common Core Literacy Standards

Through wide and deep reading … of steadily increasing sophistication, students gain

- an appreciation of the norms and conventions of the discipline, e.g., the kinds of evidence used
- an understanding of domain-specific words and phrases
- an attention to precise details
- the capacity to evaluate intricate arguments, synthesize complex information, and follow detailed descriptions of events and concepts

Next Generation Science Standards



Practice 1. Asking questions and defining problems

Students at any grade level should be able to ask questions of each other about the texts they read, the features of the phenomena they observe, and the conclusions they draw from their models or scientific investigations.

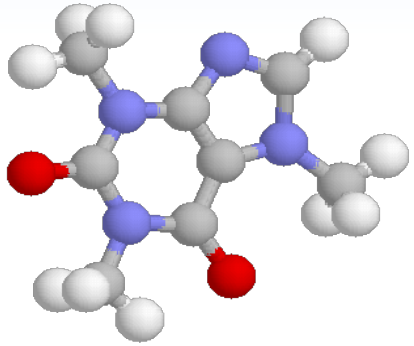
Academic Disciplines Participate in Distinct Literacy "Practices"

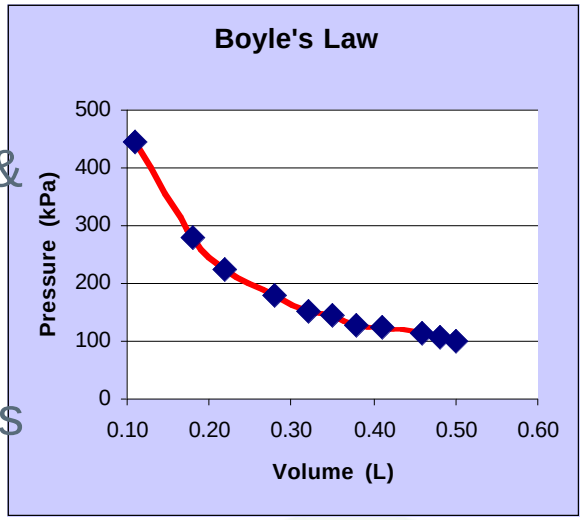
Specialized ways of reading, writing, speaking and reasoning that are specific to an intellectual discipline

- Particular reasons to read and write
- Conventional and multiple forms of text & means of representation

Valued reasoning processes

- Traditions of argumentation: What counts as a good question, evidence, problem, or solution





Preparing Students for Advanced Literacies

Many of our secondary students are ***profoundly*** inexperienced and unprepared to engage in academic literacies, but they are not beginning readers.

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We Can't Get There From Here

- Teaching as Telling
  - Teaching around the text
  - Doing the intellectual work for students
    - Lecture & PowerPoints
    - Explanations & interpretations
    - Demonstrations
  - Putting students in passive modes
    - Students receive information
    - Students copy, recite, remember
  - Assigning and hoping for the best

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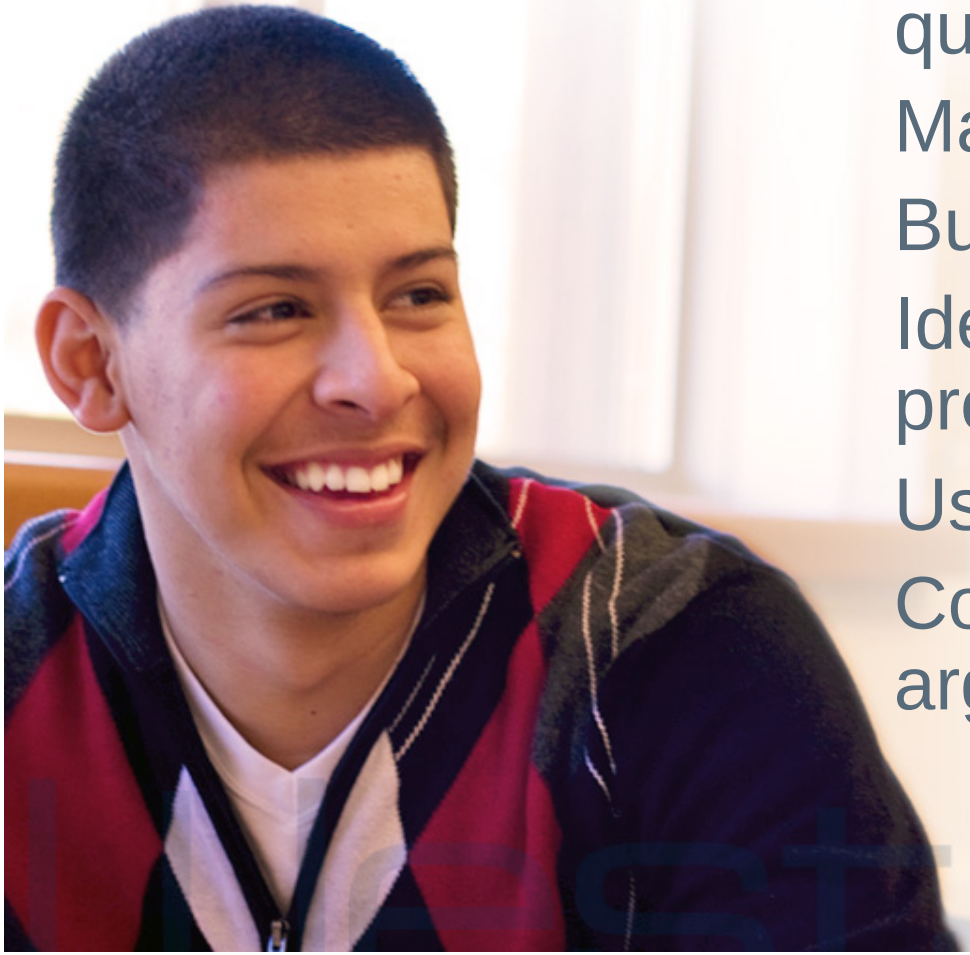
To Advance Literacy Development, What Should Students Be Doing with Academic Texts?



- Grappling, inquiring, raising questions
- Making meaning
- Building knowledge
- Identifying and solving problems
- Using evidence
- Constructing and critiquing arguments

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Preparing Students for Advanced Academic Literacy and CCSS

"Preparing students to read a text is perfectly reasonable, and it's compatible with the Common Core State Standards. But such preparation should be brief and should focus on providing students with the tools they need to make sense of the text on their own."

— T. Shanahan, 2012, "The Common Core Ate My Baby and Other Urban Legends"

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What *are* "the tools students need to make sense of texts on their own"?

What *are* "the tools students need to make sense of texts on their own"?

Resilience

Growth orientation

Grit and determination

Self efficacy

Confidence

Stamina

Self regulation

Curiosity

Persistence

Agency

"Non-Cognitive Factors" - Resilience, Learning Strategies and Mindsets

Resilience – whether students respond positively and adaptively to challenges – is crucial for success in school and life.

- positive response to academic challenge that is beneficial for development, e.g. seeking new strategies, putting forth greater effort, marshalling resources

Learning strategies – self regulation, metacognitive monitoring, self control – enable learners to transform ability into academic performance.

- setting goals, engaging actively in learning, developing problem solving strategies, persisting and sustaining effort, monitoring and adjusting approaches, and seeking help when needed.

Mindsets – students' beliefs about intelligence, effort, competence, and the value and relevance of learning.

- beliefs about role of effort in academic achievement; fixed ability vs. growth orientations.

Fostering Resilience and Positive Dispositions toward Learning Works

Non-cognitive factors predict GPA better than intelligence; cultivating these competencies improves student success more than focusing on building skills alone (Duckworth, et al., 2011; Dweck, 2008; Farrington, et al., 2012; Yaeger & Walton, 2011).

By fostering key processes to build resilience, family resilience therapy increases the likelihood of personal and relational transformation and growth that can be forged out of adversity; families emerge stronger and more capable of handling crises (Walsh, 2002; 2007).

How Can We Develop Resilience and Positive Dispositions Toward Learning?

- "Normalizing struggle" – recasting challenges as shared, comprehensible, manageable, and meaningful to tackle
- Making implicit (lay) theories about learning explicit and open to revision
- Drawing out and affirming strengths; recognizing resourcefulness, persistence and problem solving
- Giving process-focused (effort) praise and support versus trait-focused (intelligence) praise and support
- Communication processes that clarify ambiguities, encourage expression and empathetic response
- Encouraging mutual support and collaborative problem solving to meet challenges

Schooling as "Procedural Display"

Academic dispositions and identities are shaped by students' understandings of what it means to do school, and what counts as literate performance.

"*Teachers and students may enact a lesson, say what 'needs' to be said to each other, move through and complete the lesson, without necessarily knowing or engaging academic content*"

Bloome, Puro, & Theodorou, 1989, p. 272.

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Fostering Engaged Academic Literacy for Adolescents

Dispositions for engagement in academic tasks

- Curiosity, tolerance for ambiguity, persistence, stamina, confidence

Text-based problem-solving capacities

Discipline-based literacy practices

Resilient learner identities

- *Code breaker* stance

"When we ask students to learn something new, we ask them to become someone new" (Feldman, 2004).

"[W]hen readers engage in literacy practices, they are also engaged in acts of identity" (Norton, 2010).

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The Reading Apprenticeship Approach to Academic Literacy

Transforming Teaching for Student Independence

- Building academic dispositions
- Engaging in worthwhile literacy tasks
- Fostering intellectual engagement
- Close reading to make meaning of complex texts
- Literacy as inquiry to build knowledge

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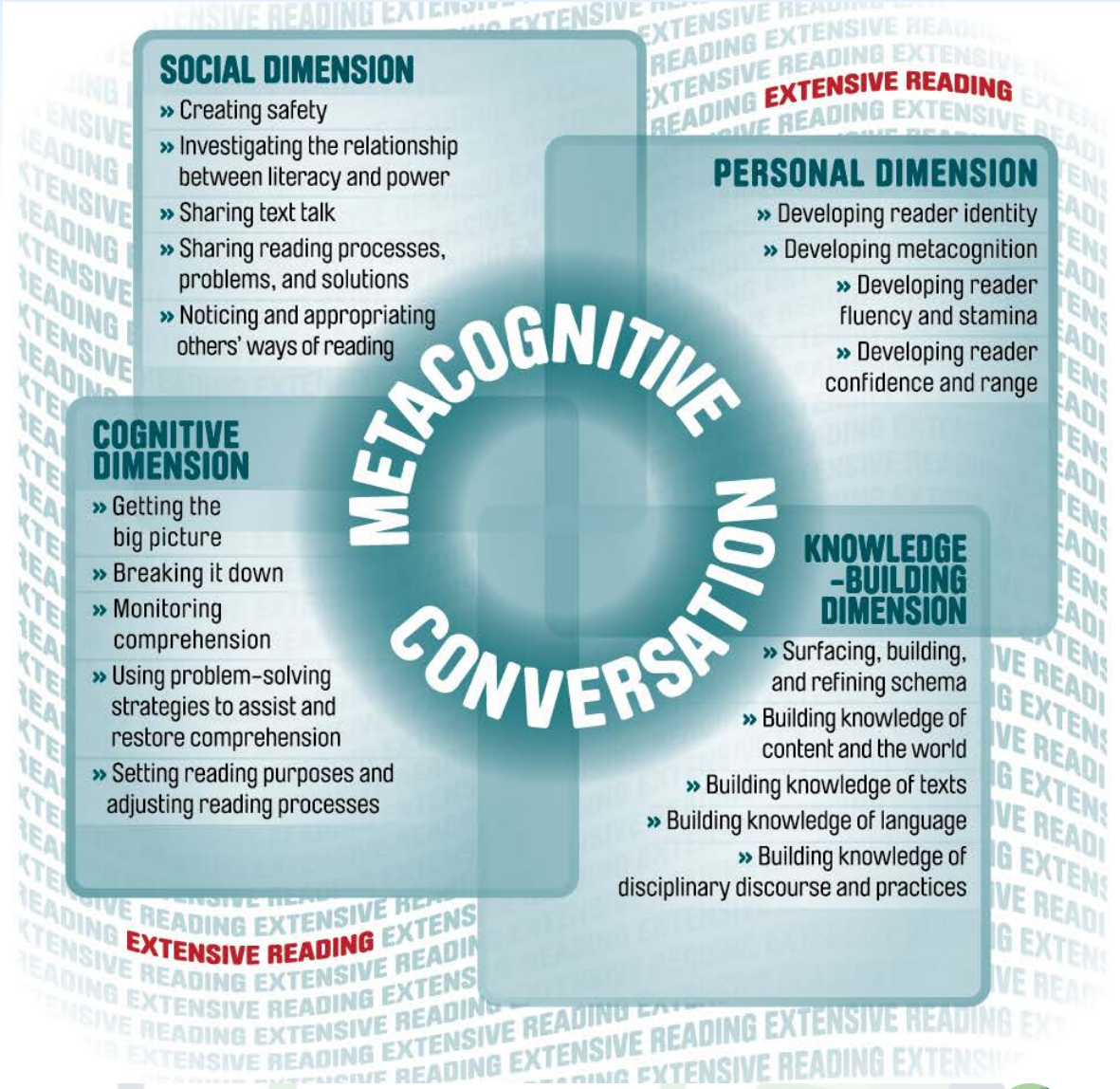
The Reading Apprenticeship Framework

Metacognitive routines make normally invisible science reasoning processes visible and available for assessment, modeling, and coaching during reading, problem solving, and inquiry activities



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Modeling and Mentoring with Metacognitive Conversation Routines

Turning the tables on what "counts"

What was confusing?
How did you figure that out?

- Think Aloud (Teacher Modeling, Partner Think Alouds)
- Annotation (Talking to the Text followed by Pair/Small Group Problem Solving)
- Reciprocal Modeling of Problem Solving Strategies (I do, we do, you do)
- Collaborative Meaning Making (reading in the classroom)
- Gradual Release of Responsibility

Reading Apprenticeship

A partnership of expertise between teacher and students

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The primary question was not what do we know, but how do we know it.

Aristotle

Breaking Codes: Investigating Meaning with a Science Diagram

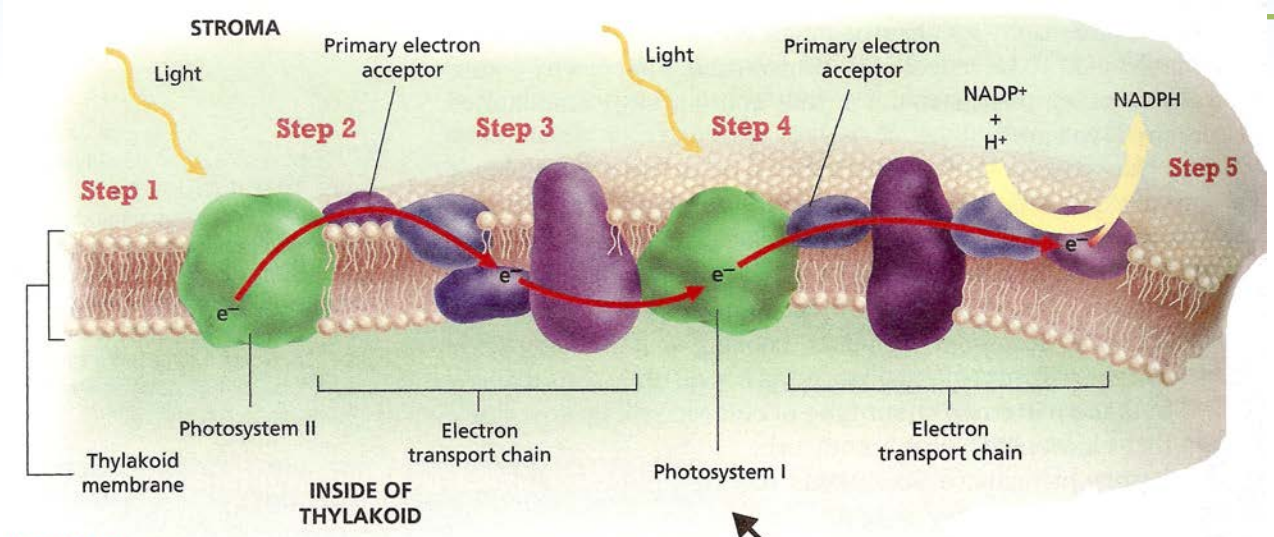
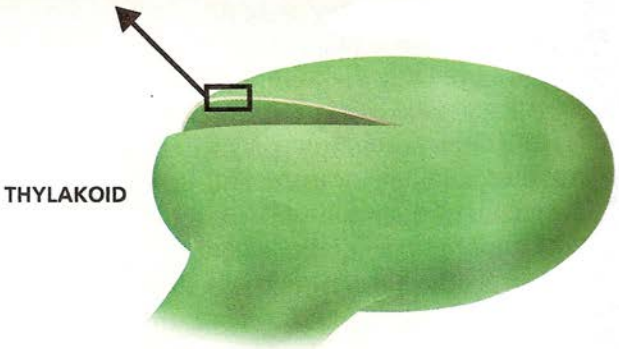


FIGURE 6-5

The light reactions take place in the thylakoid membrane and involve several steps. Step 1: Light excites electrons in chlorophyll *a* molecules of photosystem II. Step 2: These electrons move to a primary electron acceptor. Step 3: The electrons are then transferred along a series of molecules called an electron transport chain. Step 4: Light excites electrons in chlorophyll *a* molecules of photosystem I. As these electrons move to another primary electron acceptor, they are replaced by electrons from photosystem II. Step 5: The electrons from photosystem I are transferred along a second electron transport chain. At the end of this chain, they combine with $NADP^+$ and H^+ to make NADPH.



How do you read a science diagram?

What are the meaningful text signals and conventions? Here, for example, what does an arrow mean?

How do you know?

Metacognitive Conversation about Reading Complex Texts

What did you do to make sense of this text?

What got in the way of your reading?

What problems did you solve?

What problems, if any, remain?

Chemical Reactivity: Acids and Bases

INTRODUCTION

Many of the substances you come into contact with every day have acidic or basic properties. Examples are the foods you eat, the beverages you drink, the cleaning products you use around the house, and so forth. One of the properties of acids is that they generally taste sour; bases usually taste bitter. Another of the properties of acids and bases is that they can cause color changes in certain dyes. These dyes are called indicators. They indicate whether a substance is an acid or a base, depending on what color change it produces in the dye.

A fundamental property of acids and bases is that an acid and a base always react to "neutralize" one another. That is, the products of the reaction do not have acidic or basic properties (or they are substantially reduced compared to the reactant acid and base). One excellent way to tell whether an acid-base reaction has occurred is to use an indicator in the reaction mixture. Look to see whether the final color of the indicator suggests that the solution has substantially reduced acidic and basic properties.

One of the products of acid-base reactions is always water, a very stable compound. Indeed, another way of looking at reactions of acids with bases is as water-forming reactions. The *driving force* for the reactions is the formation of water, and essentially any acid will react with any base. Thus, once you learn to recognize acids and bases, you can predict the reactions they will undergo, including the products formed. Most of the reactions you carry out every day, or in these explorations, are done in aqueous solution, so you usually can't detect the formation of more water, because there is so much already there.

Metacognitive Conversation about Reading Complex Texts

Pair/Trio Share:

What did you do to make sense of this text?

What got in the way of your reading?

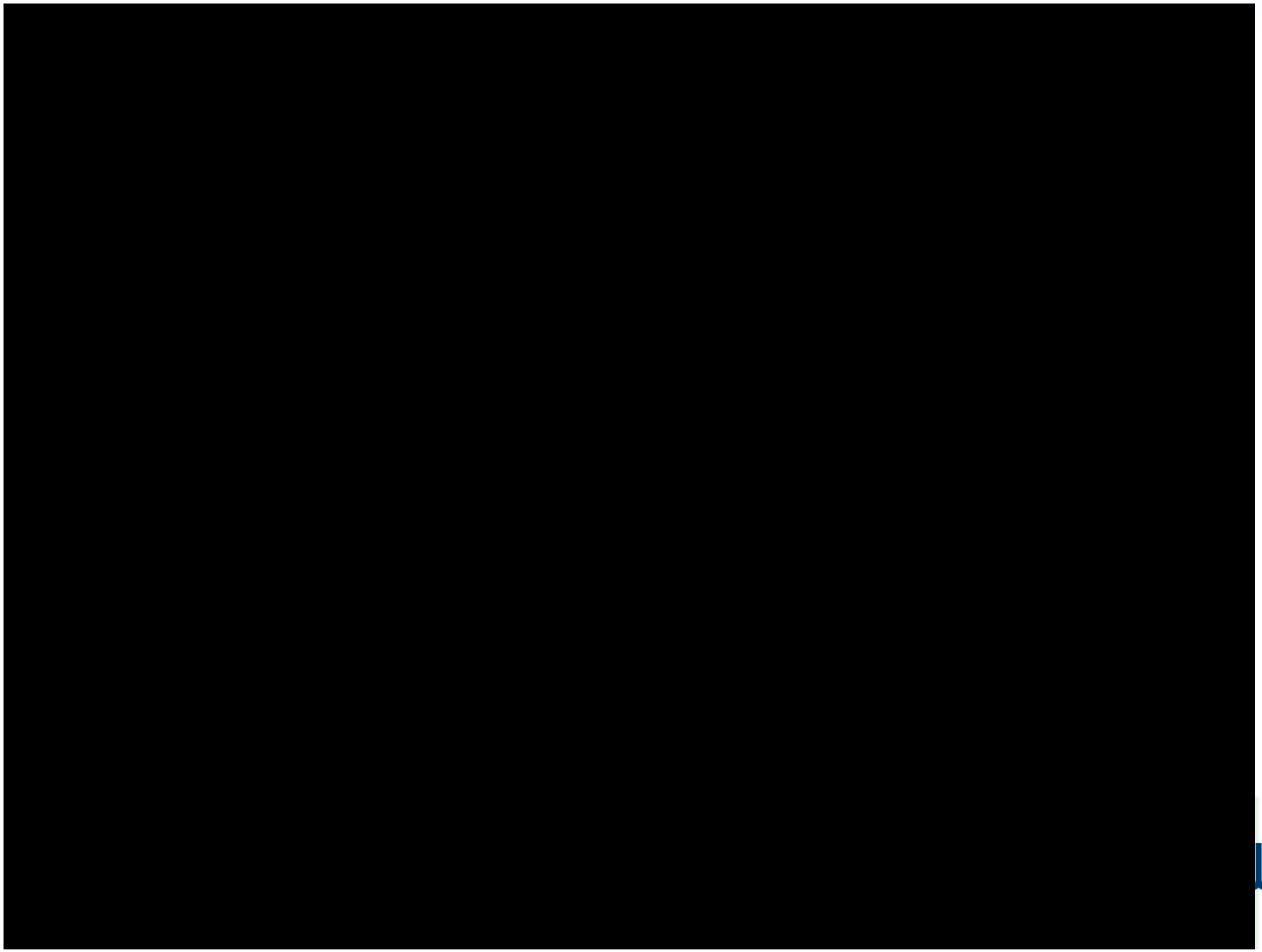
What problems did you solve?

What problems, if any, remain?

Metacognitive Conversation in Introduction to Chemistry

- Underperforming high school, Title 1
- ~ Half of the class scored below 10th percentile on standardized reading tests
- Only two students scored above 25th percentile
- Introduction to Chemistry, midway through the academic year

Identifying Instruction that Fosters Learner Dispositions



What do you notice about students' talk?

What do you notice about instructional supports for students' talk?

What work are students doing?

What work is the teacher doing?

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Identifying Instruction that Fosters Learner Dispositions

What do you notice about students' talk?

What do you notice about instructional supports for students' talk?

What work are students doing?

What work is the teacher doing?

Identify features of instruction that build students' dispositions to grapple with complex texts

Old Man

By Ricardo Sanchez

remembrance (smiles/hurts sweetly)
October 8, 1972

old man
with brown skin
talking of past
    when being shepherd
    in utah, nevada, colorado and new mexico
was life lived freely;

old man,
  grandfather,
wise with time
running rivulets on face,
deep, rich furrows,
  each one a legacy,
deep, rich memories
of life . . .
    "you are indio,
      among other things,"
    he would tell me
      during nights spent
    so long ago
      amidst familial gatherings
    in albuquerque . . .

old man, loved and respected,
he would speak sometimes
of pueblos,
    san juan, santa clara,
    and even santo domingo,
and his family, he would say,
came from there:
    some of our blood was here,
    he would say,
    before the coming of coronado,
other of our blood
    came with los españoles
and the mixture
was rich,
    though often painful . . .

old man,
who knew earth
  by its awesome aromas
and who felt
the heated sweetness
  of chile verde
by his supple touch,
gone into dust is your body
  with its stoic look and resolution,
but your reality, old man, lives on
in a mindsoul touched by you . . .

Old Man . . .

Metacognitive Conversation about Reading Complex Texts

Pair/Trio Share:

What did you do to make sense of this text?

What got in the way of your reading?

What problems did you solve?

What problems, if any, remain?

Classroom Connection 3.3

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Classroom Connections: Identifying Instruction that Fosters Learner Dispositions

How does the teacher invite students into metacognitive conversation?

How does the teacher support students to engage, grapple, make meaning with complex text?

What else supports diverse students in doing this work?

Identify features of instruction that build students' dispositions to grapple with complex texts

Jailed for Freedom

Preface

This book deals with the intensive campaign of the militant suffragists of America [1913-1919] to win a solitary thing-the passage by Congress of the national suffrage amendment enfranchising women. It is the story of the first organized militant, political action in America to this end. The militants differed from the pure propagandists in the woman suffrage movement chiefly in that they had a clear comprehension of the forces which prevail in politics. They appreciated the necessity of the propaganda stage and the beautiful heroism of those who had led in the pioneer agitation, but they knew that this stage belonged to the past; these methods were no longer necessary or effective.

For convenience sake I have called Part II "Political Action," and Part III "Militancy," although it will be perceived that the entire campaign was one of militant political action. The emphasis, however, in Part II is upon political action, although certainly with a militant mood. In Part III dramatic acts of protest, such as are now commonly called militancy, are given emphasis as they acquired a greater importance during the latter part of the campaign. This does not mean that all militant deeds were not committed for a specific political purpose. They were. But militancy is as much a state of mind, an approach to a task, as it is the commission of deeds of protest. It is the state of mind of those who is their fiery idealism do not lose sight of the real springs of human action.

There are two ways in which this story might be told. It might be told as a tragic and harrowing tale of martyrdom. Or it might be told as a ruthless enterprise of compelling a hostile administration to subject women to martyrdom in order to hasten its surrender. The truth is, it has elements of both ruthlessness and martyrdom. And I have tried to make them appear in a true proportion. It is my sincere hope that you will understand and appreciate the martyrdom involved, for it was the conscious voluntary gift of beautiful, strong and young hearts. But it was never martyrdom for its own sake. It was martyrdom used for a practical purpose.

The narrative ends with the passage of the amendment by Congress. The campaign for ratification, which extended over fourteen months, is a story in itself. The ratification of the amendment by the 36th and last state legislature proved as difficult to secure from political leaders as the 64th and last vote in the United States Senate.

This book contains my interpretations, which are of course arguable. But it is a true record of events.

Doris Stevens.
New York, August, 1920.

Metacognitive Conversation about Reading Complex Texts

Pair/Trio Share:

What did you do to make sense of this text?

What got in the way of your reading?

What problems did you solve?

What problems, if any, remain?

Classroom Connections 8.5, 8.6

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Classroom Connections: Identifying Instruction that Fosters Learner Dispositions

How does the teacher invite students into metacognitive conversation?

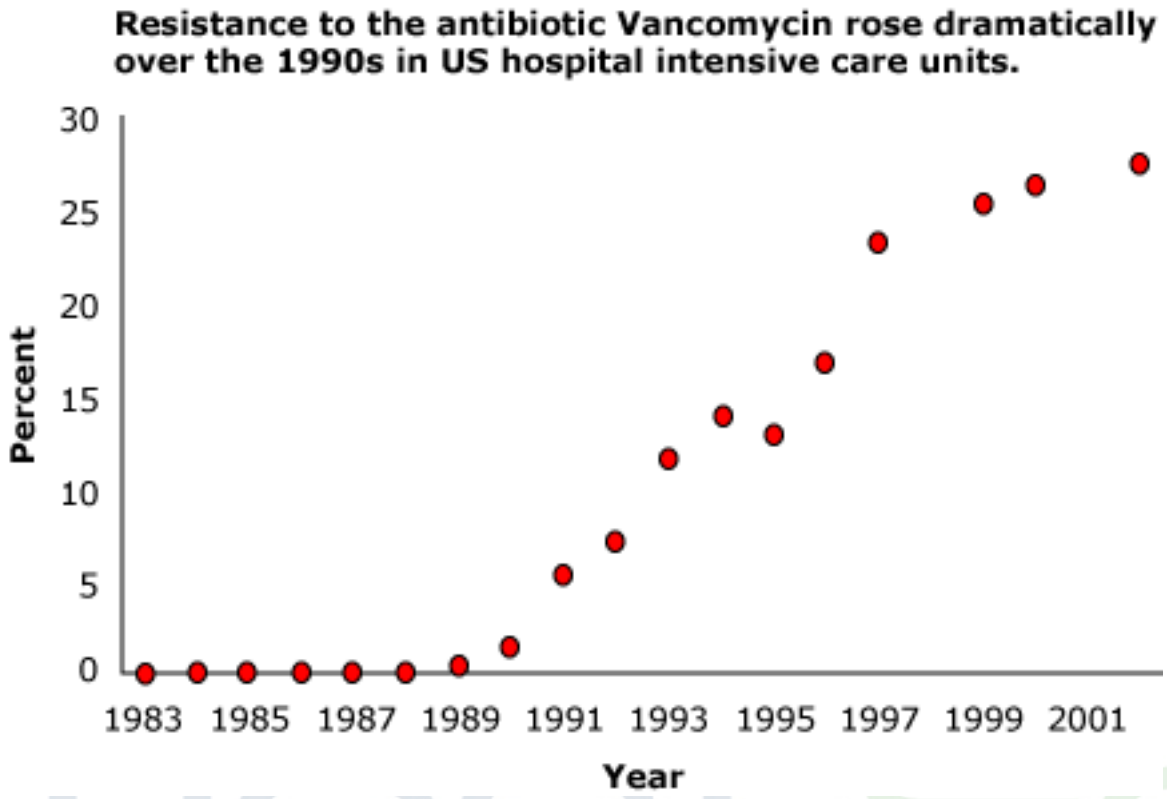
How does the teacher support students to engage, grapple, make meaning with complex text?

What else supports diverse students in doing this work?

Identify features of instruction that build students' dispositions to grapple with complex texts

Resisting Our Drugs

Antibiotics, such as penicillin, are drugs that kill or prevent the growth of bacteria. When antibiotics were first discovered, they seemed to represent a miracle cure for human diseases like pneumonia, typhoid, bubonic plague, and gonorrhea. However, almost immediately after the introduction of antibiotics, bacteria began to up the stakes — resistant strains of bacteria soon evolved that could grow even in the presence of a particular antibiotic, rendering our drugs ineffective in battling these resistant infections.



Metacognitive Conversation about Reading Complex Texts

Pair/Trio Share:

What did you do to make sense of this text?

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Classroom Close-Up 7.5

Identifying Instruction that Fosters Learner Dispositions

Collect your thoughts about the instructional examples you've seen today

What are some ways to foster the kind of dispositions students will need to grapple with complex texts?

Add to the suggestions on Box 4.4 in your handouts

Impact on Student Learning Opportunities, Identity, Engagement, and Achievement

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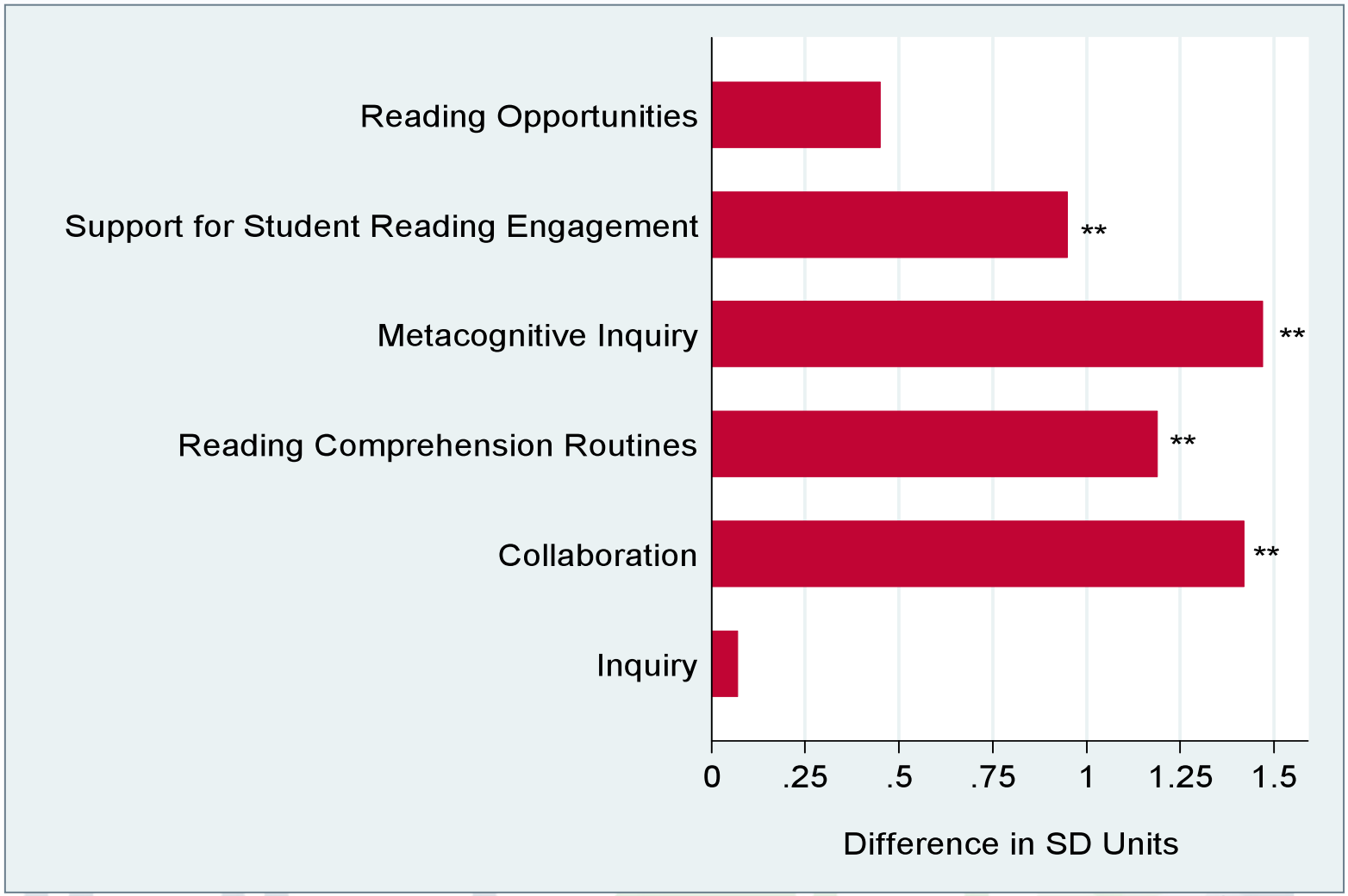
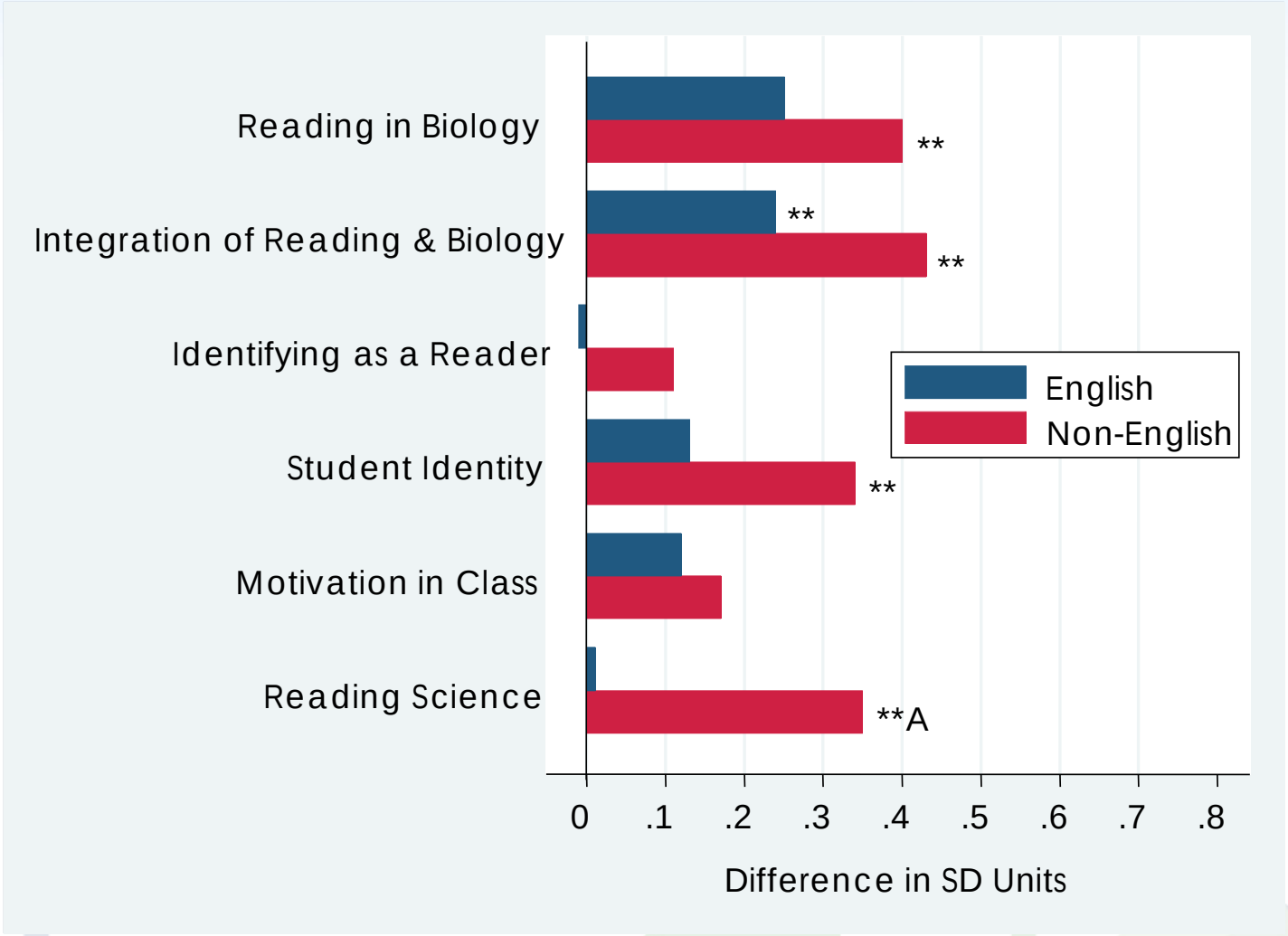
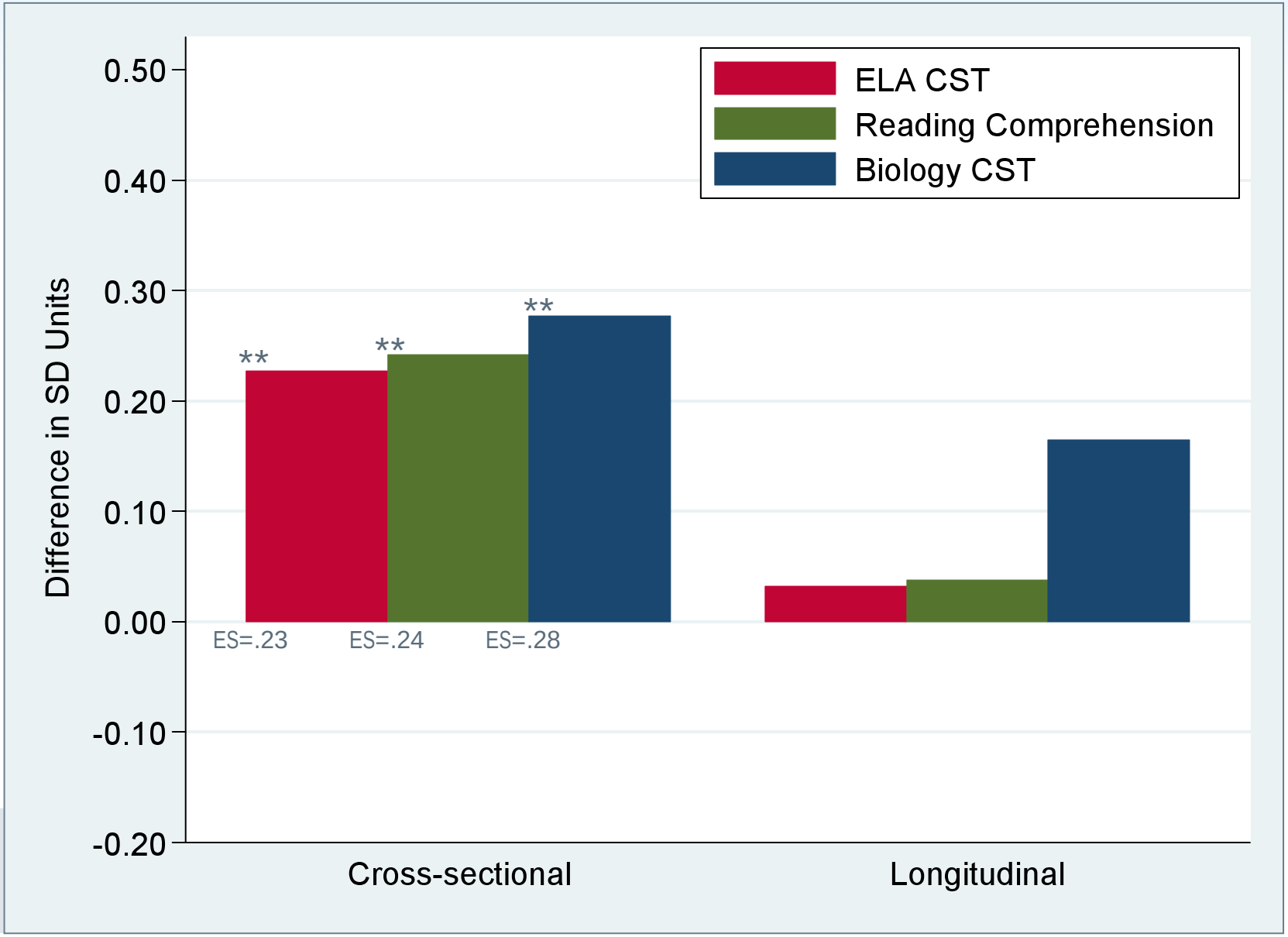
RCT of Reading Apprenticeship in High School Science - Teacher Interviews: Intervention/Control Differences



Student Opportunity to Learn Surveys (Intervention/Control Differences)



Student State Standardized Test Scores (Intervention/Control Differences)



The Enabling Turn – Teacher Voices

In my classroom, students are reading a greater amount of text and are more actively engaged with text. As a classroom teacher, I have also become more cognizant of demands different kinds of text place on our students. As a result, I am offering far more in the way of direct reading instruction and practice. Instead of simply conveying information to my students, they are constructing their own knowledge through reading, critical analysis, and writing.

They are working harder, learning more content, and developing greater literacy skills as a result. What has been fascinating to me is how many students have become more confident.

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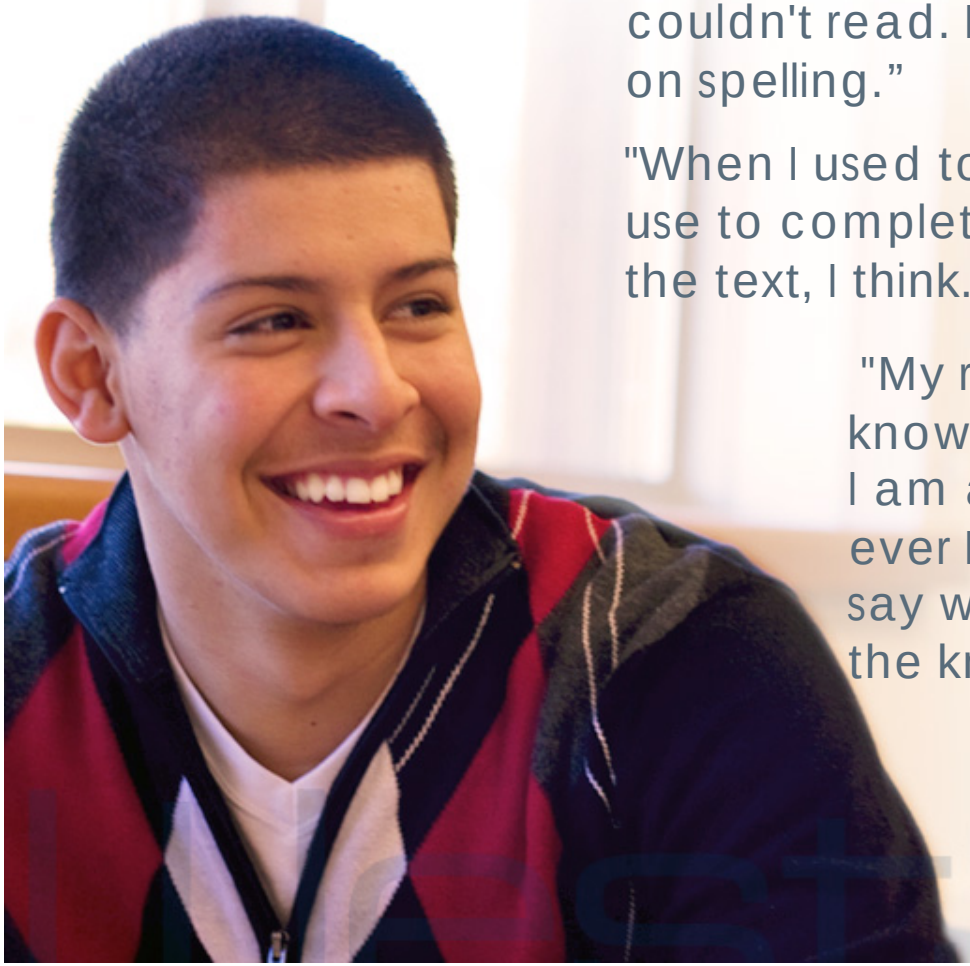
The Enabling Turn – Student Voices



"When I first started this class I was scared. I have discovered that I have the courage to read stuff that I couldn't read. I'm more confudent. Also I need to work on spelling."

"When I used to read and I didn't really understand it, I use to completely stop. Now when I don't understand the text, I think."

"My reader identity is getting a lot more knowledge into it and that makes me feel like I am a smart young man who can do what ever I set my mind to and what ever people say will not hurt me because I know I have the knowledge to school them."

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Metacognitive Conversation – The Enabling Turn

Turning the tables – valuing the process of learning rather than (only) the products of having learned

Normalizing struggle – valuing confusion, demonstrating the work readers do to marshal resources and grapple

Supporting opportunities to engage in challenging (advanced) literacies within disciplines

Collaborating to make meaning of texts

Engaging in metacognitive inquiry and text-based conversation

= Guided apprenticeship: learning by doing

"The primary question was not what do we know, but how do we know it." ~ Aristotle

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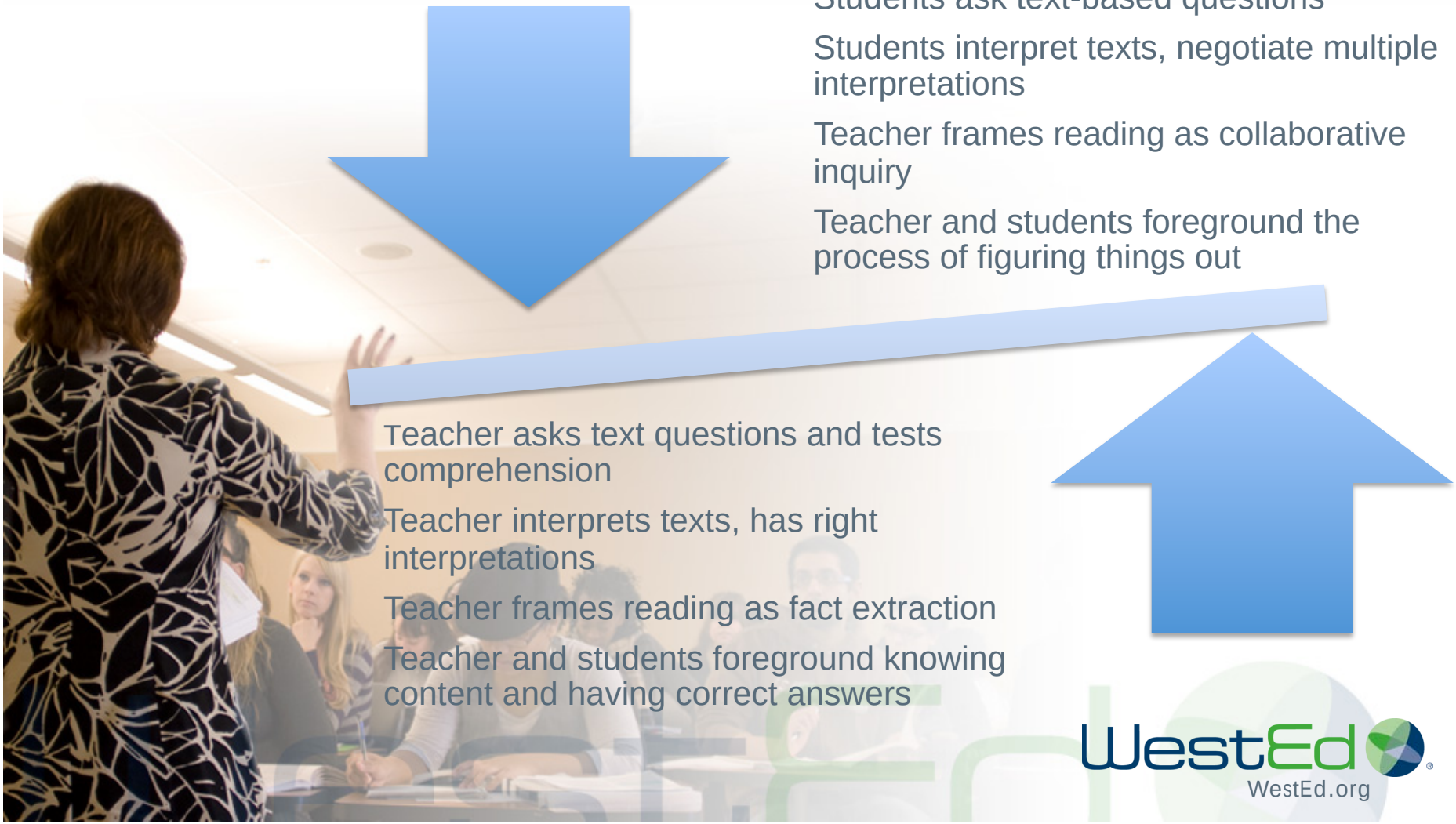
Disrupting the Usual - The Enabling Turn



Students ask text-based questions

Students interpret texts, negotiate multiple interpretations

Teacher frames reading as collaborative inquiry

Teacher and students foreground the process of figuring things out

Teacher asks text questions and tests comprehension

Teacher interprets texts, has right interpretations

Teacher frames reading as fact extraction

Teacher and students foreground knowing content and having correct answers

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What was confusing?
How did you figure that out?

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THANK YOU