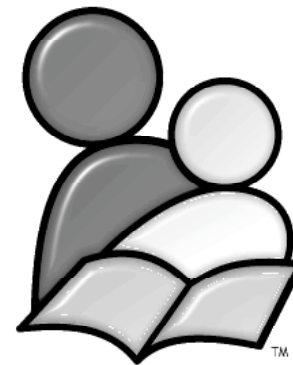




Improving Comprehension of Informational Text

**Presentation at the Center for the Improvement
of Early Reading Achievement Summer Institute,
July, 2002**

**Nell K. Duke
Michigan State University**



CIERA

Center for the Improvement
of Early Reading Achievement



Some Papers on which this Talk is Based:

Duke, N. K., Bennett-Armistead, V. S., & Roberts, E. (in press). Incorporating informational text in the primary grades. To appear in C. Roller (Ed.), *Comprehensive reading instruction across the grade levels*. Newark, DE: International Reading Association.

Duke, N. K., & Pearson, P. D. (2002). Effective practices for developing reading comprehension. In A. E. Farstrup & S. J. Samuels (Eds.), *What research has to say about reading instruction* (3rd edition) (pp. 205-242). Newark, DE: International Reading Association.

Pearson, P. D., & Duke, N. K. (2002). Comprehension instruction in the primary grades. In C. C. Block & G. M. Pressley (Eds.), *Comprehension instruction: Research-based best practices* (pp. 247-258). New York: Guilford Press.



Plan for Today's Presentation

- **A definition of informational text**
- **Some background about informational text**
- **Five things we can do to improve comprehension of informational text**
 - **Increase access to informational text**
 - **Increase instructional time with informational text**
 - **Increase explicit teaching of comprehension strategies, along with lots of opportunities for guided and independent practice**
 - **Increase attention to the unique and the especially challenging characteristics of informational text**
 - **Ensure that informational text is used for authentic purposes as much as possible**



A Definition of Informational Text

- **Texts with the function of conveying information about the natural or social world, typically from one presumed to be more knowledgeable on the subject to one presumed to be less so, and having particular features to help achieve that purpose, such as timeless verb constructions, graphical devices, and certain text structures (please see Duke, 2000 for further discussion).**
- **There are disciplinary variants.**
- **By my definition, informational text ≠ nonfiction; nonfiction includes many other genres.**



Some background: Poor achievement with informational text

- ⦿ **Large proportions of American students have difficulty reading and writing informational text.**
- ⦿ **Low-income and minority students are particularly likely to struggle.**
- ⦿ **Some have attributed the “fourth grade slump” to difficulties with informational text.**
- ⦿ **Lower achievement in science may also be linked to difficulties with informational text.**
- ⦿ **Nearly 44 million adults cannot extract information from text in many circumstances.**



More background: The importance of informational reading and writing

- **We live in the “information age.”**
- **Approximately 96% of the sites on the World Wide Web are expository in form.**
- **The majority of reading and writing adults do is non-fiction, much of it informational.**
- **Academic achievement in a wide range of subjects depends in part on ability to read and write informational text.**



More background: Some benefits of informational text

- ⦿ **Informational text can be entertaining.**
- ⦿ **Some students actually prefer reading and writing informational text.**
- ⦿ **Informational text can help answer questions and solve problems; informational text can raise questions and pose problems.**
- ⦿ **Informational text can build and also build upon background knowledge.**
- ⦿ **Informational text can have productive roles throughout the curriculum.**



But for Young Children... ?

- **A variety of studies demonstrate that young children can interact successfully with informational text**
 - **Young children can learn from informational text (e.g., Duke & Kays, 1998; Moss, 1993).**
 - **Young children can respond to informational text in sophisticated ways (e.g., Donovan, 1996; Oyler & Barry, 1996).**
 - **Young children can conduct research using informational text (e.g., Korkeamaki, Tianen, & Dreher, 1998)**



But for Young Children...? cont...

- **Several studies suggest that some young children actually prefer informational texts and many do not have strong preferences for any one type of text (Kletzien & Szabo, 1998).**
- **No studies of which I am aware indicate that children should first learn to read and then read to learn**
- **Educators from a variety of contexts have identified informational texts appropriate for young children**



Some topics of interest to Peter and Isaac:

Peter

Space

Animals

Machines

Oceans

(e.g., *Sea Otters Come Home, Look Out For Pirates*)

Isaac

Volcanoes

Samurai

Planets

How-to-Science

Experiments

(e.g., “Mystery Minerals”)

Caswell, L. J., & Duke, N. K. (1998). Non-narrative as a catalyst for literacy development. *Language Arts*, 75, 108-117.



Some professionally successful men and women with dyslexia

- **S. Charles Bean,
Neurologist**
- **Hannah Adams,
Teacher**
- **William Brewer,
Psychologist**
- **Jane Smith,
Anthropologist**

- **Tania Baker,
Biochemist**
- **Laura Brody,
Cookbook author etc.**
- **Stacy Harris,
Attorney at law**
- **Heriberto Cresto,
Social worker**

Fink, R. P. (1995/1996). Successful dyslexics: A constructivist study of passionate interest reading. *Journal of Adolescent and Adult Literacy*, 38, 268-280.



So What Do We Do?

- ❁ **Increase access to informational text**
- ❁ **Increase instructional time with informational text**
- ❁ **Increase explicit teaching of comprehension strategies, along with lots of opportunities for guided and independent practice**
- ❁ **Increase attention to the unique and the especially challenging characteristics of informational text**
- ❁ **Ensure that informational text is used for authentic purposes as much as possible**

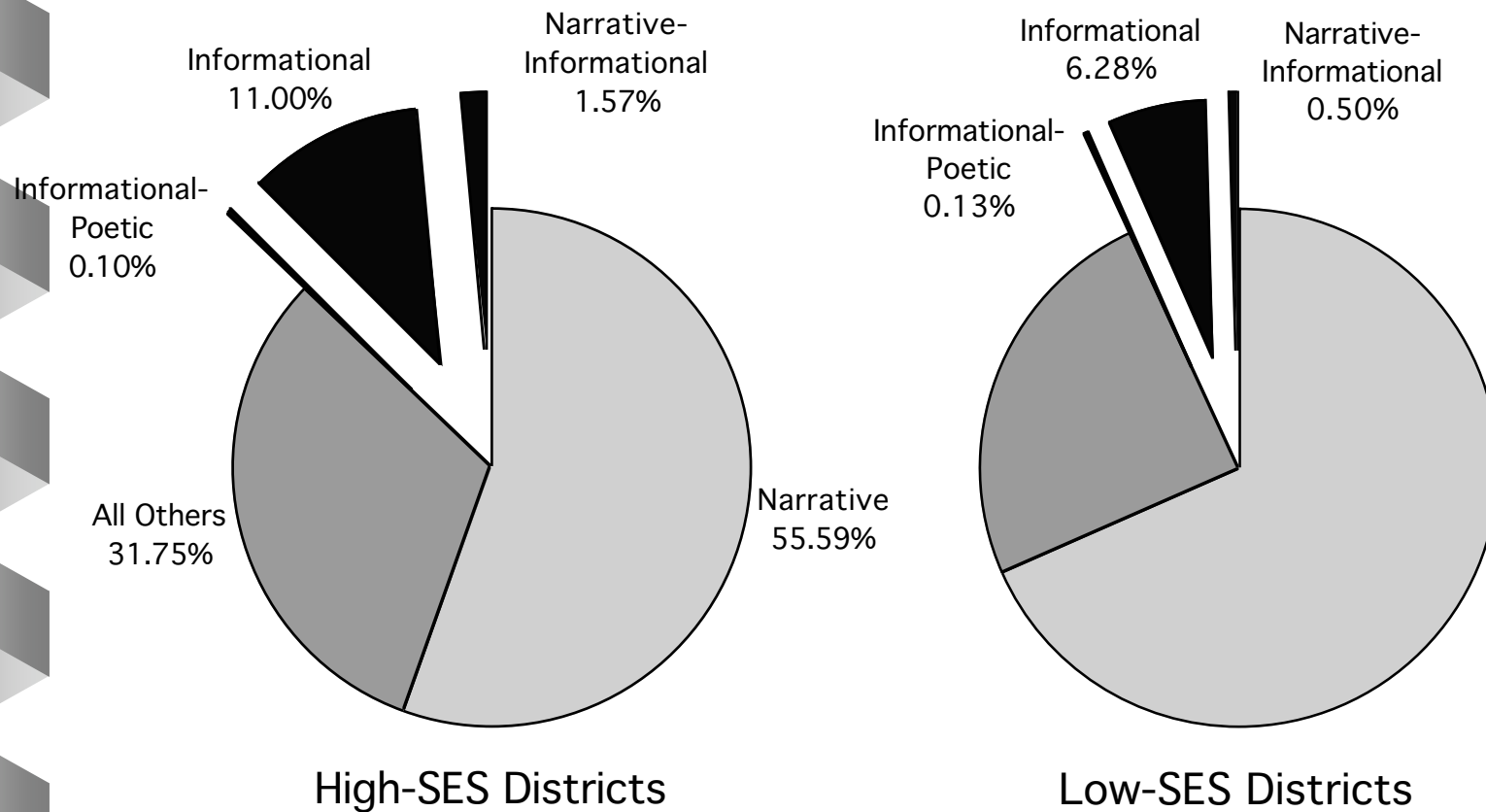


Increase Access to Informational Text

For some statements of the importance of access to print, see for example:

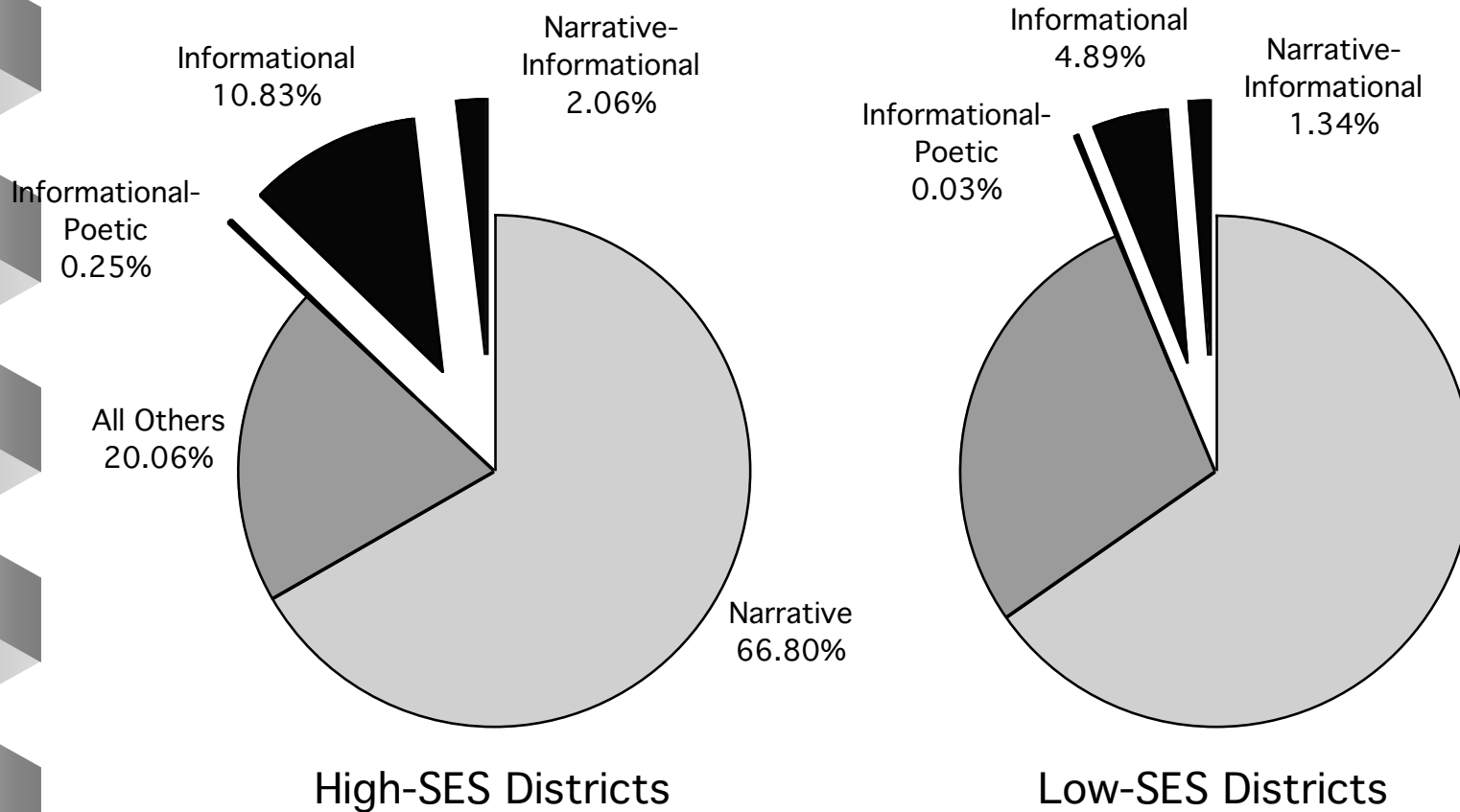
- **IRA position statement**
- **IRA/NAEYC joint position statement**
- ***Access for all: Closing the book gap for children in early education* (Neuman, Celano, Greco, Shue, 2001)**

Informational Text Available to First Grade Students in Classroom Libraries, First Visits



(from Duke, 2000)

Informational Text Available to First Grade Students in Classroom Libraries, Subsequent Visits



(from Duke, 2000)

Informational Text on First Grade Classroom Walls and Other Surfaces



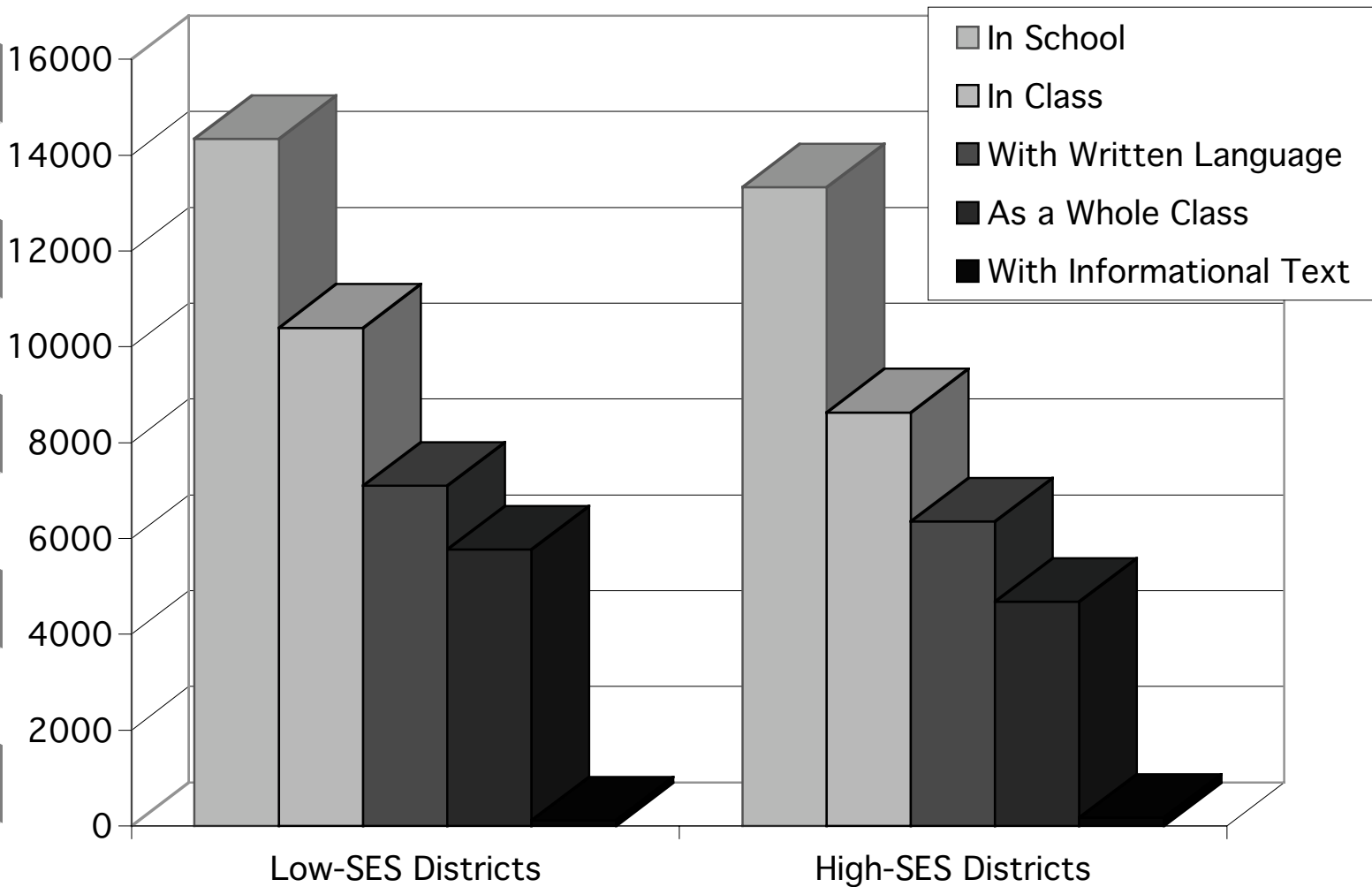
(from Duke, 2000)



Increase Instructional Time with Informational Text

- **The importance of instructional time may become more apparent later in this talk.**
- **What makes me say instructional time is scarce?**
 - **Data from analyses of basal reading series** (e.g., Hoffman et al., 1994; Moss & Newton, 1998).
 - **Data from teacher surveys** (e.g., Pressley, Rankin, Yokoi, 1996; Yopp & Yopp, 2000).
 - **Data from classroom observation** (e.g., Duke, 2000; Kamberelis, 1998).

Informational Text in First Grade Written Language Activities



(from Duke, 2000)



Increase Explicit Teaching of Comprehension Strategies

***Get ready... This one's going to
be really hard!!!***



Some Background About Research on Comprehension

Research on explicit teaching of comprehension strategies: The comprehension revolution 1970 - 1990

- **New intellectual tools (psycholinguistics, cognitive science, etc.)**
- **An increasing recognition that there was something more to reading than decoding**
- **A growing body of research demonstrating**
 - **what good readers do when they read**
 - **comprehension strategies worth teaching**
 - **effective approaches to comprehension strategy instruction**



Some Background About Research on Comprehension, cont.

Research on environments that support understanding of text: 1990 -->

- **Popular intellectual tools** (discourse analysis, descriptive research, etc.)
- **An increasing recognition that there was something more to reading than either decoding or comprehending**
- **A growing body of research on things such as motivation to read, talk about text, writing, exposure and access, relationships between comprehension, word recognition, and fluency**



Some Background About Research on Comprehension, cont.

- **Much of this research has not made its way into practice:**
 - **Durkin's classic work**
 - **Pressley et al. recent work**
 - **Taylor, Pearson, et al. recent work**
- **There are probably several reasons why**
 - **The usual suspects**
 - **The overall climate**
 - **It is hard!**



Some Comprehension Strategies Worth Teaching

- **Monitoring and adjusting as needed**
- **Activating relevant prior knowledge**
- **Generating questions or thinking aloud**
- **Attending to and uncovering text structure**
- **Drawing inferences**
- **Constructing visual representations**
- **Summarizing**



Some Approaches to Teaching Multiple Strategies Simultaneously:

- **Reciprocal Teaching** (Palincsar & Brown, 1986)
- **Collaborative Strategic Reading** (Klinger & Vaughn, 1999)
- **Informed Strategies for Learning** (Paris, Cross, & Lipson, 1984)
- **Students Achieving Independent Learning (SAIL)** (Pressley et al., 1994)



More about One Approach to Teaching Multiple Strategies Simultaneously

Collaborative Strategic Reading (Klinger & Vaughn, 1999)

- **Students work in small, cooperative groups**
- **Students apply four comprehension strategies:**
 - **Preview** (think about what they already know, predict what the passage might be about)
 - **“Click and clunk”** (monitor comprehension, use fix-up strategies as needed)
 - **Get the gist** (glean and restate the most important idea)
 - **Wrap up** (summarize, ask questions)



Collaborative Strategic Reading, cont.

- **Students have specific roles: leader, clunk expert, gist expert, announcer, encourager**
- **Cue cards may be used to support students in small, cooperative groups**
 - **E.g., a clunk card that says: “Reread the sentences before and after the clunk looking for cues.”**
 - **E.g., a student leader cue card that says: “Did everyone understand what we read? If you did not, write your clunks in your learning log.”**
- **Students complete learning logs before and after reading**

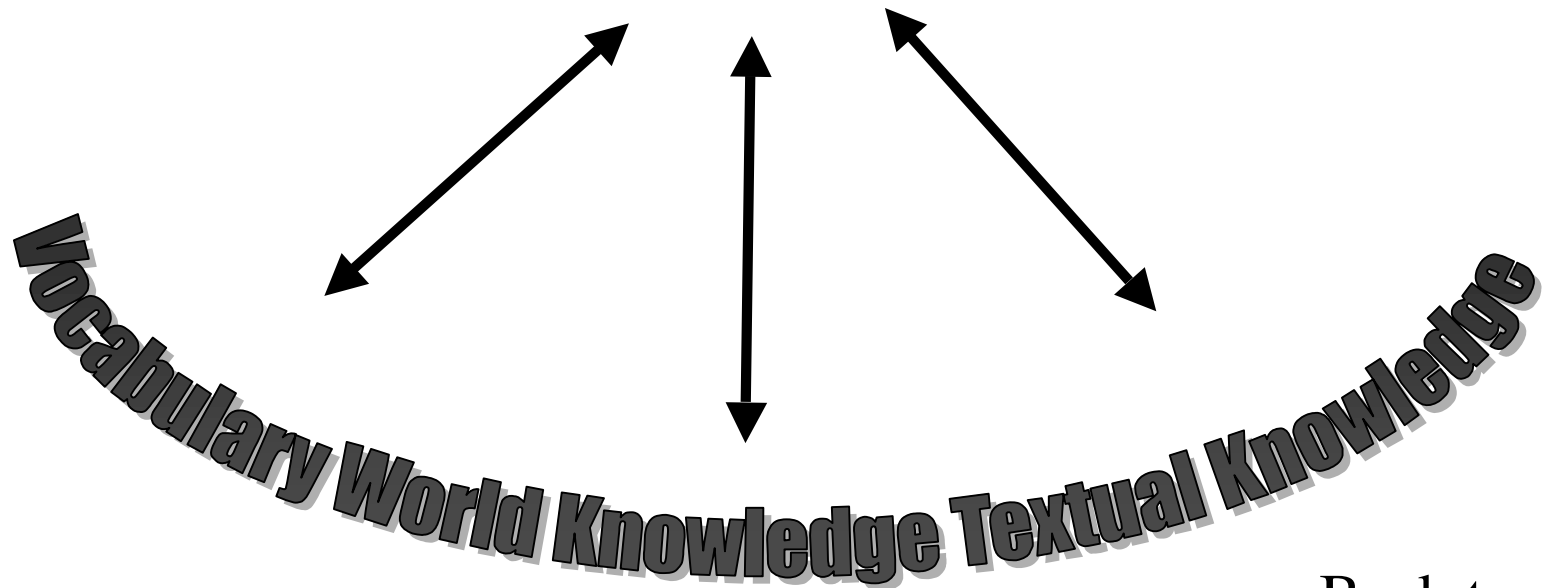


Please Note: Explicit Teaching Should Happen in Particular Kinds of Classroom Environments

- **Lots of opportunities to read and be read to**
- **Expert scaffolding**
- **Rich talk about text**
- **Lots of writing and writing about text**
- **Ongoing assessment**
- **Plenty of attention to enabling content and skills**

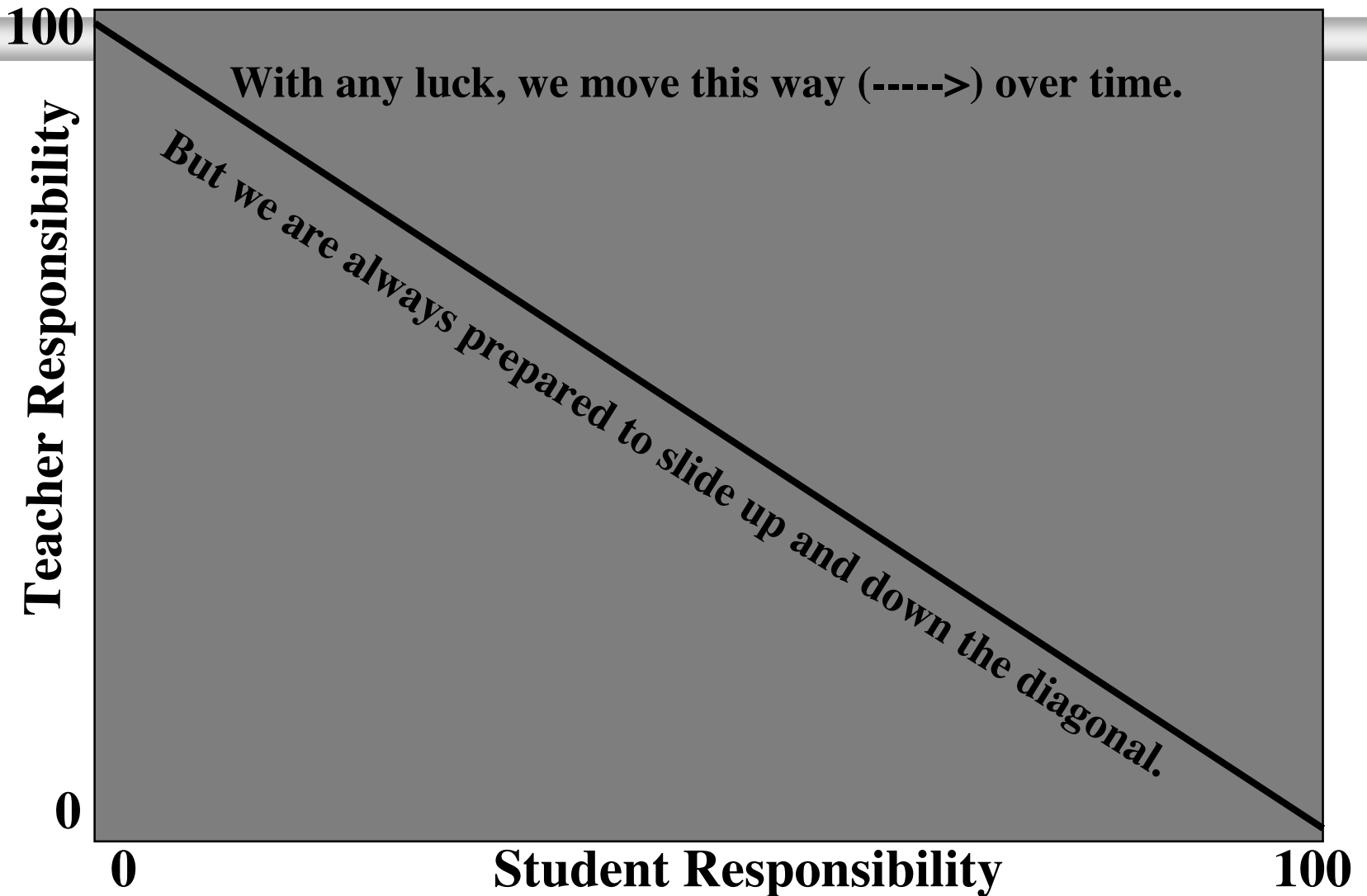
Lots of Opportunities to Read and Be Read To

Reading



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Expert Scaffolding: Gradual Release of Responsibility (Pearson & Gallagher, 1983):



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More about One Approach to Bringing about Rich Talk about Text

Instructional Conversations (Goldenberg 1992/1993)

Instructional Elements:

- 1. Thematic focus**
- 2. Activation and use of relevant background schemata**
- 3. Direct teaching**
- 4. Promotion of more complex language and expression**
- 5. Elicitation of bases for student statements or positions**



Instructional Conversations, cont.

Conversational Elements:

- 6. Fewer “known-answer” questions**
- 7. Responsivity to student contributions**
- 8. Connected discourse**
- 9. A challenging, but nonthreatening, atmosphere**
- 10. General participation, including self-selected turns**

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Increase Attention to the Unique and the Especially Challenging Characteristics of Informational Text

Including:

- ⦿ **Navigational devices to enable nonlinear and selective reading**
- ⦿ **Need for skills such as skimming and scanning**
- ⦿ **Graphical devices to convey information**
- ⦿ **Particular kinds of language and text structures**
- ⦿ **Technical and specialized vocabulary**
- ⦿ **Epistemological issues**
- ⦿ **Locating the texts in the first place**



An aside: Some features of procedural text in science

Has a statement of goal, has an inquiry question, has an explicit, clear description of materials, lists materials in order of use, includes methods/ procedures/steps, uses letters or numbers to indicate the order of steps, has explicit information about procedures, has graphics -- graphics are almost always demonstrative, uses you, if any, personal pronoun, uses temporal terms, employs imperative verbs, uses units of measure, indicates expected results, has an evaluation of the outcome, has headings/subcategories, provides a scientific explanation for the results

(Purcell-Gates & Duke, 2001)



Ensure that Informational Text is Used for Authentic Purposes

- **For pleasure**
- **To pass the time**
- **To increase general knowledge**
- **To find out something you want or need to know**
- **And for writing: To convey information from someone who knows it to someone who does not, yet wants or needs to do so**



Authentic Literacy Events

- **Authentic literacy events are those that replicate or reflect reading and writing purposes and texts, specific to the genre, that occur in the world outside of a schooling context. Common examples include reading or writing to help address a school or community need or reading or writing to help address students' questions about the world around them.**

(Purcell-Gates & Duke, 2001)



A Bit about Concept-Oriented Reading Instruction (CORI) (Guthrie & Wigfield)

- **Centers on a conceptual theme**
- **Engages students in real-world interactions**
- **Uses interesting, often student-selected texts**
- **Supports student autonomy**
- **Includes strategy instruction**
- **Involves collaboration**
- **Evaluation focuses on conceptual goals, learning goals that service conceptual goals, and engagement**



So What Do We Do?

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