LITERACY RESEARCH
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“I need someone well versed in the art of torture—do you know PowerPoint?”
SOME BACKGROUND
### Chance of Later Success

<table>
<thead>
<tr>
<th></th>
<th>Science</th>
<th>Mathematics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unprepared</strong></td>
<td>1%</td>
<td>15%</td>
</tr>
<tr>
<td><strong>In Reading</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Prepared</strong></td>
<td>32%</td>
<td>67%</td>
</tr>
<tr>
<td><strong>In Reading</strong></td>
<td></td>
<td></td>
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</tbody>
</table>
**Figure A.** Trend in twelfth-grade NAEP reading average scale scores

*Significantly different ($p < .05$) from 2009.
Twelfth-grade students performing at the BASIC level should be able to identify elements of meaning and form and relate them to the overall meaning of the text. They should be able to make inferences, develop interpretations, make connections between texts, and draw conclusions; and they should be able to provide some support for each. They should be able to interpret the meaning of a word as it is used in the text.
• Twelfth-grade students should be able to locate and integrate information using sophisticated analyses of the meaning and form of the text. These students should be able to provide specific text support for inferences, interpretative statements, and comparisons within and across texts.
• Twelfth-grade students performing at the Advanced level should be able to analyze both the meaning and the form of the text and provide complete, explicit, and precise text support for their analyses with specific examples. They should be able to read across multiple texts for a variety of purposes, analyzing and evaluating them individually and as a set.
PRIORITY: MORE ADVANCED READERS

• Percentage of Advanced Readers has been unchanged

• Most of gain has been moving Below Basic into Basic
UPDATED NAEP DATA
FIGURE 1. Change in average scores for fourth- and eighth-grade students assessed in NAEP mathematics and reading: Various years, 1990–2013

**MATHEMATICS**

- **28 pts**
  - **1 pt**

**4th Grade**
- 242 (2013)
- 241* (2011)
- 213* (1990)

**8th Grade**
- 285 (2013)
- 284* (2011)
- 263* (1990)

Change in mathematics (1990 to 2013)
- Recent change (2011 to 2013)

**READING**

- **8 pts**
  - **2 pts**

**4th Grade**
- 222 (2013)
- 221 (2011)
- 217* (1992)

**8th Grade**
- 268 (2013)
- 265* (2011)
- 260* (1992)

Change in reading (1992 to 2013)
- Recent change (2011 to 2013)
Good work, but more needs to be done
• RAISE EXPECTATIONS

• INCREASE CAPACITY

• MEASURE and REPORT PROGRESS
US STUDENTS SCORE BEST AT . . .
• In both TIMSS and PIRLS, the percentage of U.S. pupils enrolled in classrooms in which teachers report that student sleepiness limits instruction "some" or "a lot" in 4th grade reading and 4th and 8th grade math and science has consistently exceeded 70 percent.

• Internationally, overall averages for sleepiness range from 46 percent to 58 percent, depending on the grade level and the subject. (Eighth grade science classes were the "sleepiest.”)
DEMONSTRATE INDEPENDENCE

- Comprehend and evaluate complex text across disciplines.
- Construct effective arguments and convey multifaceted information.
BUILD STRONG CONTENT KNOWLEDGE

• Build knowledge in different subjects.

• Become proficient in new areas.

• Read purposefully.

• Refine knowledge and share it.
RESPOND TO DEMANDS OF AUDIENCE, TASK, AND DISCIPLINE

• Consider context in reading.

• Appreciate nuances.

• Know that different disciplines use different evidence.
COMPREHEND AND CRITIQUE

• Open-minded, skeptical, readers.

• Understand what authors are saying.

• Question an author’s assumptions.

• Assess the veracity of claims.
• Cite text evidence for interpretations.

• Make reasoning clear.

• Evaluate others’ use of evidence.
CARE ABOUT PRECISION

• Mindful of impact of vocabulary.

• Compare meanings of different choices.

• Attend to when precision matters.
LOOK FOR AND CRAFT STRUCTURE

• Attend to structure when reading.

• Understand presenting information in different disciplines.

• Understand how author’s craft relates to setting and plot.
USE TECHNOLOGY STRATEGICALLY

• Employ technology thoughtfully.

• Efficiently search online for information.

• Integrate online and offline information.

• Select best suited media for goals.
UNDERSTAND OTHER CULTURES AND PERSPECTIVES

• Students actively seek to understand other perspectives and cultures

• Students can communicate effectively with people of varied backgrounds

• Students can evaluate other points of view critically and constructively
Superintendents report several obstacles including:

- Assessments (73.3 percent)
- Teacher training and professional development (65.2 percent)
- Instructional materials (58.2 percent)
- State support (52.3 percent)
CCSS IMPLEMENTATION SURVEY

• Available at:


SKILLS THAT PREDICT LATER READING

Instructionally relevant

• Alphabet Knowledge
• Phonemic Awareness
• Concepts about print
• Oral language
• Print awareness
• Writing or writing name

NELP, 2009
SKILLS THAT PREDICT LATER READING

Not instructionally relevant (?)

- RAN letters and digits
- RAN objects and colors
- Phonological STM
- Visual perception

NELP, 2009
RAPID AUTOMATIC NAMING

- Rapid naming of sequentially repeating random sets of letters, digits, or both.
- Rapid naming of sequentially repeating random sets of pictures of objects (e.g., “car,” “tree,” “house,” “man”) or colors.
CONCEPTS ABOUT PRINT

• Knowledge of print conventions (e.g., left–right, front–back) and concepts (book cover, author, text).
PRINT AWARENESS

- Combines elements of Alphabet Knowledge, concepts about print, and protodecoding (beginning or early decoding).
ELEMENTARY LITERACY

• National Reading Panel
  • Alphabetics
    • Phonemic awareness
    • Phonics
  • Fluency
  • Vocabulary
  • Comprehension
ELEMENTARY COMPREHENSION
5 RECOMMENDATIONS: ELEMENTARY COMPREHENSION

- Use comprehension strategies
- Identify and use text structure
- Discussion around text
- Purposeful text selection
- Engagement and motivation
ADOLESCENT LITERACY
PRACTICE GUIDE/DWW
ADOLESCENT LITERACY

• Explicit Vocabulary

• Explicit Comprehension Strategy

• Discussion Around Text

• Motivation and Engagement

• Strategic Tutoring
PREPARATION FOR COLLEGE AND WORK
CONVERGENCE OF COLLEGE AND WORK

"By 2018, we will need 22 million new workers with college degrees"

“63% of all jobs will require college by 2018”

*Help Wanted*
COLLEGE COMPLETION

US went from first to 12th in the world in students completing degrees:

27 % for community colleges

55 % for four-year institutions

NGA, 2010
Help Wanted
http://cew.georgetown.edu/jobs2018

The Forgotten Middle
http://www.act.org/research/policymakers/pdf/ForgottenMiddle.pdf
TEXT COMPLEXITY

Structure
Purpose
Style and Language
Richness
Relationships
Knowledge Demands
Just 1 in 4 (25%) met all four College Readiness Benchmarks. Just under 1 in 3 (30%) met the College Readiness Benchmark in Science.
COLLEGE READINESS

- Met No Benchmarks: 28%
- Met 1 Benchmark: 15%
- Met 2 Benchmarks: 17%
- Met 3 Benchmarks: 15%
- Met all 4 Benchmarks: 25%

Percent of ACT-tested high school graduates by number of ACT College Readiness Benchmarks attained in 2011.
Change in text complexity in textbooks over the last century
Today’s text gap

[Image: A graph showing the Lexile measure across grades. The graph includes two lines: one labeled "Current Continuum" and another labeled "Stretch Continuum." The graph also shows a point at 1300L for College and Career.]
DISCUSSION
THREE WRITING RECOMMENDATIONS
EFFECT SIZES

• Comparison across different measures
• Useful in deciding among programs

• Examples:
  • At 50\textsuperscript{th} percentile, 0.3 ES moves to 62\textsuperscript{nd} percentile (12 percentile change)
  • At 2\textsuperscript{nd} percentile, 0.3 ES moves to 5\textsuperscript{th} percentile (3 percentile change)
  • At 50\textsuperscript{th} percentile, 1.0 ES moves to 84\textsuperscript{th} percentile (34 percentile change)
  • At 2\textsuperscript{nd} percentile, 1.0 ES moves to 16\textsuperscript{th} percentile (14 percentile change)
### EFFECT SIZES AND PERCENTILES

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<thead>
<tr>
<th>Effect Size</th>
<th>Percentile</th>
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<tr>
<td>-2.2</td>
<td>1.4</td>
</tr>
<tr>
<td>-2.0</td>
<td>2.3</td>
</tr>
<tr>
<td>-1.0</td>
<td>16.0</td>
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<tr>
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<td>50.0</td>
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<td>0.2</td>
<td>57.9</td>
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<tr>
<td><strong>0.3</strong></td>
<td><strong>62.0</strong></td>
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<tr>
<td>0.7</td>
<td>76.0</td>
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<tr>
<td>1.0</td>
<td>84.0</td>
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I. HAVE STUDENTS WRITE ABOUT THE TEXT THEY READ

- Effect Size = 0.40
  - Norm-Referenced Tests (Based on 11 Studies)

- Effect Size = 0.51
  - Researcher-Designed Tests (Based on 50 Studies)
HAVE STUDENTS RESPOND TO A TEXT

(Writing Personal Reactions, Analyzing and Interpreting the Text)

- Effect Size = 0.77
  - Researcher-Designed Tests (Based on 9 Studies)
HAVE STUDENTS WRITE SUMMARIES OF A TEXT

• Effect Size = 0.52
  • Researcher-Designed Tests (Based on 19 Studies)
HAVE STUDENTS WRITE NOTES ABOUT A TEXT

- Effect Size = 0.47
  - Researcher-Designed Tests (Based on 23 Studies)
HAVE STUDENTS ANSWER OR CREATE AND ANSWER QUESTIONS ABOUT A TEXT IN WRITING

• Effect Size = 0.27
  • Researcher-Designed Tests (Based on 8 Studies)
II. TEACH THE PROCESS OF WRITING, TEXT STRUCTURES, PARAGRAPH OR SENTENCE CONSTRUCTION SKILLS

(Improves Reading Comprehension)

- **Effect Size = 0.18**
  - Published Standardized Norm-Referenced Tests (Based on 12 Studies)
- **Effect Size = 0.27**
  - Researcher-Designed Tests (Based on 5 Studies)
TEACH SPELLING AND SENTENCE CONSTRUCTION SKILLS

(Improves Reading Fluency)

• Effect Size = 0.79
  • Published Standardized Norm-Referenced and Researcher-Designed Tests Combined (Based on 4 Studies)
TEACH SPELLING SKILLS

(Improves Word Reading Skills)

• Effect Size = 0.68
  • Published Standardized Norm-Referenced and Researcher-Designed Tests Combined (Based on 5 Studies)
III. INCREASE HOW MUCH STUDENTS WRITE

• Effect Size = 0.30
  • Published Standardized Norm-Referenced Tests (Based on 6 Studies)
DISCUSSION
PRACTICE GUIDE: SECOND LANGUAGE

• Conduct formative assessments with ELLs using English language measures.
• Provide intensive small-group interventions for ELLs at risk for reading problems.
• Provide high-quality vocabulary instruction throughout the day.
• Make development of academic English an instructional goal for ELLs beginning in the primary grades.
• ELLs should participate for 90 minutes a week in instructional activities which pairs students with proficiency in English.
• The Practice Guide is Anglo-centric

• Fails to take account of the realities of
  • Different proficiencies
  • Variety of languages
  • Age of students
  • Etc.
1. Integrate all four language skills into instruction.
2. Teach components and processes of reading and writing.
3. Teach reading comprehension strategies.
4. Focus on vocabulary development.
5. Build and activate background knowledge.
6. Teach language through content and themes.
7. Use native language strategically.
8. Pair technology with existing interventions.
9. Motivate ELLS through choice.
SOME POLICY RECOMMENDATIONS

1. Policies should allow the use of native language in the instruction of English language learners to make such instruction more effective.

2. Teachers should receive appropriate preparation in teaching English language learners both in preservice and inservice settings.

3. Assessments should be used that account for the native language abilities of students for both formative and summative purposes.
To address the differences in standards for English language learners, a set of standards was developed by the WIDA (World-Class Instructional Design and Assessment) Consortium (WIDA, 2012). These standards are designed to highlight the ways in which second language learners can be taught to the same standards as the CCSS.
SOME OTHER CONSIDERATIONS

• Professional development
  • Preservice/Inservice
  • Coaches
  • PLCs
  • Traditional PD
  • Content/disciplinary literacy

• Assessment and evaluation
  • Formative
  • Summative
  • Instructional (and diagnostic)
• Home to preschool
• Preschool to kindergarten
• Kindergarten to primary
• Primary to upper elementary
• Upper elementary to secondary
• Secondary to college or work
MATERIALS

• Programs
• Core program
• Remedial programs
• Supplemental materials
• Technology
BUY IN

• Stakeholders
  • Students
  • Teachers
  • Administrators
  • Parents
  • Business
  • Etc.

• Keeping it going . . .
SUSTAINABILITY

• Professional learning

• Career tracks

• Continuity
KEEPING CURRENT

• Periodic revisiting

• New research

• New instruction
DISCUSSION
THE END
THANK YOU