

# Getting to the Core of the Language Demands In the Common Core is Essential for English Learners



Kenji Hakuta  
Stanford University

Photo: Courtesy Jeff Johnson

**patagonia**

# A Nation at Risk (1983)... call for standards.



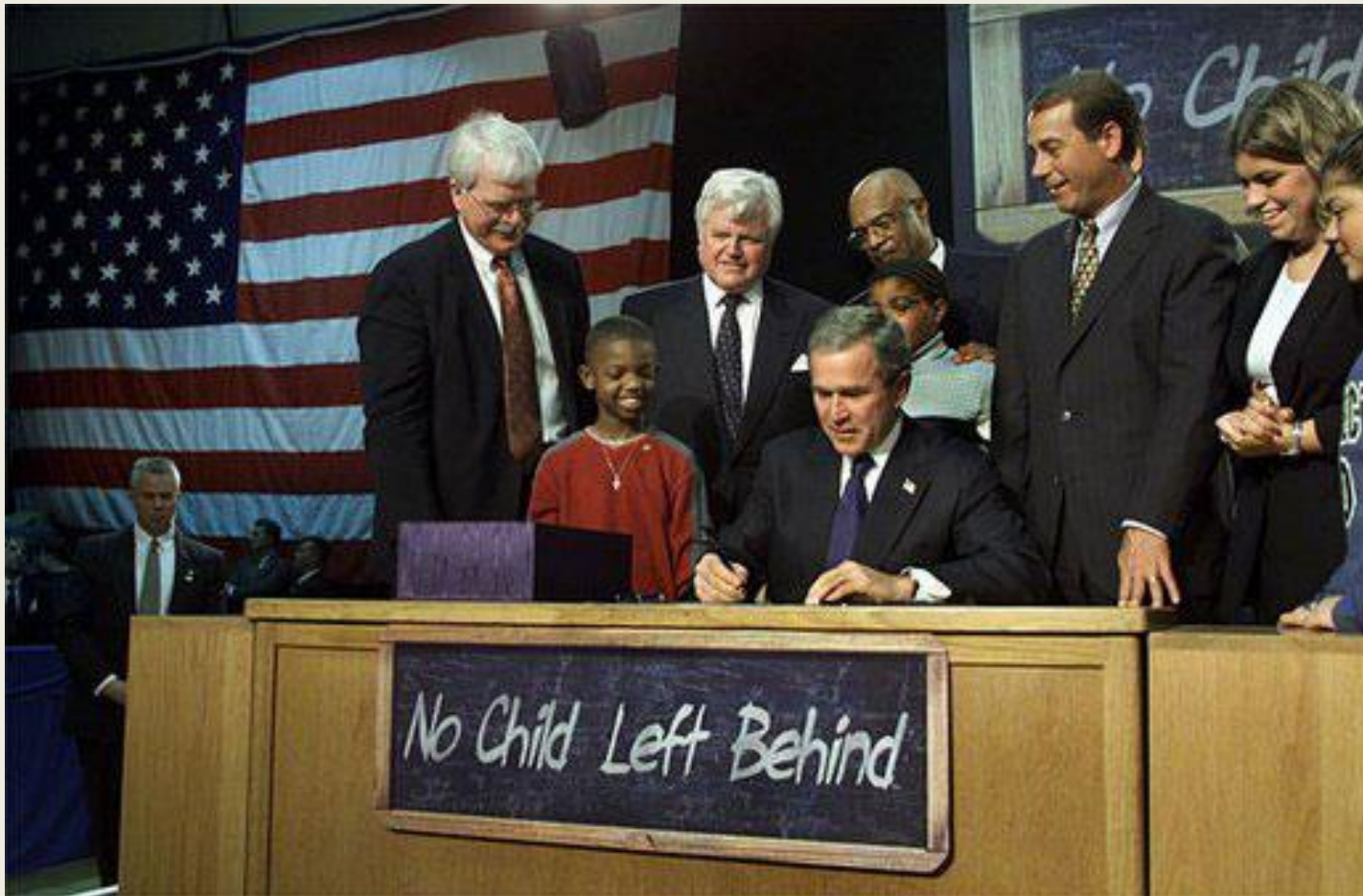
CBB 844-3020

**Figure 1. Members of the National Commission on Excellence in Education with Terrel Bell (Secretary of Education) April 28, 1983.**

**Back Row: L. to R: Bill Baker, Robert Haderlein, Gerald Holton, Glenn Seaborg, Al Quic, Emerald Crosby, Charles Foster, and Anne Campbell**

**Front Row: L to R: Norman Francis, Annette Kirk, Margaret Marston, Yvonne Larsen, David Gardner, Terrel Bell, Jay Sommer, Shirley Gordon, and Frank Sanchez**

# No Child Left Behind



# No Child Left Behind: Three important pieces for ELLs



- Sec. **1111**(a)(3)(ix)(III) the **inclusion** of limited English proficient students, who shall be assessed in a valid and reliable manner and provided reasonable accommodations on assessments administered ... including, to the extent practicable, assessments in the language and form most likely to yield accurate data...
- Sec. 1111(a)(3)(xiii) enable results to be **disaggregated** within each State, local educational agency, and school by...English proficiency status.
- Sec **3113**(b)(2) standards and objectives for raising the level of **English proficiency** that are derived from the four recognized domains of speaking, listening, reading, and writing, and that are **aligned with** achievement of the challenging State **academic content** and student academic achievement standards described in section 1111(b)(1).







Kenji Hakuta (Stanford University)

# Understanding Language





**The new standards afford us a fresh opportunity to reinforce the key findings of our knowledge and experience as the ELL field:**

**The new standards afford us a fresh opportunity to reinforce the key findings of our knowledge and experience as the ELL field:**

- with support, ELLs can participate in classroom discourse focused on rich and exciting academic content.**

**The new standards afford us a fresh opportunity to reinforce the key findings of our knowledge and experience as the ELL field:**

- with support, ELLs can participate in classroom discourse focused on rich and exciting academic content.
- ESL is necessary but not sufficient; ELLs learn language best when they engage with content.

**The new standards afford us a fresh opportunity to reinforce the key findings of our knowledge and experience as the ELL field:**

- with support, ELLs can participate in classroom discourse focused on rich and exciting academic content.
- ESL is necessary but not sufficient; ELLs learn language best when they engage with content.
- focusing on both text and discourse gives ELLs opportunities for extended engagement with complex ideas.**

# The New Standards...

- raise the bar for learning;
- raise the demand for language;
- call for a high level of classroom discourse across all subject areas.

# What do the New Standards Imply?

## Focus on Language

- **“Students can, without significant scaffolding, comprehend and evaluate complex texts across a range of types and disciplines and they can construct effective arguments and convey intricate and multifaceted information” (ELA student portraits, p. 7)**
- **Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures, and build a logical progression of statements to explore the truth of their conjectures” (Math practices, pp. 6-7)**

# Science Practices focus on Language

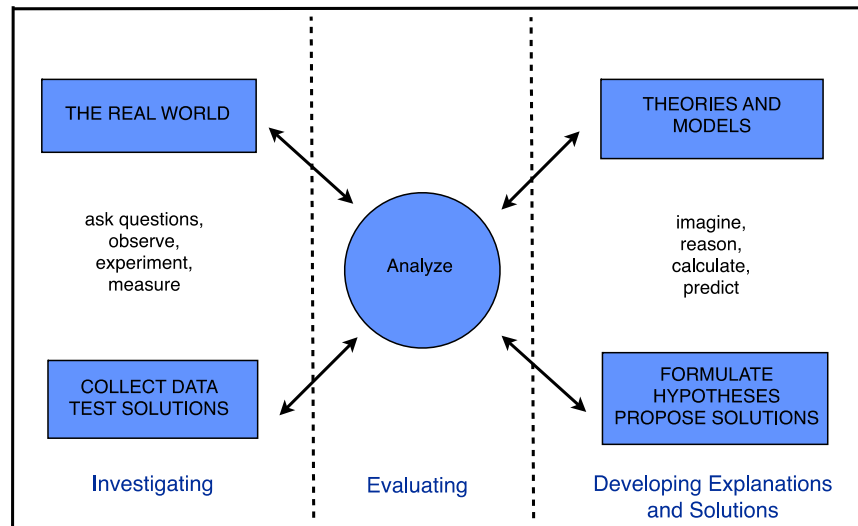
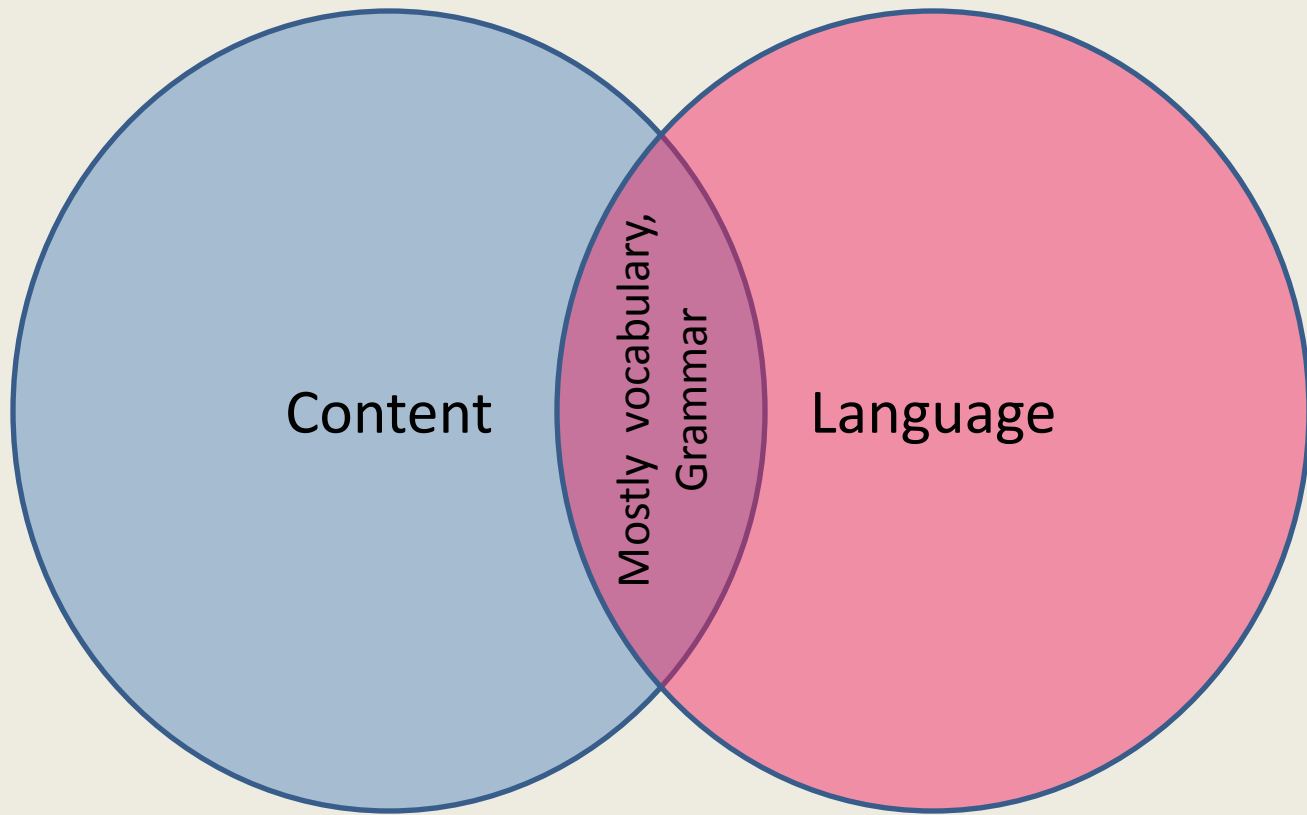
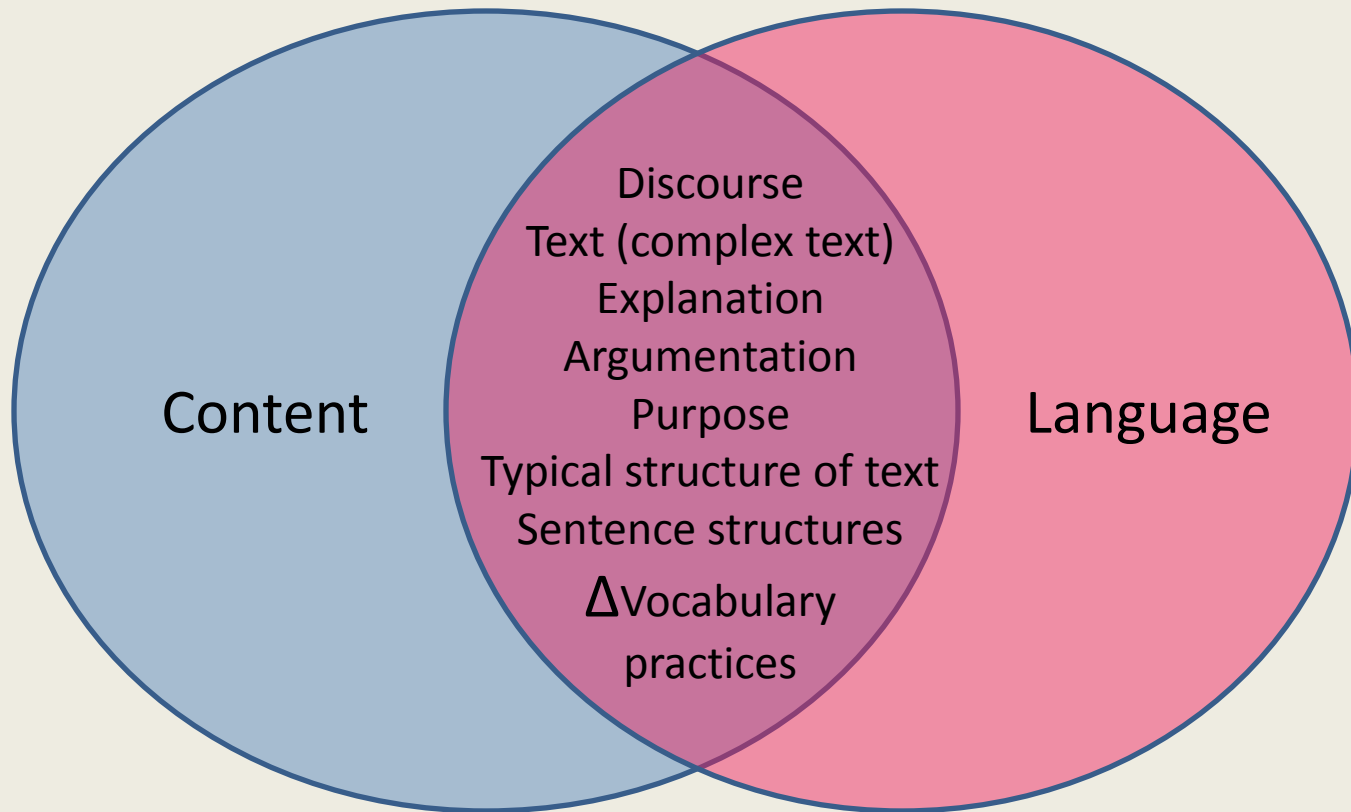


Figure 3.1 The three spheres of activity for scientists and engineers (NRC Science Framework p.3-3)

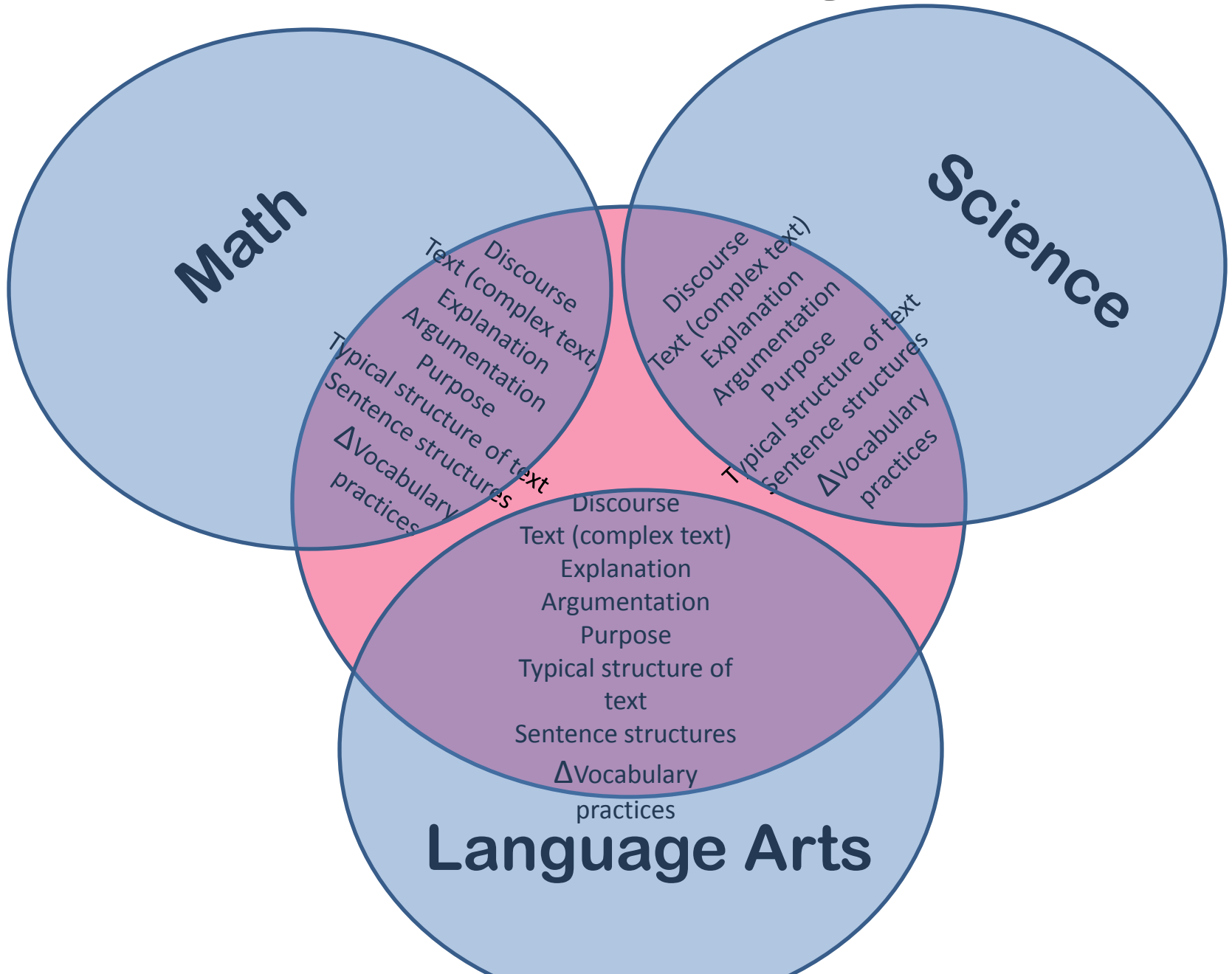
# Old Paradigm



# New Paradigm



# New Paradigm



# Major Shifts in New Standards

ELA	Math	Science
<ul style="list-style-type: none"><li>• Regular practice with complex text and its vocabulary</li><li>• Building knowledge through content-rich informational texts</li><li>• Emphasis on reading, writing, and speaking that is grounded in evidence from the text</li></ul>	<ul style="list-style-type: none"><li>• Provide opportunities for student access to the different mathematical (discourse) practices described in the CCSS</li><li>• Support mathematical discussions and use a variety of participation structures</li><li>• Focus on students' mathematical reasoning, NOT on students' flawed or developing language</li></ul>	<ul style="list-style-type: none"><li>• Developing and using models</li><li>• Constructing explanations (for science) and developing solutions (for engineering)</li><li>• Engaging in argument from evidence</li><li>• Obtaining, evaluating, and communicating information</li></ul>

# English Language Arts:

## Guiding Principles (Bunch, Kibler, Pimentel)

- ELs should not be removed from the challenges set out in the standards, but rather supported in meeting them. ELs can meaningfully participate in instruction through “imperfect” language.
- Instruction must build on -- and build – students’ existing resources (L1, background knowledge, interests and motivations), precisely in order to expand them.
- Instruction must immerse students in meaning-making language and literacy activities with both micro- and macro-scaffolding (Schleppegrell & O’Hallaron, 2011).

# 1. READING: Engaging with Complex Texts to Build Knowledge

- **Requires** ELs to read and comprehend literature and informational texts of increasing complexity
- **Challenges** ELs to process “intricate, complicated, and, often, obscure linguistic and cultural features accurately while trying to comprehend content and while remaining distant from it in order to assess the content’s value and accuracy” (Bernhardt, 2011)
- **How opportunities for language/literacy development can be realized:**
  - Leverage background knowledge, build strategic competence, and provide supports to allow access to texts rather than simplifying or “pre-empting” the text

## 2. WRITING: Using Evidence to Inform, Argue, and Analyze

- **Requires** ELs to write different text types for varied audiences/purposes and present knowledge gained through research
- **Challenges** ELs to use language skillfully to employ and evaluate evidence when writing arguments and informational reports
- **How opportunities for language/literacy development can be realized:**
  - Draw upon background strengths to develop content for writing and scaffold writing itself
  - Provide ELs with meaningful engagement with mentor texts, including opportunities to focus on language and text structure
  - Ensure that writing is meaningful communication

### 3. SPEAKING & LISTENING: Working Collaboratively, Understanding Multiple Perspectives, and Presenting Ideas

- **Requires** ELs to articulate their own & build upon other's ideas, demonstrate understanding in informal interactions and formal presentations
- **Challenges** ELs to employ a range of listening comprehension and speech production strategies in the context of multiple and complex speech events
- **How opportunities for language/literacy development can be realized:**
  - Provide opportunities for extended discourse & engagement with academic registers
  - Develop meaningful collaborative tasks that allow students to use their full linguistic/cultural resources
  - Teach ELs strategies to engage in varied communicative modes

# 4. LANGUAGE: Using and Developing Linguistic Resources

- **Requires** students to choose language and conventions to achieve particular functions & rhetorical effects
- **Challenges** students to develop and use grammatical structures, vocabulary, and written/oral conventions as meaning-making resources
- **How opportunities for language/literacy development can be realized:**
  - Recognize limitations of teaching discrete language features in isolation
  - Recognize that functions and rhetorical effects can be achieved with “imperfect,” non-native developing language

# Mathematics:

## Common Core Emphases (Moschkovich)

### 1. Balance conceptual understanding and procedural fluency

Balance student activities addressing conceptual understanding and procedural fluency, connect two types of knowledge

### 2. Maintain high cognitive demand

Use and maintain high cognitive demand of math tasks in lessons and units

### 3. Develop beliefs

Support students in developing beliefs that math is sensible, worthwhile, and doable

### 4. Engage students in mathematical practices

# MATHEMATICAL DISCOURSE PRACTICES

- 1) Make sense of problems and persevere in solving them
- 2) Reason abstractly and quantitatively
- 3) Construct viable arguments and critique the reasoning of others
- 4) Model with mathematics
- 5) Use appropriate tools strategically
- 6) Attend to precision
- 7) Look for and make use of structure
- 8) Look for and express regularity in repeated reasoning

# TWO WORDS OF CAUTION!!!

1. Instruction must include  
**MULTIPLE REPRESENTATIONS**  
Not only talk and text, but also representations such as objects, manipulatives, drawings, symbols, equations, tables, graphs, etc.
2. What is “mathematical precision”?  
Issue is not using the precise word, but making a precise claim that applies only under particular constraints or conditions.

# SUMMARY: Recommendations for Connecting Math Content to Language

- #1. Focus on **students' mathematical reasoning**, not “accuracy” in using language
- #2. Focus on **mathematical discourse practices**, not language as single words, vocabulary, or grammar
- #3. Recognize the **complexity of language** in math classrooms, support students to engage with this complexity
- #4. Treat **everyday language as a resource**, not an obstacle
- #5. **Uncover the mathematics** in what students say & do

# The Next Generation SCIENCE Framework

## 1. Scientific and Engineering Practices

1. Asking questions (for science) and defining problems (for engineering)
2. Developing and using models
3. Planning and carrying out investigations
4. Analyzing and interpreting data
5. Using mathematics and computational thinking
6. Constructing explanations (for science) and designing solutions (for engineering)
7. Engaging in argument from evidence
8. Obtaining, evaluating, and communicating information

## 2. Crosscutting Concepts

1. Patterns, similarity, and diversity
2. Cause and effect: Mechanism and explanation
3. Scale, proportion, and quantity
4. Systems and system models
5. Energy and matter: Flows, cycles, and conservation
6. Structure and function
7. Stability and change

## 3. Disciplinary Core Ideas

### Physical Sciences

- PS 1: Matter and its interactions  
PS 2: Motion and stability: Forces and interactions  
PS 3: Energy  
PS 4: Waves and their applications in technologies for information transfer

### Life Sciences

- LS 1: From molecules to organisms: Structures and processes  
LS 2: Ecosystems: Interactions, energy, and dynamics  
LS 3: Heredity: Inheritance and variation of traits  
LS 4: Biological Evolution: unity and diversity

### Earth and Space Sciences

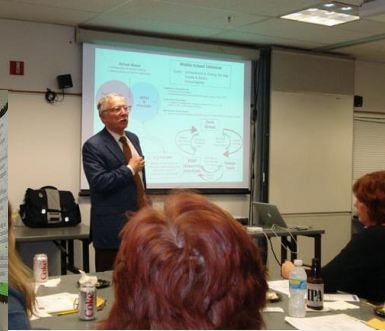
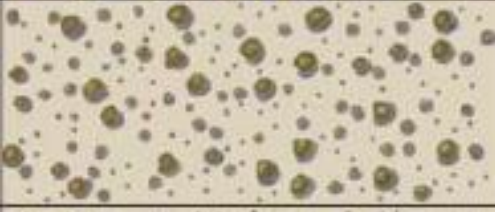
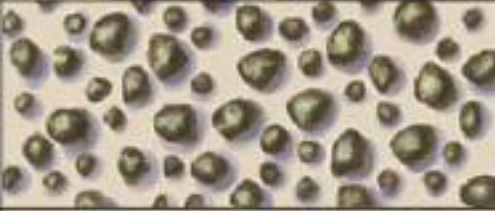
- ESS 1: Earth's place in the universe  
ESS 2: Earth's systems  
ESS 3: Earth and human activity

### Engineering, Technology, and the Applications of Science

- ETS 1: Engineering design  
ETS 2: Links among engineering, technology, science, and society

# **Systemic Challenges that Require Collaboration at All Levels**

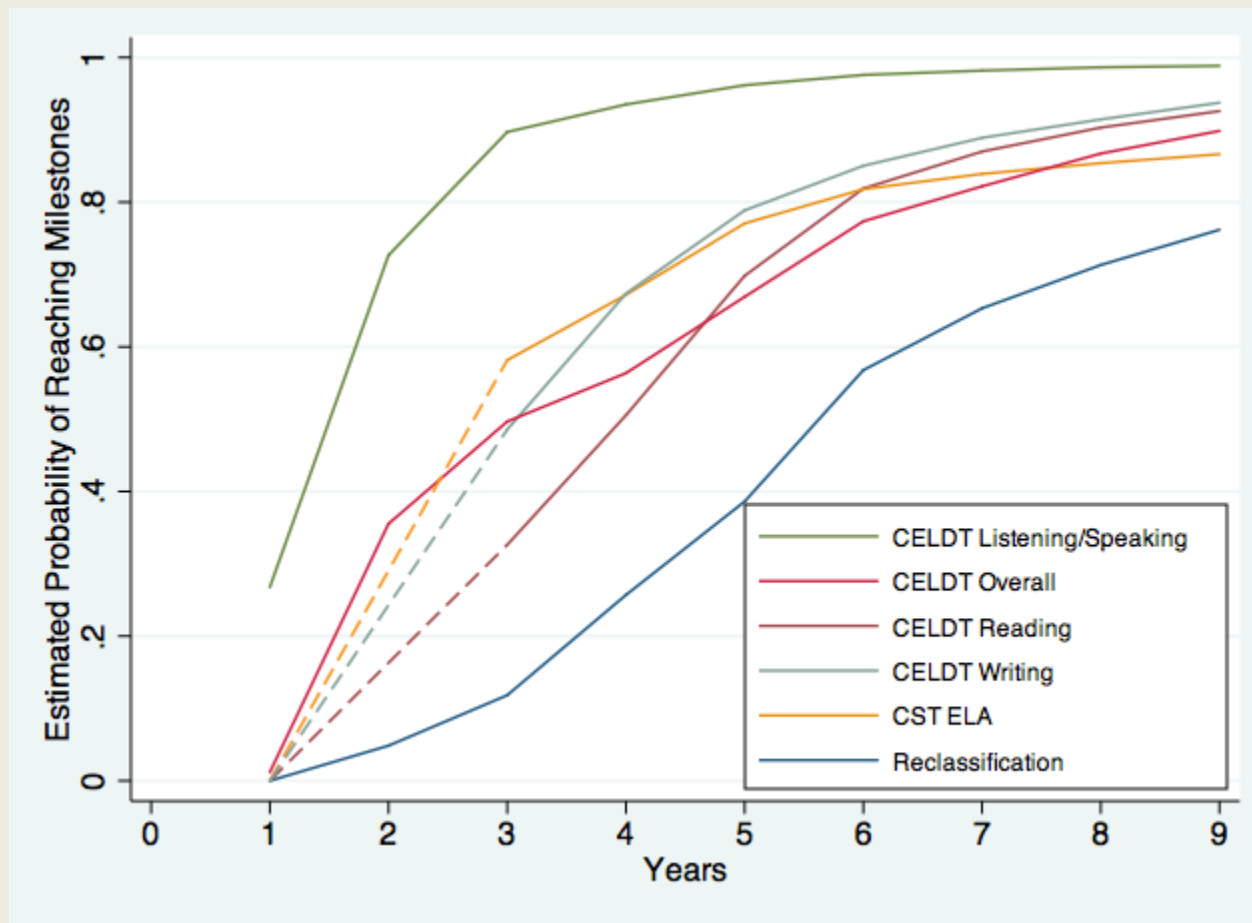
- **Student**
- **Teacher**
- **Site and district leaders**
- **State leaders**
- **Preservice and inservice providers**
- **Testmakers**
- **Publishers**
- **Federal leaders**



# Students are challenged to...

- engage in productive oral and written group work with peers,
- engage in effective oral and written interactions with teachers,
- explain and demonstrate their knowledge using emerging complex language and other communicative strategies in different settings, and
- extract meaning from complex written texts.

# Karen Thompson / LAUSD data



# Understanding Language

Language, Literacy, and Learning in the Content Areas



[About](#) [Papers](#) [Teaching Resources](#) [News](#) [Policy](#) [Events](#)



## Teaching Resources

Developing open-source teaching resources that support language development and learning in the content areas.

[LEARN MORE »](#)

[ell.stanford.edu](http://ell.stanford.edu)

### News

#### Understanding Language Initiative Launch!

April 11, 2012

We are pleased to announce the launch of our website and online community, *Understanding Language*.

[READ MORE »](#)

#### Knowledge and Resources Coming Soon!

March 30, 2012

The Understanding Language team is consolidating the knowledge generated from the January conference at Stanford. We will be releasing a series of white papers on this work along with a collection of practice and policy briefs addressing critical issues. We will also host a series of public webinars to engage educators on this work.

[READ MORE »](#)

#### Partnerships with the Council of Great City Schools and New York City Dept of Ed.

February 1, 2012

Understanding Language is pleased to announce partnerships with the Council of Great City Schools (CGCS) and New York City Department of Education (NYCDOE) to develop additional

### Events

**APR  
19**

Language, Literacy, and the Common Core (repeat 1 of 4)

Kenji Hakuta will host the series introduction on Understanding Language.

9:30am to 10:30am PDT

**APR  
19**

Language, Literacy, and the Common Core (repeat 2 of 4)

Kenji Hakuta will host the series introduction on Understanding Language.

3:00pm to 4:00pm PDT

**APR  
26**

Language, Literacy, and the Common Core (repeat 3 of 4)

Kenji Hakuta will host the series introduction on Understanding