Introduction

The following selected bibliography provides key research in two areas:

1) Research which supports the Instructional Shifts demanded by the Common Core State Standards
2) Research relevant to successful implementation of the Shifts and the Standards.

For each Shift and its related areas we have selected what we consider the most powerful studies relevant to that topic and highlighted some of their most germane findings. We have also provided references for supplemental information and research to support further study.

Much of the research herein was presented in Appendix A of the Common Core State Standards for ELA/Literacy. In addition to highlighting some of the most influential studies from Appendix A, this annotated bibliography includes research that has been published after the Standards were finalized, and which provides further evidence in support of the Shifts. We are encouraged that as new evidence continues to accumulate, it confirms and extends the findings, which were embodied in the structure of the Standards.

In addition, at the time of writing Appendix A, certain topics were the subject of greater attention, though all of the Shifts are equally well supported by evidence and equally important to student success. We have endeavored here to present some of the key research across all relevant areas, most of which was considered in the drafting of the Standards, but was not referenced in Appendix A for reasons of length and focus. Much of this research comes from the field of cognitive science where the work of scholars, such as Walter Kintsch and Daniel Willingham, provides further insight into topics including the process of comprehension, and the role of knowledge in it. This body of research strongly complements what we know from more traditional sources of educational research, and deepens our understanding not just of what the goals of the Standards are, but of what students will need in order to achieve them.
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Primary Research


   Relevant findings:
   - The ability to comprehend complex text is the factor that differentiates college-ready readers. (pg. 15-17)
   - Question type (literal vs. inferential thinking, main idea vs. supporting details, etc.) did not differentiate college-ready readers (pg. 13-16)
   - Only 51% of students who took the ACT in 2006 demonstrated college readiness in reading, with great disparities between ethnic and income groups. (pg. 1 – 2)
   - Of those students not meeting the ACT Reading Benchmark, only 5% met the ACT Science Benchmark, implying that reading is crucial to success across the curriculum (pg. 25)


   Relevant findings:
   - Analyzed more than 1300 retired state test passages finding that as text complexity increases, student scores decline.
   - Showed that six different tools can be used for quantitative measurement of text complexity, with consistent results.


Relevant finding:

• Measured median complexity of 12th grade texts as 1130L. (Williamson et al. 2012 pg. 3). College and career texts showed a median complexity of 1300L. (Stenner et al 2012 pg. 3). Thus the difference between grade 12 and post-secondary levels was 170 Lexiles, greater than the difference between 6th grade and 10th grade medians (130 Lexiles).

Please Note: Quantitative measures, while important are not sufficient for evaluating text complexity. Appendix A of The Common Core State Standards for ELA/Literacy calls for a 3-part model of text complexity, including quantitative and qualitative measures and reader and task considerations. (pg. 4 – 16)

The Research Supporting Vocabulary

Primary Research


Relevant finding:

• Scores on NAEP vocabulary questions strongly correlated with scores in NAEP reading comprehension, demonstrating a strong link between vocabulary and comprehension. (pg. 5)

Relevant finding:
- Vocabulary and syntax are the features of complex text that likely cause the greatest difficulty. (pg. 50)


Relevant finding:
- Before having entered school, low-income children in this study heard more than 30 million fewer words than higher-income peers and had vocabularies half or less the size of wealthier peers.


Relevant finding:
- Presents a framework for understanding the role of academic vocabulary acquisition in "Mathew Effects" in education, i.e., the tendency for the reading gap between stronger readers and weaker readers to grow the longer they are in school.


Relevant finding:
- In these two related works, Adams draws on recent research to show how vocabulary growth is essential to academic success.

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The Research Supporting Reading, Writing and Speaking Grounded in Evidence from Text

**Primary Research**

Relevant findings:

- Compared an approach focused on the content of the text (i.e. evidence from text) with a strategy-based approach and a traditional basal approach in a low-performing urban district. Authors found a variety of benefits from the content approach including:
  - Length and quality of student recall was higher. (pg. 230-231)
  - Student discussion was dramatically more text-focused (97% vs. 66%). (pg. 237)
  - Length of student response was nearly triple. (pg. 237)
- Notably, students given strategies-based instruction were no more likely to use comprehension strategies than students given the content-based approach. (pg. 243)
- The study includes samples of classroom transcripts from differing approaches. (pg. 238 – 239)

Excerpt from Classroom Transcript using Strategies-Based Approach

Kyle: Maybe you could like to tell if it's a date or what. Just like if it's a date, you could um, see how many years from now it is.

Teacher: In the future, good. You made an inference. Did the author once say this is taking place in the future? Did the author state that?

Students: No.

Source: McKeown, Beck, & Blake (2009), pg. 238

Excerpt from Classroom Transcript using Content-Based Approach

Teacher: So what's, what's this all about? What's going on here? What's going on? Tajae, what's going on?

Tajae: Tommy found a book and they're looking in it and they're saying the pages are crinkly and stuff and they're thinking that if you read the book, you can go back in and it will be totally different about it but it's all still the same and they say that after you read it one time, you might as well throw it away cause you'll, cause if you read it and you know what it's about, if [inaudible] TV one cause if you turn on the TV and then you watch something, the next day it won't be the same page.


Relevant findings:

- Synthesis of research in cognitive science demonstrating that we understand and remember that which we pay attention to and think about. (Chapter 3)
• Implies that attending to evidence in the text, including the information and vocabulary within it, will lead to understanding and retention of that content.


Relevant finding:
• College instructors consider identifying, evaluating, and using evidence to support or challenge a thesis one of the most important skills expected of incoming college students. (pg. 15)


Relevant findings:
• Identifies lack of understanding of content as one of the key reasons for poor quality student writing.
• Teaches how to write using evidence.

The Research Supporting Building Knowledge

Primary Research


Relevant finding:
Knowledge of the topic had a greater impact on reading comprehension than generalized reading ability.


Relevant finding:
• Synthesizes and summarizes a vast body of research to show how knowledge of a subject aids thinking, memory, and learning of new information.

Relevant finding:

- In this seminal work, Kintsch develops a model for comprehension showing the essential role of knowledge in the comprehension process. This model, termed the “situation model” now forms the basis of much current comprehension research.


Relevant finding:

- These three studies together illustrate how Guthrie's knowledge-based literacy programs achieved better results on standardized tests and other measures than traditional skills-based approaches.

### The Research Supporting Informational Text

**Primary Research**


Relevant finding:

Summarizes research on the connection between informational text and reading comprehension, as well as how the dominance of narrative and fictional text in the elementary curriculum has lessened the growth of knowledge necessary to comprehension.

Relevant finding:

• Shows how growing knowledge via informational text is essential to students' literacy development.


Relevant finding:

• This research shows that both in school and at home, students in K-3 read or have read to them far fewer informational texts than narrative texts (pg. 2) thus inhibiting the growth of knowledge necessary to comprehension proficiency, especially of complex texts.
Part II
Research on Popular Implementation Methods

The Role of Close Reading

Close reading is an instructional approach strongly associated with the CCSS Shifts. It is designed to 1) help make students better readers, and 2) give all students access to the content in grade-level complex text, through intentional, built-in scaffolds. Because close reading was not a widely practiced method prior to the adoption of the Standards, it has not been studied directly through rigorous academic research. At the same time the close reading method is based on several key components, each of which has a strong research base.

Components

- **Vocabulary**: Close reading focuses careful attention on vocabulary and helping students to determine vocabulary from context. This feature of close reading is supported by the research in the vocabulary section of this document.

- **Syntax**: Close reading helps student decipher the structure of sentences and paragraphs i.e. syntax, through reflection on and discussion of complex portions of the text.
  

  Relevant finding:
  
  - Shows the correlation between the ability to process syntax and reading comprehension.

- **Fluency**: Close reading involves multiple readings of the text, including read-aloud, which not only helps weaker readers access the text, but also develops their fluency through multiple readings.


  Relevant finding:
  
  - Found that 50% of the variance in reading comprehension was accounted for by fluency measures. (pg. 412)

  Relevant finding:
  - A meta-analysis of multiple studies concluding that guided oral reading and repeated reading procedures (such as those used in close reading) increase both fluency and comprehension. (pg. 15)

- **Deliberate Practice with Complex Text:** Close reading involves deliberately practicing analyzing and engaging with complex text and is repeated over multiple years and grades.

  Relevant finding:
  - This seminal work shows that deliberate, focused work with feedback over long periods of time produces “expert performance” in many areas.

- **Standard of Coherence:** Close reading of complex text illustrates how much texts have to offer and helps students develop a high “standard of coherence” i.e. a high expectation of meaning and comprehension when reading text.

  Relevant finding:
  - Finds that proficient readers demonstrate a high standard of coherence; regularly expecting to understand text deeply and working to achieve that understanding. (pg. 2)
The instructional approach of matching text difficulty levels to student ability levels is not directly addressed by the Standards, but is a widely practiced approach. While all reading experts agree on the crucial role of high-volume reading in developing student reading skill, the CCSS' emphasis on complex text challenges the notion that all instruction should be with texts at current student ability levels. High-volume independent reading must necessarily be at levels that students can read independently, and hence difficulty levels will vary by student. But the CCSS suggest a balance of high-volume independent reading with heavily-scaffolded instructional reading of more challenging text. The research below suggests that with such scaffolds even struggling readers can access significantly more complex text than that to which they have been traditionally given access.


   **Relevant finding:**
   - Reviews a wide body of research and concludes that using only leveled reading keeps some students from catching up. Summarizes over 20 studies which show a variety of ways in which scaffolds and supports lead to student success with more challenging text. *(see Appendix B of this document below)*


   **Relevant finding:**
   - Students given a variety of supports—including multiple exposures, pre-teaching of vocabulary, echo reading, and partner reading—benefitted from instruction with texts typically considered “frustration level” (85% accuracy). (pg. 199)
   - Authors argue that “the instructional reading level for a given child is inversely related to the degree of support given to the reader. That is, the more support given, the lower the accuracy level needed for a child to benefit from instruction.” (pg. 200)


   **Relevant finding:**
   - Students who engaged in dyad reading (“buddy reading”) with a more proficient peer made more progress with texts 2-4 grade levels above their instructional level than with texts on their instructional level.

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1 The “accuracy level” of oral reading of the text is a typical measure used to assess the difficulty level of a text. Texts with lower accuracy levels would be texts a student initially finds more challenging.

Relevant finding:

- As cited above in the "Knowledge" section of this document, this study showed that poor readers (30th percentile or lower) who had high knowledge of baseball showed greater comprehension of a passage about baseball than strong readers (70th percentile or higher) who knew little about baseball. This finding implies that a student who typically reads at "level J" may be able to read at significantly higher levels if they have prior knowledge of a topic.


Relevant finding:

- Critiques the research base behind determination of instructional reading levels, finding that the determination of levels was never validated by rigorous research.
Appendix A: Further Reading & Research

Complex Text:


Vocabulary:


Evidence:


Knowledge:

Informational Text:


Close Reading:

Syntax:


Fluency:


Leveled Text:

Appendix B: Studies Related to Leveled Text Cited in Shanahan (2014)

Below are bibliographic citations for the 26 studies referenced in Shanahan (2014) regarding students making gains with more complex text when given appropriate scaffolding. In addition abstracts and full-text PDF’s of all studies are available as well. These references were provided by Shanahan in “Building Up To Frustration Level Text” in Reading Today Online available here:

http://www.reading.org/reading-today/post/rtg/2014/09/02/building-up-to-frustration-level-text


