The Development of Academic Literacy in All Students

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KU-CRL mission is to markedly improve . . .

- The performance of struggling adolescent learners
- How teachers instruct academically diverse classes
- How secondary schools can be structured to improve outcomes
- How our validated practices reach tens of thousands of practitioners in the field
- How public policy initiatives are crafted to support struggling learners
Over Reliance on Support Education

Present

Future
Over Reliance on General Education

Present

Future

KU Center for Research on Learning
The University of Kansas
Goal: Balanced Strength
#1 How might we think about academic literacy?
“The kind of reading proficiency required to construct the meaning of content-area texts and literature. It also encompasses the kind of reading proficiencies typically assessed on state-level accountability measures, such as the ability to make inferences from text, to learn new vocabulary from context, to link ideas across texts, and to identify and summarize the most important ideas or content within a text….the ability to read text for initial understanding but also the ability to think about its meaning in order to answer questions that may require the student to make inferences or draw conclusions.”
Basic Literacy

Basic decoding skills, understanding various print and literacy conventions (print versus illustrations), recognition of high frequency words, some basic fluency routines – Mastered in primary grades.
Intermediate Literacy

More sophisticated routines and responses….
Read multisyllabic words quickly and easily, respond with low frequency words with some automaticity. Generic comprehension strategies, cognitive endurance, monitor comprehension, mostly by end of middle school.
Disciplinary Literacy

More specialized reading routines and strategies - powerful for specific situations but not necessarily generalizable.
“The disciplinary experts approached reading in a very different ways. We are convinced that the nature of the disciplines is something that must be communicated to adolescents, along with the ways in which experts approach the reading of text. Students’ text comprehension benefits when students learn to approach different texts with different lenses.”
Mathematics
(Shanahan & Shanahan, 2008)

• Mathematicians emphasized rereading and close reading as two of the most important strategies. Math texts cannot be understood without very close reading – precision of meaning is essential.
“......teachers were trained in the Algebra Project to mine students’ experiences; to allow for ambiguity in language use as students develop the precision necessary for mathematical language use; and to, over time, apprentice students into mathematical discourse and mathematically literate practice.

NOTE: Scores on math portion of state test went from 33 to 55%
Further, mathematical relations and equations, even when expressed with technical notation (symbols, diagrams, etc.), are themselves a form of text, meaningful and articulable propositions, and their comprehension demands skills of literacy not entirely unlike those required for other kinds of textual sense making. Indeed, literacy for the student of mathematics entails being able to navigate flexibly back and forth between two or more language systems—academic mathematics language, school language, and common out-of-school languages (including one’s home language).
History

- Sourcing
- Corroboration
- Context
Science

- Prediction
- Observation
- Analysis
- Summarization
- Presentation
English

- Interpreting figurative language
- Recognizing symbols
- Irony
- Satire
- Different social, cultural & political contexts
“Subject- matter areas, or disciplines, can be viewed as spaces in which knowledge is produced or constructed rather than as repositories of content knowledge or information. Even more important, knowledge production in the content areas needs to be understood as the result of human interaction.”
Cultural Navigation (Moje, 2007)

• It is important for students to examine how the norms of knowing, doing, and communicating are constructed. Each of these norms is not only an important aspect of doing the discipline but each norm also is socially constructed. That is, the norms are constructed, practiced, and enforced by people; they are not a set of immutable rules that can be questioned or changed. Indeed, members of the different disciplines and profession often reconstruct rules, especially in their day-to-day practices.
#2
How do we teach academic literacy?
Need to answer……

• Who will be responsible?
• What is the profile of students in our school?
• What are the literacy demands in each class.....for college readiness?
• How will we do our work as a team.....as individuals?
Analyzing Discipline Specific Literacy Requirements

Domain Knowledge: What background knowledge in an area do students need to have?

<table>
<thead>
<tr>
<th>Concepts</th>
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<td>Facts</td>
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<td>Principles</td>
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<td>Language Processing: What language content, form and use skills must students employ?</td>
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<td><strong>Vocabulary</strong></td>
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<td><strong>Figurative Language</strong></td>
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<td><strong>Word Form Variations</strong></td>
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<td><strong>Tenses</strong></td>
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<td><strong>Sentence Structures</strong></td>
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<td><strong>Text Structures</strong></td>
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<td><strong>Context/Perspective</strong></td>
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<td>Strategic Approaches: What strategies are best bets for students to employ with this text?</td>
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<tr>
<td>Simple, singular strategies</td>
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<tr>
<td>Integrated system of several strategies</td>
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Deshler & Ehren, 2008
Coh-Metrix calculates the coherence of texts on a wide range of measures. It replaces common readability formulas by applying the latest in computational linguistics and linking this to the latest research in psycholinguistics.

Important Notice: Due to the large number of users and our limited resources, the tool may not be able to return the data immediately. You may try the DataView to get your data at a later time. If you do not see your data from DataView after one hour, you will have to submit your text again.

Demo Site
Tool
DataView
Document
#3
Relentless obsession with teaching and learning
Instruction is the keystone

Until administrators & teachers *focus* in *unrelenting fashion* on things that are *core to the instructional process*, student outcomes will not improve markedly.

Richard Elmore
The **single** greatest determinant of learning is not socioeconomic factors or funding levels. **It is instruction**

*A bone-deep, acknowledgement of this fact continues to elude us.*

*Schmoker, 2006*
Working Together to Grow Our Instructional Capacity

- **Work on Leadership Practice**
  - Organize/supervise work around key instructional activities
  - Observe, describe, analyze instructional practice
  - Create internal accountability mechanisms
  - Build common language and expectations

- **Work on Instructional Practice**
  - Observe models of practice
  - Develop protocols for observing practice
  - Rotation of observations in teams
  - Focus on observing, describing, analyzing instructional practice
  - Build common language and expectations
Focus on Key (simple) Indicators

• Staff meeting time
• Time before instruction begins
• PD attendance/participation
• Absenteeism
• Alignment between PD $ investments and desired outcomes
• % subscribed classes
Questions to Consider…

• Do we have a culture of encouragement?
• Is there a shared sense of purpose?
• Is there a deep commitment to each of us improving our craft?
• How transparent is our instruction?
• Is there a culture of individual and group accountability?
• What characterizes our interactions with each other?
Was there any evidence of use of the Unit Organizer?

- 33%
- 87%
instructional coaching

- Review: 72%
- Introduce: 66%
- Add New: 63%
- End Lesson: 45%
Instructional coaches can help alleviate some of the burden of change.

Instructional coaches are on-site professional developers who teach educators how to use proven teaching methods.

Some problems are too big for one teacher...

Instructional coaches are partners in the change process. They work one-on-one with teachers to make it easier to adopt the instructional methods that can make a difference to students' success.

Instructional coaches are team members, who help pull together and lead the right combination of school staff to reach common goals.

Building networks for change in schools...

Drawing from lessons learned during nine years of research on coaching. KU-CRL offers Instructional
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Thank You!